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Â Â Â UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 Â Â Â FORM 10-Q Â Â Â (Mark One) Â â˜’ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Â For the quarterly period ended June 30, 2024 Â or Â â˜ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Â For the transition period from ___________ to __________ Â Commission file number: 001-36199 Â PULMATRIX, INC. (Exact name of registrant as specified in its charter) Â Delaware Â 46-1821392 (State or other jurisdiction of incorporation or organization) Â (I.R.S. Employer Identification No.) Â Â Â 945 Concord Street, Suite 1217 Framingham, MA Â 01701 (Address of principal executive offices) Â (Zip Code) Â (888) 355-4440 Registrantâ€™s telephone number, including area code Â 36 Crosby Drive, Suite 100 Bedford, MA 01730 Former name, former address and former fiscal year, if changed since last report Â Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes â˜’ No â˜ Â Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes â˜’ No â˜ Â Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of â€œlarge accelerated filer,â€ â€œaccelerated filerâ€, â€œsmaller reporting companyâ€ and â€œemerging growth companyâ€ in Rule 12b-2 of the Exchange Act. (Check one): Â Large accelerated filer â˜ Accelerated filer â˜ Â Â Â Â Non-accelerated filer â˜’ Smaller reporting company â˜’ Â Â Â Â Â Â Emerging growth company â˜ Â If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. â˜ Â Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes â˜ No â˜’ Â Securities registered pursuant to Section 12(b) of the Exchange Act: Â Title of each Class Â Trading Symbol(s) Â Name of each exchange on which registered Common Stock, par value $0.0001 per share Â PULM Â The NASDAQ Stock Market LLC Â As of August 8, 2024, the registrant had 3,652,285 shares of common stock outstanding. Â Â Â Â Â Â PULMATRIX, INC. FORM 10-Q FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2024 TABLE OF CONTENTS Â Â Â Page No. Â Â PART Iâ€”FINANCIAL INFORMATION Â Â Â Â Item 1. Condensed Consolidated Financial Statements (unaudited) 1 Â Consolidated Balance Sheets as of June 30, 2024 and December 31, 2023 1 Â Consolidated Statements of Operations for the Three and Six Months Ended June 30, 2024 and 2023 2 Â Consolidated Statements of Stockholdersâ€™ Equity for the Three and Six Months Ended June 30, 2024 and 2023 3 Â Consolidated Statements of Cash Flows for the Six Months Ended June 30, 2024 and 2023 4 Â Notes to Condensed Consolidated Financial Statements 5 Item 2. Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operations 15 Item 3. Quantitative and Qualitative Disclosures About Market Risk 24 Item 4. Controls and Procedures 25 Â Â Â PART IIâ€”OTHER INFORMATION Â Â Â Â Item 1. Legal Proceedings 25 Item 1A. Risk Factors 25 Item 2. Unregistered Sales of Equity Securities and Use of Proceeds 25 Item 3. Defaults Upon Senior Securities 25 Item 4. Mine Safety Disclosures 26 Item 5. Other Information 26 Item 6. Exhibits 26 Â Â Â SIGNATURES 27 Â i Â Â PART Iâ€”FINANCIAL INFORMATION Â Item 1. Condensed Consolidated Financial Statements. Â PULMATRIX, INC. Consolidated Balance Sheets (in thousands, except share and per share data) Â Â Â June 30, 2024Â Â December 31, 2023Â Â Â (unaudited)Â Â Â Â AssetsÂ Â Â Â Â Â Â Â Current assets:Â Â Â Â Â Â Â Â Cash and cash equivalentsÂ $12,379Â Â $19,173Â Restricted cashÂ Â 1,421Â Â Â -Â Accounts receivableÂ Â 635Â Â Â 928Â Prepaid expenses and other current assetsÂ Â 1,201Â Â Â 742Â Total current assetsÂ Â 15,636Â Â Â 20,843Â Property and equipment, netÂ Â -Â Â Â 1,158Â Operating lease right-of-use assetÂ Â -Â Â Â 10,309Â Long-term restricted cashÂ Â 51Â Â Â 1,472Â Other long-term assetsÂ Â 93Â Â Â 176Â Total assetsÂ $15,780Â Â $33,958Â Liabilities and stockholdersâ€™ equityÂ Â Â Â Â Â Â Â Current liabilities:Â Â Â Â Â Â Â Â Accounts payableÂ $393Â Â $1,915Â Accrued expenses and other current liabilitiesÂ Â 1,783Â Â Â 947Â Operating lease liabilityÂ Â 24Â Â Â 429Â Deferred revenueÂ Â 270Â Â Â 618Â Total current liabilitiesÂ Â 2,470Â Â Â 3,909Â Deferred revenue, net of current portionÂ Â -Â Â Â 3,727Â Operating lease liability, net of current portionÂ Â -Â Â Â 8,327Â Total liabilitiesÂ Â 2,470Â Â Â 15,963Â Commitments and contingencies (Note 10)Â Â -Â Â Â -Â Stockholdersâ€™ equity:Â Â Â Â Â Â Â Â Preferred Stock, $0.0001 par value â€” 500,000 shares authorized; 6,746 shares designated Series A convertible preferred stock; no shares issued and outstanding at June 30, 2024 and December 31, 2023Â Â -Â Â Â -Â Common stock, $0.0001 par value â€” 200,000,000 shares authorized; 3,652,285 shares issued and outstanding at June 30, 2024 and December 31, 2023Â Â -Â Â Â -Â Additional paid-in capitalÂ Â 305,893Â Â Â 305,592Â Accumulated deficitÂ Â (292,583)Â Â (287,597) Total stockholdersâ€™ equityÂ Â 13,310Â Â Â 17,995Â Total liabilities and stockholdersâ€™ equityÂ $15,780Â Â $33,958Â Â The accompanying footnotes are an integral part of these condensed consolidated financial statements. Â 1 Â Â PULMATRIX, INC. Consolidated Statements of Operations (in thousands, except share and per share data) (unaudited) Â Â Â 2024Â Â 2023Â Â 2024Â Â 2023Â Â Â Three Months Ended June 30,Â Â Six Months Ended June 30,Â Â Â 2024Â Â 2023Â Â 2024Â Â 2023Â RevenuesÂ $1,552Â Â $1,844Â Â $7,437Â Â $3,343Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Operating expenses:Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Research and developmentÂ Â 2,834Â Â Â 4,165Â Â Â 6,346Â Â Â 8,039Â General and administrativeÂ Â 2,001Â Â Â 1,670Â Â Â 3,627Â Â Â 3,880Â Loss on disposal group held for saleÂ Â 2,618Â Â Â -Â Â Â 2,618Â Â Â -Â Total operating expensesÂ Â 7,453Â Â Â 5,835Â Â Â 12,591Â Â Â 11,919Â Loss from operationsÂ Â (5,901)Â Â (3,991)Â Â (5,154)Â Â (8,576) Other income (expense):Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Interest incomeÂ Â 133Â Â Â 236Â Â Â 293Â Â Â 458Â Other expense, netÂ Â (43)Â Â (61)Â Â (125)Â Â (146) Total other income, netÂ Â 90Â Â Â 175Â Â Â 168Â Â Â 312Â Net lossÂ $(5,811)Â $(3,816)Â $(4,986)Â $(8,264) Net loss per share attributable to common stockholders â€“ basic and dilutedÂ $(1.59)Â $(1.04)Â $(1.37)Â $(2.26) Weighted average common shares outstanding â€“ basic and dilutedÂ Â 3,652,285Â Â Â 3,652,285Â Â Â 3,652,285Â Â Â 3,651,531Â Â The accompanying footnotes are an integral part of these condensed consolidated financial statements. Â 2 Â Â PULMATRIX, INC. Consolidated Statements of Stockholdersâ€™ Equity (in thousands, except share data) (unaudited) Â Â Â SharesÂ Â AmountÂ Â SharesÂ Â AmountÂ Â CapitalÂ Â DeficitÂ Â EquityÂ Â Â Preferred StockÂ Â Common StockÂ Â Additional Paid-inÂ Â AccumulatedÂ Â Total Stockholdersâ€™Â Â Â SharesÂ Â AmountÂ Â SharesÂ Â AmountÂ Â CapitalÂ Â DeficitÂ Â EquityÂ Balance â€” January 1, 2024Â Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,592Â Â $(287,597)Â $17,995Â Stock-based compensationÂ Â Â Â Â Â Â Â -Â Â Â Â Â Â Â Â Â -Â Â Â -Â Â Â -Â Â Â 198Â Â Â -Â Â Â 198Â Net incomeÂ Â -Â Â Â -Â Â Â -Â Â Â Â Â Â Â Â Â Â Â Â -Â Â Â -Â Â Â 825Â Â Â 825Â Balance â€” March 31, 2024Â Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,790Â Â $(286,772)Â $19,018Â BalanceÂ Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,790Â Â $(286,772)Â $19,018Â Stock-based compensationÂ Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â 103Â Â Â -Â Â Â 103Â Net lossÂ Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â (5,811)Â Â (5,811) Balance â€” June 30, 2024Â Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,893Â Â $(292,583)Â $13,310Â BalanceÂ Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,893Â Â $(292,583)Â $13,310Â Â Â Â Preferred StockÂ Â Common StockÂ Â Additional Paid-inÂ Â AccumulatedÂ Â Total Stockholdersâ€™Â Â Â SharesÂ Â AmountÂ Â SharesÂ Â AmountÂ Â CapitalÂ Â DeficitÂ Â EquityÂ Balance â€” January 1, 2023Â Â -Â Â $Â Â Â Â Â Â Â -Â Â Â 3,639,185Â Â $-Â Â $304,585Â Â $(273,476)Â $31,109Â Issuance of common stock, net of issuance costsÂ Â Â Â Â Â Â Â -Â Â Â -Â Â Â 13,100Â Â Â Â Â Â Â Â -Â Â Â 53Â Â Â -Â Â Â 53Â Stock-based compensationÂ Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â 296Â Â Â -Â Â Â 296Â Net lossÂ Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â (4,448)Â Â (4,448) Balance â€” March 31, 2023Â Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $304,934Â Â $(277,924)Â $27,010Â BalanceÂ Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $304,934Â Â $(277,924)Â $27,010Â Stock-based compensationÂ Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â 255Â Â Â -Â Â Â 255Â Net lossÂ Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â (3,816)Â Â (3,816) Net income (loss)Â Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â -Â Â Â (3,816)Â Â (3,816) Balance â€” June 30, 2023Â Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,189Â Â $(281,740)Â $23,449Â BalanceÂ Â -Â Â $-Â Â Â 3,652,285Â Â $-Â Â $305,189Â Â $(281,740)Â $23,449Â Â The accompanying footnotes are an integral part of these condensed consolidated financial statements. Â 3 Â Â PULMATRIX, INC. Consolidated Statements of Cash Flows (in thousands) (unaudited) Â Â Â 2024Â Â 2023Â Â Â Six Months Ended June 30,Â Â Â 2024Â Â 2023Â Cash flows from operating activities:Â Â Â Â Â Â Â Â Net lossÂ $(4,986)Â $(8,264) Adjustments to reconcile net loss to net cash used in operating activities:Â Â Â Â Â Â Â Â Depreciation and amortizationÂ Â 106Â Â Â 64Â Amortization of operating lease right-of-use assetÂ Â 329Â Â Â 777Â Stock-based compensationÂ Â 301Â Â Â 551Â Loss on disposal group held for saleÂ Â 2,618Â Â Â -Â Changes in operating assets and liabilities:Â Â Â Â Â Â Â Â Accounts receivableÂ Â 293Â Â Â 880Â Prepaid expenses and other current assetsÂ Â (459)Â Â 49Â Other long-term assetsÂ Â 83Â Â (1,595) Accounts payableÂ Â (1,522)Â Â (309) Accrued expenses and other current liabilitiesÂ Â 1,225Â Â Â (437) Operating lease liabilityÂ Â (309)Â Â (843) Deferred revenueÂ Â (4,075)Â Â (705) Net cash used in operating activitiesÂ Â (6,396)Â Â (9,832) Cash flows from investing activities:Â Â Â Â Â Â Â Â Purchases of property and equipmentÂ Â (398)Â Â (58) Net cash used in investing activitiesÂ Â (398)Â Â (58) Cash flows from financing activities:Â Â Â Â Â Â Â Â Proceeds from issuance of common stock, net of issuance costsÂ Â -Â Â Â 53Â

Net cash provided by financing activitiesÂ  Â -Â Â  Â 53Â  Net decrease in cash, cash equivalents and restricted cashÂ  Â (6,794)Â  Â (9,837) Cash, cash equivalents and restricted cash â€" beginning of periodÂ  Â 20,645Â Â  Â 37,253Â  Cash, cash equivalents and restricted cash â€" end of periodÂ  $13,851Â Â  $27,416Â  Â Â  Â Â Â Â  Â Â Â  Reconciliation of cash, cash equivalents and restricted cash to the consolidated balance sheets:Â  Â Â Â Â  Â Â Â  Cash and cash equivalentsÂ  $12,379Â Â  $25,791Â  Restricted cashÂ  Â 1,421Â Â  Â 153Â  Long-term restricted cashÂ  Â 51Â Â  Â 1,472Â  Total cash, cash equivalents and restricted cashÂ  $13,851Â Â  $27,416Â  Â Â  Â Â Â Â  Â Â Â  Supplemental disclosures of non-cash investing and financing information:Â  Â Â Â Â  Â Â Â  Reduction of operating lease right-of-use asset and lease liability upon lease modificationÂ  $8,423Â Â  $-Â  Purchases of property and equipment not yet paidÂ  $-Â Â  $50Â  Operating lease right-of-use asset obtained in exchange for operating lease obligationÂ  $-Â Â  $344Â  Â  The accompanying footnotes are an integral part of these condensed consolidated financial statements. Â  4 Â  Â  PULMATRIX, INC. Notes to Condensed Consolidated Financial Statements (Unaudited) (in thousands, except share and per share data) Â  1. Organization Â  Pulmatrix, Inc. (the â€œCompanyâ€) was incorporated in 2013 as a Delaware corporation. The Company is a clinical-stage biopharmaceutical company focused on the development of a novel class of inhaled therapeutic products. The Companyâ€™s proprietary dry powder delivery platform, iSPERSEâ„¢, is engineered to deliver small, dense particles with highly efficient dispersibility and delivery to the airways, which can be used with an array of dry powder inhaler technologies and can be formulated with a variety of drug substances. The Company has developed a pipeline of iSPERSEâ„¢-based therapeutic candidates targeted at prevention and treatment of a range of central nervous system, respiratory and other diseases with important unmet medical needs. Â  2. Summary of Significant Accounting Policies and Recent Accounting Standards Â  Basis of Presentation Â  The condensed consolidated financial statements of the Company included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the â€œSECâ€). Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States of America (â€œU.S. GAAPâ€) have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Companyâ€™s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024 (the â€œAnnual Reportâ€). Â  The financial information as of June 30, 2024, and for the three and six months ended June 30, 2024 and 2023, is unaudited. In the opinion of management, all adjustments (including those which are normal and recurring) considered necessary for a fair presentation of the interim financial information have been included. The balance sheet data as of December 31, 2023 was derived from audited consolidated financial statements. The results of the Companyâ€™s operations for any interim periods are not necessarily indicative of the results that may be expected for any other interim period or for a full fiscal year. Â  Based on its current operating plan, the Company believes that its cash and cash equivalents as of June 30, 2024, will be adequate to fund its currently anticipated operating expenses for at least twelve months from the date these condensed consolidated financial statements are issued. The Company will need to secure additional funding in the future, from one or more equity or debt financings, collaborations, or other sources, in order to carry out all of the Companyâ€™s planned research and development activities and regulatory activities; commercialize product candidates; or conduct any substantial, additional development requirements requested by the FDA. Additional funding may not be available to the Company on acceptable terms, or at all. If the Company is unable to secure additional capital, it will be required to significantly decrease the amount of planned expenditures and may be required to cease operations. In addition, any disruption in the capital markets could make any financing more challenging, and there can be no assurance that Pulmatrix will be able to obtain such financing on commercially reasonable terms or at all. Curtailment of operations would cause significant delays in the Companyâ€™s efforts to develop and introduce its products to market, which is critical to the realization of its business plan and the future operations of the Company. Â  Use of Estimates Â  In preparing the condensed consolidated financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, as well as the reported amounts of expenses during the reporting period. Due to inherent uncertainty involved in making estimates, actual results may differ from these estimates. On an ongoing basis, the Company evaluates its estimates and assumptions. The most significant estimates and assumptions in the Companyâ€™s condensed consolidated financial statements include, but are not limited to, estimates of future expected costs in order to derive and recognize revenue and estimates related to clinical trial accruals and upfront deposits. Â  5 Â  Â  Concentrations of Credit Risk Â  Cash is a financial instrument that potentially subjects the Company to concentrations of credit risk. For all periods presented, substantially all of the Companyâ€™s cash was deposited in accounts at a single financial institution that management believes is creditworthy, and the Company has not incurred any losses to date. The Company is exposed to credit risk in the event of default by this financial institution for amounts in excess of the Federal Deposit Insurance Corporation insured limits. Â  For the three and six months ended June 30, 2024, revenue from one customer accounted for 61% and 89%, respectively, of revenue recognized in the accompanying condensed consolidated financial statements. For the three and six months ended June 30, 2023, revenue from one customer accounted for 100% of revenue recognized in the accompanying condensed consolidated financial statements. As of June 30, 2024, two customers accounted for 100% of accounts receivable. As of December 31, 2023, one customer accounted for 100% of accounts receivable. Â  Summary of Significant Accounting Policies Â  The Companyâ€™s significant accounting policies are described in Note 2, Summary of Significant Accounting Policies and Recent Accounting Standards, in the Annual Report. During the six months ended June 30, 2024, the Company did not make any changes to its significant accounting policies. Â  Recent Accounting Pronouncements Â  From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (â€œFASBâ€) or other standard setting bodies that are adopted by the Company as of the specified effective date. The Company did not adopt any new accounting pronouncements during the six months ended June 30, 2024 that had a material effect on its condensed consolidated financial statements. Â  In December 2023, the FASB issued Accounting Standard Update 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures (â€œASU 2023-09â€). The guidance in ASU 2023-09 improves the transparency of income tax disclosures by greater disaggregation of information in the rate reconciliation and income taxes paid disaggregated by jurisdiction. The standard becomes effective for the annual period beginning on January 1, 2025, with early adoption permitted. The Company is currently evaluating the impact that the adoption of ASU 2023-09 may have on its consolidated financial statements. Â  As of June 30, 2024, there are no other new, or existing recently issued, accounting pronouncements that are of significance, or potential significance, that impact the Companyâ€™s condensed consolidated financial statements. Â  3. Prepaid Expenses and Other Current Assets Â  Prepaid expenses and other current assets consisted of the following: Schedule of Prepaid Expenses and Other Current AssetsÂ  Â Â  June 30, 2024Â Â  December 31, 2023Â  Clinical and consultingÂ  $457Â Â  $30Â  InsuranceÂ  Â 438Â Â  Â 232Â  Software and hosting costsÂ  Â 86Â Â  Â 108Â  OtherÂ  Â 220Â Â  Â 372Â  Total prepaid expenses and other current assetsÂ  $1,201Â Â  $742Â  Â  6 Â  Â  4. Property and Equipment, Net Â  The Companyâ€™s Property and equipment, net, were included in the disposal group as part of the MannKind Transaction (as defined in Note 6, Significant Agreements. Refer to that note for further details and accounting discussion). The Company recorded a full write-down of its net property and equipment balance as of June 30, 2024: Schedule of Property and EquipmentÂ Â Â  Â Â  June 30, 2024Â Â  December 31, 2023Â  Laboratory equipmentÂ  $-Â Â  $1,656Â  Leasehold improvementsÂ  Â -Â Â  Â -Â  Office furniture and equipmentÂ  Â -Â Â  Â 401Â  Computer equipmentÂ  Â -Â Â  Â 237Â  Capital in progressÂ  Â -Â Â  Â 600Â  Â Total property and equipmentÂ  Â -Â Â  Â 2,894Â  Less accumulated depreciation and amortizationÂ  Â -Â Â  Â (1,736) Property and equipment, netÂ  $-Â Â  $1,158Â  Â  Depreciation and amortization expense for the six months ended June 30, 2024 and 2023 was $106 and $64, respectively. Â  5. Accrued Expenses and Other Current Liabilities Â  Accrued expenses and other current liabilities consisted of the following: Schedule of Accrued Expenses and Other Current LiabilitiesÂ  Â Â  June 30, 2024Â Â  December 31, 2023Â  Wages and incentivesÂ  $1,221Â Â  $70Â  Clinical and consultingÂ  Â 296Â Â  Â 347Â  Legal and patentsÂ  Â 223Â Â  Â 42Â  Accrued purchases of property and equipmentÂ  Â -Â Â  Â 389Â  OtherÂ  Â 43Â Â  Â 99Â  Total accrued expenses and other current liabilitiesÂ  $1,783Â Â  $947Â  Â  6. Significant Agreements Â  Development and Commercialization Agreement with Cipla Technologies LLC (â€œCiplaâ€) Â  On April 15, 2019, the Company entered into a Development and Commercialization Agreement (the â€œCipla Agreementâ€) with Cipla for the co-development and commercialization, on a worldwide exclusive basis, of PUR1900, the Companyâ€™s inhaled iSPERSEâ„¢ drug delivery system (the â€œProductâ€) enabled formulation of the antifungal drug itraconazole, which is only available as an oral drug, for the treatment of all pulmonary indications, including allergic bronchopulmonary aspergillosis (â€œABPAâ€) in patients with asthma. The Company entered into an amendment to the Cipla Agreement on November 8, 2021 (the â€œSecond Amendmentâ€) and a subsequent amendment on January 6, 2024 (the â€œThird Amendmentâ€). All references to the Cipla Agreement herein refer to the Cipla Agreement, as amended. Â  The Company received a non-refundable upfront payment of $22.0 million (the â€œUpfront Paymentâ€) under the Cipla Agreement. Upon receipt of the Upfront Payment, the Company irrevocably assigned to Cipla the following assets, solely to the extent that each covers the Product in connection with any treatment, prevention, and/or diagnosis of diseases of the pulmonary system (â€œPulmonary Indicationsâ€): all existing and future technologies, current and future drug master files, dossiers, third-party contracts, regulatory filings, regulatory materials and regulatory approvals, patents, and intellectual property rights, as well as any other associated rights and assets directly related to the Product, specifically in relation to Pulmonary Indications (collectively, the â€œAssigned Assetsâ€), excluding most specifically the Companyâ€™s iSPERSEâ„¢ technology. A portion of the Upfront Payment was deposited by the Company into a bank account, along with an equal amount from the Company, and was dedicated to the development of the Product (the â€œInitial Development Fundingâ€). The Initial Development Funding was depleted during the year ended December 31, 2021, at which point the Company and Cipla each became responsible for a portion of the development costs actually incurred as described below (the â€œCo-Development Phaseâ€). Â  7 Â  Â  Pursuant to the Second Amendment, the Company and Cipla were each responsible for 60% and 40%, respectively, of the Companyâ€™s overhead costs and the time spent by the Companyâ€™s employees and consultants on development of the Product (â€œDirect Costsâ€). The Company will share all other development costs with Cipla that are not Direct Costs, such as the cost of clinical research organizations, manufacturing costs and other third-party costs, on a 50/50 basis. Â  Pursuant to the Third Amendment, the Company and Cipla agreed that, during the period commencing on January 6, 2024 and ending July 30, 2024 (the â€œWind Down Periodâ€), the Company will complete all Phase 2b activities, assign or license all patents to Cipla and their registration with the appropriate authorities in regions other than the United States, complete a physical and demonstrable technology transfer and secure all data from the Phase 2b study for inclusion in the safety database. The Company will share costs with Cipla during the Wind Down Period in the same proportions in effect with the Second Amendment discussed above, but subject to a maximum reimbursement amount by Cipla as approved by the joint steering committee. Â  Accounting Treatment Â  The Company concluded that because both it and Cipla are active participants in the arrangement and are exposed to the significant risks and rewards of the collaboration, the Companyâ€™s collaboration with Cipla is within the scope of Accounting Standards Codification (â€œASCâ€) 808, Collaborative Arrangements (â€œASC 808â€). The Company concluded that Cipla is a customer since they contracted with the Company to obtain research and development services and a license to the Assigned Assets, each of which is an output of the Companyâ€™s ordinary activities, in exchange for consideration. Therefore, the Company has applied the guidance in ASC 606, Revenue from Contracts with Customers (â€œASC 606â€) to account for the research and development services and a license within the contract. The Company determined that the research and development services and license to the Assigned Assets are considered highly interdependent and highly interrelated and therefore are considered a single combined performance obligation because Cipla cannot benefit from the license without the performance by the Company of the research and development services. Such research and development services are highly specialized and proprietary to the Company and therefore not available to Cipla from any other third party. Â  The Company initially determined the total transaction price to be $22.0 million â€" comprised of $12.0 million for research and development services for the Product and $10.0 million for the irrevocable license to the Assigned Assets. Any consideration related to the Co-Development Phase was not initially included in the transaction price as such amounts are subject to the variable consideration constraint. Additionally, upon commercialization, Cipla and the Company will share equally, both positive and negative total free cash-flows earned by Cipla in respect of the Product. However, the Company has not included such free cash-flows in the transaction price as these milestones are constrained. Â  Revenue is recognized for the Cipla Agreement as the research and development services are provided using an input method, according to the ratio of costs incurred to the total costs expected to be incurred in the future to satisfy the Companyâ€™s obligations. In managementâ€™s judgment, this input method is the best measure of the transfer of control of the combined performance obligation. The amounts received that have not yet been recognized as revenue are recorded in deferred revenue on the Companyâ€™s consolidated balance sheets, with amounts expected to be recognized in the next 12 months recorded as current. Â  The Company concluded that the Third Amendment is a contract modification that should be accounted for as part of the existing contract. During the three and six months ended June 30, 2024, the Company recognized $0.9 million and $6.6 million, respectively, in revenue related to the research and development services and irrevocable license to the Assigned Assets in the Companyâ€™s consolidated statements of operations, as compared to $1.8 million and $3.3 million, respectively, recognized during the three and six months ended June 30, 2023. The revenue recognized during the six months ended June 30, 2024 was primarily associated with the cumulative catch-up recorded in the three months ended March 31, 2024, from the contract modification, that had been included in deferred revenue at the beginning of the period. As of June 30, 2024, the aggregate transaction price related to the Companyâ€™s unsatisfied obligations was $0.3 million and was recorded in deferred revenue, all of which was current. Â  8 Â  Â  Agreements with MannKind Corporation (â€œMannKindâ€) Â  On May 28, 2024, the Company executed certain agreements with MannKind and the Companyâ€™s landlord (collectively, the â€œMannKind Transactionâ€), all of which closed during July 2024. The agreements with MannKind included a Bill of Sale and Assignment Agreement (the â€œBill of Saleâ€) with respect to the assignment of the Companyâ€™s rental facility at 36 Crosby Drive, Bedford, Massachusetts (the â€œBedford Facilityâ€) to MannKind along with the transfer of all leasehold improvements, laboratory equipment and other related personal property. In connection with the assignment of the Bedford Facility, the Company, MannKind and Cobalt Propco 2020, LLC (the â€œLandlordâ€) entered into an Amendment to Lease and Consent to Assignment of Lease (the â€œLease Assignment Agreementâ€) pursuant to that certain Lease Agreement, dated as of January 7, 2022 (the â€œLease Agreementâ€), by and between the Company and the Landlord. Pursuant to the Lease Assignment Agreement, MannKind assumed all of the Companyâ€™s obligations under the Lease Agreement, including all rent and other payments. Â  In connection with the transactions contemplated by the Bill of Sale and Lease Assignment Agreement, the Company and MannKind entered into an Intellectual Property Cross License Agreement (the â€œCross License Agreementâ€). Pursuant to the Cross License Agreement, the Company granted to MannKind (i) an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of Clofazimine, (ii) an exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of nontuberculous mycobacteria lung disease in humans, (iii) an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of insulin, (iv) a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of endocrine disease in humans, and (v) a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of interstitial lung diseases (including IPF, PPF and other related lung diseases) in humans (collectively, the â€œOut-Licenseâ€). Â  Additionally, pursuant to the Cross License Agreement, MannKind granted to the Company (i) the exclusive right to develop, use, manufacture, market, offer and sell its single-use disposable dry powder inhaler (including all modifications or improvement thereto made by or on behalf of the Company, the â€œCricket Deviceâ€) for the inhaled delivery of dihydroergotamine in any formulation whatsoever, including the Companyâ€™s PUR3100 treatment of acute migraine and (ii) a non-exclusive license to develop, use, manufacture, market, offer and sell the Cricket Device for the inhaled delivery of one more active pharmaceutical ingredients formulated with iSPERSE for the treatment of neurological disease in humans (collectively, the â€œIn-Licenseâ€). Â  Additionally, pursuant to the Master Services Agreement, by and between the Company and MannKind, MannKind shall provide certain development services to the Company, including but not limited to, activities to develop a dry powder formulation of the active pharmaceutical ingredient that the Company provides to MannKind for oral inhalation using iSPERSE. Â  To maintain continuity of iSPERSE platform knowledge, MannKind hired certain members of the Companyâ€™s research and development staff in July 2024. Â  Accounting Treatment Â  The Company determined that the MannKind Transaction represents a combined agreement for accounting purposes, as the individual components have the same overall commercial objectives and the consideration under each component is dependent on the other components. Â  The consideration due to the Company in the MannKind Transaction consists solely of the non-cash consideration in the form of the In-License. The fair value of the non-cash consideration received should be allocated to the other components of the MannKind Transaction to determine the consideration received for the other components. The Company determined that the fair value of the In-License is immaterial given that adequate alternative inhaler devices are already available on the market (and indeed, the Company has already established use of another third-party inhalation device in their PUR3100 Phase 1 trial that performed well as a DHE delivery device as reported in a peer-reviewed publication), and considering optional purchases of Cricket Devices are at market prices. Accordingly, the consideration allocated to other components of the MannKind Transaction was immaterial. Â  9 Â  Â  The Company accounted for the Lease Assignment Agreement upon execution as a lease modification that reduced the lease term to the assignment date in July 2024. Accordingly, the Company remeasured its operating lease liability as of the modification date to reflect the decrease in fixed lease payments, with the amount of the remeasurement, $8.4 million, adjusted by a corresponding reduction to the right-of-use asset. Refer to Note 11, Leases, for further details. Â  The Company concluded that the Out-License component of the MannKind Transaction was within the scope of ASC 606, as the monetization of its core technology represents an output of the Companyâ€™s ordinary activities. The Company transferred control of the combined licenses of iSPERSE to MannKind at a point in time in July 2024 upon closing of the MannKind Transaction; however, no revenue was recognized because the consideration allocated to the Out-License component was immaterial. Â  The Company determined that its operating lease right-of-use asset and property and equipment subject to the Bill of Sale represented a disposal group that became held for sale during the second quarter of 2024 and remained classified as held for sale as of June 30, 2024, which should be measured at the lower of its carrying value or fair value less costs to sell. Since the fair value of the disposal group was considered immaterial, the Company recorded a full write-down of the disposal groupâ€™s carrying value as of June 30, 2024, in the amount of $2.6 million. Â  Concurrent with the closing of the MannKind Transaction, the Company terminated and MannKind hired the majority of the Companyâ€™s research and development employees, representing approximately two-thirds of the Companyâ€™s workforce. During the quarter ended June 30, 2024, the Company agreed to provide termination benefits to these employees, which has been included in the balance of accrued expenses and other current liabilities on the consolidated balance sheet as of June 30, 2024, and was paid to the employees in July 2024. Â  7. Common Stock Â  In May 2021, the Company entered into an At-The-Market Sales Agreement (the â€œSales Agreementâ€) with H.C. Wainwright and Co., LLC (â€œHCWâ€) to act as the Companyâ€™s sales agent with respect to the issuance and sale of up to $20.0 million of the Companyâ€™s shares of common stock, from time to time in an at-the-market public offering (the â€œATM Offeringâ€). Upon filing of the Annual Report, the Company continued to be subject to General Instruction I.B.6 of Form S-3, pursuant to which in no event will the Company sell its common stock in a registered primary offering using Form S-3 with a value exceeding more than one-third of its public float in any 12 calendar month period so long as its public float remains below $75,000,000. Therefore, the amount that may be able to be raised using the ATM Offering will be significantly less than $20,000,000, until such time as the Companyâ€™s public float held by non-affiliates exceeds $75,000,000. Â  Sales of common stock under the Sales Agreement are made pursuant to an effective shelf registration statement on Form S-3, which was filed with the SEC on May 17, 2024, and subsequently declared effective on May 30, 2024 (File No. 333-279491), and a related prospectus. HCW acts as the Companyâ€™s sales agent on a commercially reasonable efforts basis, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of The Nasdaq Capital Market (â€œNasdaqâ€). If expressly authorized by the Company, HCW may also sell the Companyâ€™s common stock in privately negotiated transactions. There is no specific date on which the ATM Offering will end, there are no minimum sale requirements and there are no arrangements to place any of the proceeds of the ATM Offering in an escrow, trust or similar account. HCW is entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of the Companyâ€™s common stock pursuant to the Sales Agreement. Â  During the six months ended June 30, 2024, no shares of the Companyâ€™s common stock were sold under the Sales Agreement. Â  10 Â  Â  8. Warrants Â  There were no warrants issued or exercised during the six months ended June 30, 2024. During the six months ended June 30, 2024, warrants to purchase up to 160,445 shares of common stock at a weighted average exercise price of $44.12 per share expired. Subsequent to June 30, 2024, but before the date these condensed consolidated financial statements were issued, warrants to purchase up to 66,675 shares of common stock at a weighted average exercise price of $26.79 per share expired. The following represents a summary of the warrants outstanding and exercisable at June 30, 2024, all of which are equity-classified: Schedule of Warrants OutstandingÂ  Â Â  AdjustedÂ Â  Â Â  Number of Shares Underlying WarrantsÂ  Issue DateÂ  Exercise PriceÂ Â  Expiration DateÂ  OutstandingÂ Â  ExercisableÂ  December 17, 2021Â  $14.99Â Â  December 15, 2026Â  Â 36,538Â Â  Â 36,538Â  December 17, 2021Â  $13.99Â Â  December 17, 2026Â  Â 281,047Â Â  Â 281,047Â  February 16, 2021Â  $49.99Â Â  February 11, 2026Â  Â 65,003Â Â  Â 65,003Â  August 7, 2020Â  $35.99Â Â  July 14, 2025Â  Â 90,743Â Â  Â 90,743Â  August 7, 2020Â  $44.99Â Â  July 14, 2025Â  Â 10,939Â Â  Â 10,939Â  July 23, 2020Â  $35.99Â Â  July 14, 2025Â  Â 77,502Â Â  Â 77,502Â  July 13, 2020Â  $44.99Â Â  July 14, 2025Â  Â 21,846Â Â  Â 21,846Â  July 13, 2020Â  $35.99Â Â  July 14, 2025Â  Â 334,800Â Â  Â 334,800Â  February 12, 2019Â  $26.79Â Â  August 12, 2024Â  Â 66,675Â Â  Â 66,675Â  June 15, 2015Â  $1,509.99Â Â  Five years after milestone achievementÂ  Â 15,955Â Â  Â -Â  TotalÂ  Â Â Â Â  Â Â  Â 1,001,048Â Â  Â 985,093Â  Â  9. Stock-based Compensation Â  The Company sponsors the Pulmatrix, Inc. Amended and Restated 2013 Employee, Director and Consultant Equity Incentive Plan (the â€œIncentive Planâ€). As of June 30, 2024, the Incentive Plan provided for the grant of up to 818,936 shares of the Companyâ€™s common stock, of which 503,669 shares remained available for future grant. In addition, the Company sponsors two legacy plans under which no additional awards may be granted. As of June 30, 2024, the two legacy plans have a total of 8 options outstanding, all of which are fully vested and for which common stock will be issued upon exercise. Â  The following table summarizes stock option activity during the six months ended June 30, 2024: Schedule of Stock Option ActivityÂ  Â Â  Number of OptionsÂ Â  Weighted- Average Exercise PriceÂ Â  Weighted- Average Remaining Contractual Term (Years)Â Â  Aggregate Intrinsic ValueÂ  Outstanding â€” January 1, 2024Â  Â 344,306Â Â  $20.92Â Â  Â 7.54Â Â  $-Â  Forfeited or expiredÂ  Â (32,869)Â  $5.18Â Â  Â Â Â Â  Â Â Â  Outstanding â€” June 30, 2024Â  Â 311,437Â Â  $22.58Â Â  Â 6.95Â Â  $Â Â Â Â Â Â Â -Â  Exercisable â€” June 30, 2024Â  Â 221,578Â Â  $29.07Â Â  Â 6.46Â Â  $-Â  Â  No stock options were granted during the six months ended June 30, 2024. The Company records stock-based compensation expense related to stock options based on their grant-date fair value. As of June 30, 2024, there was $0.5 million of unrecognized stock-based compensation expense related to unvested stock options granted under the Companyâ€™s stock award plans. This expense is expected to be recognized over a weighted-average period of approximately 1.6 years. Â  11 Â  Â  The following table presents total stock-based compensation expense for the three and six months ended June 30, 2024 and 2023: Schedule of Stock-based Compensation ExpensesÂ  Â Â  2024Â Â  2023Â Â  2024Â Â  2023Â  Â Â  Three Months Ended June 30,Â Â  Six Months Ended June 30,Â  Â Â  2024Â Â  2023Â Â  2024Â Â  2023Â  Research and developmentÂ  $29Â Â  $59Â Â  $145Â Â  $131Â  General and administrativeÂ  Â 74Â Â  Â 196Â Â  Â 156Â Â  Â 420Â  Total stock-based compensation expenseÂ  $103Â Â  $255Â Â  $301Â Â  $551Â  Â  10. Commitments and Contingencies Â  Research and Development Activities Â  The Company contracts with various other organizations to conduct research and development activities, including clinical trials. The scope of the services under contracts for research and development activities may be modified and the contracts, subject to certain conditions, may generally be cancelled by the Company upon written notice. In some instances, the contracts, subject to certain conditions, may be cancelled by the third party. As of June 30, 2024, the Company had no material noncancellable commitments not expected to be reimbursed under the Cipla Agreement. Â  Legal Proceedings Â  In the ordinary course of its business, the Company may be involved in various legal proceedings involving contractual and employment relationships, patent or other intellectual property rights, and a variety of other matters. The Company is not aware of any pending legal proceedings that would reasonably be expected to have a material impact on the Companyâ€™s financial position or results of operations. Â  11. Leases Â  The Company has limited leasing activities as a lessee which are primarily related to its corporate headquarters, which were relocated during the third quarter of 2023 and again during the third quarter of 2024. Â  On January 7, 2022, the Company executed the Lease Agreement with the Landlord for its corporate headquarters at 36 Crosby Drive, Bedford, Massachusetts. The leased premises comprise approximately 20,000 square feet of office and lab space, and the lease provides for base rent of $0.1 million per month, payment of which began in March 2024. The Company is responsible for real estate taxes, maintenance, and other operating expenses applicable to the leased premises. Â  On May 28, 2024, as part of the MannKind Transaction (see further discussion in Note 6, Significant Agreements), the Company and the Landlord executed the Lease Assignment Agreement to assign the Lease Agreement to MannKind in July 2024. The Company accounted for the Lease Assignment Agreement as a lease modification that reduced the lease term to the assignment date in July 2024. Accordingly, the Company remeasured its lease liability as of the modification date to reflect the decrease in fixed lease payments, with the amount of the remeasurement, $8.4 million, adjusted by a corresponding reduction to the right-of-use asset. Â  As of June 30, 2024, the Company had $1.4 million of restricted cash held in a depository account at a financial institution to collateralize a conditional stand-by letter of credit related to the Lease Agreement, which was presented within current assets on the consolidated balance sheet. Following the closing of the MannKind Transaction, this collateral was released in August 2024, providing additional cash available for operations. Â  In June 2024, the Company entered into a short-term lease agreement for its new headquarters at 945 Concord Street, Framingham, Massachusetts. No lease liability or right-of-use asset has been recorded for this short-term lease. Â  12 Â  Â  The components of lease expense for the Company for the three and six months ended June 30, 2024 and 2023 were as follows: Â Schedule of Components of Lease Expenses Â Â  2024Â Â  2023Â Â  2024Â Â  2023Â  Â Â  Three Months Ended June 30,Â Â  Six Months Ended June 30,Â  Â Â  2024Â Â  2023Â Â  2024Â Â  2023Â  Lease costÂ  Â Â Â Â  Â Â Â Â  Â Â Â Â  Â Â Â  Fixed lease costÂ  $271Â Â  $418Â Â  $678Â Â  $796Â  Variable lease costÂ  Â 104Â Â  Â 168Â Â  Â 206Â Â  Â 281Â  Total lease costÂ  $375Â Â  $586Â Â  $884Â Â  $1,077Â  Â Â  Â Â Â Â  Â Â Â Â  Â Â Â Â  Â Â Â  Other informationÂ  Â Â Â Â  Â Â Â Â  Â Â Â Â  Â Â Â  Cash paid for amounts included in the measurement of lease liabilitiesÂ  $322Â Â  $432Â Â  $657Â Â  $863Â  Weighted-average remaining lease termÂ  Â Â Â Â  Â Â Â Â  Â 7 daysÂ Â  Â 0.2 yearsÂ  Weighted-average discount rateÂ  Â Â Â Â  Â Â Â Â  Â -Â Â  Â 8.40% Â  Maturities of lease liabilities due under these lease agreements as of June 30, 2024 are as follows: Schedule of Maturities of Lease LiabilitiesÂ  Â Â  Operating LeasesÂ  Maturity of lease liabilitiesÂ  Â Â Â  2024 (7 days)Â  $24Â  Total lease paymentsÂ  Â 24Â  Less: interestÂ  Â -Â  Total lease liabilitiesÂ  $24Â  Â Â  Â Â Â  Reported as of June 30, 2024Â  Â Â Â  Lease liabilities â€” short termÂ  $24Â  Lease liabilities â€” long termÂ  Â -Â  Total lease liabilitiesÂ  $24Â  Â  12. Income Taxes Â  The Company had no income tax expense due to operating losses incurred for the three and six months ended June 30, 2024 and 2023. Â  Management of the Company evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets and determined that it is more likely than not that the Company will not recognize the benefits of the deferred tax assets. As a result, a full valuation allowance was recorded as of June 30, 2024 and December 31, 2023. Â  The Company applies ASC 740, Income Taxes, for the financial statement recognition, measurement, presentation, and disclosure of uncertain tax positions taken or expected to be taken in income tax returns. Unrecognized tax benefits represent tax positions for which reserves have been established. A full valuation allowance has been provided against the Companyâ€™s deferred tax assets, so that the effect of the unrecognized tax benefits is to reduce the gross amount of the deferred tax asset and the corresponding valuation allowance. The Company has no material uncertain tax positions as of June 30, 2024 and December 31, 2023. Â  13. Net Loss Per Share Â  Basic net loss per share is calculated by dividing net loss by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is calculated by dividing the weighted-average number common shares outstanding during the period, after taking into consideration any potentially dilutive effects from outstanding stock options or warrants. Â  Basic and diluted net loss per share were the same for the three and six months ended June 30, 2024 and 2023, as the effect of potentially dilutive securities would have been anti-dilutive. Â  13 Â  Â Â  The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted-average shares outstanding, because such securities had an anti-dilutive impact: Schedule of Computation of Anti-Dilutive Weighted-Average Shares OutstandingÂ  Â Â  Three and Six Months Ended June 30,Â  Â Â  2024Â Â  2023Â  Options to purchase common stockÂ  Â 311,437Â Â  Â 393,254Â  Warrants to purchase common stockÂ  Â 1,001,048Â Â  Â 1,161,493Â  Total options and warrants to purchase common stockÂ  Â 1,312,485Â Â  Â 1,554,747Â  Â  14. Subsequent Events Â  Departure of Chief Executive Officer Â  On July 15, 2024, the Board of Directors (the â€œBoardâ€) of the Company approved a General Release and Severance Agreement (the â€œRaad Severance Agreementâ€), by and between the Company and Teofilo Raad, dated as of July 19, 2024, and effective as of the same date (the â€œSeparation Dateâ€). Effective as of the Separation Date, Mr. Raadâ€™s employment with the Company ceased and Mr. Raad relinquished all positions, offices, and authority with the Company and any affiliates, including as a member of the Board and all committees thereto, and the Amended and Restated Employment Agreement by and between the Company and Mr. Raad, dated as of June 28, 2019, was terminated. Â  Pursuant to the terms of the Raad Severance Agreement, the Company will provide to Mr. Raad certain termination-related payments totaling approximately $1.0 million, less all lawful and authorized withholdings and deductions. Any outstanding equity awards granted to Mr. Raad under the Companyâ€™s equity compensation plans and that would have vested during the 12-month period following the Separation Date became fully vested as of the Separation Date. Â  Appointment of Interim Chief Executive Officer Â  On July 15, 2024, the Board approved the appointment of Peter Ludlum as the Interim Chief Executive Officer (the â€œInterim CEOâ€), effective as of July 20, 2024 (â€œLudlum Effective Dateâ€), pursuant to an amendment to the consulting agreement, by and between the Company and Danforth Advisors, LLC, dated as of November 29, 2021, and amended on April 8, 2022, and October 20, 2022. Â  The Company has completed an evaluation of all other subsequent events after the balance sheet date of June 30, 2024 through the date the condensed consolidated financial statements were issued to ensure that the condensed consolidated financial statements include appropriate disclosure of events both recognized in the condensed consolidated financial statements as of June 30, 2024, and events which occurred subsequently but were not recognized in the condensed consolidated financial statements. The Company has concluded that no subsequent events have occurred that require disclosure, except as disclosed within the condensed consolidated financial statements. Â  14 Â  Â  Item 2. Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operations. Â  Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operations is intended to provide a reader of our financial statements with a narrative from the perspective of our management on our financial condition, results of operations, liquidity, and certain other factors that may affect our future results. The information set forth below should be read in conjunction with the condensed consolidated financial statements and the notes thereto included elsewhere in this Quarterly Report on Form 10-Q as well as the audited consolidated financial statements and the notes thereto contained in our Annual Report on Form 10-K filed with the SEC on March 28, 2024. Unless stated otherwise, references in this Quarterly Report on Form 10-Q to â€œus,â€ â€œwe,â€ â€œour,â€ or our â€œCompanyâ€ and similar terms refer to Pulmatrix, Inc., a Delaware corporation and its subsidiaries. Â  Forward-Looking Statements Â  This Quarterly Report on Form 10-Q contains forward-looking statements. All statements other than statements of historical fact contained herein, including statements regarding our business plans or strategies, projected or anticipated benefits or other consequences of our plans or strategies, projected or anticipated benefits from acquisitions to be made by us, or projections involving anticipated revenues, earnings, or other aspects of our operating results, are forward-looking statements. Words such as â€œanticipates,â€ â€œassumes,â€ â€œbelieves,â€ â€œcan,â€ â€œcould,â€ â€œestimates,â€ â€œexpects,â€ â€œforecasts,â€ â€œguides,â€ â€œintends,â€ â€œis confident that,â€ â€œmay,â€ â€œplans,â€ â€œseeks,â€ â€œprojects,â€ â€œtargets,â€ and â€œwould,â€ and their opposites and similar expressions, as well as statements in future tense, are intended to identify forward-looking statements. Forward-looking statements should not be read as a guarantee of future performance or results and may not be accurate indications of when such performance or results will actually be achieved. Forward-looking statements are based on information we have when those statements are made or our managementâ€™s good faith belief as of that time with respect to future events and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to: Â  Â  â— our history of recurring losses and negative cash flows from operating activities, significant future commitments and the uncertainty regarding the adequacy of our liquidity to pursue or complete our business objectives; Â  Â  Â  Â  â— our inability to carry out research, development and commercialization plans; Â  Â  Â  Â  â— our inability to manufacture our product candidates on a commercial scale on our own or in collaborations with third parties; Â  Â  Â  Â  â— our inability to complete preclinical testing and clinical trials as anticipated; Â  Â  Â  Â  â— our collaboratorsâ€™ inability to successfully carry out their contractual duties; Â  Â  Â  Â  â— termination of certain license agreements; Â  Â  Â  Â  â— our ability to adequately protect and enforce rights to intellectual property, or defend against claims of infringement by others; Â  Â  Â  Â  â— difficulties in obtaining financing on commercially reasonable terms, or at all; Â  Â  Â  Â  â— intense competition in our industry, with competitors having substantially greater financial, technological, research and development, regulatory and clinical, manufacturing, marketing and sales, distribution, personnel and resources than we do; Â  Â  Â  Â  â— entry of new competitors and products and potential technological obsolescence of our products; Â  Â  Â  Â  â— adverse market and economic conditions; Â  Â  Â  Â  â— our ability to maintain compliance with Nasdaqâ€™s listing standards; Â  Â  Â  Â  â— loss of one or more key executives or scientists; and Â  Â  Â  Â  â— difficulties in securing regulatory approval to market our product candidates. Â  15 Â  Â  For a more detailed discussion of these and other risks that may affect our business and that could cause our actual results to differ from those projected in these forward-looking statements, see the risk factors and uncertainties described under the heading â€œRisk Factorsâ€ in Part II, Item 1A of this Quarterly Report on Form 10-Q and in Part I, Item 1A of our Annual Report on Form 10-K. The forward-looking statements contained in this Quarterly Report on Form 10-Q are expressly qualified in their entirety by this cautionary statement. We do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date on which any such statement is made or to reflect the occurrence of unanticipated events, except as required by law. Â  â€œiSPERSEâ„¢â€ is one of our trademarks used in this Quarterly Report on Form 10-Q. Other trademarks appearing in this report are the property of their respective holders. Solely for convenience, these and other trademarks, trade names and service marks referred to in this report appear without the Â®, TM and SM symbols, but those references are not intended to indicate, in any way, we or the owners of such trademarks will not assert, to the fullest extent under applicable law, their rights to these trademarks and trade names. Â  Overview Â  Business Â  We are a clinical-stage biopharmaceutical company focused on the development of novel inhaled therapeutic products intended to prevent and treat respiratory and other diseases with important unmet medical needs using our patented iSPERSEâ„¢ technology. Our proprietary product pipeline includes treatments for central nervous system (â€œCNSâ€) disorders such as acute migraine and serious lung diseases such as Chronic Obstructive Pulmonary Disease (â€œCOPDâ€) and allergic bronchopulmonary aspergillosis (â€œABPAâ€). Our product candidates are based on our proprietary engineered dry powder delivery platform, iSPERSEâ„¢, which seeks to improve therapeutic delivery to the lungs by optimizing pharmacokinetics and reducing systemic side effects to improve patient outcomes. Â  We design and develop inhaled therapeutic products based on our proprietary dry powder delivery technology, iSPERSEâ„¢, which enables delivery of small or large molecule drugs to the lungs by inhalation for local or systemic applications. The iSPERSEâ„¢ powders are engineered to be small, dense particles with highly efficient dispersibility and delivery to airways. iSPERSEâ„¢ powders can be used with an array of dry powder inhaler technologies and can be formulated with a broad range of drug substances including small molecules and biologics. We believe the iSPERSEâ„¢ dry powder technology offers enhanced drug loading and delivery efficiency that outperforms traditional lactose-blend inhaled dry powder therapies. Â  Our goal is to develop breakthrough therapeutic products that are safe, convenient, and more effective than the existing therapeutic products for respiratory and other diseases where iSPERSEâ„¢ properties are advantageous. Â  Our current pipeline of clinical assets is aligned to this goal as we develop iSPERSEâ„¢-based therapeutic candidates which target the prevention and treatment of a range of diseases, including CNS disorders and pulmonary diseases. These therapeutic candidates include PUR3100 for the treatment of acute migraine, PUR1800 for the treatment of acute exacerbations of chronic obstructive pulmonary disease (â€œAECOPDâ€), and PUR1900 for the treatment of ABPA in patients with asthma and in patients with cystic fibrosis (â€œCFâ€). Each program is enabled by its unique iSPERSEâ„¢ formulation designed to achieve specific therapeutic objectives. Â  Contingent on securing additional funding, we intend to capitalize on our iSPERSEâ„¢ technology platform and our expertise in inhaled therapeutics to identify new product candidates for the prevention and treatment of diseases, including those with considerable unmet medical needs, and to build our product pipeline beyond our existing candidates. In order to advance clinical trials for our therapeutic candidates and leverage the iSPERSEâ„¢ platform to enable delivery of partnered compounds, we intend to form strategic alliances with third parties, including pharmaceutical and biotechnology companies or academic or private research institutes. Â  16 Â  Â  Contingent on securing additional funding, we expect to continue to incur substantial expenses and operating losses for at least the next several years based on our drug development plans and in connection with our ongoing activities, as we: Â  Â  â— Pursue further clinical studies for PUR3100, an orally inhaled dihydroergotamine (â€œDHEâ€) including a Phase 2 clinical study for the treatment of acute migraine, contingent on securing financing or partnership arrangements. We received Food and Drug Administration (â€œFDAâ€) acceptance of our Investigational New Drug Application (â€œINDâ€) and a â€œstudy may proceedâ€ letter in September 2023, positioning PUR3100 as Phase 2-ready for potential financing or partnership discussions. Â  Â  Â  We developed PUR3100, an iSPERSEâ„¢ formulation of DHE in 2020. We completed good laboratory practice (â€œGLPâ€) toxicology studies in 2021 and 2022. In 2022, we completed a Phase 1 study designed as a double-blinded trial to assess the safety, tolerability, and pharmacokinetics of three dose levels of single doses of inhaled PUR3100 with intravenous (â€œIVâ€) placebo, as compared to IV DHE (DHE mesylate injection) with inhaled placebo. Â  Â  Â  On January 4, 2023, we announced the Phase 1 topline results, indicating that PUR3100 was safe and tolerated with fewer gastrointestinal side effects in all doses compared to IV DHE. PUR3100 showed a five-minute Tmax and Cmax within the targeted therapeutic range for all three doses tested. The Phase 1 study data was presented at the American Headache Society 65th Annual Meeting in June 2023. In May 2024, we announced a peer-reviewed publication of Phase 1 clinical results in the publication Headache: The Journal of Head and Face Pain. Â  In September 2023, we announced the FDAâ€™s acceptance of an IND application for PUR3100 and receipt of a â€œstudy may proceedâ€ letter for a Phase 2 study. The IND includes a Phase 2 clinical protocol where safety and preliminary efficacy of PUR3100 will be investigated in patients with acute migraine. Â  Based on the rapid systemic exposure in the therapeutic range and the improved side effect profile relative to IV dosing, we believe the PUR3100 formulation of DHE may differentiate from approved DHE products or those in development. If effectiveness is demonstrated, PUR3100 may offer the convenience of being self-administered with a pharmacokinetic profile that may potentially provide rapid onset of action. Â  Â  Â  Â  â— Pursue partnership or other alternatives to monetize or advance PUR1800, focusing on the development of an orally inhaled kinase inhibitor for treatment of AECOPD. Â  Â  Â  Â  Â  We completed preclinical safety studies for PUR1800, our iSPERSEâ„¢ formulation of RV1162, in 2018 and advanced our formulation and process development efforts to support clinical testing in stable moderate-severe COPD patients. We completed a Phase 1b safety, tolerability, and pharmacokinetics clinical study of PUR1800 for subjects with stable moderate-severe COPD and received topline data from the Phase 1b clinical study in the first quarter of 2022. We analyzed data from the completed Phase 1b clinical study of PUR1800 for AECOPD and presented study results at the American Academy of Allergy, Asthma & Immunology (AAAAI) conference in the first quarter of 2023. The results indicated PUR1800 was safe and well tolerated with no observed safety signals. The topline data, along with the results from chronic toxicology studies, support the continued development of PUR1800 for the treatment of AECOPD and other inflammatory respiratory diseases. Â  Â  Â  Â  â— Terminate the PUR1900 Phase 2b study and seek to monetize PUR1900 in the United States. Â  Â  Â  Â  Â  In agreement with our partner Cipla, we stopped patient enrollment for in the Phase 2b study of PUR1900. The decision to stop the study was unrelated to any safety concerns. This study had been ongoing since the first quarter of 2023. We remain on track to complete all Phase 2b wind down activities within the third quarter of 2024. Â  After the study wind down, Pulmatrix will bear no further financial responsibility for the commercialization and development activities as related to PUR1900 outside the United States and will receive 2% royalties on any potential future net sales by Cipla outside the United States. Within the United States, we and Cipla will seek to monetize PUR1900, our inhaled iSPERSEâ„¢ formulation of the antifungal drug itraconazole for indications where an orally inhaled antifungal may provide a therapeutic benefit or fulfill an unmet medical need. Â  17 Â  Â  Â  â— Capitalize on our proprietary iSPERSEâ„¢ technology and our expertise in inhaled therapeutics and particle engineering to identify new product candidates for prevention and treatment of diseases, including those with important unmet medical needs. Â  Â  Â  Â  Â  To add additional inhaled therapeutics to our development pipeline and facilitate additional collaborations, we are leveraging our iSPERSEâ„¢ technology and our expertise in inhaled therapeutics and particle engineering to identify potential product candidates. Â  Â  Â  Â  â— Invest in protecting and expanding our intellectual property portfolio and file for additional patents to strengthen our intellectual property rights. Â  Â  Â  Â  Â  The status of our patent portfolio changes frequently in the ordinary course of patent prosecution. As of June 30, 2024, our patent portfolio related to iSPERSEâ„¢ included approximately 144 granted patents, 18 of which are granted US patents, with expiration dates from 2024 to 2037, and approximately 52 additional pending patent applications in the US and other jurisdictions. Our in-licensed portfolio related to kinase inhibitors included approximately 278 granted patents, 33 of which are granted US patents, with expiration dates from 2029 to 2035, and approximately 19 additional pending patent applications in the US and other jurisdictions. We have national phase applications pending in Australia, Brazil, Canada, China, Europe, Israel, India, Japan, Korea, Mexico, New Zealand, Russia, and the United States that cover certain formulations and methods of use relevant to our PUR3100 program. Â  Â  â— Seek partnerships and license agreements to support the product development and commercialization of our product candidates. Â  Â  Â  Â  Â  In order to advance our clinical programs, we may seek partners or licensees in areas of pharmaceutical and clinical development. Â  Â  â— Position the Company to be able to consider strategic alternatives. Â  Â  Â  Â  Â  Continue our cost saving measures which have included the wind down of the Phase 2b study for PUR1900 and the assignment of our long-term lease of our Bedford facility pursuant to those certain agreements by and between us, MannKind Corporation (â€œMannKindâ€) and Cobalt Propco 2020, LLC (the â€œMannKind Transactionâ€) to conserve our cash resources as we consider strategic alternatives for the Company. Â  Therapeutic Candidates Â  PUR3100 Â  In 2020, we developed PUR3100, the iSPERSEâ„¢ formulation of DHE, for the treatment of acute migraine. Currently DHE is only available as subcutaneous, intravenous infusion or intranasal delivery. If approved for commercialization, PUR3100 has the opportunity to be the first orally inhaled DHE treatment for acute migraine and be an alternative to other acute therapies. Given the oral inhaled route of delivery, PUR3100 is anticipated to provide relief from the rapid onset of migraine symptoms and provide a favorable tolerability profile. Â  A total of three 14-day GLP toxicology studies have been completed with PUR3100 to support single-dose clinical studies. We are planning to conduct a chronic toxicology study to support long-term dosing. Based on discussions with the FDA, this would complete the non-clinical requirements to support a new drug application (â€œNDAâ€). Â  Our interactions with the FDA have indicated that, in addition to the planned Phase 2 and Phase 3 studies, long-term safety should be assessed in a minimum of one hundred patients for six months of dosing and fifty patients for twelve months of dosing. The FDA also confirmed that it will be necessary to perform a safety study administering PUR3100 to otherwise healthy patients with asthma before an NDA is submitted. Â  On September 26, 2022, we announced the completion of patient dosing in a Phase 1 clinical study, performed in Australia. The study design was a double-dummy, double-blinded trial to assess the safety, tolerability, and pharmacokinetics of three dose levels of single doses of inhaled PUR3100 with IV placebo, as compared to IV DHE (DHE mesylate injection) with inhaled placebo. This study may also provide preliminary comparative bioavailability data to support the use of the 505(b)(2) pathway for marketing authorization. Twenty-six healthy subjects were enrolled and each of the four groups contained at least six subjects. Â  18 Â  Â  On January 4, 2023, we announced topline results. We presented the Phase 1 study data at the American Headache Society 65th Annual Meeting in June 2023. The study showed that PUR3100 achieved peak exposures in the targeted therapeutic range and time to maximum concentration occurred at five minutes after dosing at all dosing levels. The PUR3100 dose groups also showed a lower incidence of nausea and no vomiting compared to observations of nausea and vomiting in the IV administered DHE dose group. Â  Based on the rapid systemic exposure in the therapeutic range and the improved side effect profile relative to IV dosing, we believe the PUR3100 formulation of DHE may differentiate from approved DHE products or those known to be in development. If effectiveness is demonstrated, PUR3100 may offer the convenience of being self-administered with a pharmacokinetic profile that may potentially provide rapid onset of action. Â  In September 2023, we announced that the FDA accepted the PUR3100 IND and the receipt of a â€œstudy may proceedâ€ letter for the clinical study: â€œA Phase 2, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Single Event Study to Evaluate the Safety, Tolerability, and Efficacy of PUR3100 (Dihydroergotamine Mesylate Inhalation Powder) in the Acute Treatment of Migraineâ€. We anticipate that this Phase 2 clinical study will initiate once financing or partnership arrangements have been made. Â  PUR1800 Â  Reduced responsiveness to corticosteroids represents an important barrier to effective treatment of COPD and AECOPD and provides a clear rationale to seek novel medicines to treat these respiratory diseases. In addition, current treatments generally fail to treat the underlying source of the AECOPD, in particular when a viral or bacterial infection is the cause, which occurs in approximately 80% of exacerbations. RV1162, the active ingredient of PUR1800, is a novel, potent anti-inflammatory that inhibits the phosphorylation of a narrow spectrum of kinases. In pre-clinical studies, RV1162 demonstrated direct anti-inflammatory activity in a model of viral induced respiratory inflammation. RV1162 also demonstrated a reduction in corticosteroid-resistant inflammatory responses in a model of cigarette smoke induced inflammation. These findings suggested that RV1162 has the potential to deliver effective anti-inflammatory outcomes in corticosteroid-resistant patients while also reducing the underlying source of inflammation in an exacerbation, such as a viral and/or bacterial respiratory infection. Â  Clinical studies conducted by RespiVert/Janssen with RV1162 formulated as a lactose blend for inhalation demonstrated that the molecule was well tolerated for up to 14 days of dosing in patients with COPD. Analysis of sputum collected from patients with COPD treated with RV1162 showed reduced levels of p38 phosphorylation in sputum cells and decreases in the number of neutrophils recovered in sputum after 12 days of dosing. These findings suggest that inhalation of RV1162 may confer anti-inflammatory benefits after a short dosing regimen. Long-term toxicology studies with RV1162 as a lactose blend suggested that this formulation was not suitable for chronic dosing. Â  Based upon the clinical results generated by RespiVert/Janssen for RV1162 and the anticipated benefits of an iSPERSEâ„¢ formulation of RV1162, we entered into a License, Development and Commercialization Agreement with RespiVert Ltd. (â€œRespiVertâ€), a wholly owned subsidiary of Janssen Biotech, Inc. on June 9, 2017. RespiVert granted us an exclusive, royalty-bearing license in a portfolio of narrow spectrum kinase inhibitor compounds (â€œNSKIâ€). We subsequently formulated RV1162 into PUR1800 for development as a potential therapy for AECOPD. Â  We completed a Phase 1b safety, tolerability, and pharmacokinetics of PUR1800 for patients with stable moderate-severe COPD. Topline data was delivered in the first quarter of 2022 and presented at the American Academy of Allergy, Asthma and Immunology conference in the first quarter of 2023. Â  The clinical study, performed at the Medicines Evaluation Unit in Manchester, UK, was a randomized, three-way crossover double-blind study with 14 days of daily dosing, which included placebo and one of two doses of PUR1800, and included a 28-day follow-up period after each treatment period. A total of 18 adults with stable COPD were enrolled. Safety and tolerability, as well as systemic pharmacokinetics (â€œPKâ€) were evaluated. Â  PUR1800 was well tolerated and there were no observed safety signals. The PK data indicate that PUR1800 results in low and consistent systemic exposure when administered via oral inhalation. The topline data, along with the results from chronic toxicology studies, support the continued development of PUR1800 for the treatment of AECOPD and other inflammatory respiratory diseases. These data will inform the design of a potential Phase 2 study in the treatment of AECOPD. Â  19 Â  PUR1900 Â  PUR1900 is our iSPERSEâ„¢ inhaled formulation of itraconazole, an antifungal drug commercially available as an oral drug. We developed PUR1900 for the prevention and treatment of fungal infections and allergic/hypersensitivity reactions to fungus in patients with severe lung disease, including those with asthma and CF. Â  On April 15, 2019, we entered into the Cipla Agreement with Cipla for the co-development and commercialization, on a worldwide, except for the Cipla Territory defined below, exclusive basis, of PUR1900, our inhaled iSPERSEâ„¢ enabled formulation of the antifungal drug itraconazole, which is only available as an oral drug, for the treatment of all pulmonary indications, including ABPA in patients with asthma. We entered into the Second Amendment to the Cipla Agreement on November 8, 2021 and the Third Amendment on January 6, 2024. All references to the Cipla Agreement herein refer to the Cipla Agreement, as amended. The Cipla Agreement will remain in effect in perpetuity, unless otherwise earlier terminated in accordance with its terms. Â  Pursuant to the Third Amendment, all development and commercialization activities with respect to the Product in all markets other than the United States (the â€œCipla Territoryâ€) will be conducted exclusively by Cipla at Ciplaâ€™s sole cost and expense, and Cipla shall be entitled to all profits from the sale of the Product in the Cipla Territory, except that we will receive 2% royalties on any potential future net sales by Cipla outside the United States. Â  Pursuant to the Third Amendment, we and Cipla stopped patient enrollment for the ongoing Phase 2b clinical study. During the Wind Down Period, we will complete all Phase 2b activities, assign or license all patents to Cipla and their registration with the appropriate authorities in the Cipla Territory, complete a physical and demonstrable technology transfer and secure all data from the Phase 2b study for inclusion in the safety database for the Cipla Territory. Â  For the duration of the Wind Down Period, we and Cipla are each responsible for 60% and 40%, respectively, of our Direct Costs. We will share all other development costs with Cipla that are not Direct Costs, such as the cost of clinical research organizations, manufacturing costs and other third-party costs, on a 50/50 basis. Reimbursements from Cipla to us for these costs are subject to a maximum reimbursement amount as approved by the joint steering committee. Â  We remain on track to complete all Phase 2b wind down activities within the third quarter of 2024. After the conclusion of the Wind Down Period, Pulmatrix will bear no further financial responsibility for the commercialization and development with respect to the Product in the Cipla Territory, with such commercialization and development expenses of the Product in the Cipla Territory to be borne at Ciplaâ€™s sole cost and expense after January 6, 2024. We will receive 2% royalties on any potential future net sales by Cipla outside the United States. Â  Financial Overview Â  Revenues Â  To date, we have not generated any product sales. The revenues for the three and six months ended June 30, 2024 and 2023 were primarily generated from the Cipla Agreement as related to our PUR1900 program, which is currently in the process of winding down as previously discussed. Â  For more discussion on the Cipla Agreement, please see Note 6, Significant Agreements, to our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q. Â  Research and Development Expenses Â  Research and development expenses consist primarily of costs incurred for the research and development of our preclinical and clinical candidates, and include: Â  Â  â— employee-related expenses, including salaries, benefits and stock-based compensation expense; Â  Â  Â  Â  â— expenses incurred under agreements with contract research organizations (â€œCROsâ€) or contract manufacturing organizations (â€œCMOsâ€), and consultants that conduct our clinical trials and preclinical activities; Â  Â  Â  Â  â— the cost of acquiring, developing and manufacturing clinical trial materials and lab supplies; Â  20 Â  Â  Â  â— facility, depreciation and other expenses, which include direct and allocated expenses for rent, maintenance of our facility, insurance and other supplies; Â  Â  â— costs associated with preclinical activities and clinical regulatory operations; and Â  Â  Â  Â  â— consulting and professional fees associated with research and development activities Â  We expense research and development costs to operations as incurred. We recognize costs for certain development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations or information provided to us by our vendors. Â  Research and development activities are central to our business model. We have utilized a combination of internal and external efforts to advance product development from early-stage work to clinical trial manufacturing and clinical trial support. External efforts have included work with consultants and substantial work at CROs and CMOs. We have historically supported an internal research and development team and facility for our pipeline and other potential development programs, however following the closing of the MannKind Transaction in the third quarter of 2024, in which the majority of our research and development employees were terminated and our facility lease was assigned to MannKind, we expect to utilize external resources for further development. To continue development of existing programs or opportunities identified for iSPERSEâ„¢ in any new indications, we will need to secure additional funding and anticipate additional development costs would be incurred. Because of the numerous risks and uncertainties associated with product development, however, we cannot determine with certainty the duration and completion costs of these or other current or future preclinical studies and clinical trials. The duration, costs and timing of our future clinical trials and development of our product candidates will depend on a variety of factors, including the selected development path and uncertainties associated with clinical and preclinical studies, clinical trial enrollment rates and changing government regulation. In addition, the probability of success for each product candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability. Â  General and Administrative Expenses Â  General and administrative expenses consist principally of salaries, benefits and related costs such as stock-based compensation for personnel and consultants in executive, finance, business development, corporate communications and human resource functions, facility costs not otherwise included in research and development expenses, patent filing fees and legal fees. Other general and administrative expenses include travel expenses, expenses related to being a publicly traded company and professional fees for consulting, auditing and tax services. Â  Following the closing of the MannKind Transaction in the third quarter of 2024, we anticipate that our general and administrative expenses will decrease in the future as they relate to audit, legal, regulatory, and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer liability insurance, investor relations costs and other costs associated with being a public company. Additionally, if and when we believe a regulatory approval of a product candidate appears likely, we anticipate an increase in staffing and related expenses as a result of our preparation for commercial operations, especially as it relates to the sales and marketing of our product candidates. Â  Critical Accounting Estimates Â  This managementâ€™s discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our condensed consolidated financial statements. We base our estimates on historical experience, known trends and events, and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. Actual results may differ from these estimates under different assumptions or conditions. Â  There were no changes to our critical accounting estimates during the six months ended June 30, 2024 as compared to those described in Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report. It is important that the discussion of our operating results that follow be read in conjunction with the critical accounting estimates disclosed in our Annual Report. Â  21 Â  Â  Results of Operations Â  Comparison of the Three Months Ended June 30, 2024 and 2023 Â  The following table sets forth our results of operations for each of the periods set forth below (in thousands): Â  Â Â  Three Months Ended June 30,Â Â  Â Â  Â Â  2024Â Â  2023Â Â  ChangeÂ  RevenuesÂ  $1,552Â Â  Â 1,844Â Â  $(292) Â Â  Â Â Â Â  Â Â Â Â  Â Â Â  Operating expenses:Â  Â Â Â Â  Â Â Â Â  Â Â Â  Research and developmentÂ  Â 2,834Â Â  Â 4,165Â Â  Â (1,331) General and administrativeÂ  Â 2,001Â Â  Â 1,670Â Â  Â 331Â  Loss on disposal group held for saleÂ  Â 2,618Â Â  Â -Â Â  Â 2,618Â  Total operating expensesÂ  Â 7,453Â Â  Â 5,835Â Â  Â 1,618Â  Loss from operationsÂ  Â (5,901)Â  Â (3,991)Â  Â (1,910) Other income (expense):Â  Â Â Â Â  Â Â Â Â  Â Â Â  Interest incomeÂ  Â 133Â Â  Â 236Â Â  Â (103) Other expense, netÂ  Â (43)Â  Â (61)Â  Â 18Â  Net lossÂ  $(5,811)Â  Â (3,816)Â  $(1,995) Â  Revenues â€" Revenues were $1.6 million for the three months ended June 30, 2024, as compared to $1.8 million for the three months ended June 30, 2023, a decrease of $0.3 million. The decrease is primarily related to the continued winding down of the PUR1900 Phase 2b clinical trial, for which the Company incurred fewer expenses eligible for reimbursement under the Cipla Agreement as compared to the corresponding period in the previous year. Â  Research and development expenses â€" Research and development expenses were $2.8 million for the three months ended June 30, 2024, as compared to $4.2 million for the three months ended June 30, 2023, a decrease of approximately $1.3 million. The decrease was primarily due to winding down the PUR1900 Phase 2b clinical trial. Â  General and administrative expenses â€" General and administrative expenses were $2.0 million for the three months ended June 30, 2024, as compared to $1.7 million for the three months ended June 30, 2023, an increase of approximately $0.3 million. The increase was primarily due to an increase in incurred legal costs. Â  Loss on disposal group held for sale â€" Loss on disposal group held for sale was $2.6 million on certain assets held for sale as of June 30, 2024, in connection with the MannKind Transaction, as compared to no loss on disposal group held for sale for the three months ended June 30, 2023. Â  Comparison of the Six Months Ended June 30, 2024 and 2023 Â  The following table sets forth our results of operations for each of the periods set forth below (in thousands): Â  Â Â  Six Months Ended June 30,Â Â  Â Â  Â Â  2024Â Â  2023Â Â  ChangeÂ  RevenuesÂ  $7,437Â Â  Â 3,343Â Â  $4,094Â  Â Â  Â Â Â Â  Â Â Â Â  Â Â Â  Operating expenses:Â  Â Â Â Â  Â Â Â Â  Â Â Â  Research and developmentÂ  Â 6,346Â Â  Â 8,039Â Â  Â (1,693) General and administrativeÂ  Â 3,627Â Â  Â 3,880Â Â  Â (253) Loss on disposal group held for saleÂ  Â 2,618Â Â  Â -Â Â  Â 2,618Â  Total operating expensesÂ  Â 12,591Â Â  Â 11,919Â Â  Â 672Â  Loss from operationsÂ  Â (5,154)Â  Â (8,576)Â  Â 3,422Â  Other income (expense):Â  Â Â Â Â  Â Â Â Â  Â Â Â  Interest incomeÂ  Â 293Â Â  Â 458Â Â  Â (165) Other expense, netÂ  Â (125)Â  Â (146)Â  Â 21Â  Net lossÂ  $(4,986)Â  Â (8,264)Â  $3,278Â  Â  22 Â  Â  Revenues â€" Revenues were $7.4 million for the six months ended June 30, 2024, as compared to $3.3 million for the six months ended June 30, 2023, an increase of $4.1 million. The increase is primarily related to a contract modification of the Cipla Agreement which resulted in a cumulative catch-up adjustment recorded during the three months ended March 31, 2024. The amount of the cumulative catch-up had been included in deferred revenue at the beginning of the period. Â  Research and development expenses â€" Research and development expenses were $6.3 million for the six months ended June 30, 2024, as compared to $8.0 million for the six months ended June 30, 2023, a decrease of approximately $1.7 million. The decrease was primarily due to winding down the PUR1900 Phase 2b clinical trial. Â  General and administrative expenses â€" General and administrative expenses were $3.6 million for the six months ended June 30, 2024, as compared to $3.9 million for the six months ended June 30, 2023, a decrease of approximately $0.3 million. The decrease was primarily due to decreased employment and facilities costs, partially offset by an increase in incurred legal costs. Â  Loss on disposal group held for sale â€" Loss on disposal group held for sale was $2.6 million on certain assets held for sale as of June 30, 2024, in connection with the MannKind Transaction, as compared with no loss on disposal group held for sale for the six months ended June 30, 2023. Â  Liquidity and Capital Resources Â  Through June 30, 2024, we incurred an accumulated deficit of $292.6 million, primarily as a result of expenses incurred through a combination of research and development activities related to our various product candidates and general and administrative expenses supporting those activities. We have financed our operations since inception primarily through the sale of preferred and common stock, the issuance of convertible promissory notes, term loans, and collaboration and license agreements. Our total cash and cash equivalents balance as of June 30, 2024 was $12.4 million, and additionally $1.4 million in short-term restricted cash became available for operations in August 2024. Â  We anticipate that we will continue to incur losses over the next several years due to development costs associated with our iSPERSEâ„¢ pipeline programs, contingent on obtaining financing or partnership to continue such development. We may raise capital through a combination of equity offerings, debt financings, other third-party funding and other collaborations and strategic alliances. We are currently exploring financing or partnership arrangements to develop and initiate a potential Phase 2 clinical study for PUR3100. Â  We expect that our existing cash and cash equivalents as of June 30, 2024 will enable us to fund our corporate operating expenses for at least the next 12 months following the date of this Quarterly Report on Form 10-Q. We have based our projections of operating capital requirements on assumptions that may prove to be incorrect, and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with research, development, achievement of contingent milestones and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Â  We have no material off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors. Â  The following table sets forth the major sources and uses of cash for each of the periods set forth below (in thousands): Â  Â Â  Six Months Ended June 30,Â  Â Â  2024Â Â  2023Â  Net cash used in operating activitiesÂ  $(6,396)Â  $(9,832) Net cash used in investing activitiesÂ  Â (398)Â  Â (58) Net cash provided by financing activitiesÂ  Â -Â Â  Â 53Â  Net decrease in cash, cash equivalents, and restricted cashÂ  $(6,794)Â  $(9,837) Â  Net cash used in operating activities Â  Net cash used in operating activities for the six months ended June 30, 2024 was $6.4 million, which was primarily the result of $5.0 million of net loss and $4.8 million in cash outflows associated with changes in operating assets and liabilities, partially offset by $3.4 million of net non-cash adjustments. Â  23 Â  Â  Net cash used in operating activities for the six months ended June 30, 2023 was $9.8 million, which was primarily the result of a net loss of $8.3 million and $3.0 million in cash outflows associated with changes in operating assets and liabilities, partially offset by $1.4 million of net non-cash adjustments. Â  Net cash used in investing activities Â  Net cash used in investing activities for the six months ended June 30, 2024 and 2023 was $0.4 million and $0.1 million, respectively, which was due to purchases of property and equipment. Â  Net cash provided by financing activities Â  No cash was provided by financing activities for the six months ended June 30, 2024. Net cash provided by financing activities for the six months ended June 30, 2023 resulted from proceeds from the issuance of common stock, net of issuance costs. Â  Financings Â  In May 2021, we entered into the Sales Agreement with HCW to act as our sales agent with respect to the issuance and sale of up to $20,000,000 of our shares of common stock, from time to time in an ATM Offering. Upon filing of the Annual Report, we continued to be subject to General Instruction I.B.6 of Form S-3, pursuant to which in no event will we sell our common stock in a registered primary offering using Form S-3 with a value exceeding more than one-third of our public float in any 12 calendar month period so long as our public float remains below $75,000,000. Therefore, the amount we may be able to raise using the ATM Offering will be significantly less than $20,000,000, until such time as our public float held by non-affiliates exceeds $75,000,000. Â  Sales of common stock under the Sales Agreement are made pursuant to an effective shelf registration statement on Form S-3, which was filed with the SEC on May 17, 2024, and subsequently declared effective on May 30, 2024 (File No. 333-279491), and a related prospectus. HCW acts as our sales agent on a commercially reasonable efforts basis, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of Nasdaq. If expressly authorized by us, HCW may also sell our common stock in privately negotiated transactions. There is no specific date on which the ATM Offering will end, there are no minimum sale requirements and there are no arrangements to place any of the proceeds of the ATM Offering in an escrow, trust or similar account. HCW is entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of our common stock pursuant to the Sales Agreement. Â  During the six months ended June 30, 2024, no shares of our common stock were sold under the Sales Agreement. Â  Known Trends, Events and Uncertainties Â  In May 2023, the World Health Organization determined that COVID-19 no longer fit the definition of a public health emergency and the U.S. government announced its plan to let the declaration of a public health emergency associated with COVID-19 expire on May 11, 2023. In addition, the ongoing conflict between Russia and Ukraine and the ongoing conflict between Israel and Hamas, including related sanctions and countermeasures, are difficult to predict, and could adversely impact geopolitical and macroeconomic conditions, the global economy, and contribute to increased market volatility, which may in turn adversely affect our business and operations. We may not be able to raise sufficient additional capital and may tailor our drug candidate development program based on the amount of funding we are able to raise in the future. Nevertheless, there is no assurance that these initiatives will be successful. Â  Other than as discussed above and elsewhere in this report, we are not aware of any trends, events or uncertainties that are likely to have a material effect on our financial condition. Â  Item 3. Quantitative and Qualitative Disclosures About Market Risk. Â  Not applicable. Â  24 Â  Â  Item 4. Controls and Procedures. Â  Disclosure Controls and Procedures Â  Our Principal Executive Officer and Principal Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the â€œExchange Actâ€)) as of the end of the period covered by this Quarterly Report on Form 10-Q, have concluded that, based on such evaluation, our disclosure controls and procedures were effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SECâ€™s rules and forms, and is accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer as appropriate to allow timely decisions regarding required disclosure. Â  In designing and evaluating our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Â  Changes in Internal Controls over Financial Reporting Â  There were no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Â  PART IIâ€"OTHER INFORMATION Â  Item 1. Legal Proceedings. Â  From time to time, we may be involved in litigation that arises through the normal course of business. As of the date of this filing, we are not aware of any material legal proceedings to which we or any of our subsidiaries is a party or to which any of our property is subject, nor are we aware of any such threatened or pending litigation or any such proceedings known to be contemplated by governmental authorities. Â  We are not aware of any material proceedings in which any of our directors, officers, or affiliates or any registered or beneficial stockholder of more than 5% of our common stock, or any associate of any of the foregoing, is a party adverse to or has a material interest adverse to, us or any of our subsidiaries. Â  Item 1A. Risk Factors. Â  Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described in Part I, Item 1A under the heading â€œRisk Factorsâ€ in our Annual Report on Form 10-K for the year ended December 31, 2023, in addition to the other information included in this Quarterly Report on Form 10-Q before making an investment decision regarding our common stock. If any of these risks actually occur, our business, financial condition, or operating results would likely suffer, possibly materially, the trading price of our common stock could decline, and you could lose part or all of your investment. Â  Item 2. Unregistered Sales of Equity Securities and Use of Proceeds. Â  Â  (a) Unregistered Sales of Equity Securities Â  None. Â  Â  (b) Issuer Purchases of Equity Securities. Â  None. Â  Item 3. Defaults Upon Senior Securities. Â  None. Â  25 Â  Â  Item 4. Mine Safety Disclosures. Â  Not applicable. Â  Item 5. Other Information. Â  None. Â  Item 6. Exhibits. Â  See â€œIndex to Exhibitsâ€ following the signature page to this Form 10-Q for a list of exhibits filed or furnished with this Quarterly Report on Form 10-Q. Â  26 Â  Â  SIGNATURES Â  Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized. Â  Â  PULMATRIX, INC. Â  Â  Â  Date: August 13, 2024 By: /s/ Peter Ludlum Â  Â  Peter Ludlum Â  Â  Interim Chief Executive Officer and Interim Chief Financial Officer Â  Â  (Principal Executive, Financial and Accounting Officer) Â  27 Â  Â  INDEX TO EXHIBITS Â  Exhibit Number Â  Exhibit Description Â  Â  Â  10.1# Â  General Release and Severance Agreement, dated as of July 19, 2024, by and between Pulmatrix, Inc. and Teofilo Raad (incorporated by reference to Exhibit 10.1 of Pulmatrix, Inc.â€™s Current Report on Form 8-K, filed with the SEC on June 19, 2024). Â  Â  Â  10.2# Â  Amendment No. 3 to Consulting Agreement, dated as of July 15, 2024, by and between Pulmatrix, Inc. and Danforth Advisors, LLC (incorporated by reference to Exhibit 10.2 of Pulmatrix, Inc.â€™s Current Report on Form 8-K, filed with the SEC on June 19, 2024). Â  Â  Â  10.3# Â  Letter Agreement, dated as of July 15, 2024, by and between Pulmatrix, Inc. and Peter Ludlum (incorporated by reference to Exhibit 10.3 of Pulmatrix, Inc.â€™s Current Report on Form 8-K, filed with the SEC on June 19, 2024). Â  Â  Â  10.4* Â  Bill of Sale and Assignment Agreement, dated as of May 28, 2024, by and between Pulmatrix, Inc. and MannKind Corporation. Â  Â  Â  10.5* Â  Intellectual Property Cross License Agreement, dated as of May 28, 2024, by and between Pulmatrix, Inc. and MannKind Corporation. Â  Â  Â  10.6* Â  Master Services Agreement, dated as of May 28, 2024, by and between Pulmatrix, Inc. and MannKind Corporation. Â  Â  Â  31.1* Â  Certification of the Principal Executive Officer and Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 Â  Â  Â  32.1** Â  Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 Â  Â  Â  101. INS* Â  Inline XBRL Instance Document Â  Â  Â  101.SCH* Â  Inline XBRL Taxonomy Extension Schema Document Â  Â  Â  101.CAL* Â  Inline XBRL Taxonomy Extension Calculation Linkbase Document Â  Â  Â  101.DEF* Â  Inline XBRL Taxonomy Extension Definition Linkbase Document Â  Â  Â  101.LAB* Â  Inline XBRL Taxonomy Extension Labels Linkbase Document Â  Â  Â  101.PRE* Â  Inline XBRL Taxonomy Extension Presentation Linkbase Document Â  Â  Â  104* Â  Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101) Â  Â  Â  * Â  Filed herewith. ** Â  Furnished herewith. # Â  These exhibits are management contracts or compensatory plans or arrangements. Â  28 Â  Â  EX-10.4 2 ex10-4.htm Â  Exhibit 10.4 Â  BILL OF SALE AND ASSIGNMENT AGREEMENT Â  THIS BILL OF SALE AND ASSIGNMENT AGREEMENT (this â€œAgreementâ€), dated May 28, 2024 is entered into by and among Pulmatrix, Inc., a Delaware corporation (the â€œSellerâ€), and MannKind Corporation, a Delaware corporation (â€œPurchaserâ€). Seller and Purchaser are sometimes referred to collectively herein as the â€œPartiesâ€ and each individually a â€œParty.â€ Â RECITALS: Â WHEREAS, Seller has agreed to sell and Purchaser has agreed to purchase from Seller, Sellerâ€™s Premises (as defined below) and the Lab Assets (as defined below); Â WHEREAS, Seller has agreed to assign, and Purchaser has agreed to assume from Seller, the Lab Contracts (as defined below) on the terms and conditions of this Agreement; Â WHEREAS, in connection with the sale of the Lab Assets and the Assignment of the Lab Contracts, Seller and Purchaser have agreed to execute and deliver this Agreement; and Â WHEREAS, simultaneously with the entry of this Agreement, the Parties have entered into that certain Intellectual Property Cross-License Agreement; (ii) Amendment to Lease and Consent to Assignment of Lease relating to that certain Lease Agreement dated as of January 7, 2022 (the â€œLeaseâ€) pursuant to which Seller leases certain premises consisting of approximately 19,603 rentable square feet (the â€œPremisesâ€) on the first floor of the building located at 36 Crosby Drive, Bedford, Massachusetts ; (iii) Assignment and Assumption of Lease; and (iv) the Master Service Agreement, each of which will become effective as of the closing of this transaction on July 8, 2024 (the â€œEffective Dateâ€). Â NOW, THEREFORE, for good and valuable consideration, the receipt, adequacy and legal sufficiency of which are expressly confessed and acknowledged, and intending to be legally bound hereby, the Parties agree as follows: Â AGREEMENTS: Â 1. Sale of Lab Assets and Assignment of Lab Contracts. Effective upon the Effective Date, for and in consideration of the Parties simultaneously entering into that certain: (i) Intellectual Property Cross-License Agreement; (ii) Amendment to Lease and Consent to Assignment of Lease; (iii) Assignment and Assumption of Lease; and (iv) the Master Service Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Seller hereby: (A) grants, bargains, sells, transfers, and conveys to Purchaser, and Purchaser hereby purchases, acquires and accepts from Seller, on an â€œAS IS, WHERE ISâ€ basis and without any representation or warranty on the part of Seller of any kind, including without limitation, as to fitness, merchantability or otherwise, all right, title and interest of Seller as of the Effective Date in and to the assets as set forth on Exhibit A, including all manufacturerâ€™s warranties, rights, or claims against third parties relating to such assets (collectively, the â€œLab Assetsâ€), free and clear of all liens or encumbrances of any kind, including security interests and (B) sell, convey, transfer and assign to Purchaser all of the contracts as set forth on Exhibit B (the â€œLab Contractsâ€), free and clear of all liens and encumbrances of any kind, including security interests effective as of the Effective Date. Prior to the Effective Date, Seller shall provide to Purchaser a UCC-3 termination statement and other evidence of the release of all security interests, liens or other encumbrances on the Lease, Lab Assets or Lab Contracts. Â Â Â Â 2. Assumption of Liabilities. Effective as of the Effective Date (a) Purchaser hereby accepts the assignment of the Lab Contracts and assumes and agrees to perform all of Sellerâ€™s obligations under the Lab Contracts arising from and after the Effective Date provided that, to the extent a request for payment covers provision of services or supply of goods during a period starting prior to the Effective Date and ending on or after the Effective Date, (i) in the case of provision of services, such Liabilities shall be allocated between Purchaser and Seller on a pro rata basis based on the number of days when the service was performed before or after the Effective Date or (ii) in the case of supply of goods, such Liabilities shall be allocated to the party receiving the goods; provided further, that such Liabilities shall exclude any (x) Liabilities resulting from any breach of or non-compliance with any such Lab Contract by Seller or any of its Affiliates or (y) Seller tax Liabilities (the â€œAssumed Liabilitiesâ€). If the vendor under the Lab Contract does not pro rate the amounts payable under the Lab Contract between the parties, the party who pays the invoice shall invoice the other party for its pro rata share of such invoice, which will be payable within 30 days. For purposes of this Agreement, â€œLiabilityâ€ or â€œLiabilitiesâ€ means, with respect to any Person, any debt, liability or obligation of any kind (whether known or unknown, direct or indirect, contingent, accrued, due or to become due, secured or unsecured, matured or otherwise), including accounts payable, trade payables, royalties payable, accrued bonuses and commissions, accrued vacation and any other form of leave, termination payment obligations, employee expense obligations. Â 3. Nonassignable Assets. Nothing in this Agreement nor the consummation of the transactions contemplated hereby shall be construed as an attempt or agreement to assign or transfer any Lab Contracts to Purchaser (i) which by its terms or by requirement of law is not assignable or transferable without a consent or is cancellable by a third party in the event of an assignment or transfer and (ii) for which such consent has not been obtained or such requirement of law has not been satisfied as of the Effective Date, unless and until such consent shall have been obtained or such requirement of law satisfied (as applicable) (such Lab Contracts, the â€œNonassignable Contractâ€). Both parties shall as promptly as practicable use their respective reasonable best efforts to obtain any consent that may be required and satisfy any requirement of law necessary to the assignment or transfer of a Nonassignable Contract to Purchaser; provided that neither Purchaser nor Seller shall be obligated to make any payments to any such third parties in order to obtain any such consent. Until a consent to assignment of a Nonassignable Contract is obtained, Seller shall use reasonable best efforts to provide Purchaser the use of or economic benefits of the Nonassignable Contract. Â 4. Excluded Liabilities. The Parties acknowledge and agree that Purchaser will not, and in no event will Purchaser assume, be required to pay, perform, or discharge any Liabilities other than the Assumed Liabilities, and that, as between the Parties, Seller shall remain responsible for all Excluded Liabilities. For purposes of this Agreement, â€œExcluded Liabilitiesâ€ means all Liabilities of Seller and its Affiliates not expressly included in the definition of Assumed Liabilities, including: Â (a) any Liabilities arising from Sellerâ€™s ownership or use of the Lab Assets or Lab or the conduct of its business at or prior to Effective Date; Â (b) any Liabilities arising out of Sellerâ€™s business, including any assets other than the Lab Assets or Lab Contracts or Sellerâ€™s ongoing operations, including those arising after the Effective Date; Â (c) all federal, state, municipal, local, foreign and other taxes of Seller or its Affiliates, or for which the Seller or any of its Affiliates is or are liable (including as a transferee or successor, pursuant to Treasury Regulations Section 1.1502-6, by contract or otherwise), for any taxable period (including any Tax of Seller or any of its Affiliates that becomes a Liability of Purchaser under transferee or successor liability or otherwise by operation of contract or law); Â (d) all Liabilities incurred under any Lab Contract (i) whereby provision of services or supply of goods arose on or prior to Effective Date or (ii) resulting from any breach of or non-compliance with any such Lab Contract by Seller or any of its Affiliates at or prior to Effective Date; Â 2 Â Â (e) all Liabilities arising from Sellerâ€™s lease occupancy of the Premises at or prior to the Effective Date or arising under the Lease on or prior to the Effective Date; Â (f) all accounts payable or other trade payables due or owed by Seller or any of its Affiliates to any third party; Â (g) any Liabilities relating to or in any way arising out of any present and past employees, officers, directors, temporary employees, independent contractors or consultants of Seller or its Affiliates or who have provided services to Seller or its Affiliates and/or the employment or service (and any termination thereof) of any such person, including any Liability relating to: (i) payroll or any accrued wages, salaries or fees; (ii) any employee benefit plan and any contract or insurance policy or other funding medium with respect thereto; (iii) workersâ€™ compensation for injuries and (iv) any obligations or Liability arising from Seller or its Affiliatesâ€™ failure to comply with applicable law; Â (h) any Liabilities related to the provision of notice or payment in lieu of notice and any applicable penalties under the WARN Act and any comparable state or local Law for which the initial provision of notice occurs on or prior to the Effective Date, including any required due to the sale of the Premises; Â (i) all Liabilities relating to, resulting from, or arising out of or in connection with a failure to comply with any applicable bulk sale or bulk transfer laws with respect to the sale and purchase of the Lab Assets and Lab Contracts pursuant to this Agreement; and Â (j) any Liabilities arising from Seller or its Affiliatesâ€™ non-compliance with applicable law. Â 5. Indemnification. Seller shall indemnify and hold harmless Purchaser, Purchaserâ€™s affiliates, and their respective officers, directors, managers, employees, agents, successors, and permitted assigns (collectively, the â€œPurchaser Indemnified Partiesâ€) against and in respect of any Losses suffered or incurred by any Purchaser Indemnified Party resulting from or arising out of any Excluded Liabilities. â€œLossesâ€ means any actual debts, demands, damages, losses, expenses, costs, settlement payments, judgments, fines or penalties, including reasonable attorneysâ€™ fees and taxes. Â 6. Payment of Transfer Taxes and Fees. Effective upon the Effective Date, Purchaser hereby assumes and agrees to be responsible for: (i) the preparation, completion and filing of any and all documents related to the transfer of the Lab Assets from Seller to Purchaser and (ii) performance or discharge, when payment or performance is due or required, of all transfer, documentary, sales, use, stamp, registration and other such taxes and fees incurred in connection with the transfer of the Lab Assets from Seller to Purchaser. Title to all Lab Assets is conveyed by delivery of the Lab Assets at the Premises. Â 7. General Provisions. Â (a) Governing Law. This Agreement shall be governed by and construed and enforced in accordance with the Laws of the State of Delaware without regard to the conflicts of laws provisions thereof. Â (b) Waiver of Trial by Jury. EACH OF THE PARTIES HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY. Â 3 Â Â (c) Further Assurances. From time to time following the Effective Date, Seller and Purchaser shall, and shall cause their respective affiliates to, execute, acknowledge and deliver all such further conveyances, notices, licensure and permit filings, assumptions, releases and acquaintances and such other instruments, and shall take such further actions, as may be reasonably necessary or appropriate to assure fully to Purchaser and its successors or assigns, all of the properties, rights, titles, interests, estates, remedies, powers and privileges intended to be conveyed to Purchaser under this Agreement, and to otherwise make effective the transactions contemplated hereby and thereby. Â (d) Amendments. No amendment of any provision of this Agreement shall be valid unless the same shall be in writing and duly executed by Purchaser and Seller. Â (e) Non-Waiver. No waiver by any Party of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation, or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence. Â (f) Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. Â (g) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the Parties named herein and their respective successors and permitted assigns. Seller may not assign this Agreement or any of their rights, interests or obligations hereunder without the prior written consent of the Purchaser. Â (h) Rights of Third Parties. This Agreement shall not confer any rights or remedies upon any Person other than the Parties and their respective successors and permitted assigns. Â (i) Entire Agreement. This Agreement (together with the Exhibits hereto) between Seller and Purchaser, supersede all prior discussions and agreements between the Parties with respect to the subject matter hereof and thereof, and contain the sole and entire agreement between the Parties with respect to the subject matter hereof and thereof, and there are no agreements, understandings, representations or warranties between the Parties other than those set forth herein or therein. No oral statements or prior written material not specifically incorporated in this Agreement shall be of any force and effect. The Parties represent and acknowledge that in executing this Agreement, the Parties did not rely, and have not relied, on any communications, promises, statements, inducements, or representation(s), oral or written, by any other Party, except as expressly contained in this Agreement. Â (j) Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any facsimile or other electronic copies hereof or signature hereon shall, for all purposes, be deemed originals. Â [Signatures appear on the following page] Â 4 Â Â IN WITNESS WHEREOF, Seller and Purchaser have duly executed and delivered this Agreement to be effective as of the Effective Date. Â SELLER: Â Â Â PULMATRIX, INC. Â Â Â By: /s/ Teofilo Raad Â Name: Teofilo Raad Â Title: Chief Executive Officer Â Â PURCHASER: Â Â Â MANNKIND CORPORATION Â Â Â By: /s/ Michael Castagna Â Name: Michael Castagna Â Title: Chief Executive Officer Â Â Â Â Â EXHIBIT A (LAB ASSETS) Â Exhibit A-1 Â Â Â Exhibit A-2 Â Â EXHIBIT B Â Cobalt JV 2020 LLC Â Lease Agreement between Cobalt Propco 2020, LLC and Pulmatrix, Inc. dated January 7, 2022. Reliable Building Solutions, Inc. Â Janitorial Cleaning Specifications contract between Reliable Building Solutions and Pulmatrix, Inc. dated July 19, 2023. Airgas Inc Â Product Sale Agreement between Airgas USA, LLC and Pulmatrix, Inc. dated March 16, 2023. TA Instruments Â Service Agreement between TA Instruments - Waters L.L.C. and Pulmatrix, Inc. dated April 25, 2023. TA Instruments Â Service Agreement between TA Instruments - Waters L.L.C. and Pulmatrix, Inc. dated December 13, 2022. Brinkmann Instruments / Metrohm Â Service Agreement between Metrohm USA, Inc. and Pulmatrix, Inc. dated April 6, 2023. Bostonbean Coffee Co Inc Â Equipment Rental and Supplies Agreement between BonstonBean Coffee Company and Pulmatrix, Inc. dated April 6, 2023. Bostonbean Coffee Co Inc Â Equipment Rental and Supplies Agreement between BonstonBean Coffee Company and Pulmatrix, Inc. dated April 24, 2023. American Alarm & Communications, Inc. Â Professional Services Agreement between American Alarm and Communications, Inc. and Pulmatrix, Inc. dated July 19, 2023. Vestis (f/k/a Aramark) Â Service Agreement between Aramark Uniform Services and Pulmatrix, Inc. dated June 8, 2020. Macquarie Equipment Capital Inc Â Lease Agreement between Macquarie Equipment Capital Inc. and Pulmatrix, Inc. dated August 1, 2023. Boston Document Systems Â Customer Service Maintenance Agreement between Boston Document Systems, Inc. and Pulmatrix, Inc. dated June 15, 2023. Comcast (Internet) Â Business Internet Service Order Agreement between Comcast Cable Communications Management, LLC and Pulmatrix, Inc. dated June 1, 2023. Comcast Business (Telephone) Â Business VoiceEdge Service Order Agreement between Comcast Cable Communications Management, LLC and Pulmatrix, Inc. dated June 1, 2023. Â Â Â EX-10.5 3 ex10-5.htm Â Exhibit 10.5 Â INTELLECTUAL PROPERTY CROSS-LICENSE AGREEMENT Â This INTELLECTUAL PROPERTY CROSS-LICENSE AGREEMENT (this â€œAgreementâ€), dated as of July 8, 2024 is made between MANNKIND CORPORATION, a Delaware corporation company (â€œMannKindâ€) and PULMATRIX, INC., a Delaware corporation (â€œPulmatrixâ€). MannKind and Pulmatrix are each referred to individually as a â€œPartyâ€ and collectively as the â€œPartiesâ€. Â WHEREAS, MannKind owns or has valid rights in certain intellectual property and technology (the â€œMannKind Technologyâ€) relating to its â€œCricketâ€ single-use disposable dry powder inhaler (including any modifications or improvements thereto made by or on behalf of MannKind, the â€œCricket Deviceâ€); Â WHEREAS, Pulmatrix has developed an inhaled formulation of dihydroergotamine (â€œDHEâ€) for the treatment of acute migraine known as PUR3100 (â€œPUR3100â€); Â WHEREAS, Pulmatrix owns certain intellectual property and technology for its dry powder delivery technology, iSPERSE (inhaled Small Particles Easily Respirable and Emitted), which enables delivery of small or large molecule drugs to the lungs by inhalation for local or systemic applications (including any modifications or improvements thereto made by or on behalf of Pulmatrix, â€œiSPERSEâ€); Â WHEREAS, the parties wish to enter into a technology exchange as set forth herein; Â WHEREAS, MannKind desires to grant Pulmatrix the exclusive right to develop, use, manufacture, market, offer and sell the Cricket Device for the inhaled delivery of DHE in any formulation whatsoever, including PUR31000; Â WHEREAS, MannKind desires to grant Pulmatrix a non-exclusive license to develop, use, manufacture, market, offer and sell the Cricket Device for the inhaled delivery of one more active pharmaceutical ingredients formulated with iSPERSE for the treatment of neurological disease in humans (â€œNeurological Diseaseâ€); Â WHEREAS, Pulmatrix desires to grant to MannKind an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of Clofazimine; Â WHEREAS, Pulmatrix desires to grant to MannKind an exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of nontuberculous mycobacteria lung disease in humans (â€œNTMâ€); Â WHEREAS, Pulmatrix desires to grant to MannKind an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of insulin; Â Â Â Â WHEREAS, Pulmatrix desires to grant to MannKind a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of endocrine disease in humans (â€œEndocrine Diseaseâ€); Â WHEREAS, Pulmatrix desires to grant to MannKind a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of interstitial lung diseases (including IPF, PPF and other related lung diseases) in humans (â€œILDâ€); Â WHEREAS, Pulmatrix has provided to MannKind certain development services related to the development of an iSPERSE formulation of Clofazimine as specified in a master services agreement dated March 1, 2024 (the â€œPulmatrix Services Agreementâ€); and Â WHEREAS, concurrent with the execution of this Agreement, the Parties are executing (i) that certain Lease Assignment and Assumption Agreement pursuant to which Pulmatrix will assign to MannKind a specified lease agreement and certain assets related thereto as specified therein (the â€œLease Assignmentâ€) and (ii) that certain Master Services Agreement pursuant to which MannKind will provide specified development services for Pulmatrix as specified therein (the â€œMannKind Services Agreementâ€). Â NOW THEREFORE, in consideration of the ongoing financial and other support provided by the Parties to each other and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, MannKind and Pulmatrix hereby agree as follows: Â ARTICLE 1 DEFINITIONS Â In addition to terms defined elsewhere in this Agreement, the following terms shall have the following meanings: Â â€œAffiliateâ€ means, with respect to a Party, any Person that controls, is controlled by, or is under common control with such Party, where â€œcontrolâ€ (including, with correlative meaning, the terms â€œcontrolled byâ€ or â€œunder common control withâ€) means the possession, directly or indirectly, through one or more intermediaries, of the power to direct or cause the direction of the management or policies of a Person, whether through ownership of more than fifty percent (50%) of voting securities, controlling interests or similar arrangement. Â Â Â Â â€œChange of Controlâ€ shall mean, with respect to an Entity (including a Party): (a) the sale or disposition of all or substantially all of the assets of such Entity or its direct or indirect controlling Affiliate to another Entity, other than to an Entity of which more than fifty percent (50%) of the voting capital stock are owned after such sale or disposition by shareholders of such Entity or its direct or indirect controlling Affiliate (in either case, whether directly or indirectly through any parent Entity) or (b) (i) the acquisition by another Entity, alone or together with any of its Affiliates, other than an employee benefit plan (or related trust) sponsored or maintained by such Entity or any of its Affiliates, of more than fifty percent (50%) of the outstanding shares of voting capital stock of such Entity or its direct or indirect controlling Affiliate, or (ii) the acquisition, merger or consolidation of such Entity or its direct or indirect controlling Affiliate with or into another Entity, other than, in the case of subclause (i) or (ii), an acquisition or a merger or consolidation of such Entity or its controlling Affiliate in which the holders of shares of voting capital stock of such Entity or its controlling Affiliate, as the case may be, immediately prior to such acquisition, merger or consolidation will beneficially own, directly or indirectly, at least fifty percent (50%) of the shares of voting capital stock of the acquiring Entity or the surviving corporation in such acquisition, merger or consolidation, as the case may be, immediately after such acquisition, merger or consolidation; and, in each case ((a) or (b)), whether through a single transaction or a series of related transactions but excluding any and all bona fide financing transactions. Â â€œControlâ€ means with respect to any material, Know-How, or intellectual property right, that a Party or its Affiliate (a) owns or (b) has a license (other than a license granted to such Party under this Agreement) to such material, Know-How, or intellectual property right and, in each case, has the ability to grant to the other Party access, a license, or a sublicense (as applicable) to the foregoing on the terms and conditions set forth in this Agreement without violating the terms of any then-existing agreement or other legally enforceable arrangement with any Third Party. In the event of a Change of Control of a Party, any Know-How, Patents, or other intellectual property rights that are owned or controlled by a Third Party that becomes an Affiliate of such Party as a result of such Change of Control will not be deemed to be Controlled by such Party or its Affiliates for purposes of this Agreement. Â â€œCoverâ€ means, with respect to a claim of a Patent and a product, that such claim would be infringed, absent a license, by the manufacture, use, offer for sale, sale or importation of such product (considering claims of patent applications to be issued as then pending). Â â€œEffective Dateâ€ means the date that the â€œClosingâ€ (as defined in the Lease Assignment) has occurred under the Lease Assignment and the Lease Assignment has gone into effect. Â â€œEntityâ€ means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity. Â â€œExploitâ€ means to make, have made, import, use, sell or offer for sale, including to research, develop, commercialize, register, manufacture, have manufactured, hold or keep (whether for disposal or otherwise), have used, export, transport, distribute, promote, market, sell, have sold, dispose of, copy, distribute, create derivative works of, publicly perform or publicly display. Â â€œGovernmental Bodyâ€ means any federal, national, state, provincial, or local government, or political subdivision thereof, or any multinational organization, or any authority, agency, regulatory body, or commission entitled to exercise any administrative, executive, judicial, legislative, police, regulatory, or taxing authority or power, or any court or tribunal (or any department, bureau or division of any of the foregoing, or any governmental arbitrator or arbitral body). Â Â Â Â â€œKnow-Howâ€ means any data, results, technology, business or financial information or information of any type whatsoever, in any tangible or intangible form, including know-how, trade secrets, practices, techniques, methods, processes, designs, manuals, guidelines, inventions, developments, specifications, formulations, formulae, software, algorithms, marketing reports, expertise, technology, test data (including pharmacological, biological and chemical, biochemical, clinical test data and data resulting from non-clinical studies), CMC information, stability data and other study data and procedures. Â â€œLicensed Technologyâ€ means the MannKind Technology and/or the Pulmatrix Technology, as the context may require. Â â€œLicenseeâ€ means the Party receiving rights under a license grant pursuant to this Agreement. Depending on the context, Licensee may mean either or both of MannKind and Pulmatrix. Â â€œLicensorâ€ means the Party granting rights under a license grant pursuant to this Agreement. Depending on the context, Licensor may mean either or both of MannKind and Pulmatrix. Â â€œMannKind Know-Howâ€ means Know-How Controlled by MannKind as of the Effective Date or during the Term that is necessary or reasonably useful to Exploit the Cricket Device. Â â€œMannKind Patentsâ€ means all Patents Controlled by MannKind as of the Effective Date or during the Term to the extent that such Patents Cover the Cricket Device. The MannKind Patents existing as of the Effective Date are listed in Schedule 2 attached hereto. Â â€œMannKind Regulatory Approvalsâ€ means all Regulatory Approvals owned by MannKind specifically relating to the Cricket Device. Â â€œMannKind Technologyâ€ means the MannKind Know-How, the MannKind Patents, the MannKind Trademarks and all MannKind Regulatory Approvals. Â â€œMannKind Trademarksâ€ means any Trademarks used by MannKind to designate the Cricket Device. For clarity, MannKind Trademarks does not include any Trademarks used to designate MannKindâ€™s or any of its Affiliatesâ€™ corporate name(s). Â â€œPatent Ownerâ€ means, with respect to each Patent within the Licensed Technology, the Party that Controls such Patent. In the event any Patent is owned by both MannKind and Pulmatrix, then for purposes of this Agreement MannKind shall be deemed the Patent Owner of such Patent. Â â€œProductâ€ means, (a) with respect to a product Exploited by MannKind, any pharmaceutical product or medical device that incorporates any Pulmatrix Technology whether alone or in combination with any other active ingredient and (b) with respect to a product Exploited by Pulmatrix, any pharmaceutical product or medical device that incorporates any MannKind Technology whether alone or in combination with any other active ingredient. Â â€œProsecute and Maintainâ€ means with regard to a Patent, the preparing, filing, prosecuting and maintenance of such Patent, as well as handling re-examinations and reissues with respect to such Patent, together with the conduct of interferences, the defense of oppositions and other similar proceedings with respect to the particular Patent. For clarification, Prosecute and Maintain does not include any other enforcement actions taken with respect to a Patent. Â Â Â Â â€œPulmatrix Know-Howâ€ means Know-How Controlled by Pulmatrix as of the Effective Date or during the Term that is necessary or reasonably useful to Exploit iSPERSE. Â â€œPulmatrix Patentsâ€ means all Patents Controlled by Pulmatrix as of the Effective Date or during the Term that Cover iSPERSE. The Pulmatrix Patents existing as of the Effective Date are listed in Schedule 1 attached hereto. Â â€œPulmatrix Regulatory Approvalsâ€ means all Regulatory Approvals owned by Pulmatrix specifically relating to iSPERSE. Â â€œPulmatrix Technologyâ€ means the Pulmatrix Know-How, the Pulmatrix Patents, the Pulmatrix Trademarks and all Pulmatrix Regulatory Approvals. Â â€œPulmatrix Trademarksâ€ means any Trademark used by Pulmatrix to designate iSPERSE. For clarity, Pulmatrix Trademarks does not include any Trademarks used to designate Pulmatrixâ€™s or any of its Affiliatesâ€™ corporate name(s). Â â€œRegulatory Approvalsâ€ means the technical, medical and scientific licenses, registrations, authorizations and approvals issued by or under the jurisdiction of a Governmental Body, as necessary for the distribution, marketing, promotion, offer for sale, supply, use, import, export or sale of a pharmaceutical product or medical device in a regulatory jurisdiction. Â â€œThird Partyâ€ means any entity other than Pulmatrix or MannKind or an Affiliate of either of them. Â â€œTrademarkâ€ means any word, name, symbol, color, shape, designation or device or any combination thereof, including any trademark, service mark, trade name, trade dress, brand name, product configuration, domain name, logo, design or business symbol, that functions as an identifier of source, origin or membership, whether or not registered, and all statutory and common law rights therein, and all registrations and applications therefor, together with all goodwill associated with, or symbolized by, any of the foregoing. Â â€œValid Claimâ€ means (a) a claim of an issued, unexpired Patent that has not been revoked, disclaimed, abandoned or held invalid or unenforceable by a court or other body of competent jurisdiction in an unappealed or unappealable decision and (b) a claim of any patent application which has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application. Â ARTICLE 2 LICENSE GRANTS Â Section 2.1: MannKind Exclusive License Grant to Pulmatrix. Â Subject to the terms and conditions of this Agreement, MannKind hereby grants to Pulmatrix, and Pulmatrix hereby accepts, a worldwide, fully paid up, royalty-free, exclusive, sub-licensable (through multiple tiers) license to the MannKind Technology in order for Pulmatrix to Exploit the Cricket Device for the inhaled delivery of DHE in any formulation whatsoever, including PUR31000, for the treatment or prevention of any disease or condition in humans. Â Â Â Â Section 2.2: MannKind Non-Exclusive License Grant to Pulmatrix. Â Subject to the terms and conditions of this Agreement, MannKind hereby grants to Pulmatrix, and Pulmatrix hereby accepts, a worldwide, fully paid up, royalty-free, non-exclusive, sub-licensable (through multiple tiers) license to the MannKind Technology in order for Pulmatrix to Exploit the Cricket Device for the inhaled delivery of any dry powder formulation of one more active pharmaceutical ingredients formulated for the treatment or prevention of Neurological Disease. Â Section 2.3: Pulmatrix Exclusive License Grants to MannKind. Â (a) Subject to the terms and conditions of this Agreement, Pulmatrix hereby grants to MannKind, and MannKind hereby accepts, a worldwide, fully paid up, royalty-free, exclusive, sub-licensable (through multiple tiers) license to the Pulmatrix Technology in order for MannKind to Exploit formulations of iSPERSE formulation with Clofazimine for inhalation by humans for the treatment or prevention of infection. Â (b) Subject to the terms and conditions of this Agreement, Pulmatrix hereby grants to MannKind, and MannKind hereby accepts, a worldwide, fully paid up, royalty-free, exclusive, sub-licensable (through multiple tiers) license to the Pulmatrix Technology in order for MannKind to Exploit formulations of iSPERSE with one more active pharmaceutical ingredients for inhalation for the treatment or prevention of NTM. Â (c) Subject to the terms and conditions of this Agreement, Pulmatrix hereby grants to MannKind, and MannKind hereby accepts, a worldwide, fully paid up, royalty-free, exclusive, sub-licensable (through multiple tiers) license to the Pulmatrix Technology in order for MannKind to Exploit formulations of iSPERSE with insulin for inhalation by humans for the treatment or prevention of diabetes. Â Section 2.4: Pulmatrix Non-Exclusive License Grants to MannKind. Â (a) Subject to the terms and conditions of this Agreement, Pulmatrix hereby grants to MannKind, and MannKind hereby accepts, a worldwide, fully paid up, royalty-free, non-exclusive, sub-licensable (through multiple tiers) license to the Pulmatrix Technology in order for MannKind to Exploit formulations of iSPERSE with one or more active pharmaceutical ingredients for inhalation for the treatment or prevention of Endocrine Disease. Â (b) Subject to the terms and conditions of this Agreement, Pulmatrix hereby grants to MannKind, and MannKind hereby accepts, a worldwide, fully paid up, royalty-free, non-exclusive, sub-licensable (through multiple tiers) license to the Pulmatrix Technology in order for MannKind to Exploit formulations of iSPERSE with one or more active pharmaceutical ingredients for inhalation for the treatment or prevention of ILD. Â Â Â Â Section 2.5: No Implied Licenses; Negative Covenant. Â Except as otherwise specifically set forth herein, only the licenses granted pursuant to the express terms of this Agreement shall be of any legal force and effect. No license or other intellectual property rights shall be created by implication in any Patents, technology and/or proprietary information owned by a Party, even if such Patents, technology, or proprietary information is necessary to exploit the Licensed Technology. Neither Party shall, and neither Party shall permit any of its Affiliates or sublicensees to, practice any Licensed Technology licensed to it by the other Party outside the scope of the licenses granted to it under this Agreement. Â Section 2.6: Scope Â (a) For the avoidance of doubt, the foregoing licenses set forth in this Article 2 are royalty free and not limited by territory. Â (b) The licenses set forth in this Article 2 to Pulmatrix do not include the right for Pulmatrix to manufacture or have manufactured the Cricket Device. Â (c) The licenses set forth in this Article 2 to Pulmatrix do not include rights to any Know-How, Patents or other rights covering any active ingredient, formulation technology or other proprietary product other than the Cricket Device itself. Â (d) The licenses set forth in this Article 2 shall not include rights to any Know-How, Patents or other intellectual property rights in-licensed or acquired by Licensor from a Third Party after the Effective Date unless the applicable Licensee agrees in writing (i) to be bound by the terms and conditions of any applicable Third Party agreement granting Licensor Control of such Know-How, Patents or other intellectual property rights and (ii) to pay all payments owed to such Third Party that are attributable to Licenseeâ€™s use of such Know-How, Patents or other intellectual property rights under this Agreement. Â Section 2.7 Sublicenses. Â Subject to the terms and conditions of this Agreement, each Party may grant sublicenses through multiple tiers, under any or all of the rights granted in Section 2.1, Section 2.2, Section 2.3 and Section 2.4, as applicable, to its Affiliates and to Third Parties (each such Affiliate or Third Party, a â€œSublicenseeâ€ and each such agreement, a â€œSublicenseâ€). Each Sublicense shall be consistent with the terms and conditions of this Agreement applicable to the scope of the sublicense granted to such Sublicensee. Each Party shall promptly notify the other Party in writing of any Sublicense granted to a Third Party (other than non-exclusive Sublicenses granted to Third Party service providers or vendors providing services on such Partyâ€™s behalf) and shall provide the other Party with a copy of such Sublicense; provided, that such Party may redact any confidential or financial information contained therein that is unnecessary for the other Party to confirm compliance with this Agreement. Â Section 2.8 Trademarks. Â (a) MannKind Trademarks. The licenses set forth in this Article 2 to Pulmatrix include the right for Pulmatrix to use the MannKind Trademarks solely in connection with the Exploitation of Products within the scope of the licenses granted to Pulmatrix under this Article 2. Pulmatrix shall, and shall ensure that its Affiliates and Sublicensees will not, adapt or make any use of any Trademark that is confusingly similar to any MannKind Trademark or any Trademark that MannKind or its Affiliates use to designate its corporate name. All use of the MannKind Trademarks shall be consistent with the MannKind Trademark style and usage provisions as identified by MannKind to Pulmatrix in writing. All goodwill generated from the use of the MannKind Trademarks shall inure to the benefit of and is hereby assigned to MannKind. MannKind shall have the sole right to prosecute, enforce and defend the MannKind Trademarks. Â Â Â Â (b) Pulmatrix Trademarks. The licenses set forth in this Article 2 to MannKind include the right for MannKind to use the Pulmatrix Trademarks solely in connection with the Exploitation of Products within the scope of the licenses granted to MannKind under this Article 2. MannKind shall, and shall ensure that its Affiliates and Sublicensees will not, adapt or make any use of any Trademark that is confusingly similar to any Pulmatrix Trademark or any Trademark that Pulmatrix or its Affiliates use to designate its corporate name. All use of the Pulmatrix Trademarks shall be consistent with the Pulmatrix Trademark style and usage provisions as identified by Pulmatrix to MannKind in writing. All goodwill generated from the use of the Pulmatrix Trademarks shall inure to the benefit of and is hereby assigned to Pulmatrix. Pulmatrix shall have the sole right to prosecute, enforce and defend the Pulmatrix Trademarks. Â Section 2.9 Technology Transfer. Â (a) Transfer to MannKind. Within thirty (30) days after the Effective Date, Pulmatrix shall provide MannKind with the Pulmatrix Know-How and all regulatory materials (including Regulatory Approvals) specifically relating to iSPERSE. On an ongoing basis thereafter, at the reasonable request of MannKind, Pulmatrix shall provide MannKind with copies of any Pulmatrix Know-How generated since the last such transfer under this Section 2.8. Â (b) Transfer to Pulmatrix. Within thirty (30) days after the Effective Date, MannKind shall provide Pulmatrix with the MannKind Know-How and all regulatory materials (including Regulatory Approvals) specifically relating to the Cricket Device. On an ongoing basis thereafter, at the reasonable request of Pulmatrix, MannKind shall provide Pulmatrix with copies of any MannKind Know-How generated since the last such transfer under this Section 2.8. Â ARTICLE 3 PATENT PROSECUTION AND MAINTENANCE; PATENT ENFORCEMENT Â Section 3.1: Patent Prosecution and Maintenance. Â Each Party, as Patent Owner, shall have the first right to Prosecute and Maintain any and all Patents Controlled by such Party that are included in such Partyâ€™s Licensed Technology, at its own cost. If a Patent Owner decides not to: (i) prosecute certain patent applications within the Licensed Technology to issuance or (ii) maintain any United States or foreign issued Patent within the Licensed Technology, the Patent Owner shall timely notify the Licensee of such Patent in writing thereof and solely to the extent the Patent Owner owns such Patent, upon written request by the Licensee, the Parties shall cooperate to transfer the ownership of such Patent to the Licensee, provided, that the Patent Owner shall retain a worldwide, irrevocable, perpetual, fully paid up, royalty-free, exclusive, transferable, sublicensable (through multiple tiers) license to and under the transferred Patent in any field of use. The preceding sentence shall not apply to any patent applications within the Licensed Technology that will be abandoned for the pursuit of a utility application in the case of a provisional application, a divisional or continuation application in the case of any utility application, any national stage applications in the case of a Patent Cooperation Treaty (PCT) application, or countries not validated in the case of a European or other regional patent application. Before any Party makes a filing or extension on any Patent included in such Partyâ€™s Licensed Technology, the Patent Owner shall consider in good faith any reasonable comments thereto provided by the other Party in connection with the prosecution of such Patents. Pulmatrix shall promptly provide MannKind with copies of all material communications from any patent authority regarding the Pulmatrix Patents, and shall provide MannKind, for its review and comment, with drafts of any material filings or responses to be made to such patent authorities in a reasonable amount of time in advance of submitting such filings or responses. Â Â Â Â Section 3.2: Infringement Procedures. Â During the term of this Agreement, each Party shall promptly inform the other of any suspected infringement, misuse, misappropriation, theft or breach of confidence of other proprietary rights in the Licensed Technology by a Third Party in the other Partyâ€™s exclusive field of use as provided in Article 2 (collectively â€œThird Party Activitiesâ€), and with respect to such activities as are suspected. MannKind shall have the sole right, but not the obligation, to institute an action or proceeding against Third Party Activities related to the MannKind Patents and to defend any declaratory judgment action relating to the MannKind Patents. For Third Party Activities involving the Pulmatrix Patents in MannKindâ€™s exclusive field of use as provided in Article 2, MannKind shall have the sole right, but not the obligation, to institute an action or proceeding against Third Party Activities and defend any declaratory judgment action relating thereto and Pulmatrix shall have the right, but not the obligation, to join any such suit, legal action or proceeding that is initiated by MannKind with respect to the Pulmatrix Patents, at MannKindâ€™s cost. Pulmatrix shall, where necessary, furnish a power of attorney solely for such purpose, or be named as a necessary party, to such action, at MannKindâ€™s cost. Pulmatrix will reasonably cooperate with MannKind in such action. In addition, notwithstanding anything to the contrary contained herein, if Pulmatrix cooperates in such action, such cooperation shall be at MannKindâ€™s sole expense. All recoveries, whether by judgment, award, decree or settlement, from infringement or misuse of Licensed Technology under this Section 3.2 shall be apportioned as follows: (a) MannKind shall recover an amount equal the costs and expenses incurred by MannKind directly related to the prosecution of such action or proceeding and Pulmatrix shall recover any unreimbursed costs and expenses incurred by Pulmatrix, if any, directly related to its cooperation in the prosecution of such action or proceeding (which amounts shall be allocated pro rata if insufficient to cover the totality of such costs and expenses) and (b) the remainder shall be allocated to the Party bringing the action. Â  Section 3.3: Consent to Settle. Â  A settlement, consent judgment or other voluntary final disposition of an action covered by an action covered by Section 3.2 may be entered into by the party instituting such action without the consent of the non-enforcing Party; provided, however, that any such settlement, consent judgment or other disposition shall not, without the prior written consent of the non-enforcing Party, (a) impose any liability or obligation on the non-enforcing Party or any of its Affiliates, or (b) admit the invalidity or unenforceability of, or otherwise impair or materially adversely affect the scope of, any Patent owned or controlled by the non-enforcing Party, such consent to not be unreasonably withheld, conditioned or delayed. Â  Â  Â  Â  Section 3.4: Defense of Infringement Claims. Â  If any Third Party asserts a claim, demand, action, suit or proceeding against a Licensee (or any of its sublicensees), alleging that the use or practice of the Licensed Technology, infringes, misappropriates or violates the intellectual property rights of any Person (any such claim, demand, action, suit or proceeding being referred to as an â€œInfringement Claimâ€), the Licensee shall promptly notify the Patent Owner in writing specifying the facts, to the extent known, in reasonable detail. In the case of any such Infringement Claim, the Licensee shall assume control of the defense and shall have the exclusive right to settle any Infringement Claim against the Licensee without the consent of the Patent Owner; provided, however, if such settlement requires any payment from the Patent Owner, imposes any obligation or liability on the Patent Owner or decreases the Patent Ownerâ€™s rights or interests under this Agreement, the Licensee shall be required to obtain the Patent Ownerâ€™s consent, which consent will not be unreasonably withheld. Â  ARTICLE 4 TERM; TERMINATION Â  Section 4.1: Term. This Agreement shall commence upon the Effective Date and, unless earlier terminated pursuant to this Article 4, shall expire, on a country-by-country basis, on the date of expiration of the last Valid Claim of the Patents in the Licensed Technology. Upon the expiration of the Term for a particular country, the licenses granted under Section 2.1 with respect to such country shall become perpetual and irrevocable. If the Effective Date has not occurred by July 31, 2024, then this Agreement shall be void ab initio as if it was never executed by the parties. Â  Section 4.2: Termination for Breach. If either Party believes that the other is in breach of its material obligations hereunder, then the non-breaching Party may deliver notice of such breach to the other Party. For all breaches other than a failure to make a payment as set forth in this Agreement, the allegedly breaching Party shall have sixty (60) days from such notice to dispute or cure such breach. If the Party receiving notice of breach fails to cure, or fails to dispute, that breach within the applicable period set forth above, then the Party originally delivering the notice of breach may terminate this Agreement effective on written notice of termination to the other Party. Â  Section 4.3: Termination for Bankruptcy. Either Party may terminate this Agreement in its entirety upon written notice to the other Party in the event that (a) a case is commenced by or against such other Party under applicable bankruptcy, insolvency or similar laws, which case, if commenced against (not by) such other Party, is not dismissed within ninety (90) days of the commencement thereof, (b) such other Party files for bankruptcy, reorganization, liquidation, receivership or similar proceedings, (c) such other Party assigns all or a substantial portion of its assets for the benefit of creditors, (d) a receiver or custodian is appointed for such other Partyâ€™s business, (e) a substantial portion of such other Partyâ€™s business is subject to attachment or similar process or (f) anything analogous to any of the events described in the foregoing clauses (a) through (f) occurs under the laws of any applicable jurisdiction. Â  Â  Â  Â  Section 4.4: Effects of Termination. Â  (a) Termination by MannKind. Upon termination of this Agreement by MannKind pursuant to Section 4.2 or Section 4.3: (i) all rights and licenses granted by MannKind to Pulmatrix under this Agreement shall terminate and revert to MannKind, (ii) all rights and licenses granted by Pulmatrix to MannKind under this Agreement shall survive and become perpetual and irrevocable, and (iii) at the request of MannKind, Pulmatrix shall return, or at the election of MannKind, destroy, and thereafter provide MannKind with written certification evidencing such destruction, all data, files, records and other materials in its or its Affiliatesâ€™ or Sublicenseesâ€™, possession or control containing or comprising MannKindâ€™s Confidential Information; provided, that Pulmatrix shall be entitled to retain one (1) copy MannKindâ€™s Confidential Information solely for litigation or archival purposes and Pulmatrix shall not be required to delete any of MannKindâ€™s Confidential Information that is stored automatically, such as through server backup processes. Â  (b) Termination by Pulmatrix. Upon termination of this Agreement by Pulmatrix pursuant to Section 4.2 or Section 4.3: (i) all rights and licenses granted by Pulmatrix to MannKind under this Agreement shall terminate and revert to Pulmatrix, (ii) all rights and licenses granted by MannKind to Pulmatrix under this Agreement shall survive and become perpetual and irrevocable, and (iii) at the request of Pulmatrix, MannKind shall return, or at the election of Pulmatrix, destroy, and thereafter provide Pulmatrix with written certification evidencing such destruction, all data, files, records and other materials in its or its Affiliatesâ€™ or Sublicenseesâ€™, possession or control containing or comprising Pulmatrixâ€™s Confidential Information; provided, that MannKind shall be entitled to retain one (1) copy Pulmatrixâ€™s Confidential Information solely for litigation or archival purposes and MannKind shall not be required to delete any of Pulmatrixâ€™s Confidential Information that is stored automatically, such as through server backup processes. Â  ARTICLE 5 INDEMNIFICATION Â  Section 5.1: Pulmatrix Indemnity. Â  Pulmatrix shall indemnify, defend, and hold harmless MannKind and its Affiliates and their respective officers, shareholders, members, managers, directors, employees, personnel and agents (the â€œMannKind Indemniteesâ€) from and against all damages or other amounts payable to a Third Party claimant (including liabilities, costs, expenses, reasonable attorneysâ€™ fees, damages and losses resulting from the foregoing) (collectively, â€œLossesâ€) resulting from any claims, actions, causes of action or demands, brought by or on behalf of a Third Party (collectively, â€œClaimsâ€) arising out of or in connection with: (a) any breach of any of Pulmatrixâ€™s representations, warranties, covenants, and obligations under this Agreement, (b) any violation of applicable law by Pulmatrix, its Affiliates or its sublicensees; (c) infringement of intellectual property rights of a Third Party arising from Pulmatrixâ€™s use of the MannKind Technology; (d) the development, commercialization, marketing or sale of any Product by Pulmatrix, its Affiliates and Sublicensees, and (e) Pulmatrixâ€™s, its Affiliatesâ€™ or its Sublicenseesâ€™ gross negligence, willful misconduct or fraudulent conduct. Pulmatrix shall not be responsible to, nor shall it indemnify, defend or hold harmless MannKind for any Claims to the extent arising from any negligent act or omission or willful misconduct of any MannKind Indemnitee or a Claim for which MannKind would be required to indemnify Pulmatrix under this Agreement. This Section 5.1 shall survive any termination or expiration of this Agreement. Â  Â  Â  Â  Section 5.2: MannKind Indemnity. Â  MannKind shall indemnify, defend, and hold harmless Pulmatrix and its Affiliates and their respective officers, shareholders, members, managers, directors, employees, personnel and agents (the â€œPulmatrix Indemniteesâ€) from and against all Losses resulting from any Third Party Claims arising out of or in connection with: (a) any breach of any of MannKindâ€™s representations, warranties, covenants, and obligations under this Agreement, (b) any violation of applicable law by MannKind, its Affiliates or its sublicensees; (c) any Third Party claim of infringement of intellectual property rights of such Third Party arising from MannKindâ€™s use of the Pulmatrix Technology; (d) the development, commercialization, marketing or sale of any Product by or on behalf of MannKind, its Affiliates or Sublicensees; and (e) MannKindâ€™s, its Affiliates or its Sublicensees gross negligence, willful misconduct or fraudulent conduct. MannKind shall not be responsible to, nor shall it indemnify, defend or hold harmless Pulmatrix for any Claims to the extent arising from any negligent act or omission or willful misconduct of any Pulmatrix Indemnitee or a Claim for which Pulmatrix would be required to indemnify MannKind under this Agreement. This Section 5.2 shall survive any termination or expiration of this Agreement. Â  Section 5.3: Procedure. Â  The indemnified Party shall promptly notify the indemnifying Party in writing of any Claim for which it believes it is entitled to indemnification hereunder. Failure or delay in providing such notice shall not relieve the indemnifying Party of its indemnification obligations, except to the extent the indemnifying Party demonstrates that the defense or settlement of the Claim has been prejudiced thereby. Subject to the provisions below in this Section 5.3, the indemnifying Party shall have the right to control the defense and settlement of any Claim, or may at any time tender control of the defense or settlement of such Claim to the indemnified Party. The indemnified Party may, at its own cost, elect to participate in the defense or settlement of any Claim with counsel of its choice. No compromise or settlement may be committed to by the indemnifying Party without the indemnified Partyâ€™s prior written approval (which shall not be unreasonably withheld, conditioned or delayed). Â  ARTICLE 6 LIMITATION OF LIABILITY Â  Section 6.1: WAIVER OF CONSEQUENTIAL DAMAGES. Â  EXCEPT FOR BREACHES OF ARTICLE 7, IN NO EVENT SHALL EITHER PARTY, ITS DIRECT OR INDIRECT SUBSIDIARIES, AFFILIATES, DIRECTORS, OFFICERS, AGENTS, EMPLOYEES OR REPRESENTATIVES BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND, NOR FOR ANY LOST PROFITS OR REVENUES, IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT, EXCEPT TO THE EXTENT THAT A PARTY IS LIABLE TO A THIRD PARTY FOR THE SAME IN CONNECTION WITH A CLAIM FOR WHICH SUCH PARTY IS ENTITLED TO INDEMNIFICATION UNDER ARTICLE 5. Â  Section 6.2: LIMITATION OF LIABILITY. Â  EXCEPT FOR BREACHES OF ARTICLE 7 OR DAMAGES AVAILABLE TO A THIRD PARTY IN CONNECTION WITH A CLAIM FOR WHICH SUCH PARTY IS ENTITLED TO INDEMNIFICATION UNDER ARTICLE 5, THE MAXIMUM AGGREGATE LIABILITY OF EITHER PARTY TO THE OTHER, FOR ANY REASON AND UPON ANY CAUSE OF ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL BE LIMITED TO AN AMOUNT NOT TO EXCEED $1,000,000, EVEN IF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR SUCH DAMAGES ARE REASONABLY FORESEEABLE. THE FOREGOING LIMITATIONS SHALL APPLY REGARDLESS OF THE CAUSE OR FORM OF ACTION, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, WARRANTY OR OTHERWISE AND SHALL NEVER BE DEEMED TO FAIL IN THEIR ESSENTIAL PURPOSE. Â  Â  Â  Â  Section 6.3: Insurance. Â  Each Party shall procure and maintain insurance, including product liability insurance, with respect to its activities hereunder that is consistent with normal business practices of prudent companies similarly situated at all times during which any product subject to a license granted to such Party under this Agreement is being clinically tested in human subjects or commercially distributed or sold. Each Party shall provide the other Party with evidence of such insurance upon request and shall provide the other Party with written notice at least sixty (60) days prior to the cancellation, non-renewal or material decrease in such insurance. Such insurance shall not be construed to create a limit of either Partyâ€™s liability with respect to its indemnification obligations under Article 5. Â  ARTICLE 7 CONFIDENTIALITY Â  Section 7.1: Definition of Confidentiality. Â  For purposes of this Agreement, â€œConfidential Informationâ€ of a Party means any non-public information or materials belonging to, concerning or in the possession or control of such Party or its Affiliates (the â€œDisclosing Partyâ€) that is furnished, disclosed or otherwise made available (directly or indirectly) to the other Party (or Persons acting on such other Partyâ€™s behalf) (the â€œReceiving Partyâ€) in connection with this Agreement and which is either marked or identified as confidential or proprietary or is of a type that a reasonable person would recognize it to be confidential or proprietary. Â  Section 7.2: Confidentiality Obligations. Â  The Receiving Party shall: (a) hold the Confidential Information in strict confidence and avoid the disclosure thereof to any Third Party by using the same degree of care as it uses to avoid the unauthorized use or disclosure of its own Confidential Information of a similar nature, but not less than reasonable care; and (b) not use the Confidential Information for any purpose except as contemplated under this Agreement. Should a Party become possessed of a trade secret of a Disclosing Party under the terms of this Agreement, the Receiving Party shall not, during the term and thereafter, disclose such trade secret to a Third Party. The Receiving Party shall restrict the possession and use of Confidential Information to its employees, agents, consultants, contractors, personnel, Affiliates and Sublicensees who have a need to know and are bound by confidentiality obligations no less stringent than those contained herein. The Receiving Party may disclose Confidential Information as required by applicable law, provided the Receiving Party discloses only such information as is required by applicable law and, if permitted by applicable law, uses reasonable efforts to notify the Disclosing Party of such disclosure and provides reasonable assistance to the Disclosing Party in seeking a protective order or similar confidential treatment at Disclosing Partyâ€™s expense. The Receiving Party shall promptly notify the Disclosing Party of any facts known to the Receiving Party regarding any unauthorized disclosure or use of Confidential Information. Each Party acknowledges that its breach of the obligations set forth in this Section 7.2 may cause irreparable harm for which the other Party shall be entitled to seek injunctive or other equitable relief. All Confidential Information shall remain the exclusive property of the Disclosing Party. Â  Â  Â  Â  Section 7.3: Limitations. Â  Confidential Information shall not include any information to the extent that such information: (a) was demonstrably known by the Receiving Party before disclosure by the Disclosing Party, (b) becomes generally publicly known other than through any act or omission of the receiving Party in breach of this Agreement, (c) was disclosed to the Receiving Party free of any obligation of confidentiality by a Third Party who has a legal right to make such disclosure; or (d) is independently developed by the Receiving Party by persons without access to such information. Â  Section 7.4: Residual Rights. Â  Each Party acknowledges and agrees that the other Party, its Affiliates and their respective employees and agents shall be free to use and employ their general skills, ideas, concepts, know-how and expertise, and to use, disclose, and employ any generalized ideas, concepts, know-how, methods, techniques or skills gained or learned during the course of any activities performed hereunder, subject to its obligations respecting the other Partyâ€™s Confidential Information pursuant to this Article 7. Each Party acknowledges and agrees that to the extent any former employee of one Party becomes an employee of the other Party, such employee shall be free to use Confidential Information of such Party that was its former employer within the scope of the licenses granted under this Agreement to the Party that it is current employer. Â  Section 7.5: Terms of the Agreement. Â  (a) The Parties agree that the material terms of this Agreement are the Confidential Information of both Parties, subject to the special authorized disclosure provisions set forth in this Section 7.5 or Section 7.2. In addition, a Party may disclose such terms to the extent reasonably necessary to be disclosed to any bona fide potential or actual investor, acquiror, licensee or merger partner for the sole purpose of evaluating an actual or potential investment, acquisition, license or merger; provided that in connection with such disclosure, such Party shall inform each disclosee of the confidential nature of such Confidential Information and ensure that each such disclosee is contractually obligated to treat such Confidential Information as confidential. Â  (b) The Parties acknowledge that either or both Parties may be obligated to file under applicable laws a copy of this Agreement with the U.S. Securities and Exchange Commission or other Governmental Body. Each Party shall be entitled to make such a required filing, provided that it requests confidential treatment of the commercial terms and sensitive technical terms hereof and thereof to the extent such confidential treatment is reasonably available to such Party. In the event of any such filing, each Party will provide the other Party with a copy of this Agreement marked to show provisions for which such Party intends to seek confidential treatment and shall reasonably consider and incorporate the other Partyâ€™s reasonable comments thereon to the extent consistent with the legal requirements, with respect to the filing Party, governing disclosure of material agreements and material information that must be publicly filed. Each Party shall have the right to repeat disclosure any information that has already been publicly disclosed by such Party in accordance with this Section 7.5 without the obligation to repeat this process under this Section 7.5, provided such information remains accurate as of such time of repeated disclosure. Â  Â  Â  Â  ARTICLE 8 REPRESENTATIONS AND WARRANTIES AND OTHER AGREEMENTS Â  Section 8.1: Mutual Representations and Warranties. Â  Each Party represents and warrants to the other Party as of the Effective Date that such first Party has: (a) all requisite legal and corporate power to execute and deliver this Agreement; (b) taken all corporate action necessary for the authorization, execution and delivery of this Agreement; (c) no agreement or understanding with any Third Party that interferes with or will interfere with the performance of their respective obligations under this Agreement; (d) obtained and shall maintain all rights, approvals and consents necessary to perform their respective obligations under this Agreement; (e) taken all action required or necessary to make such agreements legal, valid and binding obligations upon them; and (f) it has the right to grant the licenses to the other which are granted in this Agreement and it has not granted any license, option, right or interest in, to or under its Licensed Technology to any Third Party that is inconsistent with the license granted to the other Party under this Agreement. Each Party further represents and warrants to the other Party as of the Effective Date that, to its knowledge, none of its Licensed Technology infringes on the rights of any Third Party. MannKind further represents and warrants to Pulmatrix as of the Effective Date that (x) all of the Patents and Know-How controlled by MannKind that are necessary or reasonably useful to Exploit the Cricket Device in the fields of use licensed to Pulmatrix under Article 2 are owned by MannKind and not in-licensed from a Third Party and (y) all of the Patents owned by MannKind that are necessary or reasonably useful to Exploit the Cricket Device in the fields of use licensed to Pulmatrix under Article 2 are set forth on Schedule 2. Pulmatrix further represents and warrants to MannKind as of the Effective Date that (1) all of the Patents and Know-How controlled by Pulmatrix that are necessary or reasonably useful to Exploit iSPERSE in the fields of use licensed to MannKind under Article 2 are owned by Pulmatrix and not in-licensed from a Third Party and (2) all of the Patents owned by Pulmatrix that are necessary or reasonably useful to Exploit iSPERSE in the fields of use licensed to MannKind pursuant to Article 2 are set forth on Schedule 1. Â  Section 8.2: Disclaimer. Â  NEITHER PARTY MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND, WHETHER EXPRESS OR IMPLIED, EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN SECTION 8.1, AND EACH PARTY EXPRESSLY DISCLAIMS ANY IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUALITY, TITLE OR ANY REPRESENTATION OR WARRANTY ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE. Â  Â  Â  Â  Section 8.3 Other Agreements. Â  (a) Regulatory Assistance. Â  (i) Pulmatrix shall, at MannKindâ€™s request and expense, provide reasonable assistance with respect to regulatory matters concerning the Exploitation of iSPERSE by or on behalf of MannKind or its Sublicensees within the scope of MannKindâ€™s licenses under this Agreement, including (x) assistance with respect to regulatory filings required to obtain or maintain Regulatory Approval for MannKindâ€™s or its Sublicenseesâ€™ Products and (y) providing MannKind with regulatory materials in its possession or control that are necessary or reasonably useful for MannKind to obtain or maintain Regulatory Approval for MannKindâ€™s or its Sublicenseesâ€™ Products. Â  (ii) MannKind shall, at Pulmatrixâ€™s request and expense, provide reasonable assistance with respect to regulatory matters concerning the Exploitation of the Cricket Device by or on behalf of Pulmatrix or its Sublicensees within the scope of Pulmatrixâ€™s licenses under this Agreement, including (x) assistance with respect to regulatory filings required to obtain or maintain Regulatory Approval for Pulmatrixâ€™s or its Sublicenseesâ€™ Products and (y) providing Pulmatrix with regulatory materials in its Control that are necessary or reasonably useful for Pulmatrix to obtain or maintain Regulatory Approval for Pulmatrixâ€™s or its Sublicenseesâ€™ Products. Â  (b) Remedial Actions. Each Party will notify the other Party immediately, and promptly confirm such notice in writing, if it obtains information indicating that any Product being Exploited by such Party may be subject to any recall, market withdrawal, clinical hold, or any other similar corrective or other regulatory action with respect to such Product taken by virtue of applicable law (a â€œRemedial Actionâ€). The Parties will reasonably assist each other in gathering and evaluating such information as is necessary to determine the necessity of conducting a Remedial Action and preparing and maintaining corresponding documentation, as well as, if necessary, making any required submissions to the applicable Governmental Body. The Party Exploiting such Product subject to the Remedial Action shall be solely responsible for all costs and expenses associated with such Remedial Action. Â  (c) Regulatory Approvals. Each Party shall have the right to apply for and maintain, at its own cost and expense, all regulatory approvals of the Products being developed by such Party. Subject to Section 8.3(a), each Party shall be responsible for and have sole discretion over the preparation of all regulatory materials and all communications and interactions with the applicable regulatory authorities or other Governmental Bodies with respect to the Products being developed by such Party, both prior to and subsequent to Regulatory Approval. Â  (d) Manufacture and Supply. Â  (i) At the request of Pulmatrix, the Parties agree to promptly negotiate in good faith and enter into supply agreements for the clinical and commercial supply of the Cricket Device to Pulmatrix. Â  (ii) Without limiting the generality of Section 2.9, at the request of MannKind, Pulmatrix will (x) transfer to MannKind all Know-How and materials related to manufacturing using iSPERSE (including all CMC related information) as necessary or reasonably useful to enable MannKind or its Third Party contract manufacturer to manufacture using iSPERSE and (y) provide MannKind with reasonable technical assistance and support at MannKindâ€™s reasonable cost and expense with respect to manufacturing using iSPERSE. Â  Â  Â  Â  (e) Pulmatrix Licensed Technology Transaction Notice. If, during the Term, Pulmatrix or any of its Affiliates determines to initiate or otherwise engages in discussions with a Third Party (other than Teva Pharmaceutical Industries Ltd) regarding the assignment, transfer or sale of Pulmatrixâ€™s or its Affiliateâ€™s right, title and interest in and to all or substantially all of the Pulmatrix Licensed Technology, then Pulmatrix shall provide notice thereof to MannKind. At the request of MannKind after receipt of any such notice, (i) Pulmatrix will, on a non-exclusive basis (unless otherwise agreed to by the Parties), engage in good faith negotiations with MannKind regarding such potential assignment, transfer or sale and (ii) Pulmatrix will provide MannKind with a high-level summary of data, results, and other material information that is relevant to the Pulmatrix Licensed Technology. Â  (f) Ownership of Inventions. As between the Parties, each Party shall own all right, title and interest in and to all inventions and intellectual property rights made solely by or on behalf of its or its Affiliatesâ€™ employees, agents, or independent contractors in exercising its rights under this Agreement. Â  (g) Project Technology. Notwithstanding anything to the contrary under the Pulmatrix Services Agreement, Pulmatrix hereby assigns and transfers to MannKind all of its right, title and interest in and to Project Technology (as such term is defined in the Pulmatrix Services Agreement) generated by or on behalf of Pulmatrix in performance of the services under the Pulmatrix Services Agreement and Pulmatrix agrees to take, and to cause its employees, agents, and consultants to take, all further acts reasonably required to evidence such assignment and transfer to MannKind, at MannKindâ€™s reasonable expense. Â  ARTICLE 9 ADDITIONAL PROVISIONS Â  Section 9.1: Further Assurances. Â  Each Party covenants and agrees to execute and deliver or cause to be executed and delivered to the other Party such instruments or further assurances as may, in the reasonable opinion of such other Party, be necessary or desirable to give effect to the provisions of this Agreement. Â  Section 9.2: Notices. Â  All notices required or permitted under this Agreement shall be in writing and delivered via overnight mail or overnight courier service, signature proof of receipt required. Notices shall be directed to the addresses set forth below and shall be deemed effective upon receipt. Either Party may change its address for notices from time to time by providing written notice to the other Party. Â  If to MannKind: Â  MannKind Corporation Attn: General Counsel 30930 Russell Ranch Road, Suite 300 Westlake Village, CA 91362 Email: legal@mannkindcorp.com Â  Â  Â  Â  If to Pulmatrix: Â  Pulmatrix, Inc. Attn: Ted Raad, CEO 945 Concord Street Framingham MA 01701 Email: traad@pulmatrix.com Â  Section 9.3: Assignment. Â  The Agreement shall be binding on the Parties and their successors and permitted assigns. Neither Party shall assign, transfer or delegate any of its rights, duties or obligations under this Agreement, or any part thereof, whether by operation of law or otherwise, without the prior written consent of the other Party, provided that either Party shall be entitled to assign or transfer this Agreement in connection with the sale or acquisition of all or substantially all of its business to which this Agreement relates, whether by merger, sale of stock, sale of assets or otherwise. Any assignment in violation of this paragraph shall be void ab initio. Â  Section 9.4: Publicity; Press Releases. Â  Except as permitted pursuant to Section 7.4 or as otherwise required by applicable law, (a) neither Party shall, without the prior written consent of the other Party which shall not be unreasonably withheld, issue any press releases or make any public statements concerning the existence of or activities under this Agreement and (b) the Parties will mutually agree upon the content and timing of any press release announcing the execution of this Agreement or otherwise relating to the terms of this Agreement. Â  Section 9.5: Modifications; Waiver. Â  This Agreement may be modified only pursuant to a writing executed by authorized representatives of both Parties. The Parties expressly disclaim the right to claim the enforceability of any oral modifications to this Agreement or any amendments based on course of dealing, waiver, reliance, estoppel or other similar legal theory. No delay or omission by either Party to exercise any right occurring upon any non-compliance or default of the other Party with respect to any of the terms of this Agreement shall impair any such right or be construed to be a waiver thereof. Â  Section 9.6: No Third Party Beneficiaries. Â  This Agreement is for the sole benefit of the Parties and their successors and permitted assigns and nothing herein, express or implied, shall give or be construed to give any Person other than the Parties any legal or equitable rights hereunder. Â  Section 9.7: Severability. Â  In the event any provision of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable under applicable law, such provision shall be amended and interpreted to accomplish the objectives of such provision to the greatest extent possible under applicable law, and the remaining provisions of this Agreement shall continue in full force and effect. Â  Â  Â  Â  Section 9.8: Governing Law. Â  This Agreement shall be governed by and construed in accordance with the laws of Delaware, without reference to the principles of conflicts of law that would apply the substantive laws of another jurisdiction. Notwithstanding the foregoing, nothing herein shall prevent either Party from commencing an action for the purpose of seeking immediate injunctive relief in the appropriate jurisdiction. Â  Section 9.9: Survival. Â  Termination or expiration of this Agreement shall not affect any rights or obligations of the Parties under this Agreement that have accrued prior to the date of termination or expiration. Any provision of this Agreement that contemplates performance or observance subsequent to any expiration or termination of this Agreement, or which is otherwise necessary to interpret the respective rights and obligations of the Parties hereunder, shall survive any expiration or termination of this Agreement and continue in full force and effect, including without limitation Section 4.1 (Term), Section 4.4 (Effects of Termination), Article 5 (Indemnification), Article 6 (Limitation of Liability), Article 7 (Confidentiality), and Article 9 (Additional Provisions). Â  Section 9.10: Headings; Construction. Â  The headings of the various sections in this Agreement are for convenience of reference only and shall not affect the construction or interpretation of this Agreement. The Parties acknowledge and agree that any principle of construction or rule of law that provides that an agreement shall be construed against the drafter of the agreement in the event of any inconsistency or ambiguity in such agreement shall not apply to the terms and conditions of this Agreement. Â  Section 9.11: Entire Agreement. Â  This Agreement, together with the Schedules attached hereto, sets forth the entire and exclusive agreement between the Parties as to the subject matter hereof and supersedes all prior and contemporaneous understandings, negotiations and agreements, written or oral, between the Parties. Â  Section 9.12: Rights in Bankruptcy Â  (a) The Parties intend to take advantage of the protections of Section 365(n) (or any successor provision) of the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction to the maximum extent permitted by applicable law. All rights and licenses granted under or pursuant to this Agreement, but only to the extent they constitute licenses of a right to â€œintellectual propertyâ€ as defined in Section 101 of the U.S. Bankruptcy Code or in any analogous provisions in any other country or jurisdiction (as the case may be) shall be deemed to be â€œintellectual propertyâ€ for the purposes of Section 365(n) or any analogous provisions in any other country or jurisdiction (as the case may be). The Parties shall retain and may fully exercise all of their rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction, including the right to obtain the intellectual property from another entity. Â  Â  Â  Â  (b) During the Term, Licensor shall create and maintain current copies to the extent practicable of all such intellectual property. In the event of the commencement of a bankruptcy proceeding by or against either Party under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction, the Party that is not subject to such proceeding shall be entitled to a complete duplicate of (or complete access to, as appropriate) all such intellectual property (including all embodiments of such intellectual property), which, if not already in the non-subject Partyâ€™s possession, shall be promptly delivered to it upon the non-subject Partyâ€™s written request (a) after commencement of a bankruptcy proceeding, unless the Party subject to such proceeding continues to perform all of its obligations under this Agreement, or (b) if not delivered pursuant to clause (a) above because the subject Party continues to perform, upon the rejection of this Agreement by or on behalf of the subject Party. Â  (c) All rights of the Parties under this Section 9.12 and under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction (as the case may be) are in addition to and not in substitution of any and all other rights, powers, and remedies that each Party may have under this Agreement and any other applicable laws. If a case under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction (as the case may be) is commenced by or against Licensor, Licensee shall have the right to perform the obligations of Licensor hereunder with respect to such intellectual property, but neither such provision nor such performance by Licensee shall release Licensor from any such obligation or liability for failing to perform it. Â  (b) The Parties agree that they intend the foregoing Licensee rights to extend to the maximum extent permitted by law and any provisions of applicable contracts with Third Parties, including for purposes of the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction (as the case may be), (i) the right of access to any intellectual property (including all embodiments thereof) of Licensor or any Third Party with whom Licensor contracts to perform an obligation of Licensor under this Agreement, and, in the case of the Third Party, which is necessary for the Exploitation of a product within the scope of the licenses granted to Licensee under this Agreement and (ii) the right to contract directly with any Third Party described in (i) in this sentence to complete the contracted work. Â  Section 9.13: Counterparts. Â  This Agreement may be executed in several counterparts, including by e-mail and with electronic signatures, each of which will be deemed an original, and all of which taken together shall constitute one single agreement between the Parties with the same effect as if all the signatures were upon the same instrument. An electronic signature shall be as legally effective as an original signature. Â  [SIGNATURE PAGE FOLLOWS] Â  Â  Â  Â  IN WITNESS WHEREOF, the Parties have duly executed and delivered this Agreement as of the Effective Date. Â  MANNKIND CORPORATION Â  Â  Â  Â  By: /s/ Michael Castagna Â  Name: Michael Castagna Â  Title: Chief Executive Officer Â  Â  Â  Â  PULMATRIX, INC. Â  Â  Â  Â  By: /s/ Teofilo Raad Â  Name: Teofilo Raad Â  Title: Chief Executive Officer Â  Â  Â  Â  Â  Schedule 1 Â  Pulmatrix Licensed Technology Â  Family ID Â  Patent Application Title Â  Country Â  Application Number Â  Grant Date Â  Patent No. PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  United States of America Â  61/267747 Â  Â  Â  Â  PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  Patent Cooperation Treaty Â  PCT/US2010/028961 Â  Â  Â  Â  PUL115 Â  MONOVALENT METAL CATION DRY POWDERS Â  United States of America Â  61/387883 Â  Â  Â  Â  PUL117 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  United States of America Â  61/387925 Â  Â  Â  Â  PUL117 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  United States of America Â  61/431242 Â  Â  Â  Â  PUL115 Â  MONOVALENT METAL CATION DRY POWDERS Â  United States of America Â  61/481879 Â  Â  Â  Â  PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  European Patent Â  10713283.9 Â  15-Mar-2017 Â  2410981 PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  European Patent Â  10713283.9_OPP Â  15-Mar-2017 Â  2410981 PUL117 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  Patent Cooperation Treaty Â  PCT/US2011/049435 Â  Â  Â  Â  PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  Australia Â  2010229668 Â  08-Sep-2016 Â  2010229668 Â  Â  Â  Â  PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  Brazil Â  PI1011721-0 Â  16-Nov-2021 Â  PI1011721-0 PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  Canada Â  2754691 Â  30-Jul-2019 Â  2754691 PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR TREATING PULMONARY DISEASES Â  China Â  201080023554.3 Â  23-Mar-2018 Â  ZL201080023554.3 PUL109 Â  DRY POWDER FORMULATIONS AND METHODS FOR 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America Â 15/958101 Â Â Â Â PUL116 Â CATIONIC DRY POWDERS Â United

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Â  ATTORNEY Ref. Â  Country Â  Serial # Â  File Date Â  Patent # Â  IssueÂ Date Â  Status Â  Exp. Date A DRY POWDER INHALER AND SYSTEM FOR DRUG DELIVERY 51300-00074-AR Â  51300-00074-AR Â  ARGENTINA Â  P-090102125 Â  6/12/2009 Â  AR072114B1 Â  9/15/2016 Â  ISSUED Â  6/12/2029 51300-00074-AR-1 Â  51300-00074.1AR Â  ARGENTINA Â  20160100755 Â  3/21/2016 Â  AR104034B2 Â  7/29/2021 Â  ISSUED Â  6/12/2029 51300-00074-AR-2 Â  51300-00074.2 Â  ARGENTINA Â  20160100756 Â  3/21/2016 Â  AR104035B2 Â  9/29/2023 Â  ISSUED Â  6/12/2029 51300-00074-AU Â  51300-00074-AU Â  AUSTRALIA Â  2009257311 Â  6/12/2009 Â  2009257311 Â  3/19/2015 Â  ISSUED Â  6/12/2029 51300-00074-AU-1 Â  51300-00074.1- AU Â  AUSTRALIA Â  2014200952 Â  2/24/2014 Â  2014200952 Â  3/26/2015 Â  ISSUED Â  6/12/2029 51300-00074-AU-2 Â  51300-00074.2-AU Â  AUSTRALIA Â  2014200982 Â  2/24/2014 Â  2014200982 Â  1/14/2016 Â  ISSUED Â  6/12/2029 51300-00074-AU-3 Â  51300-00074.3-AU Â  AUSTRALIA Â  2014200975 Â  2/24/2014 Â  2014200975 Â  5/21/2015 Â  ISSUED Â  6/12/2029 51300-00074-AU-4 Â  51300-00074.4-AU Â  AUSTRALIA Â  2015200947 Â  6/12/2009 Â  2015200947 Â  8/24/2017 Â  ISSUED Â  6/12/2029 51300-00074-BR Â  51300-00074-BR Â  BRAZIL Â  PI0914998-8 Â  6/12/2009 Â  PI09149988 Â  8/3/2021 Â  ISSUED Â  6/12/2029 51300-00074-CA Â  51300-00074-CA Â  CANADA Â  2728230 Â  6/12/2009 Â  2728230 Â  10/17/2017 Â  ISSUED Â  6/12/2029 51300-00074-CA-1 Â  51300.00325 CA DIV Â  CANADA Â  2982550 Â  6/12/2009 Â  2982550 Â  8/25/2020 Â  ISSUED Â  6/12/2029 51300-00074-CA-2 Â  51300.00424 CA Â  CANADA Â  3086027 Â  6/12/2009 Â  3086027 Â  5/17/2022 Â  ISSUED Â  6/12/2029 51300-00074-CA-3 Â  51300.00466 Â  CANADA Â  3153292 Â  6/12/2009 Â  Â  Â  Â  Â  PENDING Â  6/12/2029 Â  Â  Â  Â  51300-00074-CN-1 Â  51300.00074.1 CN Â  CHINA Â  200980000440.4 Â  6/12/2009 Â  CN101827626B Â  3/18/2015 Â  ISSUED Â  6/12/2029 51300-00074-CN-3 Â  51300-000175-CN Â  CHINA Â  201410612764.6 Â  6/12/2009 Â  104491962 Â  10/23/2018 Â  ISSUED Â  6/12/2029 51300-00074-CN-4 Â  51300.00074.3 CN Â  CHINA Â  201510084945.0 Â  6/12/2009 Â  104689432 Â  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Â  6/12/2029 51300-00074-JP-2 Â  51300-00074.2-JP Â  JAPAN Â  2015-038046 Â  2/27/2015 Â  Â  Â  Â  Â  PENDING Â  6/12/2029 51300-00074-KR Â  51300-00074-KR Â  SOUTH KOREA Â  10-2011-7000330 Â  6/12/2009 Â  1558026 Â  9/30/2015 Â  ISSUED Â  6/12/2029 51300-00074-KR-1 Â  51300-00153-KR.2 Â  SOUTH KOREA Â  10-2014-7026936 Â  9/25/2014 Â  1548092 Â  8/21/2015 Â  ISSUED Â  6/12/2029 51300-00074-KR-2 Â  51300-00154-KR.3 Â  SOUTH KOREA Â  10-2014-7026937 Â  9/25/2014 Â  1591621 Â  1/28/2016 Â  ISSUED Â  6/12/2029 51300-00074-KR-3 Â  51300-00153KR.1 Â  SOUTH KOREA Â  10-2015-7007318 Â  3/23/2015 Â  1655053 Â  8/31/2016 Â  ISSUED Â  6/12/2029 51300-00074-KR-4 Â  51300.00074.1KR Â  SOUTH KOREA Â  10-2015-0077234 Â  6/1/2015 Â  1618515 Â  4/28/2016 Â  ISSUED Â  6/12/2029 51300-00074-KR-5 Â  51300-00154.1KR Â  SOUTH KOREA Â  10-2015-0077266 Â  6/1/2015 Â  1655032 Â  8/31/2016 Â  ISSUED Â  6/12/2029 51300-00074-MX Â  51300-00074-MX Â  MEXICO Â  MX/a/2010/013590 Â  6/12/2009 Â  333045 Â  9/8/2015 Â  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 ISSUED Â  6/12/2029 51300-00074-SG-1 Â  51300-00074-SG DIV1 Â  SINGAPORE Â  10201507036T Â  6/12/2009 Â  10201507036T Â  6/17/2021 Â  ISSUED Â  6/12/2029 51300-00074-SG-2 Â  51300-00074-SG DIV2 Â  SINGAPORE Â  10201507038V Â  6/12/2009 Â  10201507038V Â  6/17/2021 Â  ISSUED Â  6/12/2029 51300-00074-TW Â  51300-00074-TW Â  TAIWAN Â  98119686 Â  6/12/2009 Â  I592178 Â  7/21/2017 Â  ISSUED Â  6/12/2029 51300-00074-TW-1 Â  51300-00074.1TW Â  TAIWAN Â  104124899 Â  6/12/2009 Â  I611818 Â  1/21/2018 Â  ISSUED Â  6/12/2029 51300-00074-US-8 Â  51300.00458 US Â  UNITED STATES Â  17/512,529 Â  10/27/2021 Â  Â  Â  Â  Â  PENDING Â  Â  51300-00074-WO Â  51300-00074-WO Â  WIPO Â  PCT/US2009/047281 Â  6/12/2009 Â  WO 09/152477 Â  12/17/2009 Â  NAT PHASE Â  ____ Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  A DRY POWDER INHALER AND SYSTEM FOR DRUG DELIVERY 51300-00103-US Â  51300.00103-US Â  UNITED STATES Â  12/484,125 Â  6/12/2009 Â  8,499,757 Â  8/6/2013 Â  ISSUED Â  2/19/2032 51300-00103-US-5 Â  51300.00459 Â  UNITED STATES Â  TBA Â  Â  Â  Â  Â  Â  Â  PENDING Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  A DRY POWDER INHALER AND SYSTEM FOR DRUG DELIVERY 51300-00106-US Â  51300.00106-US Â  UNITED STATES Â  12/484,129 Â  6/12/2009 Â  8,636,001 Â  1/28/2014 Â  ISSUED Â  7/12/2032 51300-00106-US-4 Â  51300-00106.3-US Â  UNITED STATES Â  14/092,810 Â  11/27/2013 Â  9,511,198 Â  12/6/2016 Â  ISSUED Â  2/16/2030 Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  DRY POWDER DELIVERY SYSTEM AND METHODS 51300-00124-AU Â  51300.00124AU Â  AUSTRALIA Â  2011271097 Â  6/21/2011 Â  2011271097.0 Â  3/12/2015 Â  ISSUED Â  6/21/2031 51300.00124-AU-1 Â  51300.00124.1AU Â  AUSTRALIA Â  2015200705 Â  6/21/2011 Â  2015200705 Â  9/29/2016 Â  ISSUED Â  6/21/2031 51300-00124-AU-2 Â  51300.00124.2AU Â  AUSTRALIA Â  2016222336 Â  8/30/2016 Â  2016222336 Â  1/3/2019 Â  ISSUED Â  6/21/2031 51300-00124-CA Â  51300.00124CA Â  CANADA Â  2801936 Â  6/21/2011 Â  2801936 Â  6/1/2021 Â  ISSUED Â  6/21/2031 51300-00124-IL Â  51300.00124IL Â  ISRAEL Â  223742 Â  6/21/2011 Â  223742 Â  10/1/2016 Â  ISSUED Â  6/21/2031 Â  Â  Â  Â  51300-00124-IN Â  51300.00124IN Â  INDIA Â  10855/DELNP/2012 Â  6/21/2011 Â  313526 Â  5/31/2019 Â  ISSUED Â  6/21/2031 51300-00124-JP Â  51300.00124JP Â  JAPAN Â  2013516701 Â  6/21/2011 Â  6385673 Â  8/17/2018 Â  ISSUED Â  6/21/2031 51300-00124-MX Â  51300.00124MX Â  MEXICO Â  MX/a/2012/015093 Â  6/21/2011 Â  359281 Â  9/21/2018 Â  ISSUED Â  6/21/2031 51300-00124-RU Â  51300.00124RU Â  RUSSIA Â  2013102529 Â  6/21/2011 Â  2531455 Â  10/20/2014 Â  ISSUED Â  6/21/2031 51300-00124-RU-1 Â  51300.00124-1 RU Â  RUSSIA Â  2014133362 Â  6/21/2011 Â  2571331 Â  12/20/2015 Â  ISSUED Â  6/21/2031 51300-00124-US-3 Â  51300.00249-2 (124) Â  UNITED STATES Â  15/144,651 Â  5/2/2016 Â  9,662,461 Â  5/30/2017 Â  ISSUED Â  6/12/2029 51300-00124-WO Â  51300.00124WO Â  WIPO Â  PCT/US2011/041303 Â  6/21/2011 Â  WO 11/163272 Â  12/29/2011 Â  NAT PHASE Â  ____ Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  Â  DRY POWDER INHALER 51300-00136-AR Â  51300.00136AR Â  ARGENTINA Â  83811 Â  4/20/2012 Â  83811 Â  4/20/2012 Â  ISSUED Â  4/20/2027 51300-00136-BR Â  51300.00136BR Â  BRAZIL Â  BR3020120019982 Â  4/20/2012 Â  BR3020120019982 Â  2/13/2013 Â  ISSUED Â  4/20/2037 51300-00136-EM Â  51300.00136EM Â  EUROPE (CTM) Â  002030130-0001 Â  4/20/2012 Â  002030130-0001 Â  7/4/2012 Â  ISSUED Â  4/20/2037 51300-00136-GB Â  51300.00136GB Â  UNITED KINGDOM Â  9002030130-0001 Â  4/20/2012 Â  9002030130-0001 Â  7/4/2012 Â  ISSUED Â  4/20/2037 51300-00136-IN Â  51300.00136IN Â  INDIA Â  244714 Â  4/20/2012 Â  244714 Â  8/23/2012 Â  ISSUED Â  10/20/2026 51300-00136-JP Â  51300.00136JP Â  JAPAN Â  2012-009290 Â  4/20/2012 Â  1450065 Â  8/3/2012 Â  ISSUED Â  8/3/2032 51300-00136-KR Â  51300.00136KR Â  SOUTH KOREA Â  30-2012-0018808 Â  4/20/2012 Â  30-0709561 Â  9/13/2013 Â  ISSUED Â  9/13/2028 51300-00136-MX Â  51300.00136MX Â  MEXICO Â  MX/f/2012/001228 Â  4/20/2012 Â  38664 Â  5/10/2013 Â  ISSUED Â  4/20/2027 51300-00136-RU Â  51300.00136RU Â  RUSSIA Â  2012501242 Â  4/20/2012 Â  84747 Â  3/16/2013 Â  ISSUED Â  4/20/2037 51300-00136-TW Â  51300.00136TW Â  TAIWAN Â  101302196 Â  4/20/2012 Â  D152925 Â  4/11/2013 Â  ISSUED Â  4/20/2024 51300-00136-TW-1 Â  51300.00136.1TW Â  TAIWAN Â  102300650 Â  1/24/2013 Â  D160905 Â  6/1/2014 Â  ISSUED Â  4/20/2024 51300-00136-US Â  51300.00136.US Â  UNITED STATES Â  29/404,464 Â  10/20/2011 Â  D674,893 Â  1/22/2013 Â  ISSUED Â  1/22/2027 Â  Â  Â  EX-10.6 4 ex10-6.htm Â  Exhibit 10.6 Â  MASTER SERVICES AGREEMENT Â  This Master Services Agreement (the â€œAgreementâ€), dated as of July 8, 2024 (the â€œEffective Dateâ€), is made and entered into by and between MannKind Corporation having its offices at 1 Casper St, Danbury, Connecticut 06810 (â€œMANNKINDâ€) and Pulmatrix, Inc., a Delaware corporation having an address at 945 Concord Street, Framingham MA 01701 (â€œPULMATRIXâ€). PULMATRIX and MANNKIND may be referred to herein individually as a â€œPartyâ€ or collectively as the â€œParties.â€ Â  PULMATRIX owns, manufactures, develops, or has rights to certain pharmaceutical or biotechnology products. MANNKIND employs personnel with certain expertise and experience regarding pharmaceutical formulation. PULMATRIX desires to retain the services of MANNKIND to perform certain formulation development, process development and/or analytical method development activities for advancement of PULMATRIXâ€™s products. Â  For good and valuable consideration contained herein, the exchange, receipt and sufficiency of which are acknowledged, the Parties agree as follows: Â  1. Definitions. Â  1.1 â€œActive Materialâ€ shall mean the active pharmaceutical ingredient that PULMATRIX provides to MANNKIND for performance of the Services. Â  1.2 â€œBulk Drug Productâ€ shall mean any formulations, either in a bulk state or as finished dosage forms, developed by MANNKIND for PULMATRIX as part of the rendered services. Â  1.3 â€œRaw Materialâ€ shall mean any material, other than the Active Material or Bulk Drug Product, used by MANNKIND for provision of the services. Â  1.4 â€œAffiliateâ€ shall mean any individual, corporation, limited liability company, partnership, joint venture, association or other legal entity (â€œPersonâ€) who, directly or indirectly through one or more intermediaries, Controls, is Controlled by, or is under common Control with any other Person. â€œControlâ€ means (a) the direct or indirect legal or beneficial ownership of more than twenty percent (20%) of (i) the ownership interests in a Person or (ii) the outstanding voting rights in a Person, or (b) the power to otherwise direct the business activities of a Person. Â  1.5 â€œApplicable Lawsâ€ shall mean all treaties, laws, statutes, rules, regulations, guidance, judicial opinions or administrative findings or orders applicable to the Services. Â  1.6 â€œClaim or Proceedingâ€ shall mean any third-party claim, action, suit, proceeding or arbitration, including any governmental authority action or investigation. Â  1.7 â€œDeliverableâ€ shall mean the tangible deliverables specified in a Scope of Work. Â  Master Services AgreementPage 1 Â  Â  1.8 â€œIntellectual Property Rightsâ€ means any and all rights, title and interest (including a composition of matter, formula, process, method of use, invention, improvement, business name, domain name or database right to the extent any of the foregoing is protected in a utility model, trademark, trade name, service mark, service name, copyright, registered design, design right, patent, patent registration, know-how, trade secret, rights in or to confidential information (including Confidential Information as defined in Section 7.1) and any other proprietary right of any nature whatsoever arising or enforceable under any United States federal or state law, rule or regulation, non-United States law, rule or regulation or international treaty throughout the world (whether registered or unregistered and including all applications and rights to apply for the same) in any technology, system, invention medium or content and documentation. Â  1.9 â€œLossesâ€ shall mean any and all losses, fines, fees, settlements, payments, obligations, penalties, deficiencies, liabilities, damages, and all related costs and expenses (including reasonable attorneysâ€™ fees and disbursements and costs of investigation, litigation, settlement, judgment, interest and penalties). Â  1.10 â€œMaterialâ€ shall mean any or all of the Active Material, Raw Material and/or Bulk Drug Product. Â  1.11 â€œInventionsâ€ means any and all discoveries, concepts, ideas, products, Technical Information, developments, specifications, methods, drawings, designs, flow charts, diagrams, models, formulae, procedures, processes, schematics, specifications, algorithms, apparatus, inventions, ideas, know how, materials, techniques, methodologies, modifications, improvements, works of authorship and data (whether or not protectable under patent, copyright, trade secrecy or similar laws and whether or not reduced to practice), know-how, materials, methods, models, procedures, processes, schematics, specifications, techniques, tools, and any other forms of technology. Â  1.12 â€œProject Technologyâ€ means all Inventions that are conceived, created, discovered, developed, generated, made or reduced to practice or tangible medium of expression during the performance of this Agreement, whether solely by one or more employees or consultants of PULMATRIX, solely by one or more employees or consultants of MANNKIND, or jointly by one or more employees or consultants of PULMATRIX and one or more employees or consultants of MANNKIND, in each case relating to the Services, together with all Intellectual

Property Rights in or to such Inventions. Â  1.13 â€œiSPERSEâ€ shall mean the collective application of PULMATRIXâ€™s dry powder technology platform which includes processes, materials and equipment and affiliated patents, knowhow and trade secrets. Â  1.14 â€œServicesâ€ shall mean activities to develop a dry powder formulation of the Active Material for oral inhalation using the iSPERSE engineered particle technology platform, including but not limited to a description of the specific services to be provided, Deliverables, and target completion dates as outlined in one or more â€œScopes of Workâ€, a sample of which is attached hereto as Exhibit A. Â  Master Services AgreementPage 2 Â  Â  2. Services. Â  2.1 Services to be Provided. MANNKIND hereby agrees to use commercially reasonable efforts to allocate up to four full-time equivalent employees to perform Services for PULMATRIX from time to time as detailed in uniquely numbered Scopes of Work. MANNKIND shall perform the Services in a timely, professional, and workmanlike manner using personnel of required skill, experience, and qualifications, and in compliance with (i) the terms and conditions of this Agreement, (ii) generally recognized industry standards, and (iii) all Applicable Laws. Â  2.2 Forms and Inconsistencies. Any term or condition of any correspondence between the Parties that is different from, inconsistent with or contrary to the terms and conditions of this Agreement shall be void. All Scopes of Work shall be deemed to incorporate and be subject to the terms and conditions of this Agreement. Â  2.3 Subcontractors. MANNKIND may subcontract Services only with PULMATRIXâ€™s prior written consent. Any agreement entered into by MANNKIND with a third-party subcontractor shall, at a minimum, provide for ownership and allocation of intellectual property rights and for obligations of confidentiality of information, record-keeping, access, and rights to data that are consistent with the intent and are as restrictive as the terms of this Agreement. MANNKIND shall remain fully responsible for the performance of any of its obligations hereunder that it delegates to a subcontractor as if it had performed such obligations itself. Â  3. Materials and Data. Â  3.1 Safety Information. PULMATRIX shall provide certain Materials to MANNKIND as are necessary for the performance of the Services at PULMATRIXâ€™s cost. MANNKIND shall use the Materials solely for the purpose of performing the Services. MANNKIND shall not supply the Materials, or any portion thereof, to any third party unless directed to do so by PULMATRIX in writing. PULMATRIX will provide a Safety and Data Sheet (â€œSDSâ€) with all Materials provided to MANNKIND in a form agreed to by the Parties, which shall include appropriate storage and handling conditions for each Active Material, and any other compliance statements agreed to by the Parties. New SDS information will be shared promptly by PULMATRIX if it is known by PULMATRIX to have a material impact on the production process and employee safety at MANNKIND. Â  3.2 Active and Raw Materials. MANNKIND and PULMATRIX shall mutually determine the amounts of Materials that MANNKIND will need to make the Deliverables, which amounts shall be approved by PULMATRIX prior to MANNKIND beginning work on the Services. The Parties shall mutually agree in writing in a Scope of Work which Materials will be supplied by each respective Party. Â  3.3 Excess Material. At the conclusion of the term of this Agreement, MANNKIND may provide notice to PULMATRIX of any excess Material (the â€œExcess Materialâ€) requiring disposal. If PULMATRIX does not respond to MANNKIND stating that it agrees to accept receipt of or otherwise dispose of the Excess Material within sixty (60) days of receipt of such notice, then MANNKIND shall again provide notice to PULMATRIX providing an additional thirty (30) daysâ€™ notice. If PULMATRIX does not respond to MANNKIND stating that it agrees to accept receipt of or otherwise dispose of the Excess Material within such thirty (30) day notice period MANNKIND may dispose of the Excess Material without any further liability or obligation to PULMATRIX. The Party ultimately responsible for the disposal of the Excess Materials shall handle, store and dispose of such Excess Materials in compliance with all Applicable Laws. Â  Master Services AgreementPage 3 Â  Â  3.4 Data. MANNKIND shall keep complete, accurate and authentic accounts, notes, data and records of the work performed under this Agreement adequate to comply with all Applicable Laws. MANNKIND shall maintain complete and adequate records pertaining to the methods and facilities used by it for the provision of Services. MANNKIND shall promptly disclose in writing to PULMATRIX any Project Technology developed by MANNKIND during the course of this Agreement. At the completion of the Services by MANNKIND (or termination of the Services by either Party), all raw data relating to the Services, including paper data, computer tapes and other materials as appropriate, will, at PULMATRIXâ€™s option, be transferred to PULMATRIX or retained in the archive of MANNKIND subject to a reasonable annual fee. Â  4. Deliverables. Â  4.1 Regarding the Deliverables. MANNKIND represents and warrants to PULMATRIX that, as of the date of delivery to PULMATRIX, each Deliverable furnished by MANNKIND to PULMATRIX has been manufactured or, otherwise, prepared (as applicable) in conformity with this Agreement and in accordance with Applicable Laws. Â  5. Compensation. Â  5.1 Payment Terms. Â  (a) Compensation for Services. The Parties shall specify the compensation for the Services in a Scope of Work. Â  (b) Timing. MANNKIND will invoice PULMATRIX monthly. Â  (c) Invoices. Electronic submission is the preferred method. Invoices must be sent to finance@pulmatrix.com. Â  (d) Payment. Undisputed payments are due within thirty (30) days of receipt of MANNKINDâ€™s invoice. Unless agreed to by the Parties in writing, all payments to MANNKIND under this Agreement shall be made as set forth in the applicable invoice. Â  If PULMATRIX elects to submit payment via wire transfer or other electronic means, PULMATRIX will be solely responsible for all additional reasonable costs incurred in connection with such electronic payment transmission. Â  (e) Setoff Permitted. Notwithstanding anything to the contrary in this Agreement, and without prejudice to any other right or remedy it has or may have, PULMATRIX may set off or recoup any liability it owes to MANNKIND against any liability for which MANNKIND is liable to PULMATRIX or its Affiliates, whether either liability is matured or unmatured, is liquidated or unliquidated, or arises under this Agreement. Notwithstanding anything to the contrary in this Agreement, and without prejudice to any other right or remedy it has or may have, MANNKIND may set off or recoup any liability it owes to PULMATRIX against any liability for which PULMATRIX is liable to MANNKIND or its Affiliates, whether either liability is matured or unmatured, is liquidated or unliquidated, or arises under this Agreement. Â  Master Services AgreementPage 4 Â  Â  5.2 Payment after Termination. Upon termination of this Agreement pursuant to Section 14, PULMATRIX shall pay MANNKIND all fees for all Services performed through to the termination date. In addition, PULMATRIX shall reimburse MANNKIND for all reasonably incurred future obligations to third parties that cannot be reasonably avoided or mitigated and that were approved by PULMATRIX in writing and in advance. Â  6. Ownership of Intellectual Property. Â  6.1 This Agreement shall not change, modify or otherwise affect any rights to any Confidential Information, inventions, patents, patent applications or other Intellectual Property Rights owned or developed by either Party before the Effective Date (â€œBackground IPâ€). This Agreement shall not confer on either Party any rights in and/or to any Background IP of the other Party. Unless otherwise expressly set forth in this Agreement, this Agreement shall not be construed as conveying any rights to a Partyâ€™s Intellectual Property Rights. Â  6.2 The following provisions shall apply to intellectual property developed under this Agreement: Â  (a) PULMATRIX shall have sole ownership of all rights, title and interest in any inventions that claim or cover PULMATRIXâ€™s Background IP, Active Material, Bulk Drug Product or any improvements thereto and that do not claim or cover MANNKINDâ€™s Background IP (the â€œPULMATRIX Inventionsâ€). MANNKIND shall assign any and all rights, title and interest in such PULMATRIX Inventions to PULMATRIX. Â  (b) MANNKIND shall have sole ownership of all rights, title and interest in any inventions that claim or cover MANNKINDâ€™s Background IP and that do not claim or cover PULMATRIXâ€™s Background IP, Active Material, Bulk Drug Product or any improvement thereto (the â€œMANNKIND Inventionsâ€). PULMATRIX shall assign any and all rights, title and interest in such MANNKIND Inventions to MANNKIND. Â  6.3 PULMATRIX acknowledges that it shall be solely and fully responsible for doing any and all freedom to operate assessments regarding possible infringement of third party Intellectual Property Rights for any and all products and processes for any Deliverables which it makes, has made, uses, sells, offers for sale or imports. Â  7. Confidentiality. Â  7.1 â€œConfidential Informationâ€ means all confidential or proprietary information disclosed or made available by either Party to the other Party, including information about its business affairs, goods and services, forecasts, Background IP, trade secrets, third-party confidential information, and other sensitive or proprietary information, as well as the terms of this Agreement, whether orally or in written, electronic, or other form or media, and whether or not marked, designated, or otherwise identified as â€œconfidential.â€ The chemical structure of any Active Material and Bulk Drug Product shall also be considered Confidential Information of PULMATRIX. Â  Master Services AgreementPage 5 Â  Â  7.2 Use of Confidential Information. Each Party shall use the otherâ€™s Confidential Information solely for the purposes contemplated by this Agreement and for no other purpose without the prior written consent of the other Party. Neither Party shall publish, disseminate or otherwise disclose Confidential Information of the other to any third party without first obtaining the written consent of such other Party. Each Party shall restrict the dissemination of the otherâ€™s Confidential Information to only those directors, officers, employees, agents, representatives and advisors (collectively, â€œAgentsâ€) and to those subcontractors approved in writing in accordance with this Agreement who have a need to know. Each Party shall ensure that all of its Agents and subcontractors are bound by confidentiality obligations no less stringent than those stated herein. The receiving Party shall be liable for any failure of any of its Agents to (a) maintain the confidentiality of the disclosing Partyâ€™s Confidential Information, or (b) otherwise comply with the terms of this Section 7 to the same extent as the receiving Party is obligated to do so. Â  7.3 Exceptions to Confidential Information. The above provisions of confidentiality shall not apply to that part of the disclosing Partyâ€™s Confidential Information that the receiving Party is able to demonstrate by documentary evidence: Â  Â  (a) was in the receiving Partyâ€™s possession prior to receipt from the disclosing Party; Â  Â  Â  Â  (b) was in the public domain at the time of receipt from the disclosing Party; Â  Â  Â  Â  (c) subsequently becomes a part of the public domain through no fault of the receiving Party or its Agents; Â  Â  Â  Â  (d) is lawfully received by the receiving Party from a third party who is not and was not prohibited from disclosing such Confidential Information; and/or Â  Â  Â  Â  (e) is independently developed by or for the receiving Party without reference to or use of the disclosing Partyâ€™s Confidential Information. Â  Notwithstanding the fact that individual components of information are in the public domain, but a particular compilation or integration of such components is not in the public domain, the fact that such individual components are in the public domain does not relieve the receiving Party of its obligations of confidentiality under this Section 7 with regard to the compilation or integration of such components. Â  The above provisions of confidentiality (including the obligations of non-disclosure and non-use) shall not apply to any Confidential Information solely to the extent that such Confidential Information is (a) disclosed to legal counsel solely for the purpose of seeking legal advice and provided it is not further used or disclosed; and/or (b) disclosed or used to prove compliance with this Agreement in a legal action between the Parties provided that adequate protections are sought to prevent further use or disclosure. Â  Master Services AgreementPage 6 Â  Â  7.4 Disclosure Required by Law. The Partiesâ€™ non-disclosure obligations pursuant to this Agreement shall not apply to Confidential Information that a receiving Party is required to disclose pursuant to any Applicable Law, subpoena, judicial action, order of the court or other governmental agency; provided, however, that the receiving Party shall make all reasonable efforts to notify the disclosing Party prior to the disclosure of Confidential Information and cooperate with and allow the disclosing Party the opportunity to contest and avoid such disclosure at its own cost and expense, and further provided that the receiving Party shall disclose only that portion of such Confidential Information that it is legally required to disclose. Â  7.5 Disclosure Required by Business Need. A Party may disclose the text and terms of this Agreement if required in regulatory filings, or in confidential disclosures to investors, partners, potential investors, potential partners and its auditors and attorneys so long as such persons are bound to confidentiality obligations with respect to such text and terms substantially similar to those contained herein. Â  7.6 Return of Confidential Information. Upon termination or expiration of this Agreement or at the disclosing Partyâ€™s earlier written request, the receiving Party shall return, and shall cause its Agents to return, all documentary, electronic or other tangible forms of Confidential Information (that are still subject to confidentiality obligations hereunder) of the disclosing Party, including any and all extracts, summaries or abstracts thereof, and any and all copies of any of the foregoing, or, at the disclosing Partyâ€™s request, destroy all or such parts of the disclosing Partyâ€™s Confidential Information as the disclosing Party shall direct. Notwithstanding the foregoing, the receiving Party may retain copies of the disclosing Partyâ€™s Confidential Information as is reasonably necessary for regulatory purposes or electronic files containing Confidential Information that are made in the ordinary course of its business information back-up procedures pursuant to its electronic record retention and destruction practices that apply to its own general electronic files and information, subject to the ongoing obligation to maintain the confidentiality of such information. Â  7.7 Remedy. Each Party agrees that its obligations hereunder are necessary and reasonable in order to protect the other Party and the other Partyâ€™s business, and expressly agrees that monetary damages would be inadequate to compensate the other Party for any breach of the terms of this Agreement. Accordingly, each Party agrees and acknowledges that any such violation or threatened violation will cause irreparable injury to the other Party, and that, in addition to any other remedies that may be available, the other Party shall be entitled to seek injunctive relief against the threatened breach of this Agreement or the continuation of any such breach, without the necessity of proving actual damages. Â  7.8 Term of Non-Disclosure. All obligations of confidentiality under this Section 7 will terminate ten (10) years after the expiration or termination of this Agreement; provided however that the obligations of confidentiality for Confidential Information that is a trade secret will survive indefinitely until such trade secret information no longer qualifies as a trade secret. Â  7.9 Publication. Except as otherwise provided in this Section 7, MANNKIND shall not publish any articles or make any presentations relating to the Services provided to PULMATRIX under this Agreement, or referring to Materials, PULMATRIXâ€™s Confidential Information, Project Technology or any data, information or materials generated as part of the Services (excluding MANNKINDâ€™s Confidential Information, MANNKINDâ€™S Background IP and MANNKIND Inventions), in whole or in part, without the prior written consent of PULMATRIX. Notwithstanding the forgoing, PULMATRIX shall be permitted to publicly disclose that it has entered into a collaboration with MANNKIND in a press release or other public statement and the general nature of the collaboration, provided, however, that any such disclosure does not include any financial terms or Confidential Information of MANNKIND. Â  Master Services AgreementPage 7 Â  Â  8. Indemnification. Â  8.1 Indemnification of PULMATRIX. MANNKIND shall indemnify, defend and hold PULMATRIX, its Affiliates and their respective officers, directors, employees and agents (each, a â€œPULMATRIX Indemnified Partyâ€) harmless from and against any and all Losses suffered, incurred or sustained by any PULMATRIX Indemnified Party, by reason of any Claim or Proceeding to the extent arising out of or resulting from MANNKINDâ€™S: (i) breach of this Agreement; (ii) negligence or willful misconduct in connection with this Agreement; or (iii) failure to meet specifications with regard to any Deliverable; provided however, that MANNKIND shall have no obligation of indemnity hereunder with respect to any Losses to the extent caused by the negligence or willful misconduct on the part of PULMATRIX. Â  8.2 Indemnification of MANNKIND. Â  (a) PULMATRIX shall indemnify, defend and hold MANNKIND, its Affiliates and their respective officers, directors, employees and agents (each, a â€œMANNKIND Indemnified Partyâ€) harmless from and against any and all Losses suffered, incurred or sustained by any MANNKIND Indemnified Party, by reason of any Claim or Proceeding to the extent arising out of or resulting from PULMATRIXâ€™s (i) breach of this Agreement; or (ii) negligence or willful misconduct in connection with this Agreement; or (iii) resulting from death or bodily injury directly caused by the Bulk Drug Product used in accordance with this Agreement and the SDS; provided however, that PULMATRIX shall have no obligation of indemnity hereunder with respect to any Losses to the extent caused by the negligence or willful misconduct on the part of MANNKIND. Â  (b) PULMATRIX shall also defend, indemnify, and hold harmless MANNKIND, its Affiliates and their respective officers, directors, employees and agents from and against any and all Losses arising out of or resulting from a Claim or Proceeding alleging that a Deliverable, or any part thereof, infringes, misappropriates, or otherwise violates a patent, copyright, trade secret, trademark or other Intellectual Property Right of any third party, except and to the extent that the inclusion of the third partyâ€™s Intellectual Property Right in a Deliverable was the result of (i) MANNKINDâ€™s action in violation of the provisions of this Agreement, (ii) MANNKINDâ€™s negligence or willful misconduct, (iii) MANNKINDâ€™s Background IP, or (iv) any products, materials, process, or equipment supplied or used by MANNKIND or an authorized subcontract. Â  Master Services AgreementPage 8 Â  Â  8.3 Indemnification Procedures. In the event that any Claim or Proceeding is asserted or imposed against any Party, and such Claim or Proceeding involves a matter which is subject to a claim for indemnification under this Section 8, then such Party (an â€œIndemnified Partyâ€) shall promptly give written notice to the other Party (the â€œIndemnifying Partyâ€) of such Claim or Proceeding. The Indemnifying Party shall assume, at its cost and expense, the defense of such Claim or Proceeding through its legal counsel selected and reasonably acceptable to the Indemnified Party, except that the Indemnified Party may, at its option and expense, select and be represented by separate counsel. The Indemnifying Party shall have control over the Claim or Proceeding, including the right to settle; provided, however, that the Indemnifying Party shall not, absent the prior written consent of the Indemnified Party, consent to the entry of any judgment or enter into any settlement that (1) provides for any relief other than the payment of monetary damages for which the Indemnifying Party shall be solely liable and (2) where the claimant or plaintiff does not release the Indemnified Party, its Affiliates and their respective directors, officers, employees, agents and representatives, as the case may be, from all liability in respect thereof. In no event shall the Indemnified Party be liable for any claims that are compromised or settled in violation of this Section 8. Â  9. Compliance with Laws. Â  9.1 Each Party shall comply with all Applicable Laws, rules, regulations, codes, and standards of all federal, state, local and municipal government agencies that affect their respective performance and activities under this Agreement. Â  9.2 MANNKIND represents, warrants, and certifies that neither it nor any of its officers, directors, owners, principals or employees has been debarred under Section 306 of the Federal Food, Drug and Cosmetic Act, 21 U.S.C. Â§335a(a) or (b), or similar local law. MANNKIND shall not use in any capacity the services of any individual, corporation, partnership, or association which has been debarred. In the event that any such party becomes debarred, MANNKIND shall notify PULMATRIX in writing immediately. Â  9.3 Except to the extent resulting from any breach of this Agreement by MANNKIND, it is PULMATRIXâ€™s responsibility to ensure that any pharmaceutical product that PULMATRIX distributes based on or resulting from the Services will take the form described in any documents used for all governmental approvals and will comply with all governmental applications, submissions, and approvals filed by PULMATRIX, or given to PULMATRIX, by any regulatory agency in any other jurisdiction. Â  10. Independent Contractor. The relationship of MANNKIND to PULMATRIX in the performance of this Agreement shall be that of independent contractor. Nothing in this Agreement creates any agency, joint venture, partnership, or other form of joint enterprise, employment or fiduciary relationship between the Parties. Neither Party has any express or implied right or authority to assume or create any obligations on behalf of or in the name of the other Party or to bind the other Party to any contract, agreement, or undertaking with any third party. Â  11. Term and Termination. Â  11.1 Term. The term of this Agreement shall commence on the Effective Date and shall continue for a term of twelve months, unless extended by the Partiesâ€™ mutual written agreement, including a Scope of Work. Â  Master Services AgreementPage 9 Â  11.2 Termination by PULMATRIX. This Agreement may be terminated without cause by PULMATRIX on thirty (30) daysâ€™ prior written notice to MANNKIND. Â  11.3 Termination for Breach. Either Party may terminate this Agreement for material breach upon thirty (30) daysâ€™ written notice specifying the nature of the breach if such breach is not cured within the 30-day notice period. During such 30-day cure period, each Party will continue to perform its obligations under this Agreement. In the event of termination by PULMATRIX for breach by MANNKIND, PULMATRIX shall not be required to pay MANNKIND for any fees directly relating to the breach. In the event of a breach by MANNKIND, at PULMATRIXâ€™s option, MANNKIND shall either re-perform the Services related directly to the breach or refund to PULMATRIX any fees paid by PULMATRIX which relate directly to the breach. Â  11.4 Survival of Obligations Following Termination. The termination of this Agreement for any reason shall not relieve either Party of its obligation to the other for those obligations set forth in Sections 6 (Ownership of Intellectual Property), 7 (Confidentiality), 8 (Indemnification) and 16 (Miscellaneous). Â  12. Risk of Loss. Â  12.1 Risk of Loss. MANNKIND shall be responsible for risk of loss (including damage, theft, or other loss) of PULMATRIXâ€™s Materials or property that are stored on MANNKINDâ€™s premises. Â  13. Miscellaneous. Â  13.1 Assignment; No Third Party Beneficiaries. This Agreement may not be assigned by either Party without the prior written consent of the other Party; provided, however, that without the prior consent of the other Party, a Party may assign this Agreement hereunder to (a) a successor-in-interest by reason of any merger, acquisition, partnership, or license agreement, or (b) a purchaser of all or substantially all of a Partyâ€™s assets to which this Agreement relates. Nothing in this Agreement express or implied, is intended to confer on any person or entity other than the Parties hereto or their respective successors and permitted assigns, any benefits, rights or remedies. Â  13.2 Waiver of Default. A waiver by either Party of any violation of or default in any provision of this Agreement shall not constitute a waiver of (i) any subsequent violation of or default in the same provision, or (ii) any violation of or default in any other provision of this Agreement. Â  13.3 Void and Severable Provisions. If any arbitrator or court of competent jurisdiction determines that any provision of this Agreement is void, the remainder of this Agreement shall continue to be binding on and inure to the benefit of both Parties. Â  13.4 Notices. Any notice shall be in writing and deemed sufficiently given when received by the party notified at the address given below, or when mailed, if mailed by registered or certified mail, return receipt requested, and postage paid. Â  Master Services AgreementPage 10 Â  Â  To PULMATRIX: Â  Pulmatrix, Inc. 945 Concord Street Framingham MA 01701 ATTN: Ted Raad traad@pulmatrix.com Â  To MANNKIND: Â  MannKind Corporation 1 Casper St. Danbury, Connecticut 06810 ATTN: General Counsel Â  WITH COPIES VIA EMAIL TO: Â  traad@pulmatrix.com; mcastagna@mannkindcorp.com; legal@mannkindcorp.com Â  13.5 Entire Agreement. This Agreement, including all Scopes of Work, supersedes any previous agreement or arrangement between the Parties in relation to the Services and represents the entire agreement between the Parties with respect to the subject matter hereof, and it may not be varied except as provided by an instrument in writing by persons legally authorized by each of the Parties. Â  13.6 Dispute Resolution. Any dispute, controversy, or claim arising out of or relating to this Agreement, or the breach, termination, or invalidity hereof (each, a â€œDisputeâ€), shall be submitted for negotiation and resolution to the Chief Financial Officer of PULMATRIX (or to such other person of equivalent or superior position designated by PULMATRIX in a written notice to MANNKIND) and the Chief Financial Officer of MANNKIND (or to such other person of equivalent or superior position designated by MANNKIND in a written notice to PULMATRIX), by delivery of written notice (each, a â€œDispute Noticeâ€) from either Party to the other Party. Such persons shall negotiate in good faith to resolve the Dispute. If the Parties cannot resolve the Dispute within thirty (30) days after delivery of the applicable Dispute Notice, either Party may file suit in a court of competent jurisdiction in accordance with the provisions of Section 16.11. Â  13.7 Force Majeure. Neither Party shall be liable for delays in performance or nonperformance in whole or in part, and neither Party shall be deemed to be in breach of its obligations, if such failure or delay is due to any causes that are beyond its reasonable control and not due to its acts or omissions, such as acts of God; flood; volcanic eruption; epidemic; fire; war; terrorism; strike; industrial dispute; equipment or machinery breakdown; unavailable or nonconforming vendor-supplied raw materials; embargo; acts of government or other similar causes. In such event, the Party delayed shall promptly give notice to the other Party. The Party affected by the otherâ€™s delay may elect to suspend performance and extend the time for performance for the duration of the event or to cancel or terminate all or any part of the unperformed part of this Agreement without penalty. Â  Master Services AgreementPage 11 Â  Â  13.8 Governing Law. This Agreement, including any exhibits, schedules, attachments, and appendices attached to this Agreement and thereto, and all matters arising out of or relating to this Agreement, are governed by, and construed in accordance with, the laws of the Commonwealth of Massachusetts without regard to the conflict of laws provisions thereof to the extent such principles or rules would require or permit the application of the laws of any jurisdiction other than those of the Commonwealth of Massachusetts. The Parties acknowledge and agree that the United Nations Convention on Contracts for the International Sale of Goods does not apply to this Agreement. Â  13.9 Amendments. No amendment, change or modification to this Agreement shall be effective unless in writing and executed by MANNKIND and PULMATRIX. Â  13.10 Jurisdiction. Each Party irrevocably and unconditionally agrees that it will not commence any action, litigation, or proceeding of any kind whatsoever against the other Party in any way arising from or relating to this Agreement, including any exhibits, schedules, attachments, and appendices attached to this Agreement and thereto, and all contemplated transactions, including contract, equity, tort, fraud, and statutory claims, in any forum other than the courts of the Commonwealth of Massachusetts, and any appellate court from any thereof. Each Party irrevocably and unconditionally submits to the exclusive jurisdiction of such courts and agrees to bring any such action, litigation, or proceeding only in the courts of the Commonwealth of Massachusetts. Each Party agrees that a final judgment in any such action, litigation, or proceeding is conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by Applicable Law. Â  13.11 Further Assurances. Â  (a) Each Party shall cooperate fully with the other Party and to execute such further instruments, documents and agreements, and to give further written assurances as may reasonably be requested by the other Party to evidence and reflect the transactions described herein, and to carry into effect the intents and purposes of this Agreement. Â  (b) MANNKIND shall execute, acknowledge and deliver all documents, including all instruments of assignment, patent and copyright applications and supporting documents, and to perform all acts, that PULMATRIX may reasonably request to perfect, secure, defend and maintain its Intellectual Property Rights to the Deliverables and to carry out the intent of this Agreement. MANNKIND shall assist PULMATRIX, at PULMATRIXâ€™s expense, to obtain for PULMATRIX, in any and all countries, patents, trademarks, copyrights or other legal protection for all Intellectual Property Rights in the Deliverables provided hereunder. PULMATRIX shall reimburse MANNKIND for its reasonable fees, costs and expenses incurred in the foregoing. Â  13.12 Rules of Construction. References in this Agreement to â€œSectionsâ€ refer to Sections of this Agreement, unless the context expressly indicates otherwise. References to â€œprovisionsâ€ of this Agreement refer to the terms, conditions, restrictions and promises contained in this Agreement. References in this Agreement to laws and regulations refer to such laws and regulations as in effect on this date and to the corresponding provisions, if any, of any successor law or regulation. At each place in this Agreement where the context so requires, the masculine, feminine or neuter gender includes the others and the singular or plural number includes the other. Forms of the verb â€œincludingâ€ mean â€œincluding without limitation.â€ The introductory headings at the beginning of Sections of this Agreement (other than definitions) are solely for the convenience of the Parties and do not affect any provision of this Agreement. Â  13.13 Third Party Rights: Except as specifically provided in this Agreement, no person who is not a party to this Agreement has any right under the Contracts (Rights of Third Parties) Act 1999 to enforce any of its terms. Â  Master Services AgreementPage 12 Â  Â  IN WITNESS WHEREOF the Parties have signed their names as of the Effective Date. Â  MANNKIND CORPORATION Â  PULMATRIX, INC. Â  Â  Â  Â  Â  By: /s/ Michael Castagna Â  By: /s/ Teofilo Raad Name: Michael Castagna Â  Name: Teofilo Raad Title: Chief Executive Officer Â  Title: Chief Executive Officer Â  Master Services AgreementPage 13 Â  Â  Exhibit A Â  Scope of Work Â  THIS SCOPE OF WORK NO. ___(the â€œSOPâ€) is made and entered into by and between MannKind Corporation having its offices at 1 Casper St, Danbury, Connecticut 06810 (â€œMANNKINDâ€) and Pulmatrix, Inc., a Delaware corporation, having an address at 945 Concord Street, Framingham MA 01701 (â€œPULMATRIXâ€) and upon execution shall be incorporated into the Master Services Agreement between MANNKIND and PULMATRIX dated March 1, 2024 (the â€œAgreementâ€). Â  PULMATRIX hereby engages MANNKIND to provide Services as follows: Â  1. Services. [Insert detailed description of specific Services, milestones, Deliverables, and target completion dates.] Â  2. Compensation and Expenses. [Insert if applicable.] Â  3. Project Contacts (MANNKIND and PULMATRIX): [Insert contact details.] Â  4. Term. This SOP shall commence on the date last signed below and, unless earlier terminated in accordance with the Agreement, shall expire upon completion of the Services and obligations hereunder. Â  5. Except as modified by this SOP, all other terms and conditions of the Agreement shall remain in effect. Â  AGREED TO AND ACCEPTED BY: Â  MANNKIND CORPORATION Â  PULMATRIX, INC. Â  Â  Â  Â  Â  By: /s/ Michael Castagna Â  By: /s/ Teofilo Raad Name: Michael Castagna Â  Name: Teofilo Raad Title: Chief Executive Officer Â  Title: Chief Executive Officer Date: Â  Â  Date: Â  Â  Master Services AgreementPage 14 Â  EX-31.1 5 ex31-1.htm Â  Exhibit 31.1 Â  CERTIFICATIONS UNDER SECTION 302 Â  I, Peter Ludlum, certify that: Â  1. I have reviewed this Quarterly Report on Form 10-Q of Pulmatrix, Inc.; Â  Â  Â  2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; Â  Â  Â  3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report; Â  Â  Â  4. The registrantâ€™s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have: Â  Â  Â  Â  a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; Â  Â  Â  Â  b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; Â  Â  Â  Â  c) evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and Â  Â  Â  Â  d) disclosed in this report any change in the registrantâ€™s internal control over financial reporting that occurred during the registrantâ€™s most recent fiscal quarter (the registrantâ€™s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; and Â  Â  5. The registrantâ€™s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions): Â  Â  Â  Â  a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; and Â  Â  Â  Â  b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting. Â  Date: August 13, 2024 Â  Â  /s/ Peter Ludlum Â  Peter Ludlum Â  Interim Chief Executive Officer and Interim Chief Financial Officer Â  (Principal Executive, Financial and Accounting Officer) Â  Â  Â  Â  EX-32.1 6 ex32-1.htm Â  Exhibit 32.1 Â  CERTIFICATIONS UNDER SECTION 906 Â  Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Pulmatrix, Inc., a Delaware corporation (the â€œCompanyâ€), does hereby certify, to such officerâ€™s knowledge and in the capacity of an officer, that: Â  The Quarterly Report for the quarter ended June 30, 2024 (the â€œForm 10-Qâ€) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities

Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Form 10-Q. Â  Date: August 13, 2024 By: /s/ Peter Ludlum Â  Â  Peter Ludlum Â  Â  Interim Chief Executive Officer and Interim Chief Financial Officer (Principal Executive, Financial and Accounting Officer) Â  Â  Â  Â  GRAPHIC 7 ex10-4_002.jpg

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(Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000030 - Disclosure - Schedule of Prepaid Expenses and Other Current Assets (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000031 - Disclosure - Schedule of Property and Equipment (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000032 - Disclosure - Property and Equipment, Net (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000033 - Disclosure - Schedule of Accrued Expenses and Other Current Liabilities (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000034 - Disclosure - Significant Agreements (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000035 - Disclosure - Common Stock (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000036 - Disclosure - Schedule of Warrants Outstanding (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000037 - Disclosure - Warrants (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000038 - Disclosure - Schedule of Stock Option Activity (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000039 - Disclosure - Schedule of Stock-based Compensation Expenses (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000040 - Disclosure - Stock-based Compensation (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000041 - Disclosure - Schedule of Components of Lease Expenses (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000042 - Disclosure - Schedule of Maturities of Lease Liabilities (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000043 - Disclosure - Leases (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000044 - Disclosure - Income Taxes (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink 00000045 - Disclosure - Schedule of Computation of Anti-Dilutive Weighted-Average Shares Outstanding (Details)link:presentationLinklink:calculationLinklink:definitionLink 00000046 - Disclosure - Subsequent Events (Details Narrative)link:presentationLinklink:calculationLinklink:definitionLink EX-101.CAL 9 pulm-20240630_cal.xml XBRL CALCULATION FILE EX-101.DEF 10 pulm-20240630_def.xml XBRL DEFINITION FILE EX-101.LAB 11 pulm-20240630_lab.xml XBRL LABEL FILE Entity Addresses, Address Type [Axis] Former Address [Member] Class of Stock [Axis] Series A Convertible Preferred Stock [Member] Equity Components [Axis] Preferred Stock [Member] Common Stock [Member] Additional Paid-in Capital [Member] Retained Earnings [Member] Concentration Risk Benchmark [Axis] Revenue from Contract with Customer Benchmark [Member] Concentration Risk Type [Axis] Customer Concentration Risk [Member] Customer [Axis] One Customer [Member] Accounts Receivable [Member] Two Customer [Member] Long-Lived Tangible Asset [Axis] Laboratory Equipment [Member] Leasehold Improvements [Member] Office Furniture and Equipment [Member] Computer Equipment [Member] Capital in Progress [Member] Collaborative Arrangement and Arrangement Other than Collaborative [Axis] Cipla Agreement [Member] Legal Entity [Axis] Cipla Technologies LLC [Member] Product and Service [Axis] Research and Development Service [Member] Irrevocable License [Member] Lease Assignment Agreement [Member] H.C.Wainwright and Co., LLC [Member] Sale Agreement [Member] Statistical Measurement [Axis] Minimum [Member] Sale of Stock [Axis] ATM Offering [Member] Subsequent Event Type [Axis] Subsequent Event [Member] Award Type [Axis] Warrant One [Member] Warrant Two [Member] Warrant Three [Member] Warrant Four [Member] Warrant Five [Member] Warrant Six [Member] Warrant Seven [Member] Warrant Eight [Member] Warrant Nine [Member] Warrant Ten [Member] Warrant [Member] Plan Name [Axis] Incentive Plan [Member] Legacy Share Plan [Member] Stock Award Plan [Member] Derivative Instrument [Axis] Equity Option [Member] Statement of Income Location, Balance [Axis] Research and Development Expense [Member] General and Administrative Expense [Member] Lease Agreement [Member] Related Party Transaction [Axis] Cobalt Propco [Member] Antidilutive Securities [Axis] Options to Purchase Common Stock [Member] Warrants to Purchase Common Stock [Member] Raad Severance Agreement [Member] Entity Addresses [Table] Entity Addresses [Line Items] Document Type Amendment Flag Amendment Description Document Registration Statement Document Annual Report Document Quarterly Report Document Transition Report Document Shell Company Report Document Shell Company Event Date Document Period Start Date Document Period End Date Document Fiscal Period Focus Document Fiscal Year Focus Current Fiscal Year End Date Entity File Number Entity Registrant Name Entity Central Index Key Entity Primary SIC Number Entity Tax Identification Number Entity Incorporation, State or Country Code Entity Address, Address Line One Entity Address, Address Line Two Entity Address, Address Line Three Entity Address, City or Town Entity Address, State or Province Entity Address, Country Entity Address, Postal Zip Code Country Region City Area Code Local Phone Number Extension Written Communications Soliciting Material Pre-commencement Tender Offer Pre-commencement Issuer Tender Offer Title of 12(b) Security No Trading Symbol Flag Trading Symbol Security Exchange Name Title of 12(g) Security Security Reporting Obligation Annual Information Form Audited Annual Financial Statements Entity Well-known Seasoned Issuer Entity Voluntary Filers Entity Current Reporting Status Entity Interactive Data Current Entity Filer Category Entity Small Business Entity Emerging Growth Company Elected Not To Use the Extended Transition Period Document Accounting Standard Other Reporting Standard Item Number Entity Shell Company Entity Public Float Entity Bankruptcy Proceedings, Reporting Current Entity Common Stock, Shares Outstanding Documents Incorporated by Reference [Text Block] Statement of Financial Position [Abstract] Assets Current assets: Cash and cash equivalents Restricted cash Accounts receivable Prepaid expenses and other current assets Total current assets Property and equipment, net Operating lease right-of-use asset Long-term restricted cash Other long-term assets Total assets Liabilities and stockholders' equity Current liabilities: Accounts payable Accrued expenses and other current liabilities Operating lease liability Deferred revenue Total current liabilities Deferred revenue, net of current portion Operating lease liability, net of current portion Total liabilities Commitments and contingencies (Note 10) Stockholders' equity: Preferred Stock, $0.0001 par value — 500,000 shares authorized; 6,746 shares designated Series A convertible preferred stock; no shares issued and outstanding at June 30, 2024 and December 31, 2023 Common stock, $0.0001 par value — 200,000,000 shares authorized; 3,652,285 shares issued and outstanding at June 30, 2024 and December 31, 2023 Additional paid-in capital Accumulated deficit Total stockholders' equity Total liabilities and stockholders' equity Statement [Table] Statement [Line Items] Preferred stock, par value Preferred stock, shares authorized Preferred stock, shares issued Preferred stock, shares outstanding Common stock, par value Common stock, shares authorized Common stock, shares issued Common stock, shares outstanding Income Statement [Abstract] Revenues Operating expenses: Research and development General and administrative Loss on disposal group held for sale Total operating expenses Loss from operations Other income (expense): Interest income Other expense, net Total other income, net Net loss Net loss per share attributable to common stockholders - basic Net loss per share attributable to common stockholders - diluted Weighted average common shares outstanding - basic Weighted average common shares outstanding - diluted Balance Balance, shares Stock-based compensation Net income (loss) Issuance of common stock, net of issuance costs Issuance of common stock, net of issuance costs, shares Balance Balance, shares Statement of Cash Flows [Abstract] Cash flows from operating activities: Net loss Adjustments to reconcile net loss to net cash used in operating activities: Depreciation and amortization Amortization of operating lease right-of-use asset Stock-based compensation Changes in operating assets and liabilities: Accounts receivable Prepaid expenses and other current assets Other long-term assets Accounts payable Accrued expenses and other current liabilities Operating lease liability Deferred revenue Net cash used in operating activities Cash flows from investing activities: Purchases of property and equipment Net cash used in investing activities Cash flows from financing activities: Proceeds from issuance of common stock, net of issuance costs Net cash provided by financing activities Net decrease in cash, cash equivalents and restricted cash Cash, cash equivalents and restricted cash — beginning of period Total cash, cash equivalents and restricted cash Reconciliation of cash, cash equivalents and restricted cash to the consolidated balance sheets: Cash and cash equivalents Restricted cash Long-term restricted cash Supplemental disclosures of non-cash investing and financing information: Reduction of operating lease right-of-use asset and lease liability upon lease modification Purchases of property and equipment not yet paid Operating lease right-of-use asset obtained in exchange for operating lease obligation Organization, Consolidation and Presentation of Financial Statements [Abstract] Organization Accounting Policies [Abstract] Summary of Significant Accounting Policies and Recent Accounting Standards Prepaid Expenses And Other Current Assets Prepaid Expenses and Other Current Assets Property, Plant and Equipment [Abstract] Property and Equipment, Net Payables and Accruals [Abstract] Accrued Expenses and Other Current Liabilities Commitments and Contingencies Disclosure [Abstract] Significant Agreements Equity [Abstract] Common Stock Warrants Warrants Share-Based Payment Arrangement [Abstract] Stock-based Compensation Commitments and Contingencies Leases Leases Income Tax Disclosure [Abstract] Income Taxes Earnings Per Share [Abstract] Net Loss Per Share Subsequent Events [Abstract] Subsequent Events Basis of Presentation Use of Estimates Concentrations of Credit Risk Summary of Significant Accounting Policies Recent Accounting Pronouncements Schedule of Prepaid Expenses and Other Current Assets Schedule of Property and Equipment Schedule of Accrued Expenses and Other Current Liabilities Schedule of Warrants Outstanding Schedule of Stock Option Activity Schedule of Stock-based Compensation Expenses Schedule of Components of Lease Expenses Schedule of Maturities of Lease Liabilities Schedule of Computation of Anti-Dilutive Weighted-Average Shares Outstanding Nature of Operation, Product Information, Concentration of Risk [Table] Product Information [Line Items] Concentration risk percentage Schedule Of Prepaid Expenses And Other Current Assets Clinical and consulting Insurance Software and hosting costs Other Total prepaid expenses and other current assets Property, Plant and Equipment [Table] Property, Plant and Equipment [Line Items] Total property and equipment Less accumulated depreciation and amortization Property and equipment, net Depreciation and amortization Wages and incentives Clinical and consulting Legal and patents Accrued purchases of property and equipment Other Total accrued expenses and other current liabilities Product Liability Contingency [Table] Product Liability Contingency [Line Items] Proceeds from related party debt Agreement description Transaction cost Revenue Deferred revenue Decrease in right-of-use asset Disposal of carrying value Subsidiary or Equity Method Investee, Sale of Stock, Type [Table] Subsidiary, Sale of Stock [Line Items] Sale of stock, consideration received on transaction Commission percentage Number of shares issued in transaction Schedule of Share-Based Compensation Arrangements by Share-Based Payment Award [Table] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue Date Warrants, Exercise Price Warrants, Expiration Date Number of Shares Underlying Warrants, Outstanding Total Number of Shares Underlying Warrants, Exercisable Total Warrants, Expiration Date, Description Subsequent Event [Table] Subsequent Event [Line Items] Warrants issued or exercised Purchase of warrants Warrants exercise price Offsetting Assets [Table] Offsetting Assets [Line Items] Number of Options, Outstanding, Balance Weighted Average Exercise Price, Outstanding, Balance Weighted Average Remaining Contractual Term (Years), Outstanding Aggregate Intrinsic Value, Balance Number of Options, Forfeited or expired Weighted Average Exercise Price, Forfeited or expired Number of Options, Outstanding, Balance Weighted Average Exercise Price, Outstanding, Balance Aggregate Intrinsic Value, Balance Number of Options, Exercisable Weighted Average Exercise Price, Outstanding, Exercisable Weighted Average Remaining Contractual Term (Years), Exercisable Aggregate Intrinsic Value, Exercisable Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Table] Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Line Items] Total stock-based compensation expense Share based compensation arrangement, number of shares authorized Share based compensation arrangement, number of shares available for grant Share based compensation arrangement, award options outstanding number Unrecognized stock-based compensation expenses Weighted-average period of unrecognized stock-based compensation expense Schedule Of Components Of Lease Expenses Lease cost Fixed lease cost Variable lease cost Total lease cost Cash paid for amounts included in the measurement of lease liabilities Weighted-average remaining lease term - operating leases Weighted-average discount rate - operating leases Schedule Of Maturities Of Lease Liabilities 2024 (7 days) Total lease payments Less: interest Total lease liabilities Lease liabilities — short term Lease liabilities — long term Collaborative Arrangement and Arrangement Other than Collaborative [Table] Collaborative Arrangement and Arrangement Other than Collaborative [Line Items] Area of land Lessee, operating lease, description Payments for rent Restricted cash Income tax expense Antidilutive Security, Excluded EPS Calculation [Table] Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items] Total options and warrants to purchase common stock Termination related payments One Customer [Member] Two Customer [Member] Significant Accounting [Policy Text Block] Disclosure of prepaid expenses and other current assets [Text Block] Prepaid clinical and consulting. Prepaid software and hosting costs. Accrued legal and patent current. Accrued purchases of property and equipment. Cipla Agreement [Member] Cipla Technologies LLC [Member] Agreement description. Aggregate transaction price Research and Development Service [Member] Series A Convertible Preferred Stock [Member] Irrevocable License [Member] H.C.Wainwright and Co., LLC [Member]. Sale Agreement [Member] ATM Offering [Member] Commission percentage. Disclosure of warrants [Text Block] Warrants issued or exercised. Warrant One [Member] Warrant Two [Member] Warrant Three [Member] Warrant Four [Member] Warrant Five [Member] Warrant Six [Member] Warrant Seven [Member] Warrant Eight [Member] Warrant Nine [Member] Warrant Ten [Member] Warrants expiration date description Loss on disposal group held for sale. Share-based compensation arrangement by share-based payment award non-option equity instruments exercisable number. Incentive Plan [Member] Legacy Share Plan [Member] Stock Award Plan [Member] Lease Agreement [Member] Cobalt Propco [Member] Reduction of operating lease rightofuse asset and lease liability upon lease modification. Lease Assignment Agreement [Member] Options to Purchase Common Stock [Member] Warrants to Purchase Common Stock [Member] Termination related payments. Raad Severance Agreement [Member] Mr Ludlum [Member] Rentention Letter Agreement [Member] Disoposal of carrying value. Laboratory Equipment [Member] Office Furniture and Equipment [Member] Capital in Progress [Member] Increase decrease in right of use asset. Retention amount payable. Payments of services fee. Assets, Current Assets [Default Label] Liabilities, Current Liabilities Equity, Attributable to Parent Liabilities and Equity Operating Expenses Operating Income (Loss) Nonoperating Income (Expense) Shares, Outstanding Share-Based Payment Arrangement, Noncash Expense Increase (Decrease) in Accounts Receivable Increase (Decrease) in Prepaid Expense and Other Assets Increase (Decrease) in Other Noncurrent Assets Increase (Decrease) in Accounts Payable Increase (Decrease) in Accrued Liabilities Increase (Decrease) in Operating Lease Liability Increase (Decrease) in Deferred Revenue Net Cash Provided by (Used in) Operating Activities Payments to Acquire Property, Plant, and Equipment Net Cash Provided by (Used in) Investing Activities Net Cash Provided by (Used in) Financing Activities Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Period Increase (Decrease), Including Exchange Rate Effect Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Including Disposal Group and Discontinued Operations Disclosure of warrants [Text Block] Lessee, Operating Leases [Text Block] Accumulated Depreciation, Depletion and Amortization, Property, Plant, and Equipment Depreciation, Depletion and Amortization, Nonproduction Employee-related Liabilities, Current Other Accrued Liabilities, Current Deferred Revenue Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Intrinsic Value Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures and

~~Expirations in Period Lease, Cost Lessee, Operating Lease, Liability, to be Paid Lessee, Operating Lease, Liability, Undiscounted Excess Amount Operating Lease, Liability Restricted Cash EX-101.PRE 12 pulm-20240630_pre.xml XBRL PRESENTATION FILE XML 14 R1.htm IDEA: XBRL DOCUMENT~~
~~Cover - shares~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~
~~Aug. 08, 2024~~

~~Entity Addresses [Line Items] Document Type 10-Q Amendment Flag false Document Quarterly Report true Document Transition Report false Document Period End Date Jun. 30, 2024 Document Fiscal Period Focus Q2 Document Fiscal Year Focus 2024 Current Fiscal Year End Date --12-31 Entity File Number 001-36199 Entity Registrant Name PULMATRIX, INC. Entity Central Index Key 0001574235 Entity Tax Identification Number 46-1821392 Entity Incorporation, State or Country Code DE Entity Address, Address Line One 945 Concord Street Entity Address, Address Line Two Suite 1217 Entity Address, City or Town Framingham Entity Address, State or Province MA Entity Address, Postal Zip Code 01701 City Area Code (888) Local Phone Number 355-4440 Title of 12(b) Security Common Stock, par value $0.0001 per share Trading Symbol PULM Security Exchange Name NASDAQ Entity Current Reporting Status Yes Entity Interactive Data Current Yes Entity Filer Category Non-accelerated Filer Entity Small Business true Entity Emerging Growth Company false Entity Shell Company false Entity Common Stock, Shares Outstanding 3,652,285 Former Address [Member] Entity Addresses [Line Items] Entity Address, Address Line One 36 Crosby Drive Entity Address, Address Line Two Suite 100 Entity Address, City or Town Bedford Entity Address, State or Province MA Entity Address, Postal Zip Code 01730~~

~~- Definition~~

~~Boolean flag that is true when the XBRL content amends previously-filed or accepted submission.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name: dei_AmendmentFlag Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~Area code of city~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name: dei_CityAreaCode Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~End date of current fiscal year in the format --MM-DD.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name: dei_CurrentFiscalYearEndDate Namespace Prefix: dei_ Data Type: xbrli:gMonthDayItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~Fiscal period values are FY, Q1, Q2, and Q3. 1st, 2nd and 3rd quarter 10-Q or 10-QT statements have value Q1, Q2, and Q3 respectively, with 10-K, 10-KT or other fiscal year statements having FY.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name: dei_DocumentFiscalPeriodFocus Namespace Prefix: dei_ Data Type: dei:fiscalPeriodItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~This is focus fiscal year of the document report in YYYY format. For a 2006 annual report, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name: dei_DocumentFiscalYearFocus Namespace Prefix: dei_ Data Type: xbrli:gYearItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~For the EDGAR submission types of Form 8-K: the date of the report, the date of the earliest event reported; for the EDGAR submission types of Form N-1A: the filing date; for all other submission types: the end of the reporting or transition period. The format of the date is YYYY-MM-DD.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name: dei_DocumentPeriodEndDate Namespace Prefix: dei_ Data Type: xbrli:dateItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~Boolean flag that is true only for a form used as an quarterly report.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Form 10-Q -Number 240 -Section 308 -Subsection a~~

~~+ Details~~
~~Name: dei_DocumentQuarterlyReport Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~Boolean flag that is true only for a form used as a transition report.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Forms 10-K, 10-Q, 20-F -Number 240 -Section 13 -Subsection a-1~~

~~+ Details~~
~~Name: dei_DocumentTransitionReport Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration~~

~~- Definition~~

~~The type of document being provided (such as 10-K, 10-Q, 485BPOS, etc). The document type is limited to the same value as the supporting SEC submission type, or the word 'Other'.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_DocumentType Namespace Prefix:dei_ Data Type:dei:submissionTypeItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Address Line 1 such as Attn, Building Name, Street Name~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressAddressLine1 Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Address Line 2 such as Street or Suite number~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressAddressLine2 Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Name of the City or Town~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressCityOrTown Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Code for the postal or zip code~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressPostalZipCode Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Name of the state or province.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressStateOrProvince Namespace Prefix:dei_ Data Type:dei:stateOrProvinceItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressesLineItems Namespace Prefix:dei_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~A unique 10-digit SEC-issued value to identify entities that have filed disclosures with the SEC. It is commonly abbreviated as CIK.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityCentralIndexKey Namespace Prefix:dei_ Data Type:dei:centralIndexKeyItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Indicate number of shares or other units outstanding of each of registrant's classes of capital or common stock or other ownership interests, if and as stated on cover of related periodic report. Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument [Domain] of the Entity Listings, Instrument.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityCommonStockSharesOutstanding Namespace Prefix:dei_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Indicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityCurrentReportingStatus Namespace Prefix:dei_ Data Type:dei:yesNoItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Indicate if registrant meets the emerging growth company criteria.*~~

~~+ References~~

~~*Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2*~~

~~+ Details~~
~~Name:dei_EntityEmergingGrowthCompany Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Commission file number. The field allows up to 17 characters. The prefix may contain 1-3 digits, the sequence number may contain 1-8 digits, the optional suffix may contain 1-4 characters, and the fields are separated with a hyphen.*~~

~~+ References~~

~~*No definition available.*~~

~~+ Details~~
~~Name:dei_EntityFileNumber Namespace Prefix:dei_ Data Type:dei:fileNumberItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Indicate whether the registrant is one of the following: Large Accelerated Filer, Accelerated Filer, Non-accelerated Filer. Definitions of these categories are stated in Rule 12b-2 of the Exchange Act. This information should be based on the registrant's current or most recent filing containing the related disclosure.*~~

~~+ References~~

~~*Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2*~~

~~+ Details~~
~~Name:dei_EntityFilerCategory Namespace Prefix:dei_ Data Type:dei:filerCategoryItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Two-character EDGAR code representing the state or country of incorporation.*~~

~~+ References~~

~~*No definition available.*~~

~~+ Details~~
~~Name:dei_EntityIncorporationStateCountryCode Namespace Prefix:dei_ Data Type:dei:edgarStateCountryItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Boolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).*~~

~~+ References~~

~~*Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-T -Number 232 -Section 405*~~

~~+ Details~~
~~Name:dei_EntityInteractiveDataCurrent Namespace Prefix:dei_ Data Type:dei:yesNoItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*The exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC.*~~

~~+ References~~

~~*Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2*~~

~~+ Details~~
~~Name:dei_EntityRegistrantName Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Boolean flag that is true when the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act.*~~

~~+ References~~

~~*Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2*~~

~~+ Details~~
~~Name:dei_EntityShellCompany Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~*Indicates that the company is a Smaller Reporting Company (SRC).*~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntitySmallBusiness Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The Tax Identification Number (TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityTaxIdentificationNumber Namespace Prefix:dei_ Data Type:dei:employerIdItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Local phone number for entity.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_LocalPhoneNumber Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Title of a 12(b) registered security.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b~~

~~+ Details~~
~~Name:dei_Security12bTitle Namespace Prefix:dei_ Data Type:dei:securityTitleItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Name of the Exchange on which a security is registered.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection d1-1~~

~~+ Details~~
~~Name:dei_SecurityExchangeName Namespace Prefix:dei_ Data Type:dei:edgarExchangeCodeItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Trading symbol of an instrument as listed on an exchange.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_TradingSymbol Namespace Prefix:dei_ Data Type:dei:tradingSymbolItemType Balance Type:na Period Type:duration~~

~~- Details~~
~~Name:dei_EntityAddressesAddressTypeAxis=dei_FormerAddressMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 15 R2.htm IDEA: XBRL DOCUMENT Consolidated Balance Sheets - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Current assets: Cash and cash equivalents$ 12,379$ 19,173Restricted cash1,421Accounts receivable635928Prepaid expenses and other current assets1,201742Total current assets15,63620,843Property and equipment, net1,158Operating lease right-of-use asset 10,309Long-term restricted cash511,472Other long-term assets93176Total assets15,78033,958Current liabilities: Accounts payable3931,915Accrued expenses and other current liabilities1,783947Operating lease liability24429Deferred revenue270618Total current liabilities2,4703,909Deferred revenue, net of current portion3,727Operating lease liability, net of current portion8,327Total liabilities2,47015,963Commitments and contingencies (Note 10) Stockholders' equity: Preferred Stock, $0.0001 par value — 500,000 shares authorized; 6,746 shares designated Series A convertible preferred stock; no shares issued and outstanding at June 30, 2024 and December 31, 2023 Common stock, $0.0001 par value — 200,000,000 shares authorized; 3,652,285 shares issued and outstanding at June 30, 2024 and December 31, 2023 Additional paid-in capital 305,893305,592Accumulated deficit(292,583)(287,597)Total stockholders' equity13,31017,995Total liabilities and stockholders' equity$ 15,780$ 33,958~~

~~- Definition~~

~~Carrying value as of the balance sheet date of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer).~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10~~

~~+ Details~~

~~Name:us-gaap_AccountsPayableCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount, after allowance for credit loss, of right to consideration from customer for product sold and service rendered in normal course of business, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481990/310-10-45-2~~

~~+ Details~~

~~Name:us-gaap_AccountsReceivableNetCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of expenses incurred but not yet paid nor invoiced, and liabilities classified as other.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_AccruedLiabilitiesAndOtherLiabilities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of excess of issue price over par or stated value of stock and from other transaction involving stock or stockholder. Includes, but is not limited to, additional paid-in capital (APIC) for common and preferred stock.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_AdditionalPaidInCapital Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of asset recognized for present right to economic benefit.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 12: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 13: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(12)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards~~

~~***https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 18: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 19: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 30: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(11)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_Assets Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of asset recognized for present right to economic benefit, classified as current.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI***~~

***~~https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 10: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7~~***

***~~+ Details~~***
***~~Name:us-gaap_AssetsCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~***

***~~- References~~***

***~~No definition available.~~***

***~~+ Details~~***
***~~Name:us-gaap_AssetsCurrentAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~***

~~***- Definition***~~

~~***Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4***~~

~~***+ Details***~~

~~***Name:us-gaap_CashAndCashEquivalentsAtCarryingValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Represents the caption on the face of the balance sheet to indicate that the entity has entered into (1) purchase or supply arrangements that will require expending a portion of its resources to meet the terms thereof, and (2) is exposed to potential losses or, less frequently, gains, arising from (a) possible claims against a company's resources due to future performance under contract terms, and (b) possible losses or likely gains from uncertainties that will ultimately be resolved when one or more future events that are deemed likely to occur do occur or fail to occur.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(15)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_CommitmentsAndContingencies Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Aggregate par or stated value of issued nonredeemable common stock (or common stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)***~~

~~http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1~~

~~+ Details~~
~~Name:us-gaap_CommonStockValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_DeferredRevenueCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable, classified as noncurrent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(26)(c)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_DeferredRevenueNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of liability recognized for present obligation requiring transfer or otherwise providing economic benefit to others.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -SubTopic 10 -Topic 210 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(24)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(26)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(21)) -Publisher FASB 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https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 15: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(14)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 18: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 23:~~

***http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 27: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 28: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30***

~~***+ Details***~~

~~***Name:us-gaap_Liabilities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of liabilities and equity items, including the portion of equity attributable to noncontrolling interests, if any.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(32)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1***~~

~~*+ Details*~~

~~*Name:us-gaap_LiabilitiesAndStockholdersEquity*~~ ~~*Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant*~~

~~*- Definition*~~

~~*Total obligations incurred as part of normal operations that are expected to be paid during the following twelve months or within one business cycle, if longer.*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(21)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 5: 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210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-5Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 21: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7*~~

~~+ Details~~
~~Name:us-gaap_LiabilitiesCurrent~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_LiabilitiesCurrentAbstract~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~
~~Name:us-gaap_OperatingLeaseLiabilityCurrent~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease, classified as noncurrent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~***+ Details***~~

~~***Name:us-gaap_OperatingLeaseLiabilityNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of lessee's right to use underlying asset under operating lease.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1***~~

~~***+ Details***~~

~~***Name:us-gaap_OperatingLeaseRightOfUseAsset Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of noncurrent assets classified as other.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_OtherAssetsNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Aggregate par or stated value of issued nonredeemable preferred stock (or preferred stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable preferred shares, par value and other disclosure concepts are in another section within stockholders' equity.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(21)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_PreferredStockValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of asset related to consideration paid in advance for costs that provide economic benefits in future periods, and amount of other assets that are expected to be realized or consumed within one year or the normal operating cycle, if longer.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_PrepaidExpenseAndOtherAssetsCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount after accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business to produce goods and services and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7AReference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 360 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478451/942-360-50-1***~~

~~***+ Details***~~

~~***Name:us-gaap_PropertyPlantAndEquipmentNet Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of cash restricted as to withdrawal or usage, classified as current. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8***~~

~~***+ Details***~~

~~***Name:us-gaap_RestrictedCashCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 5 -SubTopic 210 -Topic 954 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-5Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8***~~

~~***+ Details***~~

~~***Name:us-gaap_RestrictedCashNoncurrent***~~ ~~***Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of accumulated undistributed earnings (deficit).***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (h)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480990/946-20-50-11Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(23)(a)(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_RetainedEarningsAccumulatedDeficit Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of equity (deficit) attributable to parent. Excludes temporary equity and equity attributable to noncontrolling interest.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(31)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 12: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 13: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 14: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 4.E) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480418/310-10-S99-2***~~

~~+ Details~~
~~Name:us-gaap_StockholdersEquity Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_StockholdersEquityAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration XML 16 R3.htm IDEA: XBRL DOCUMENT~~
~~Consolidated Balance Sheets (Parenthetical) - $ / sharesJun. 30, 2024Dec. 31, 2023Preferred stock, par value$ 0.0001$ 0.0001Preferred stock, shares authorized500,000 500,000Common stock, par value$ 0.0001$ 0.0001Common stock, shares authorized200,000,000200,000,000Common stock, shares issued3,652,2853,652,285Common stock, shares outstanding3,652,2853,652,285Series A Convertible Preferred Stock [Member] Preferred stock, shares authorized6,7466,746Preferred stock, shares issued00 Preferred stock, shares outstanding00~~
~~- Definition~~

~~Face amount or stated value per share of common stock.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_CommonStockParOrStatedValuePerShare Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~The maximum number of common shares permitted to be issued by an entity's charter and bylaws.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1~~

~~+ Details~~

~~Name:us-gaap_CommonStockSharesAuthorized~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Total number of common shares of an entity that have been sold or granted to shareholders (includes common shares that were issued, repurchased and remain in the treasury). These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_CommonStockSharesIssued~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Number of shares of common stock outstanding. Common stock represent the ownership interest in a corporation.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3~~

~~+ Details~~

~~Name:us-gaap_CommonStockSharesOutstanding Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Face amount or stated value per share of preferred stock nonredeemable or redeemable solely at the option of the issuer.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13~~

~~+ Details~~

~~Name:us-gaap_PreferredStockParOrStatedValuePerShare Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~The maximum number of nonredeemable preferred shares (or preferred stock redeemable solely at the option of the issuer) permitted to be issued by an entity's charter and bylaws.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1~~

~~+ Details~~

~~Name:us-gaap_PreferredStockSharesAuthorized Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Number of shares issued for nonredeemable preferred shares and preferred shares redeemable solely at option of issuer. Includes, but is not limited to, preferred shares issued, repurchased, and held as treasury shares. Excludes preferred shares classified as debt.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13~~

~~+ Details~~

~~Name:us-gaap_PreferredStockSharesIssued Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Aggregate share number for all nonredeemable preferred stock (or preferred stock redeemable solely at the option of the issuer) held by stockholders. Does not include preferred shares that have been repurchased.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 4: http://www.xbrl.org/2003/role/disclosureRef -~~

~~Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3~~

~~+ Details~~

~~Name:us-gaap_PreferredStockSharesOutstanding Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Details~~

~~Name:us-gaap_StatementClassOfStockAxis=PULM_SeriesAConvertiblePreferredStockMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 17 R4.htm~~
~~IDEA: XBRL DOCUMENT~~
~~Consolidated Statements of Operations (Unaudited) - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Income Statement [Abstract] Revenues$ 1,552$ 1,844$ 7,437$ 3,343Operating expenses: Research and development2,8344,1656,3468,039General and administrative 2,0011,6703,6273,880Loss on disposal group held for sale2,6182,618Total operating expenses7,4535,83512,59111,919Loss from operations(5,901)(3,991)(5,154)(8,576) Other income (expense): Interest income133236293458Other expense, net(43)(61)(125)(146)Total other income, net90175168312Net loss$ (5,811)$ (3,816)$ (4,986) $ (8,264)Net loss per share attributable to common stockholders - basic$ (1.59)$ (1.04)$ (1.37)$ (2.26)Net loss per share attributable to common stockholders - diluted $ (1.59)$ (1.04)$ (1.37)$ (2.26)Weighted average common shares outstanding - basic3,652,2853,652,2853,652,2853,651,531Weighted average common shares outstanding - diluted3,652,2853,652,2853,652,2853,651,531~~

~~- Definition~~

~~Loss on disposal group held for sale.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_LossOnDisposalGroupHeldForSale Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~The amount of net income (loss) for the period per each share of common stock or unit outstanding during the reporting period.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 52 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-52Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-15Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (e)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-7Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-10Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(27)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 19:~~

***http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-7***

~~*+ Details*~~

~~*Name:us-gaap_EarningsPerShareBasic Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:duration*~~

~~*- Definition*~~

~~*The amount of net income (loss) for the period available to each share of common stock or common unit outstanding during the reporting period and to each share or unit that would have been outstanding assuming the issuance of common shares or units for all dilutive potential common shares or units outstanding during the reporting period.*~~

~~*+ References*~~

~~*Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 52 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-52Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-15Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (e)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-7Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards*~~

~~***Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(27)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-7***~~

***~~+ Details~~***

***~~Name:us-gaap_EarningsPerShareDiluted Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:duration~~***

***~~- Definition~~***

***~~The aggregate total of expenses of managing and administering the affairs of an entity, including affiliates of the reporting entity, which are not directly or indirectly associated with the manufacture, sale or creation of a product or product line.~~***

***~~+ References~~***

***~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(2)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1~~***

***~~+ Details~~***

***~~Name:us-gaap_GeneralAndAdministrativeExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~***

***~~- References~~***

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_IncomeStatementAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of interest income (expense) classified as operating.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(10)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1~~

~~+ Details~~

~~Name:us-gaap_InterestIncomeExpenseNet Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~The portion of profit or loss for the period, net of income taxes, which is attributable to the parent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-6Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 17: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1~~

~~+ Details~~

~~Name:us-gaap_NetIncomeLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~The aggregate amount of income or expense from ancillary business-related activities (that is to say, excluding major activities considered part of the normal operations of the business).~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2~~

~~+ Details~~

~~Name:us-gaap_NonoperatingIncomeExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_NonoperatingIncomeExpenseAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Generally recurring costs associated with normal operations except for the portion of these expenses which can be clearly related to production and included in cost of sales or services. Includes selling, general and administrative expense.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_OperatingExpenses Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_OperatingExpensesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The net result for the period of deducting operating expenses from operating revenues.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31~~

~~+ Details~~

~~Name:us-gaap_OperatingIncomeLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of income (expense) related to nonoperating activities, classified as other.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2~~

~~+ Details~~

~~Name:us-gaap_OtherNonoperatingIncomeExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 985 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481283/985-20-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 730 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482916/730-10-50-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 912 -SubTopic 730 -Name Accounting Standards Codification -Section 25 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479532/912-730-25-1~~

~~+ Details~~

~~Name:us-gaap_ResearchAndDevelopmentExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Amount, excluding tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 41 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-41Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher~~

~~***FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 40 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-40Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-4***~~

~~+ Details~~

~~Name:us-gaap_RevenueFromContractWithCustomerExcludingAssessedTax Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type: duration~~

~~- Definition~~

~~The average number of shares or units issued and outstanding that are used in calculating diluted EPS or earnings per unit (EPU), determined based on the timing of issuance of shares or units in the period.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 16 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-16~~

~~+ Details~~

~~Name:us-gaap_WeightedAverageNumberOfDilutedSharesOutstanding Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Number of [basic] shares or units, after adjustment for contingently issuable shares or units and other shares or units not deemed outstanding, determined by relating the portion of time within a reporting period that common shares or units have been outstanding to the total time in that period.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-10~~

~~+ Details~~

~~Name:us-gaap_WeightedAverageNumberOfSharesOutstandingBasic Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration XML~~

~~18 R5.htm IDEA: XBRL DOCUMENT~~

~~Consolidated Statements of Stockholders' Equity (Unaudited) - USD ($) $ in Thousands~~ ~~Preferred Stock [Member]~~ ~~Common Stock [Member]~~ ~~Additional Paid-in Capital [Member]~~ ~~Retained Earnings [Member]~~ ~~Total~~

~~Balance at Dec. 31, 2022$ 304,585$ (273,476)$ 31,109Balance, shares at Dec. 31, 20223,639,185 Stock-based compensation296296Net income (loss) (4,448)(4,448) Issuance of common stock, net of issuance costs5353Issuance of common stock, net of issuance costs, shares 13,100 Balance at Mar. 31, 2023304,934(277,924)27,010 Balance, shares at Mar. 31, 20233,652,285 Balance at Dec. 31, 2022304,585(273,476)31,109Balance, shares at Dec. 31, 20223,639,185 Net income (loss) (8,264)Balance at Jun. 30, 2023305,189(281,740)23,449Balance, shares at Jun. 30, 20233,652,285 Balance at Mar. 31, 2023304,934(277,924)27,010Balance, shares at Mar. 31, 2023 3,652,285 Stock-based compensation255255Net income (loss) (3,816)(3,816)Balance at Jun. 30, 2023305,189(281,740)23,449Balance, shares at Jun. 30, 20233,652,285 Balance at Dec. 31, 2023305,592(287,597)17,995Balance, shares at Dec. 31, 20233,652,285 Stock-based compensation198198Net income (loss) 825825Balance at Mar. 31, 2024305,790(286,772)19,018Balance, shares at Mar. 31, 20243,652,285 Balance at Dec. 31, 2023305,592(287,597)17,995Balance, shares at Dec. 31, 20233,652,285 Net income (loss) (4,986)Balance at Jun. 30, 2024305,893(292,583)13,310Balance, shares at Jun. 30, 20243,652,285 Balance at Mar. 31, 2024305,790(286,772)19,018 Balance, shares at Mar. 31, 20243,652,285 Stock-based compensation103103Net income (loss) (5,811)(5,811)Balance at Jun. 30, 2024$ 305,893$ (292,583)$ 13,310 Balance, shares at Jun. 30, 20243,652,285~~

~~- Definition~~

~~Amount of increase to additional paid-in capital (APIC) for recognition of cost for award under share-based payment arrangement.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 35 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480483/718-10-35-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 20 -Section 55 -Paragraph 13 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481089/718-20-55-13Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name~~

~~***Accounting Standards Codification -Topic 718 -SubTopic 20 -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481089/718-20-55-12***~~

~~***+ Details***~~

~~***Name:us-gaap_AdjustmentsToAdditionalPaidInCapitalSharebasedCompensationRequisiteServicePeriodRecognitionValue Namespace Prefix:us-gaap_ Data Type: xbrli:monetaryItemType Balance Type:credit Period Type:duration***~~

~~***- Definition***~~

~~***The portion of profit or loss for the period, net of income taxes, which is attributable to the parent.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting 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(SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1***~~

~~***+ Details***~~

~~Name:us-gaap_NetIncomeLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Number of shares issued which are neither cancelled nor held in the treasury.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_SharesOutstanding Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Number of new stock issued during the period.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 505 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478448/946-505-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_StockIssuedDuringPeriodSharesNewIssues Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Equity impact of the value of new stock issued during the period. Includes shares issued in an initial public offering or a secondary public offering.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-11Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 205 -Name Accounting Standards Codification -Section 45 -Paragraph 4 -Subparagraph (a) -Publisher FASB -~~

~~URI https://asc.fasb.org/1943274/2147478009/946-205-45-4Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 505 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478448/946-505-50-2Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_StockIssuedDuringPeriodValueNewIssues Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of equity (deficit) attributable to parent. Excludes temporary equity and equity attributable to noncontrolling interest.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(31)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 12: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 13: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 14: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 4.E) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480418/310-10-S99-2~~

~~+ Details~~

~~Name:us-gaap_StockholdersEquity Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant XML 19 R6.htm IDEA: XBRL DOCUMENT~~

~~Consolidated Statements of Cash Flows (Unaudited) - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~

~~Cash flows from operating activities: Net loss$ (5,811)$ (3,816)$ (4,986)$ (8,264)Adjustments to reconcile net loss to net cash used in operating activities: Depreciation and amortization 10664Amortization of operating lease right-of-use asset 329777Stock-based compensation 301551Loss on disposal group held for sale2,6182,618Changes in operating assets and liabilities: Accounts receivable 293880Prepaid expenses and other current assets (459)49Other long-term assets 83(1,595)Accounts payable (1,522)(309)Accrued expenses and other current liabilities 1,225(437)Operating lease liability (309)(843)Deferred revenue (4,075)(705)Net cash used in operating activities (6,396)(9,832)Cash flows from investing activities: Purchases of property and equipment (398)(58)Net cash used in investing activities (398)(58)Cash flows from financing activities: Proceeds from issuance of common stock, net of issuance costs 53Net cash provided by financing activities 53Net decrease in cash, cash equivalents and restricted cash (6,794)(9,837)Cash, cash equivalents and restricted cash — beginning of period 20,64537,253Total cash, cash equivalents and restricted cash13,851 27,41613,85127,416Reconciliation of cash, cash equivalents and restricted cash to the consolidated balance sheets: Cash and cash equivalents12,37925,79112,37925,791 Restricted cash1,4211531,421153Long-term restricted cash$ 51$ 1,472511,472Supplemental disclosures of non-cash investing and financing information: Reduction of operating lease right-of-use asset and lease liability upon lease modification 8,423Purchases of property and equipment not yet paid 50Operating lease right-of-use asset obtained in exchange for operating lease obligation $ 344~~

~~- Definition~~

~~Loss on disposal group held for sale.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_LossOnDisposalGroupHeldForSale Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Reduction of operating lease rightofuse asset and lease liability upon lease modification.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_ReductionOfOperatingLeaseRightofuseAssetAndLeaseLiabilityUponLeaseModification Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Future cash outflow to pay for purchases of fixed assets that have occurred.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-4Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-3Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-5~~

~~+ Details~~

~~Name:us-gaap_CapitalExpendituresIncurredButNotYetPaid Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~***Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4***~~

~~***+ Details***~~

~~***Name:us-gaap_CashAndCashEquivalentsAtCarryingValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including, but not limited to, disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4***~~

~~***+ Details***~~

~~***Name:us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 1 -SubTopic 230 -Topic 830 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477401/830-230-45-1***~~

~~*+ Details*~~

~~*Name:us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration*~~

~~*- Definition*~~

~~*The aggregate expense recognized in the current period that allocates the cost of tangible assets, intangible assets, or depleting assets to periods that benefit from use of the assets.*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22*~~

~~*+ Details*~~

~~*Name:us-gaap_DepreciationDepletionAndAmortization Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration*~~

~~*- Definition*~~

~~*The increase (decrease) during the reporting period in the aggregate amount of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business.*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28*~~

~~*+ Details*~~

~~*Name:us-gaap_IncreaseDecreaseInAccountsPayable Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration*~~

~~*- Definition*~~

~~*The increase (decrease) during the reporting period in amount due within one year (or one business cycle) from customers for the credit sale of goods and services.*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28*~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInAccountsReceivable Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~The increase (decrease) during the reporting period in the aggregate amount of expenses incurred but not yet paid.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInAccruedLiabilities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Amount of increase (decrease) in deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInDeferredRevenue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInOperatingCapitalAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of increase (decrease) in obligation for operating lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(1) -SubTopic 20 -Topic 842 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInOperatingLeaseLiability Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Amount of increase (decrease) in noncurrent assets classified as other.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInOtherNoncurrentAssets Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of increase (decrease) in prepaid expenses, and assets classified as other.~~

~~Amount of increase (decrease) in prepaid expenses, and assets classified as other.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28~~

~~+ Details~~

~~Name:us-gaap_IncreaseDecreaseInPrepaidDeferredExpenseAndOtherAssets Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of cash inflow (outflow) from financing activities, including discontinued operations. Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24~~

~~+ Details~~

~~Name:us-gaap_NetCashProvidedByUsedInFinancingActivities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_NetCashProvidedByUsedInFinancingActivitiesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24~~

~~+ Details~~

~~Name:us-gaap_NetCashProvidedByUsedInInvestingActivities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_NetCashProvidedByUsedInInvestingActivitiesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of cash inflow (outflow) from operating activities, including discontinued operations. Operating activity cash flows include transactions, adjustments, and changes in value not defined as investing or financing activities.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-25~~

~~+ Details~~

~~Name:us-gaap_NetCashProvidedByUsedInOperatingActivities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:na Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_NetCashProvidedByUsedInOperatingActivitiesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The portion of profit or loss for the period, net of income taxes, which is attributable to the parent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-6Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 17: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1~~

~~***+ Details***~~
~~***Name:us-gaap_NetIncomeLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration***~~

~~***- References***~~

~~***No definition available.***~~

~~***+ Details***~~
~~***Name:us-gaap_NoncashInvestingAndFinancingItemsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***Amount of periodic reduction over lease term of carrying amount of right-of-use asset from operating lease.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28***~~

~~+ Details~~

~~Name:us-gaap_OperatingLeaseRightOfUseAssetAmortizationExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~The cash outflow associated with the acquisition of long-lived, physical assets that are used in the normal conduct of business to produce goods and services and not intended for resale; includes cash outflows to pay for construction of self-constructed assets.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 13 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-13~~

~~+ Details~~

~~Name:us-gaap_PaymentsToAcquirePropertyPlantAndEquipment Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~The cash inflow from the additional capital contribution to the entity.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 14 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14~~

~~+ Details~~

~~Name:us-gaap_ProceedsFromIssuanceOfCommonStock Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Amount of cash restricted as to withdrawal or usage, classified as current. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8~~

~~+ Details~~

~~Name:us-gaap_RestrictedCashCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 5 -SubTopic 210 -Topic 954 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-5Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8~~

~~+ Details~~
~~Name:us-gaap_RestrictedCashNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of increase in right-of-use asset obtained in exchange for operating lease liability.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4~~

~~+ Details~~
~~Name:us-gaap_RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Amount of noncash expense for share-based payment arrangement.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28~~

~~+ Details~~
~~Name:us-gaap_ShareBasedCompensation Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_SupplementalCashFlowInformationAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration XML 20 R7.htm~~
~~IDEA: XBRL DOCUMENT~~

| ~~Organization~~ | ~~6 Months Ended~~<br>~~Jun. 30, 2024~~ |
|---|---|
| ~~Organization, Consolidation and Presentation of Financial Statements [Abstract]~~ | |
| ~~Organization~~ | ~~1. Organization~~ |

~~Pulmatrix, Inc. (the “Company”) was incorporated in 2013 as a Delaware corporation. The Company is a clinical-stage biopharmaceutical company focused on the development of a novel class of inhaled therapeutic products. The Company’s proprietary dry powder delivery platform, iSPERSE, is engineered to deliver small, dense particles with highly efficient dispersibility and delivery to the airways, which can be used with an array of dry powder inhaler technologies and can be formulated with a variety of drug substances. The Company has developed a pipeline of iSPERSE-based therapeutic candidates targeted at prevention and treatment of a range of central nervous system, respiratory and other diseases with important unmet medical needs.~~ ™ ™

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_OrganizationConsolidationAndPresentationOfFinancialStatementsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for organization, consolidation and basis of presentation of financial statements disclosure.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480424/946-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480424/946-10-50-2Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 810 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/810/tableOfContentReference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 205 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/205/tableOfContent~~

~~+ Details~~

~~Name:us-gaap_OrganizationConsolidationAndPresentationOfFinancialStatementsDisclosureTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 21 R8.htm IDEA: XBRL DOCUMENT~~

~~Summary of Significant Accounting Policies and Recent Accounting Standards6 Months Ended~~
~~Jun. 30, 2024~~
~~Accounting Policies [Abstract] Summary of Significant Accounting Policies and Recent Accounting Standards~~

~~2. Summary of Significant Accounting Policies and Recent Accounting Standards~~

~~Basis of Presentation~~

~~The condensed consolidated financial statements of the Company included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”) have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024 (the “Annual Report”).~~

~~The financial information as of June 30, 2024, and for the three and six months ended June 30, 2024 and 2023, is unaudited. In the opinion of management, all adjustments (including those which are normal and recurring) considered necessary for a fair presentation of the interim financial information have been included. The balance sheet data as of December 31, 2023 was derived from audited consolidated financial statements. The results of the Company’s operations for any interim periods are not necessarily indicative of the results that may be expected for any other interim period or for a full fiscal year.~~

~~Based on its current operating plan, the Company believes that its cash and cash equivalents as of June 30, 2024, will be adequate to fund its currently anticipated operating expenses for at least twelve months from the date these condensed consolidated financial statements are issued. The Company will need to secure additional funding in the future, from one or more equity or debt financings, collaborations, or other sources, in order to carry out all of the Company’s planned research and development activities and regulatory activities; commercialize product candidates; or conduct any substantial, additional development requirements requested by the FDA. Additional funding may not be available to the Company on acceptable terms, or at all. If the Company is unable to secure additional capital, it will be required to significantly decrease the amount of planned expenditures and may be required to cease operations. In addition, any disruption in the capital markets could make any financing more challenging, and there can be no assurance that Pulmatrix will be able to obtain such financing on commercially reasonable terms or at all. Curtailment of operations would cause significant delays in the Company’s efforts to develop and introduce its products to market, which is critical to the realization of its business plan and the future operations of the Company.~~

~~Use of Estimates~~

~~In preparing the condensed consolidated financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, as well as the reported amounts of expenses during the reporting period. Due to inherent uncertainty involved in making estimates, actual results may differ from these estimates. On an ongoing basis, the Company evaluates its estimates and assumptions. The most significant estimates and assumptions in the Company’s condensed consolidated financial statements include, but are not limited to, estimates of future expected costs in order to derive and recognize revenue and estimates related to clinical trial accruals and upfront deposits.~~

~~Concentrations of Credit Risk~~

~~Cash is a financial instrument that potentially subjects the Company to concentrations of credit risk. For all periods presented, substantially all of the Company’s cash was deposited in accounts at a single financial institution that management believes is creditworthy, and the Company has not incurred any losses to date. The Company is exposed to credit risk in the event of default by this financial institution for amounts in excess of the Federal Deposit Insurance Corporation insured limits.~~

~~For the three and six months ended June 30, 2024, revenue from one customer accounted for % and %, respectively, of revenue recognized in the accompanying condensed consolidated financial statements. For the three and six months ended June 30, 2023, revenue from one customer accounted for % of revenue recognized in the accompanying condensed consolidated financial statements. As of June 30, 2024, two customers accounted for % of accounts receivable. As of December 31, 2023, one customer accounted for % of accounts receivable.6189100100100~~

~~Summary of Significant Accounting Policies~~

~~The Company’s significant accounting policies are described in Note 2, , in the Annual Report. During the six months ended June 30, 2024, the Company did not make any changes to its significant accounting policies.Summary of Significant Accounting Policies and Recent Accounting Standards~~

~~Recent Accounting Pronouncements~~

~~From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (“FASB”) or other standard setting bodies that are adopted by the Company as of the specified effective date. The Company did not adopt any new accounting pronouncements during the six months ended June 30, 2024 that had a material effect on its condensed consolidated financial statements.~~

~~In December 2023, the FASB issued Accounting Standard Update 2023-09, (“ASU 2023-09”). The guidance in ASU 2023-09 improves the transparency of income tax disclosures by greater disaggregation of information in the rate reconciliation and income taxes paid disaggregated by jurisdiction. The standard becomes effective for the annual period beginning on January 1, 2025, with early adoption permitted. The Company is currently evaluating the impact that the adoption of ASU 2023-09 may have on its consolidated financial statements.Income Taxes (Topic 740): Improvements to Income Tax Disclosures~~

~~As of June 30, 2024, there are no other new, or existing recently issued, accounting pronouncements that are of significance, or potential significance, that impact the Company’s condensed consolidated financial statements.~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_AccountingPoliciesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for all significant accounting policies of the reporting entity.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483426/235-10-50-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 235 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/235/tableOfContent~~

~~+ Details~~

~~Name:us-gaap_SignificantAccountingPoliciesTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 22 R9.htm IDEA: XBRL DOCUMENT~~

~~Prepaid Expenses and Other Current Assets6 Months Ended~~
~~Jun. 30, 2024~~
~~Prepaid Expenses And Other Current Assets Prepaid Expenses and Other Current Assets~~

~~3. Prepaid Expenses and Other Current Assets~~

~~Prepaid expenses and other current assets consisted of the following:~~

| | ~~June 30, 2024~~ | ~~December 31, 2023~~ |
|---|---|---|
| ~~Clinical and consulting~~ | ~~$ 457~~ | ~~$ 30~~ |
| ~~Insurance~~ | ~~438~~ | ~~232~~ |
| ~~Software and hosting costs~~ | ~~86~~ | ~~108~~ |
| ~~Other~~ | ~~220~~ | ~~372~~ |
| ~~Total prepaid expenses and other current assets~~ | ~~$ 1,201~~ | ~~$ 742~~ |

~~- Definition~~

~~Disclosure of prepaid expenses and other current assets [Text Block]~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosureOfPrepaidExpensesAndOtherCurrentAssetsTextBlock~~ ~~Namespace Prefix:PULM_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type: duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosurePrepaidExpensesAndOtherCurrentAssetsAbstract~~ ~~Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~XML 23 R10.htm IDEA: XBRL DOCUMENT~~

~~Property and Equipment, Net6 Months Ended~~

~~Jun. 30, 2024~~

~~Property, Plant and Equipment [Abstract]~~ ~~Property and Equipment, Net~~

~~4. Property and Equipment, Net~~

~~The Company's Property and equipment, net, were included in the disposal group as part of the MannKind Transaction (as defined in Note 6, . Refer to that note for further details and accounting discussion). The Company recorded a full write-down of its net property and equipment balance as of June 30, 2024:~~Significant Agreements

~~June 30, 2024~~ ~~December 31, 2023~~

~~Laboratory equipment~~ ~~$~~ ~~-~~

~~$~~ ~~1,656~~

~~Leasehold improvements~~

~~-~~ ~~401~~ ~~237~~ ~~600~~ ~~2,894~~

~~Office furniture and equipment~~ ~~Computer equipment~~ ~~Capital in progress~~ ~~Less accumulated depreciation and amortization~~

~~(1,736)~~ ~~$1,158~~

~~Property and equipment, net $~~

~~Depreciation and amortization expense for the six months ended June 30, 2024 and 2023 was $ and $, respectively.~~~~10664~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentAbstract~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for long-lived, physical asset used in normal conduct of business and not intended for resale. Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 360 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/360/tableOfContentReference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 6 -SubTopic 360 -Topic 958 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477798/958-360-50-6Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -SubTopic 360 -Topic 958 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477798/958-360-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 7 -SubTopic 360 -Topic 958 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477798/958-360-50-7~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentDisclosureTextBlock~~ ~~Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~XML 24 R11.htm IDEA: XBRL DOCUMENT~~

~~Accrued Expenses and Other Current Liabilities6 Months Ended~~

~~Jun. 30, 2024~~

~~Payables and Accruals [Abstract]~~ ~~Accrued Expenses and Other Current Liabilities~~

~~5. Accrued Expenses and Other Current Liabilities~~

~~Accrued expenses and other current liabilities consisted of the following:~~

| | ~~June 30, 2024~~ | ~~December 31, 2023~~ |
|---|---|---|
| ~~Wages and incentives~~ | ~~$ 1,221~~ | ~~$ 70~~ |
| ~~Clinical and consulting~~ | ~~296~~ | ~~347~~ |
| ~~Legal and patents~~ | ~~223~~ | ~~42~~ |
| ~~Accrued purchases of property and equipment~~ | ~~-~~ | ~~389~~ |
| ~~Other~~ | ~~43~~ | ~~99~~ |
| ~~Total accrued expenses and other current liabilities~~ | ~~$1,783~~ | ~~$947~~ |

~~- Definition~~

~~The entire disclosure for accounts payable and accrued liabilities at the end of the reporting period.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(24)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 720 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483384/720-30-45-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_AccountsPayableAndAccruedLiabilitiesDisclosureTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type: duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_PayablesAndAccrualsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration XML 25 R12.htm IDEA: XBRL DOCUMENT~~

~~Significant Agreements6 Months Ended~~
~~Jun. 30, 2024~~
~~Commitments and Contingencies Disclosure [Abstract]~~ ~~Significant Agreements~~
~~6. Significant Agreements~~

~~Development and Commercialization Agreement with Cipla Technologies LLC ("Cipla")~~

~~On April 15, 2019, the Company entered into a Development and Commercialization Agreement (the "Cipla Agreement") with Cipla for the co-development and commercialization, on a worldwide exclusive basis, of PUR1900, the Company's inhaled iSPERSEdrug delivery system (the "Product") enabled formulation of the antifungal drug itraconazole, which is only available as an oral drug, for the treatment of all pulmonary indications, including allergic bronchopulmonary aspergillosis ("ABPA") in patients with asthma. The Company entered into an amendment to the Cipla Agreement on November 8, 2021 (the "Second Amendment") and a subsequent amendment on January 6, 2024 (the "Third Amendment"). All references to the Cipla Agreement herein refer to the Cipla Agreement, as amended.™~~

~~The Company received a non-refundable upfront payment of $ million (the "Upfront Payment") under the Cipla Agreement. Upon receipt of the Upfront Payment, the Company irrevocably assigned to Cipla the following assets, solely to the extent that each covers the Product in connection with any treatment, prevention, and/or diagnosis of diseases of the pulmonary system ("Pulmonary Indications"): all existing and future technologies, current and future drug master files, dossiers, third-party contracts, regulatory filings, regulatory materials and regulatory approvals, patents, and intellectual property rights, as well as any other associated rights and assets directly related to the Product, specifically in relation to Pulmonary Indications (collectively, the "Assigned Assets"), excluding most specifically the Company's iSPERSE technology. A portion of the Upfront Payment was deposited by the Company into a bank account, along with an equal amount from the Company, and was dedicated to the development of the Product (the "Initial Development Funding"). The Initial Development Funding was depleted during the year ended December 31, 2021, at which point the Company and Cipla each became responsible for a portion of the development costs actually incurred as described below (the "Co-Development Phase").22.0™~~

~~Pursuant to the Second Amendment, the Company and Cipla were each responsible for 60% and 40%, respectively, of the Company's overhead costs and the time spent by the Company's employees and consultants on development of the Product ("Direct Costs"). The Company will share all other development costs with Cipla that are not Direct Costs, such as the cost of clinical research organizations, manufacturing costs and other third-party costs, on a 50/50 basis.~~

~~Pursuant to the Third Amendment, the Company and Cipla agreed that, during the period commencing on January 6, 2024 and ending July 30, 2024 (the "Wind Down Period"), the Company will complete all Phase 2b activities, assign or license all patents to Cipla and their registration with the appropriate authorities in regions other than the United States, complete a physical and demonstrable technology transfer and secure all data from the Phase 2b study for inclusion in the safety database. The Company will share costs with Cipla during the Wind Down Period in the same proportions in effect with the Second Amendment discussed above, but subject to a maximum reimbursement amount by Cipla as approved by the joint steering committee.~~

~~Accounting Treatment~~

~~The Company concluded that because both it and Cipla are active participants in the arrangement and are exposed to the significant risks and rewards of the collaboration, the Company's collaboration with Cipla is within the scope of Accounting Standards Codification ("ASC") 808, ("ASC 808"). The Company concluded that Cipla is a customer since they contracted with the Company to obtain research and development services and a license to the Assigned Assets, each of which is an output of the Company's ordinary activities, in exchange for consideration. Therefore, the Company has applied the guidance in ASC 606, ("ASC 606") to account for the research and development services and a license within the contract. The Company determined that the research and development services and license to the Assigned Assets are considered highly interdependent and highly interrelated and therefore are considered a single combined performance obligation because Cipla cannot benefit from the license without the performance by the Company of the research and development services. Such research and development services are highly specialized and proprietary to the Company and therefore not available to Cipla from any other third party.Collaborative Arrangements Revenue from Contracts with Customers~~

~~The Company initially determined the total transaction price to be $ million – comprised of $ million for research and development services for the Product and $ million for the irrevocable license to the Assigned Assets. Any consideration related to the Co-Development Phase was not initially included in the transaction price as such amounts are subject to the variable consideration constraint. Additionally, upon commercialization, Cipla and the Company will share equally, both positive and negative total free cash-flows earned by Cipla in respect of the Product. However, the Company has not included such free cash-flows in the transaction price as these milestones are constrained.22.012.010.0~~

~~Revenue is recognized for the Cipla Agreement as the research and development services are provided using an input method, according to the ratio of costs incurred to the total costs expected to be incurred in the future to satisfy the Company’s obligations. In management’s judgment, this input method is the best measure of the transfer of control of the combined performance obligation. The amounts received that have not yet been recognized as revenue are recorded in deferred revenue on the Company’s consolidated balance sheets, with amounts expected to be recognized in the next 12 months recorded as current.~~

~~The Company concluded that the Third Amendment is a contract modification that should be accounted for as part of the existing contract. During the three and six months ended June 30, 2024, the Company recognized $ million and $ million, respectively, in revenue related to the research and development services and irrevocable license to the Assigned Assets in the Company’s consolidated statements of operations, as compared to $ million and $ million, respectively, recognized during the three and six months ended June 30, 2023. The revenue recognized during the six months ended June 30, 2024 was primarily associated with the cumulative catch-up recorded in the three months ended March 31, 2024, from the contract modification, that had been included in deferred revenue at the beginning of the period. As of June 30, 2024, the aggregate transaction price related to the Company’s unsatisfied obligations was $ million and was recorded in deferred revenue, all of which was current.0.96.61.83.30.3~~

## ~~Agreements with MannKind Corporation (“MannKind”)~~

~~On May 28, 2024, the Company executed certain agreements with MannKind and the Company’s landlord (collectively, the “MannKind Transaction”), all of which closed during July 2024. The agreements with MannKind included a Bill of Sale and Assignment Agreement (the “Bill of Sale”) with respect to the assignment of the Company’s rental facility at 36 Crosby Drive, Bedford, Massachusetts (the “Bedford Facility”) to MannKind along with the transfer of all leasehold improvements, laboratory equipment and other related personal property. In connection with the assignment of the Bedford Facility, the Company, MannKind and Cobalt Propco 2020, LLC (the “Landlord”) entered into an Amendment to Lease and Consent to Assignment of Lease (the “Lease Assignment Agreement”) pursuant to that certain Lease Agreement, dated as of January 7, 2022 (the “Lease Agreement”), by and between the Company and the Landlord. Pursuant to the Lease Assignment Agreement, MannKind assumed all of the Company’s obligations under the Lease Agreement, including all rent and other payments.~~

~~In connection with the transactions contemplated by the Bill of Sale and Lease Assignment Agreement, the Company and MannKind entered into an Intellectual Property Cross License Agreement (the “Cross License Agreement”). Pursuant to the Cross License Agreement, the Company granted to MannKind (i) an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of Clofazimine, (ii) an exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of nontuberculous mycobacteria lung disease in humans, (iii) an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of insulin, (iv) a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of endocrine disease in humans, and (v) a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of interstitial lung diseases (including IPF, PPF and other related lung diseases) in humans (collectively, the “Out-License”).~~

~~Additionally, pursuant to the Cross License Agreement, MannKind granted to the Company (i) the exclusive right to develop, use, manufacture, market, offer and sell its single-use disposable dry powder inhaler (including all modifications or improvement thereto made by or on behalf of the Company, the “Cricket Device”) for the inhaled delivery of dihydroergotamine in any formulation whatsoever, including the Company’s PUR3100 treatment of acute migraine and (ii) a non-exclusive license to develop, use, manufacture, market, offer and sell the Cricket Device for the inhaled delivery of one more active pharmaceutical ingredients formulated with iSPERSE for the treatment of neurological disease in humans (collectively, the “In-License”).~~

~~Additionally, pursuant to the Master Services Agreement, by and between the Company and MannKind, MannKind shall provide certain development services to the Company, including but not limited to, activities to develop a dry powder formulation of the active pharmaceutical ingredient that the Company provides to MannKind for oral inhalation using iSPERSE.~~

~~To maintain continuity of iSPERSE platform knowledge, MannKind hired certain members of the Company’s research and development staff in July 2024.~~

### ~~Accounting Treatment~~

~~The Company determined that the MannKind Transaction represents a combined agreement for accounting purposes, as the individual components have the same overall commercial objectives and the consideration under each component is dependent on the other components.~~

~~The consideration due to the Company in the MannKind Transaction consists solely of the non-cash consideration in the form of the In-License. The fair value of the non-cash consideration received should be allocated to the other components of the MannKind Transaction to determine the consideration received for the other components. The Company determined that the fair value of the In-License is immaterial given that adequate alternative inhaler devices are already available on the market (and indeed, the Company has already established use of another third-party inhalation device in their PUR3100 Phase 1 trial that performed well as a DHE delivery device as reported in a peer-reviewed publication), and considering optional purchases of Cricket Devices are at market prices. Accordingly, the consideration allocated to other components of the MannKind Transaction was immaterial.~~

~~The Company accounted for the Lease Assignment Agreement upon execution as a lease modification that reduced the lease term to the assignment date in July 2024. Accordingly, the Company remeasured its operating lease liability as of the modification date to reflect the decrease in fixed lease payments, with the amount of the remeasurement, $ million, adjusted by a corresponding reduction to the right-of-use asset. Refer to Note 11, for further details.8.4Leases,~~

~~The Company concluded that the Out-License component of the MannKind Transaction was within the scope of ASC 606, as the monetization of its core technology represents an output of the Company’s ordinary activities. The Company transferred control of the combined licenses of iSPERSE to MannKind at a point in time in July 2024 upon closing of the MannKind Transaction; however, no revenue was recognized because the consideration allocated to the Out-License component was immaterial.~~

~~The Company determined that its operating lease right-of-use asset and property and equipment subject to the Bill of Sale represented a disposal group that became held for sale during the second quarter of 2024 and remained classified as held for sale as of June 30, 2024, which should be measured at the lower of its carrying value or fair value less costs to sell. Since the fair value of the disposal group was considered immaterial, the Company recorded a full write-down of the disposal group’s carrying value as of June 30, 2024, in the amount of $ million.2.6~~

~~Concurrent with the closing of the MannKind Transaction, the Company terminated and MannKind hired the majority of the Company’s research and development employees, representing approximately two-thirds of the Company’s workforce. During the quarter ended June 30, 2024, the Company agreed to provide termination benefits to these employees, which has been included in the balance of accrued expenses and other current liabilities on the consolidated balance sheet as of June 30, 2024, and was paid to the employees in July 2024.~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_CommitmentsAndContingenciesDisclosureAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for significant arrangements with third parties, which includes operating lease arrangements and arrangements in which the entity has agreed to expend funds to procure goods or services, or has agreed to commit resources to supply goods or services, and operating lease arrangements. Descriptions may include identification of the specific goods and services, period of time covered, minimum quantities and amounts, and cancellation rights.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 440 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/440/tableOfContent~~

~~+ Details~~

~~Name:us-gaap_CommitmentsDisclosureTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 26 R13.htm~~

~~IDEA: XBRL DOCUMENT~~

| ~~Common Stock~~ | ~~6 Months Ended~~ |
|---|---|
| | ~~Jun. 30, 2024~~ |
| ~~Equity [Abstract]~~ | ~~Common Stock~~ |
| ~~7. Common Stock~~ | |

~~In May 2021, the Company entered into an At-The-Market Sales Agreement (the “Sales Agreement”) with H.C. Wainwright and Co., LLC (“HCW”) to act as the Company’s sales agent with respect to the issuance and sale of up to $ million of the Company’s shares of common stock, from time to time in an at-the-market public offering (the “ATM Offering”). Upon filing of the Annual Report, the Company continued to be subject to General Instruction I.B.6 of Form S-3, pursuant to which in no event will the Company sell its common stock in a registered primary offering using Form S-3 with a value exceeding more than one-third of its public float in any 12 calendar month period so long as its public float remains below $. Therefore, the amount that may be able to be raised using the ATM Offering will be significantly less than $, until such time as the Company’s public float held by non-affiliates exceeds $.20.075,000,00020,000,00075,000,000~~

~~Sales of common stock under the Sales Agreement are made pursuant to an effective shelf registration statement on Form S-3, which was filed with the SEC on May 17, 2024, and subsequently declared effective on May 30, 2024 (File No. 333-279491), and a related prospectus. HCW acts as the Company’s sales agent on a commercially reasonable efforts basis, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of The Nasdaq Capital Market (“Nasdaq”). If expressly authorized by the Company, HCW may also sell the Company’s common stock in privately negotiated transactions. There is no specific date on which the ATM Offering will end, there are no minimum sale requirements and there are no arrangements to place any of the proceeds of the ATM Offering in an escrow, trust or similar account. HCW is entitled to compensation at a fixed commission rate of % of the gross proceeds from the sale of the Company’s common stock pursuant to the Sales Agreement.3.0~~

~~During the six months ended June 30, 2024, shares of the Company’s common stock were sold under the Sales Agreement.no~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_EquityAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for equity.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name~~

***~~Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (h) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 14 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-14Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 235 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477968/946-235-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 235 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477968/946-235-50-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 505 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478448/946-505-50-6Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480237/815-40-50-6Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(e)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 10: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/505/tableOfContentReference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 14 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-14Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 14 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-14Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 16 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-16Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 18 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-18Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 18 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-18Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 18 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-18~~***

~~+ Details~~

~~Name:us-gaap_StockholdersEquityNoteDisclosureTextBlock~~ ~~Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 27~~

~~R14.htm IDEA: XBRL DOCUMENT~~

~~Warrants~~ ~~6 Months Ended~~

~~Jun. 30, 2024~~

~~Warrants~~ ~~Warrants~~

~~8. Warrants~~

~~There were warrants issued or exercised during the six months ended June 30, 2024. During the six months ended June 30, 2024, warrants to purchase up to shares of common stock at a weighted average exercise price of $ per share expired. Subsequent to June 30, 2024, but before the date these condensed consolidated financial statements were issued, warrants to purchase up to shares of common stock at a weighted average exercise price of $ per share expired. The following represents a summary of the warrants outstanding and exercisable at June 30, 2024, all of which are equity-classified:~~~~no160,44544.1266,67526.79~~

~~Adjusted~~ ~~Number of Shares Underlying Warrants~~

~~Issue Date~~ ~~Exercise Price~~ ~~Expiration Date~~ ~~Outstanding~~ ~~Exercisable~~ ~~December 17, 2021~~

~~$~~ ~~14.99~~ ~~December 15, 2026~~

~~36,538~~ ~~36,538~~ ~~December 17, 2021 $13.99 December 17, 2026 281,047 281,047 February 16, 2021 $49.99 February 11, 2026~~

~~65,003 65,003 August 7, 2020 $35.99 July 14, 2025 90,743 90,743 August 7, 2020 $44.99 July 14, 2025 10,939 10,939 July 23, 2020 $35.99 July 14, 2025~~

~~77,502 77,502 July 13, 2020 $44.99 July 14, 2025 21,846 21,846 July 13, 2020 $35.99 July 14, 2025 334,800 334,800 February 12, 2019 $26.79 August 12, 2024~~

~~66,675 66,675 June 15, 2015 $1,509.99 Five years after milestone achievement 15,955 -~~

~~Total 1,001,048 985,093~~

~~- Definition~~

~~Disclosure of warrants [Text Block]~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosureOfWarrantsTextBlock Namespace Prefix:PULM_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosureWarrantsAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration XML 28 R15.htm IDEA: XBRL DOCUMENT~~

~~Stock-based Compensation~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~

~~Share-Based Payment Arrangement [Abstract]~~ ~~Stock-based Compensation~~

~~9. Stock-based Compensation~~

~~The Company sponsors the Pulmatrix, Inc. Amended and Restated 2013 Employee, Director and Consultant Equity Incentive Plan (the “Incentive Plan”). As of June 30, 2024, the Incentive Plan provided for the grant of up to shares of the Company’s common stock, of which shares remained available for future grant. In addition, the Company sponsors two legacy plans under which no additional awards may be granted. As of June 30, 2024, the two legacy plans have a total of options outstanding, all of which are fully vested and for which common stock will be issued upon exercise.~~~~818,936503,6698~~

~~The following table summarizes stock option activity during the six months ended June 30, 2024:~~

| | ~~Number of Options~~ | ~~Weighted-Average Exercise Price~~ | ~~Weighted-Average Remaining Contractual Term (Years)~~ | ~~Aggregate Intrinsic Value~~ |
|---|---|---|---|---|
| ~~Outstanding — January 1, 2024~~ | ~~344,306~~ | ~~$ 20.92~~ | ~~7.54~~ | ~~$ -~~ |
| ~~Forfeited or expired~~ | ~~(32,869)~~ | ~~$ 5.18~~ | — | — |
| ~~Outstanding — June 30, 2024~~ | ~~311,437~~ | ~~$ 22.58~~ | ~~6.95~~ | ~~$ -~~ |
| ~~Exercisable — June 30, 2024~~ | ~~221,578~~ | ~~$29.07~~ | ~~6.46~~ | ~~$-~~ |

~~No stock options were granted during the six months ended June 30, 2024. The Company records stock-based compensation expense related to stock options based on their grant-date fair value. As of June 30, 2024, there was $ million of unrecognized stock-based compensation expense related to unvested stock options granted under the Company’s stock award plans. This expense is expected to be recognized over a weighted-average period of approximately years.~~~~0.51.6~~

~~The following table presents total stock-based compensation expense for the three and six months ended June 30, 2024 and 2023:~~

~~2024 2023 2024 2023~~

| | ~~Three Months Ended June 30,~~ | | ~~Six Months Ended June 30,~~ | |
|---|---|---|---|---|
| | ~~2024~~ | ~~2023~~ | ~~2024~~ | ~~2023~~ |
| ~~Research and development~~ | ~~$ 29~~ | ~~$ 59~~ | ~~$ 145~~ | ~~$ 131~~ |
| ~~General and administrative~~ | ~~74~~ | ~~196~~ | ~~156~~ | ~~420~~ |
| ~~Total stock-based compensation expense~~ | ~~$ 103~~ | ~~$ 255~~ | ~~$ 301~~ | ~~$ 551~~ |

~~- Definition~~

~~The entire disclosure for share-based payment arrangement.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/718/tableOfContentReference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (h)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (h)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (l) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_DisclosureOfCompensationRelatedCostsShareBasedPaymentsTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_DisclosureOfCompensationRelatedCostsSharebasedPaymentsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type: duration XML 29 R16.htm IDEA: XBRL DOCUMENT~~

~~Commitments and Contingencies6 Months Ended~~
~~Jun. 30, 2024~~
~~Commitments and Contingencies Disclosure [Abstract]~~ ~~Commitments and Contingencies~~
~~10. Commitments and Contingencies~~

~~Research and Development Activities~~

~~The Company contracts with various other organizations to conduct research and development activities, including clinical trials. The scope of the services under contracts for research and development activities may be modified and the contracts, subject to certain conditions, may generally be cancelled by the Company upon written notice. In some instances, the contracts, subject to certain conditions, may be cancelled by the third party. As of June 30, 2024, the Company had no material noncancellable commitments not expected to be reimbursed under the Cipla Agreement.~~

~~Legal Proceedings~~

~~In the ordinary course of its business, the Company may be involved in various legal proceedings involving contractual and employment relationships, patent or other intellectual property rights, and a variety of other matters. The Company is not aware of any pending legal proceedings that would reasonably be expected to have a material impact on the Company's financial position or results of operations.~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_CommitmentsAndContingenciesDisclosureAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for commitments and contingencies.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 405 -SubTopic 30 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/405-30/tableOfContentReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 440 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482648/440-10-50-4Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 450 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/450/tableOfContentReference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 440 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478522/954-440-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 440 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482648/440-10-50-4Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 440 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/440/tableOfContent~~

~~+ Details~~

~~Name:us-gaap_CommitmentsAndContingenciesDisclosureTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 30 R17.htm IDEA: XBRL DOCUMENT~~

~~Leases~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~
~~Leases Leases~~

~~11. Leases~~

~~The Company has limited leasing activities as a lessee which are primarily related to its corporate headquarters, which were relocated during the third quarter of 2023 and again during the third quarter of 2024.~~

~~On January 7, 2022, the Company executed the Lease Agreement with the Landlord for its corporate headquarters at 36 Crosby Drive, Bedford, Massachusetts. The leased premises comprise approximately square feet of office and lab space, and the 20,000lease provides for base rent of $million per month, payment of which began in March 2024. The Company is responsible for real estate taxes, maintenance, and other operating expenses applicable to the leased premises.0.1~~

~~On May 28, 2024, as part of the MannKind Transaction (see further discussion in Note 6, ), the Company and the Landlord executed the Lease Assignment Agreement to assign the Lease Agreement to MannKind in July 2024. The Company accounted for the Lease Assignment Agreement as a lease modification that reduced the lease term to the assignment date in July 2024. Accordingly, the Company remeasured its lease liability as of the modification date to reflect the decrease in fixed lease payments, with the amount of the remeasurement, $ million, adjusted by a corresponding reduction to the right-of-use asset.Significant Agreements8.4~~

~~As of June 30, 2024, the Company had $ million of restricted cash held in a depository account at a financial institution to collateralize a conditional stand-by letter of credit related to the Lease Agreement, which was presented within current assets on the consolidated balance sheet. Following the closing of the MannKind Transaction, this collateral was released in August 2024, providing additional cash available for operations. 1.4~~

~~In June 2024, the Company entered into a short-term lease agreement for its new headquarters at 945 Concord Street, Framingham, Massachusetts. No lease liability or right-of-use asset has been recorded for this short-term lease.~~

~~The components of lease expense for the Company for the three and six months ended June 30, 2024 and 2023 were as follows:~~

~~2024 2023 2024 2023~~

~~Three Months Ended~~
~~June 30,~~
~~Six Months Ended~~
~~June 30,~~

| | ~~2024~~ | ~~2023~~ | ~~2024~~ | ~~2023~~ |
|---|---|---|---|---|
| ~~Lease cost~~ | | | | |
| ~~Fixed lease cost~~ | ~~$ 271~~ | ~~$ 418~~ | ~~$ 678~~ | ~~$ 796~~ |
| ~~Variable lease cost~~ | ~~104~~ | ~~168~~ | ~~206~~ | ~~281~~ |
| ~~Total lease cost~~ | ~~$ 375~~ | ~~$ 586~~ | ~~$ 884~~ | ~~$ 1,077~~ |
| | | | | |
| ~~Other information~~ | | | | |
| ~~Cash paid for amounts included in the measurement of lease liabilities~~ | ~~$ 322~~ | ~~$ 432~~ | ~~$ 657~~ | ~~$ 863~~ |
| ~~Weighted-average remaining lease term~~ | | | | |

~~days7 years0.2~~ ~~- 8.40%~~
~~Weighted-average discount rate~~

~~Maturities of lease liabilities due under these lease agreements as of June 30, 2024 are as follows:~~

| | ~~Operating Leases~~ |
|---|---|
| ~~Maturity of lease liabilities~~ | |
| ~~2024 (7 days)~~ | ~~$ 24~~ |
| ~~Total lease payments~~ | ~~24~~ |
| ~~Less: interest~~ | ~~-~~ |

~~Total lease liabilities $24~~ ~~Total lease liabilities $24~~

| | |
|---|---|
| ~~Reported as of June 30, 2024~~ | |
| ~~Lease liabilities — short term~~ | ~~$24~~ |
| ~~Lease liabilities — long term~~ | ~~—~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosureLeasesAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for operating leases of lessee. Includes, but is not limited to, description of operating lease and maturity analysis of operating lease liability.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/842-20/tableOfContent~~

~~+ Details~~

~~Name:us-gaap_LesseeOperatingLeasesTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 31 R18.htm IDEA: XBRL DOCUMENT~~

~~Income Taxes~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~
~~Income Tax Disclosure [Abstract] Income Taxes~~

~~12. Income Taxes~~

~~The Company had income tax expense due to operating losses incurred for the three and six months ended June 30, 2024 and 2023.no~~

~~Management of the Company evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets and determined that it is more likely than not that the Company will not recognize the benefits of the deferred tax assets. As a result, a full valuation allowance was recorded as of June 30, 2024 and December 31, 2023.~~

~~The Company applies ASC 740, , for the financial statement recognition, measurement, presentation, and disclosure of uncertain tax positions taken or expected to be taken in income tax returns. Unrecognized tax benefits represent tax positions for which reserves have been established. A full valuation allowance has been provided against the Company's deferred tax assets, so that the effect of the unrecognized tax benefits is to reduce the gross amount of the deferred tax asset and the corresponding valuation allowance. The Company has no material uncertain tax positions as of June 30, 2024 and December 31, 2023.Income Taxes~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_IncomeTaxDisclosureAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for income tax.~~

~~+ References~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-12Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 231 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482663/740-10-55-231Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12C -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-12CReference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12B -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-12BReference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 270 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477891/740-270-50-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 6.I.5.Q1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479360/740-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480990/946-20-50-13Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(h)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/740/tableOfContentReference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 14 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-14Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 21 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-21Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 17 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-17Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 11.C) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479360/740-10-S99-2Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482603/740-30-50-2***~~

~~+ Details~~

~~Name:us-gaap_IncomeTaxDisclosureTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 32 R19.htm~~

~~IDEA: XBRL DOCUMENT~~

~~Net Loss Per Share~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~

~~Earnings Per Share [Abstract]~~ ~~Net Loss Per Share~~

~~13. Net Loss Per Share~~

~~Basic net loss per share is calculated by dividing net loss by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is calculated by dividing the weighted-average number common shares outstanding during the period, after taking into consideration any potentially dilutive effects from outstanding stock options or warrants.~~

~~Basic and diluted net loss per share were the same for the three and six months ended June 30, 2024 and 2023, as the effect of potentially dilutive securities would have been anti-dilutive.~~

~~The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted-average shares outstanding, because such securities had an anti-dilutive impact:~~

| | ~~Three and Six Months Ended June 30,~~ | |
|---|---|---|
| | ~~2024~~ | ~~2023~~ |
| ~~Options to purchase common stock~~ | ~~311,437~~ | ~~393,254~~ |
| ~~Warrants to purchase common stock~~ | ~~1,001,048~~ | ~~1,161,493~~ |
| ~~Total options and warrants to purchase common stock~~ | ~~1,312,485~~ | ~~1,554,747~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_EarningsPerShareAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for earnings per share.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/260/tableOfContentReference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-3~~

~~+ Details~~

~~Name:us-gaap_EarningsPerShareTextBlock~~ ~~Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 33 R20.htm IDEA: XBRL DOCUMENT~~

~~Subsequent Events~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~
~~Subsequent Events [Abstract]~~ ~~Subsequent Events~~
~~14. Subsequent Events~~

~~Departure of Chief Executive Officer~~

~~On July 15, 2024, the Board of Directors (the “Board”) of the Company approved a General Release and Severance Agreement (the “Raad Severance Agreement”), by and between the Company and Teofilo Raad, dated as of July 19, 2024, and effective as of the same date (the “Separation Date”). Effective as of the Separation Date, Mr. Raad’s employment with the Company ceased and Mr. Raad relinquished all positions, offices, and authority with the Company and any affiliates, including as a member of the Board and all committees thereto, and the Amended and Restated Employment Agreement by and between the Company and Mr. Raad, dated as of June 28, 2019, was terminated.~~

~~Pursuant to the terms of the Raad Severance Agreement, the Company will provide to Mr. Raad certain termination-related payments totaling approximately $ million, less all lawful and authorized withholdings and deductions. Any outstanding equity awards granted to Mr. Raad under the Company’s equity compensation plans and that would have vested during the 12-month period following the Separation Date became fully vested as of the Separation Date.~~1.0

~~Appointment of Interim Chief Executive Officer~~

~~On July 15, 2024, the Board approved the appointment of Peter Ludlum as the Interim Chief Executive Officer (the “Interim CEO”), effective as of July 20, 2024 (“Ludlum Effective Date”), pursuant to an amendment to the consulting agreement, by and between the Company and Danforth Advisors, LLC, dated as of November 29, 2021, and amended on April 8, 2022, and October 20, 2022.~~

~~The Company has completed an evaluation of all other subsequent events after the balance sheet date of June 30, 2024 through the date the condensed consolidated financial statements were issued to ensure that the condensed consolidated financial statements include appropriate disclosure of events both recognized in the condensed consolidated financial statements as of June 30, 2024, and events which occurred subsequently but were not recognized in the condensed consolidated financial statements. The Company has concluded that no subsequent events have occurred that require disclosure, except as disclosed within the condensed consolidated financial statements.~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_SubsequentEventsAbstract~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The entire disclosure for significant events or transactions that occurred after the balance sheet date through the date the financial statements were issued or the date the financial statements were available to be issued. Examples include: the sale of a capital stock issue, purchase of a business, settlement of litigation, catastrophic loss, significant foreign exchange rate changes, loans to insiders or affiliates, and transactions not in the ordinary course of business.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 855 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/855/tableOfContentReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 855 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483399/855-10-50-2~~

~~+ Details~~

~~Name:us-gaap_SubsequentEventsTextBlock~~ ~~Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 34 R21.htm IDEA: XBRL DOCUMENT~~

~~Summary of Significant Accounting Policies and Recent Accounting Standards (Policies)~~~~6 Months Ended~~
~~Jun. 30, 2024~~
~~Accounting Policies [Abstract]~~ ~~Basis of Presentation~~
~~Basis of Presentation~~

~~The condensed consolidated financial statements of the Company included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”) have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024 (the “Annual Report”).~~

~~The financial information as of June 30, 2024, and for the three and six months ended June 30, 2024 and 2023, is unaudited. In the opinion of management, all adjustments (including those which are normal and recurring) considered necessary for a fair presentation of the interim financial information have been included. The balance sheet data as of December 31, 2023 was derived from audited consolidated financial statements. The results of the Company’s operations for any interim periods are not necessarily indicative of the results that may be expected for any other interim period or for a full fiscal year.~~

~~Based on its current operating plan, the Company believes that its cash and cash equivalents as of June 30, 2024, will be adequate to fund its currently anticipated operating expenses for at least twelve months from the date these condensed consolidated financial statements are issued. The Company will need to secure additional funding in the future, from one or more equity or debt financings, collaborations, or other sources, in order to carry out all of the Company’s planned research and development activities and regulatory activities; commercialize product candidates; or conduct any substantial, additional development requirements requested by the FDA. Additional funding may not be available to the Company on acceptable terms, or at all. If the Company is unable to secure additional capital, it will be required to significantly decrease the amount of planned expenditures and may be required to cease operations. In addition, any disruption in the capital markets could make any financing more challenging, and there can be no assurance that Pulmatrix will be able to obtain such financing on commercially reasonable terms or at all. Curtailment of operations would cause significant delays in the Company’s efforts to develop and introduce its products to market, which is critical to the realization of its business plan and the future operations of the Company.~~

~~Use of Estimates~~
~~Use of Estimates~~

~~In preparing the condensed consolidated financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, as well as the reported amounts of expenses during the reporting period. Due to inherent uncertainty involved in making estimates, actual results may differ from these estimates. On an ongoing basis, the Company evaluates its estimates and assumptions. The most significant estimates and assumptions in the Company’s condensed consolidated financial statements include, but are not limited to, estimates of future expected costs in order to derive and recognize revenue and estimates related to clinical trial accruals and upfront deposits.~~

~~Concentrations of Credit Risk~~
~~Concentrations of Credit Risk~~

~~Cash is a financial instrument that potentially subjects the Company to concentrations of credit risk. For all periods presented, substantially all of the Company’s cash was deposited in accounts at a single financial institution that management believes is creditworthy, and the Company has not incurred any losses to date. The Company is exposed to credit risk in the event of default by this financial institution for amounts in excess of the Federal Deposit Insurance Corporation insured limits.~~

~~For the three and six months ended June 30, 2024, revenue from one customer accounted for % and %, respectively, of revenue recognized in the accompanying condensed consolidated financial statements. For the three and six months ended June 30, 2023, revenue from one customer accounted for % of revenue recognized in the accompanying condensed consolidated financial statements. As of June 30, 2024, two customers accounted for % of accounts receivable. As of December 31, 2023, one customer accounted for % of accounts receivable.~~6189100100100

~~Summary of Significant Accounting Policies~~
~~Summary of Significant Accounting Policies~~

~~The Company’s significant accounting policies are described in Note 2, , in the Annual Report. During the six months ended June 30, 2024, the Company did not make any changes to its significant accounting policies.~~Summary of Significant Accounting Policies and Recent Accounting Standards

~~Recent Accounting Pronouncements~~
~~Recent Accounting Pronouncements~~

~~From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (“FASB”) or other standard setting bodies that are adopted by the Company as of the specified effective date. The Company did not adopt any new accounting pronouncements during the six months ended June 30, 2024 that had a material effect on its condensed consolidated financial statements.~~

~~In December 2023, the FASB issued Accounting Standard Update 2023-09, (“ASU 2023-09”). The guidance in ASU 2023-09 improves the transparency of income tax disclosures by greater disaggregation of information in the rate reconciliation and income taxes paid disaggregated by jurisdiction. The standard becomes effective for the annual period beginning on January 1, 2025, with early adoption permitted. The Company is currently evaluating the impact that the adoption of ASU 2023-09 may have on its consolidated financial statements.~~Income Taxes (Topic 740): Improvements to Income Tax Disclosures

~~As of June 30, 2024, there are no other new, or existing recently issued, accounting pronouncements that are of significance, or potential significance, that impact the Company's condensed consolidated financial state~~

~~- Definition~~

~~Significant Accounting [Policy Text Block]~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_SignificantAccountingPolicyTextBlock Namespace Prefix:PULM_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_AccountingPoliciesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Disclosure of accounting policy for basis of accounting, or basis of presentation, used to prepare the financial statements (for example, US Generally Accepted Accounting Principles, Other Comprehensive Basis of Accounting, IFRS).~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_BasisOfAccountingPolicyPolicyTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Disclosure of accounting policy for credit risk.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 942 -SubTopic 825 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478898/942-825-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1~~

~~+ Details~~

~~Name:us-gaap_ConcentrationRiskCreditRisk Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Disclosure of accounting policy pertaining to new accounting pronouncements that may impact the entity's financial reporting. Includes, but is not limited to, quantification of the expected or actual impact.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_NewAccountingPronouncementsPolicyPolicyTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type: duration~~

~~- Definition~~

~~Disclosure of accounting policy for the use of estimates in the preparation of financial statements in conformity with generally accepted accounting principles.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-9Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-4Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (c) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 11 -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-11Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 12 -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-12Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-8~~

~~+ Details~~

~~Name:us-gaap_UseOfEstimates Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 35 R22.htm IDEA: XBRL DOCUMENT~~

~~Prepaid Expenses and Other Current Assets (Tables)6 Months Ended~~
~~Jun. 30, 2024~~

~~Prepaid Expenses And Other Current Assets~~ ~~Schedule of Prepaid Expenses and Other Current Assets~~

~~Prepaid expenses and other current assets consisted of the following:~~

| | ~~June 30, 2024~~ | ~~December 31, 2023~~ |
|---|---|---|
| ~~Clinical and consulting~~ | ~~$ 457~~ | ~~$ 30~~ |
| ~~Insurance~~ | ~~438~~ | ~~232~~ |
| ~~Software and hosting costs~~ | ~~86~~ | ~~108~~ |
| ~~Other~~ | ~~220~~ | ~~372~~ |
| ~~Total prepaid expenses and other current assets~~ | ~~$ 1,201~~ | ~~$ 742~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosurePrepaidExpensesAndOtherCurrentAssetsAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of the amounts paid in advance for capitalized costs that will be expensed with the passage of time or the occurrence of a triggering event, and will be charged against earnings within one year or the normal operating cycle, if longer; the aggregate carrying amount of current assets, not separately presented elsewhere in the balance sheet; and other deferred costs.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_DeferredCostsCapitalizedPrepaidAndOtherAssetsDisclosureTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 36 R23.htm IDEA: XBRL DOCUMENT~~

~~Property and Equipment, Net (Tables)6 Months Ended~~
~~Jun. 30, 2024~~

~~Property, Plant and Equipment [Abstract]~~ ~~Schedule of Property and Equipment~~

~~June 30, 2024~~ ~~December 31, 2023~~
~~Laboratory equipment~~ ~~$~~
~~$~~ ~~1,656~~
~~Leasehold improvements~~
~~401~~ ~~237~~ ~~600~~ ~~2,894~~
~~Office furniture and equipment~~ ~~Computer equipment~~ ~~Capital in progress~~ ~~—~~ ~~Less accumulated depreciation and amortization~~
~~(1,736)~~ ~~$1,158~~
~~Property and equipment, net $~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of physical assets used in the normal conduct of business and not intended for resale. Includes, but is not limited to, balances by class of assets, depreciation and depletion expense and method used, including composite depreciation, and accumulated deprecation.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 37 R24.htm IDEA: XBRL DOCUMENT~~

~~Accrued Expenses and Other Current Liabilities (Tables)6 Months Ended~~
~~Jun. 30, 2024~~
~~Payables and Accruals [Abstract] Schedule of Accrued Expenses and Other Current Liabilities~~

~~Accrued expenses and other current liabilities consisted of the following:~~

| | ~~June 30, 2024~~ | ~~December 31, 2023~~ |
|---|---|---|
| ~~Wages and incentives~~ | ~~$ 1,221~~ | ~~$ 70~~ |
| ~~Clinical and consulting~~ | ~~296~~ | ~~347~~ |
| ~~Legal and patents~~ | ~~223~~ | ~~42~~ |
| ~~Accrued purchases of property and equipment~~ | ~~—~~ | ~~389~~ |
| ~~Other~~ | ~~43~~ | ~~99~~ |
| ~~Total accrued expenses and other current liabilities~~ | ~~$1,783~~ | ~~$947~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_PayablesAndAccrualsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of the (a) carrying value as of the balance sheet date of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business (accounts payable); (b) other payables; and (c) accrued liabilities. Examples include taxes, interest, rent and utilities. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer). An alternative caption includes accrued expenses.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_ScheduleOfAccountsPayableAndAccruedLiabilitiesTableTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 38 R25.htm IDEA: XBRL DOCUMENT~~

~~Warrants (Tables) 6 Months Ended~~
~~Jun. 30, 2024~~
~~Warrants Schedule of Warrants Outstanding~~

| | | | ~~Number of Shares Underlying Warrants~~ | |
|---|---|---|---|---|
| ~~Issue Date~~ | ~~Adjusted Exercise Price~~ | ~~Expiration Date~~ | ~~Outstanding~~ | ~~Exercisable~~ |
| ~~December 17, 2021~~ | ~~$ 14.99~~ | ~~December 15, 2026~~ | ~~36,538~~ | ~~36,538~~ |
| ~~December 17, 2021~~ | ~~$13.99~~ | ~~December 17, 2026~~ | ~~281,047~~ | ~~281,047~~ |
| ~~February 16, 2021~~ | ~~$49.99~~ | ~~February 11, 2026~~ | ~~65,003~~ | ~~65,003~~ |
| ~~August 7, 2020~~ | ~~$35.99~~ | ~~July 14, 2025~~ | ~~90,743~~ | ~~90,743~~ |
| ~~August 7, 2020~~ | ~~$44.99~~ | ~~July 14, 2025~~ | ~~10,939~~ | ~~10,939~~ |
| ~~July 23, 2020~~ | ~~$35.99~~ | ~~July 14, 2025~~ | ~~77,502~~ | ~~77,502~~ |
| ~~July 13, 2020~~ | ~~$44.99~~ | ~~July 14, 2025~~ | ~~21,846~~ | ~~21,846~~ |
| ~~July 13, 2020~~ | ~~$35.99~~ | ~~July 14, 2025~~ | ~~334,800~~ | ~~334,800~~ |
| ~~February 12, 2019~~ | ~~$26.79~~ | ~~August 12, 2024~~ | ~~66,675~~ | ~~66,675~~ |
| ~~June 15, 2015~~ | ~~$1,509.99~~ | ~~Five years after milestone achievement~~ | ~~15,955~~ | ~~-~~ |
| | | ~~Total~~ | ~~1,001,048~~ | ~~985,093~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosureWarrantsAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of warrants or rights issued. Warrants and rights outstanding are derivative securities that give the holder the right to purchase securities (usually equity) from the issuer at a specific price within a certain time frame. Warrants are often included in a new debt issue to entice investors by a higher return potential. The main difference between warrants and call options is that warrants are issued and guaranteed by the company, whereas options are exchange instruments and are not issued by the company. Also, the lifetime of a warrant is often measured in years, while the lifetime of a typical option is measured in months. Disclose the title of issue of securities called for by warrants and rights outstanding, the aggregate amount of securities called for by warrants and rights outstanding, the date from which the warrants or rights are exercisable, and the price at which the warrant or right is exercisable.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-1~~

~~+ Details~~

~~Name:us-gaap_ScheduleOfStockholdersEquityNoteWarrantsOrRightsTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 39 R26.htm IDEA: XBRL DOCUMENT~~

~~Stock-based Compensation (Tables)6 Months Ended~~
~~Jun. 30, 2024~~
~~Share-Based Payment Arrangement [Abstract] Schedule of Stock Option Activity~~

~~The following table summarizes stock option activity during the six months ended June 30, 2024:~~

| | ~~Number of Options~~ | ~~Weighted-Average Exercise Price~~ | ~~Weighted-Average Remaining Contractual Term (Years)~~ | ~~Aggregate Intrinsic Value~~ |
|---|---|---|---|---|
| ~~Outstanding — January 1, 2024~~ | ~~344,306~~ | ~~$ 20.92~~ | ~~7.54~~ | ~~$ -~~ |
| ~~Forfeited or expired~~ | ~~(32,869)~~ | ~~$ 5.18~~ | ~~—~~ | ~~—~~ |
| ~~Outstanding — June 30, 2024~~ | ~~311,437~~ | ~~$ 22.58~~ | ~~6.95~~ | ~~$ -~~ |
| ~~Exercisable — June 30, 2024~~ | ~~221,578~~ | ~~$29.07~~ | ~~6.46~~ | ~~$-~~ |

~~Schedule of Stock-based Compensation Expenses~~

~~The following table presents total stock-based compensation expense for the three and six months ended June 30, 2024 and 2023:~~

~~2024 2023 2024 2023~~

~~Three Months Ended~~
~~June 30,~~

~~Six Months Ended~~
~~June 30,~~

| | ~~2024~~ | ~~2023~~ | ~~2024~~ | ~~2023~~ |
|---|---|---|---|---|
| ~~Research and development~~ | ~~$ 29~~ | ~~$ 59~~ | ~~$ 145~~ | ~~$ 131~~ |
| ~~General and administrative~~ | ~~74~~ | ~~196~~ | ~~156~~ | ~~420~~ |
| ~~Total stock-based compensation expense~~ | ~~$ 103~~ | ~~$ 255~~ | ~~$ 301~~ | ~~$ 551~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_DisclosureOfCompensationRelatedCostsSharebasedPaymentsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of allocation of amount expensed and capitalized for award under share-based payment arrangement to statement of income or comprehensive income and statement of financial position. Includes, but is not limited to, corresponding line item in financial statement.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Subparagraph (h)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_ScheduleOfEmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure for stock option plans. Includes, but is not limited to, outstanding awards at beginning and end of year, grants, exercises, forfeitures, and weighted-average grant date fair value.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d) -SubTopic 10 -Topic 718 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (e) -SubTopic 10 -Topic 718 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 40 R27.htm IDEA: XBRL DOCUMENT~~

~~Leases (Tables)~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~

~~Leases~~ ~~Schedule of Components of Lease Expenses~~

~~The components of lease expense for the Company for the three and six months ended June 30, 2024 and 2023 were as follows:~~

~~2024 2023 2024 2023~~

~~Three Months Ended~~
~~June 30,~~
~~Six Months Ended~~
~~June 30,~~

| | ~~2024~~ | ~~2023~~ | ~~2024~~ | ~~2023~~ |
|---|---|---|---|---|
| ~~Lease cost~~ | | | | |
| ~~Fixed lease cost~~ | ~~$ 271~~ | ~~$ 418~~ | ~~$ 678~~ | ~~$ 796~~ |
| ~~Variable lease cost~~ | ~~104~~ | ~~168~~ | ~~206~~ | ~~281~~ |
| ~~Total lease cost~~ | ~~$ 375~~ | ~~$ 586~~ | ~~$ 884~~ | ~~$ 1,077~~ |
| | | | | |
| ~~Other information~~ | | | | |
| ~~Cash paid for amounts included in the measurement of lease liabilities~~ | ~~$ 322~~ | ~~$ 432~~ | ~~$ 657~~ | ~~$ 863~~ |
| ~~Weighted-average remaining lease term~~ | | | | |

~~days7 years0.2~~ ~~8.40%~~~~Schedule of Maturities of Lease Liabilities~~
~~Weighted-average discount rate~~

~~Maturities of lease liabilities due under these lease agreements as of June 30, 2024 are as follows:~~

| | ~~Operating Leases~~ |
|---|---|
| ~~Maturity of lease liabilities~~ | |
| ~~2024 (7 days)~~ | ~~$ 24~~ |
| ~~Total lease payments~~ | ~~24~~ |
| ~~Less: interest~~ | — |
| ~~Total lease liabilities~~ | ~~$24~~ |

~~Total lease liabilities $24~~

| | |
|---|---|
| ~~Reported as of June 30, 2024~~ | |
| ~~Lease liabilities — short term~~ | ~~$24~~ |
| ~~Lease liabilities — long term~~ | — |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosureLeasesAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of lessee's lease cost. Includes, but is not limited to, interest expense for finance lease, amortization of right-of-use asset for finance lease, operating lease cost, short-term lease cost, variable lease cost and sublease income.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4~~

~~+ Details~~

~~Name:us-gaap_LeaseCostTableTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of undiscounted cash flows of lessee's operating lease liability. Includes, but is not limited to, reconciliation of undiscounted cash flows to operating lease liability recognized in statement of financial position.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6~~

~~+ Details~~

~~Name:us-gaap_LesseeOperatingLeaseLiabilityMaturityTableTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type: duration XML 41 R28.htm IDEA: XBRL DOCUMENT~~

~~Net Loss Per Share (Tables)6 Months Ended~~
~~Jun. 30, 2024~~

~~Earnings Per Share [Abstract] Schedule of Computation of Anti-Dilutive Weighted-Average Shares Outstanding~~

~~The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted-average shares outstanding, because such securities had an anti-dilutive impact:~~

| | ~~Three and Six Months Ended June 30,~~ | |
|---|---|---|
| | ~~2024~~ | ~~2023~~ |
| ~~Options to purchase common stock~~ | ~~311,437~~ | ~~393,254~~ |
| ~~Warrants to purchase common stock~~ | ~~1,001,048~~ | ~~1,161,493~~ |
| ~~Total options and warrants to purchase common stock~~ | ~~1,312,485~~ | ~~1,554,747~~ |

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_EarningsPerShareAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Tabular disclosure of securities (including those issuable pursuant to contingent stock agreements) that could potentially dilute basic earnings per share (EPS) in the future that were not included in the computation of diluted EPS because to do so would increase EPS amounts or decrease loss per share amounts for the period presented, by antidilutive securities.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 260 -SubTopic 10 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1~~

~~+ Details~~

~~Name:us-gaap_ScheduleOfAntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareTextBlock Namespace Prefix:us-gaap_ Data Type:dtr-types:textBlockItemType Balance Type:na Period Type:duration XML 42 R29.htm IDEA: XBRL DOCUMENT~~

~~Summary of Significant Accounting Policies and Recent Accounting Standards (Details Narrative) - Customer Concentration Risk [Member]~~ ~~3 Months Ended~~ ~~6 Months Ended~~ ~~12 Months Ended~~

~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Dec. 31, 2023~~

~~Revenue from Contract with Customer Benchmark [Member] | One Customer [Member]~~ ~~Product Information [Line Items]~~ ~~Concentration risk percentage~~ ~~61.00%~~ ~~100.00%~~

~~89.00%100.00% Accounts Receivable [Member] | One Customer [Member] Product Information [Line Items] Concentration risk percentage 100.00%Accounts Receivable [Member] | Two Customer [Member] Product Information [Line Items] Concentration risk percentage 100.00%~~

~~- Definition~~

~~For an entity that discloses a concentration risk in relation to quantitative amount, which serves as the "benchmark" (or denominator) in the equation, this concept represents the concentration percentage derived from the division.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 825 -SubTopic 10 -Section 50 -Paragraph 21 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-21Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 825 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-20Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 18 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-18Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-20~~

~~+ Details~~

~~Name:us-gaap_ConcentrationRiskPercentage1 Namespace Prefix:us-gaap_ Data Type:dtr-types:percentItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_ProductInformationLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Details~~

~~Name:us-gaap_ConcentrationRiskByBenchmarkAxis=us-gaap_RevenueFromContractWithCustomerMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_ConcentrationRiskByTypeAxis=us-gaap_CustomerConcentrationRiskMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:srt_MajorCustomersAxis=PULM_OneCustomerMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_ConcentrationRiskByBenchmarkAxis=us-gaap_AccountsReceivableMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:srt_MajorCustomersAxis=PULM_TwoCustomerMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 43 R30.htm IDEA: XBRL DOCUMENT Schedule of Prepaid Expenses and Other Current Assets (Details) - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Prepaid Expenses And Other Current Assets Clinical and consulting$ 457$ 30Insurance438232Software and hosting costs86108Other220372Total prepaid expenses and other current assets$ 1,201$ 742~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisclosurePrepaidExpensesAndOtherCurrentAssetsAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Prepaid clinical and consulting.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_PrepaidClinicalAndConsulting Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Prepaid software and hosting costs.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_PrepaidSoftwareAndHostingCosts Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of asset related to consideration paid in advance for other costs that provide economic benefits within a future period of one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 340 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483032/340-10-45-1~~

~~+ Details~~

~~Name:us-gaap_OtherPrepaidExpenseCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of asset related to consideration paid in advance for costs that provide economic benefits in future periods, and amount of other assets that are expected to be realized or consumed within one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_PrepaidExpenseAndOtherAssetsCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of asset related to consideration paid in advance for insurance that provides economic benefits within a future period of one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (g)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 340 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483032/340-10-45-1Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 340 -SubTopic 10 -Name Accounting Standards Codification -Section 05 -Paragraph 5 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482955/340-10-05-5~~

~~+ Details~~

~~Name:us-gaap_PrepaidInsurance Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant XML 44 R31.htm IDEA: XBRL DOCUMENT~~

~~Schedule of Property and Equipment (Details) - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Property, Plant and Equipment [Line Items]  Total property and equipment $ 2,894Less accumulated depreciation and amortization(1,736)Property and equipment, net1,158Laboratory Equipment [Member]  Property, Plant and Equipment [Line Items]  Total property and equipment1,656Leasehold Improvements [Member]  Property, Plant and Equipment [Line Items]  Total property and equipment Office Furniture and Equipment [Member]  Property, Plant and Equipment [Line Items]  Total property and equipment401Computer Equipment [Member]  Property, Plant and Equipment [Line Items]  Total property and equipment237Capital in Progress [Member]  Property, Plant and Equipment [Line Items]  Total property and equipment$ 600~~

~~- Definition~~

~~Amount of accumulated depreciation, depletion and amortization for physical assets used in the normal conduct of business to produce goods and services.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX~~

~~210.7-03(a)(8)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(14)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 360 -SubTopic 10 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1~~

~~+ Details~~

~~Name:us-gaap_AccumulatedDepreciationDepletionAndAmortizationPropertyPlantAndEquipment Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type: credit Period Type:instant~~

~~- Definition~~

~~Amount before accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(13)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 360 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentGross Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7A~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount after accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business to produce goods and services and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7AReference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI~~

~~http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 360 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478451/942-360-50-1~~

~~+ Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentNet Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentByTypeAxis=PULM_LaboratoryEquipmentMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~
~~- Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentByTypeAxis=us-gaap_LeaseholdImprovementsMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~
~~- Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentByTypeAxis=PULM_OfficeFurnitureAndEquipmentMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~
~~- Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentByTypeAxis=us-gaap_ComputerEquipmentMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~
~~- Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentByTypeAxis=PULM_CapitalInProgressMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 45 R32.htm IDEA: XBRL DOCUMENT~~
~~Property and Equipment, Net (Details Narrative) - USD ($) $ in Thousands6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Property, Plant and Equipment [Abstract] Depreciation and amortization$ 106$ 64~~
~~- Definition~~

~~The current period expense charged against earnings on long-lived, physical assets not used in production, and which are not intended for resale, to allocate or recognize the cost of such assets over their useful lives; or to record the reduction in book value of an intangible asset over the benefit period of such asset; or to reflect consumption during the period of an asset that is not used in production.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 360 -SubTopic 10 -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1~~

~~+ Details~~
~~Name:us-gaap_DepreciationAndAmortization Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_PropertyPlantAndEquipmentAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration XML 46 R33.htm IDEA: XBRL DOCUMENT~~
~~Schedule of Accrued Expenses and Other Current Liabilities (Details) - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Payables and Accruals [Abstract] Wages and~~

~~incentives$ 1,221$ 70Clinical and consulting296347Legal and patents22342Accrued purchases of property and equipment389Other4399Total accrued expenses and other current liabilities$ 1,783$ 947~~

~~- Definition~~

~~Accrued legal and patent current.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:PULM_AccruedLegalAndPatentCurrent Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Accrued purchases of property and equipment.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:PULM_AccruedPurchasesOfPropertyAndEquipment Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of expenses incurred but not yet paid nor invoiced, and liabilities classified as other.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_AccruedLiabilitiesAndOtherLiabilities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Carrying value as of the balance sheet date of obligations incurred through that date and payable for professional fees, such as for legal and accounting services received. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer).~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_AccruedProfessionalFeesCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Total of the carrying values as of the balance sheet date of obligations incurred through that date and payable for obligations related to services received from employees, such as accrued salaries and bonuses, payroll taxes and fringe benefits. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer).~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_EmployeeRelatedLiabilitiesCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of expenses incurred but not yet paid classified as other, due within one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_OtherAccruedLiabilitiesCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_PayablesAndAccrualsAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration XML 47 R34.htm IDEA: XBRL DOCUMENT~~
~~Significant Agreements (Details Narrative) - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~May 28, 2024~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Product Liability Contingency [Line Items] Agreement description~~

~~Pursuant to the Second Amendment, the Company and Cipla were each responsible for 60% and 40%, respectively, of the Company’s overhead costs and the time spent by the Company’s employees and consultants on development of the Product (“Direct Costs”). The Company will share all other development costs with Cipla that are not Direct Costs, such as the cost of clinical research organizations, manufacturing costs and other third-party costs, on a 50/50 basis.~~

~~Transaction cost $ 22,000 $ 22,000 Revenue 1,552$ 1,8447,437$ 3,343Disposal of carrying value 2,600 Cipla Agreement [Member] | Cipla Technologies LLC [Member] Product Liability Contingency [Line Items] Proceeds from related party debt 22,000 Deferred revenue 300 300 Cipla Agreement [Member] | Cipla Technologies LLC [Member] | Research and Development Service [Member] Product Liability Contingency [Line Items] Transaction cost 12,000 12,000 Revenue 900$ 1,8006,600$ 3,300 Cipla Agreement [Member] | Cipla Technologies LLC [Member] | Irrevocable License [Member] Product Liability Contingency [Line Items] Transaction cost $ 10,000 $ 10,000 Lease Assignment Agreement [Member] Product Liability Contingency [Line Items] Decrease in right-of-use asset$ 8,400~~

~~- Definition~~

~~Agreement description.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_AgreementDescription Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Disoposal of carrying value.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_DisoposalOfCarryingValue Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Increase decrease in right of use asset.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_IncreaseDecreaseInRightOfUseAsset Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Aggregate transaction price~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_TransactionCosts Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(26)(c)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_DeferredRevenue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~The cash inflow from a long-term borrowing made from related parties where one party can exercise control or significant influence over another party; including affiliates, owners or officers and their immediate families, pension trusts, and so forth. Alternate caption: Proceeds from Advances from Affiliates.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 14 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14~~

~~+ Details~~

~~Name:us-gaap_ProceedsFromRelatedPartyDebt Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 450 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483076/450-20-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 450 -SubTopic 20 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 5.Y.Q2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480102/450-20-S99-1Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 450 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483076/450-20-50-4Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 450 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483076/450-20-50-9~~

~~**+ Details**~~

~~**Name:us-gaap_ProductLiabilityContingencyLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration**~~

~~**- Definition**~~

~~**Amount, excluding tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise.**~~

~~**+ References**~~

~~**Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 41 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-41Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 40 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-40Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-4**~~

~~+ Details~~
~~Name:us-gaap_RevenueFromContractWithCustomerExcludingAssessedTax Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type: duration~~

~~- Details~~
~~Name:us-gaap_TypeOfArrangementAxis=PULM_CiplaAgreementMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:dei_LegalEntityAxis=PULM_CiplaTechnologiesLlcMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:srt_ProductOrServiceAxis=PULM_ResearchAndDevelopmentServiceMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:srt_ProductOrServiceAxis=PULM_IrrevocableLicenseMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:us-gaap_TypeOfArrangementAxis=PULM_LeaseAssignmentAgreementMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 48 R35.htm IDEA: XBRL DOCUMENT~~
~~Common Stock (Details Narrative) - H.C.Wainwright and Co., LLC [Member] - Sale Agreement [Member] - USD ($)1 Months Ended6 Months Ended~~
~~May 31, 2021~~
~~Jun. 30, 2024~~
~~Subsidiary, Sale of Stock [Line Items] Sale of stock, consideration received on transaction$ 20,000,000.0 Commission percentage3.00% Common Stock [Member] Subsidiary, Sale of Stock [Line Items] Number of shares issued in transaction 0Minimum [Member] Subsidiary, Sale of Stock [Line Items] Sale of stock, consideration received on transaction$ 75,000,000 Minimum [Member] | ATM Offering [Member] Subsidiary, Sale of Stock [Line Items] Sale of stock, consideration received on transaction~~
~~$ 20,000,000~~

~~- Definition~~

~~Commission percentage.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:PULM_CommissionPercentage Namespace Prefix:PULM_ Data Type:dtr-types:percentItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Cash received on stock transaction after deduction of issuance costs.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_SaleOfStockConsiderationReceivedOnTransaction Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~The number of shares issued or sold by the subsidiary or equity method investee per stock transaction.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_SaleOfStockNumberOfSharesIssuedInTransaction Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_SubsidiarySaleOfStockLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Details~~
~~Name:dei_LegalEntityAxis=PULM_HCWainwrightAndCoLLCMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:us-gaap_TypeOfArrangementAxis=PULM_SaleAgreementMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:us-gaap_StatementEquityComponentsAxis=us-gaap_CommonStockMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:srt_RangeAxis=srt_MinimumMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:us-gaap_SubsidiarySaleOfStockAxis=PULM_ATMOfferingMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 49 R36.htm IDEA: XBRL DOCUMENT~~
~~Schedule of Warrants Outstanding (Details)6 Months Ended~~
~~Jun. 30, 2024~~
~~$ / shares~~
~~shares~~
~~Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Number of Shares Underlying Warrants, Outstanding Total160,445Warrant One [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateDec. 17, 2021Warrants, Exercise Price | $ / shares$ 14.99Warrants, Expiration DateDec. 15, 2026Number of Shares Underlying Warrants, Outstanding Total36,538Number of Shares Underlying Warrants, Exercisable Total 36,538Warrant Two [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateDec. 17, 2021Warrants, Exercise Price | $ / shares$ 13.99Warrants, Expiration DateDec. 17, 2026Number of Shares Underlying Warrants, Outstanding Total281,047Number of Shares Underlying Warrants, Exercisable Total281,047Warrant Three [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateFeb. 16, 2021 Warrants, Exercise Price | $ / shares$ 49.99Warrants, Expiration DateFeb. 11, 2026Number of Shares Underlying Warrants, Outstanding Total65,003Number of Shares Underlying Warrants, Exercisable Total65,003Warrant Four [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateAug. 07, 2020Warrants, Exercise Price | $ / shares$ 35.99Warrants, Expiration DateJul. 14, 2025Number of Shares Underlying Warrants, Outstanding Total90,743Number of Shares Underlying Warrants, Exercisable Total90,743Warrant Five [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateAug. 07, 2020Warrants, Exercise Price | $ / shares$ 44.99Warrants, Expiration DateJul. 14, 2025Number of Shares Underlying Warrants, Outstanding Total10,939Number of Shares Underlying Warrants, Exercisable Total10,939Warrant Six [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateJul. 23, 2020Warrants, Exercise Price | $ / shares$ 35.99Warrants, Expiration DateJul. 14, 2025Number of Shares Underlying Warrants, Outstanding Total77,502Number of Shares Underlying Warrants, Exercisable Total77,502Warrant Seven [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateJul. 13, 2020Warrants, Exercise Price | $ / shares$ 44.99Warrants, Expiration DateJul. 14, 2025Number of Shares Underlying Warrants, Outstanding Total21,846Number of Shares Underlying Warrants, Exercisable Total21,846Warrant Eight [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateJul. 13, 2020Warrants, Exercise Price | $ / shares$ 35.99Warrants, Expiration Date Jul. 14, 2025Number of Shares Underlying Warrants, Outstanding Total334,800Number of Shares Underlying Warrants, Exercisable Total334,800Warrant Nine [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateFeb. 12, 2019Warrants, Exercise Price | $ / shares$ 26.79Warrants, Expiration DateAug. 12, 2024Number of Shares Underlying Warrants, Outstanding Total66,675Number of Shares Underlying Warrants, Exercisable Total66,675Warrant Ten [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Warrants, Issue DateJun. 15, 2015Warrants, Exercise Price | $ / shares $ 1,509.99Number of Shares Underlying Warrants, Outstanding Total15,955Number of Shares Underlying Warrants, Exercisable TotalWarrants, Expiration Date, Description Five years after milestone achievementWarrant [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Number of Shares Underlying Warrants, Outstanding Total1,001,048Number of Shares Underlying Warrants, Exercisable Total985,093~~

~~- Definition~~

~~Share-based compensation arrangement by share-based payment award non-option equity instruments exercisable number.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:PULM_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsExercisableNumber Namespace Prefix:PULM_ Data Type: xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Warrants expiration date description~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:PULM_WarrantsExpirationDateDescription Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Date the warrants or rights are exercisable, in YYYY-MM-DD format.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-3~~

~~+ Details~~
~~Name:us-gaap_ClassOfWarrantOrRighstDateFromWhichWarrantsOrRightsExercisable Namespace Prefix:us-gaap_ Data Type:xbrli:dateItemType Balance Type:na Period Type: duration~~

~~- Definition~~

~~Exercise price per share or per unit of warrants or rights outstanding.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-3~~

~~+ Details~~

~~Name:us-gaap_ClassOfWarrantOrRightExercisePriceOfWarrantsOrRights1 Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Number of warrants or rights outstanding.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_ClassOfWarrantOrRightOutstanding Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 35 -Paragraph 1D -Publisher FASB -URI https://asc.fasb.org/1943274/2147480483/718-10-35-1DReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 35 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480483/718-10-35-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (e)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (e)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(v) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Expiration date of outstanding warrant and right embodying unconditional obligation requiring redemption by transferring asset at specified or determinable date or upon event certain to occur, in YYYY-MM-DD format.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (bbb)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (bbb)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (bbb)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2~~

~~+ Details~~

~~Name:us-gaap_WarrantsAndRightsOutstandingMaturityDate Namespace Prefix:us-gaap_ Data Type:xbrli:dateItemType Balance Type:na Period Type:instant~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantOneMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantTwoMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantThreeMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantFourMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantFiveMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantSixMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantSevenMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantEightMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantNineMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=PULM_WarrantTenMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AwardTypeAxis=us-gaap_WarrantMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 50 R37.htm IDEA: XBRL DOCUMENT~~

~~Warrants (Details Narrative) - $ / shares 6 Months Ended~~
~~Jun. 30, 2024~~
~~Jul. 01, 2024~~
~~Subsequent Event [Line Items] Warrants issued or exercised 0 Purchase of warrants 160,445 Warrants exercise price $ 44.12 Subsequent Event [Member] Subsequent Event [Line Items] Purchase of warrants 66,675 Warrants exercise price $ 26.79~~

~~- Definition~~

~~Warrants issued or exercised.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_WarrantsIssuedOrExercised Namespace Prefix:PULM_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Number of warrants or rights outstanding.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_ClassOfWarrantOrRightOutstanding Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Weighted average price at which grantees can acquire the shares reserved for issuance under the stock option plan.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~
~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePrice Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Detail information of subsequent event by type. User is expected to use existing line items from elsewhere in the taxonomy as the primary line items for this disclosure, which is further associated with dimension and member elements pertaining to a subsequent event.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 830 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481674/830-30-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 855 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483399/855-10-50-2~~

~~+ Details~~
~~Name:us-gaap_SubsequentEventLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Details~~
~~Name:us-gaap_SubsequentEventTypeAxis=us-gaap_SubsequentEventMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 51 R38.htm IDEA: XBRL DOCUMENT~~
~~Schedule of Stock Option Activity (Details) - USD ($)6 Months Ended12 Months Ended~~
~~Jun. 30, 2024~~
~~Dec. 31, 2023~~
~~Offsetting Assets [Line Items] Weighted Average Exercise Price, Outstanding, Balance$ 44.12 Equity Option [Member] Offsetting Assets [Line Items] Number of Options, Outstanding, Balance344,306 Weighted Average Exercise Price, Outstanding, Balance$ 20.92 Weighted Average Remaining Contractual Term (Years), Outstanding 6 years 11 months 12 days7 years 6 months 14 daysAggregate Intrinsic Value, Balance Number of Options, Forfeited or expired(32,869) Weighted Average Exercise Price, Forfeited or expired$ 5.18 Number of Options, Outstanding, Balance311,437344,306Weighted Average Exercise Price, Outstanding, Balance$ 22.58$ 20.92Aggregate Intrinsic Value, Balance Number of Options, Exercisable221,578 Weighted Average Exercise Price, Outstanding, Exercisable$ 29.07 Weighted Average Remaining Contractual Term (Years), Exercisable6 years 5 months 15 days Aggregate Intrinsic Value, Exercisable~~
~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_OffsettingAssetsLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The number of shares into which fully or partially vested stock options outstanding as of the balance sheet date can be currently converted under the option plan.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~
~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableNumber Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~***The weighted-average price as of the balance sheet date at which grantees can acquire the shares reserved for issuance on vested portions of options outstanding and currently exercisable under the stock option plan.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~***+ Details***~~

~~***Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableWeightedAverageExercisePrice Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant***~~

~~***- Definition***~~

~~***For presentations that combine terminations, the number of shares under options that were cancelled during the reporting period as a result of occurrence of a terminating event specified in contractual agreements pertaining to the stock option plan or that expired.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~***+ Details***~~

~~***Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsForfeituresAndExpirationsInPeriod Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***Weighted average price of options that were either forfeited or expired.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~***+ Details***~~

~~***Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsForfeituresAndExpirationsInPeriodWeightedAverageExercisePrice Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***Amount by which the current fair value of the underlying stock exceeds the exercise price of options outstanding.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~***+ Details***~~

~~***Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingIntrinsicValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Number of options outstanding, including both vested and non-vested options.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~+ Details~~

~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingNumber Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Weighted average price at which grantees can acquire the shares reserved for issuance under the stock option plan.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePrice Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Amount of difference between fair value of the underlying shares reserved for issuance and exercise price of vested portions of options outstanding and currently exercisable.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsExercisableIntrinsicValue1 Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Weighted average remaining contractual term for vested portions of options outstanding and currently exercisable or convertible, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsExercisableWeightedAverageRemainingContractualTerm1 Namespace Prefix:us-gaap_ Data Type:xbrli:durationItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Weighted average remaining contractual term for option awards outstanding, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Subparagraph (e)(1) -Name Accounting Standards Codification -Paragraph 2 -Section 50 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsOutstandingWeightedAverageRemainingContractualTerm2 Namespace Prefix:us-gaap_ Data Type:xbrli:durationItemType Balance Type:na Period Type:duration~~

~~- Details~~

~~Name:us-gaap_DerivativeInstrumentRiskAxis=us-gaap_StockOptionMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 52 R39.htm IDEA: XBRL DOCUMENT~~

~~Schedule of Stock-based Compensation Expenses (Details) - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Line Items] Total stock-based compensation expense$ 103$ 255$ 301$ 551Research and Development Expense [Member] Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Line Items] Total stock-based compensation expense2959145131~~
~~General and Administrative Expense [Member] Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Line Items] Total stock-based compensation~~

~~expense$ 74$ 196$ 156$ 420~~

~~- Definition~~

~~Amount of expense for award under share-based payment arrangement. Excludes amount capitalized.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 14.F) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479830/718-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (h)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_AllocatedShareBasedCompensationExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_EmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Details~~

~~Name:us-gaap_IncomeStatementLocationAxis=us-gaap_ResearchAndDevelopmentExpenseMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_IncomeStatementLocationAxis=us-gaap_GeneralAndAdministrativeExpenseMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 53~~
~~R40.htm IDEA: XBRL DOCUMENT~~
~~Stock-based Compensation (Details Narrative) $ in Millions6 Months Ended~~
~~Jun. 30, 2024~~
~~USD ($)~~
~~shares~~
~~Incentive Plan [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Share based compensation arrangement, number of shares authorized818,936Share based compensation arrangement, number of shares available for grant503,669Legacy Share Plan [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Share based compensation arrangement, award options outstanding number8Stock Award Plan [Member] Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Unrecognized stock-based compensation expenses | $$ 0.5Weighted-average period of unrecognized stock-based compensation expense1 year 7 months 6 days~~

~~- Definition~~

~~Weighted-average period over which cost not yet recognized is expected to be recognized for award under share-based payment arrangement, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_EmployeeServiceShareBasedCompensationNonvestedAwardsTotalCompensationCostNotYetRecognizedPeriodForRecognition1 Namespace Prefix:us-gaap_ Data Type:xbrli:durationItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of cost to be recognized for option under share-based payment arrangement.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_EmployeeServiceShareBasedCompensationNonvestedAwardsTotalCompensationCostNotYetRecognizedStockOptions Namespace Prefix:us-gaap_ Data Type: xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 35 -Paragraph 1D -Publisher FASB -URI https://asc.fasb.org/1943274/2147480483/718-10-35-1DReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 35 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480483/718-10-35-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -~~

~~***Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (e)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (e)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(v) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~***+ Details***~~

~~***Name:us-gaap_ShareBasedCompensationArrangementBySharebasedPaymentAwardLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***Number of shares authorized for issuance under share-based payment arrangement.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2***~~

~~***+ Details***~~

~~***Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAuthorized Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType***~~

~~Balance Type:na Period Type:instant~~

~~- Definition~~

~~The difference between the maximum number of shares (or other type of equity) authorized for issuance under the plan (including the effects of amendments and adjustments), and the sum of: 1) the number of shares (or other type of equity) already issued upon exercise of options or other equity-based awards under the plan; and 2) shares (or other type of equity) reserved for issuance on granting of outstanding awards, net of cancellations and forfeitures, if applicable.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAvailableForGrant~~ ~~Namespace Prefix:us-gaap_ Data Type: xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Number of options outstanding, including both vested and non-vested options.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2~~

~~+ Details~~

~~Name:us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingNumber~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Details~~

~~Name:us-gaap_PlanNameAxis=PULM_IncentivePlanMember~~ ~~Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_PlanNameAxis=PULM_LegacySharePlanMember~~ ~~Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_PlanNameAxis=PULM_StockAwardPlanMember~~ ~~Namespace Prefix: Data Type:na Balance Type: Period Type: XML 54 R41.htm IDEA: XBRL DOCUMENT~~

~~Schedule of Components of Lease Expenses (Details) - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Lease cost Fixed lease cost$ 271$ 418$ 678$ 796Variable lease cost104168206281Total lease cost3755868841,077Cash paid for amounts included in the measurement of lease liabilities$ 322$ 432$ 657$ 863Weighted-average remaining lease term - operating leases7 days2 months 12 days7 days2 months 12 daysWeighted-average discount rate - operating leases8.40%8.40%~~

~~- Definition~~

~~Amount of lease cost recognized by lessee for lease contract.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4~~

~~+ Details~~

~~Name:us-gaap_LeaseCost~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_LeaseCostAbstract~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of single lease cost, calculated by allocation of remaining cost of lease over remaining lease term. Includes, but is not limited to, single lease cost, after impairment of right-of-use asset, calculated by amortization of remaining right-of-use asset and accretion of lease liability.~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4***~~

~~***+ Details***~~

~~***Name:us-gaap_OperatingLeaseCost Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration***~~

~~***- Definition***~~

~~***Amount of cash outflow from operating lease, excluding payments to bring another asset to condition and location necessary for its intended use.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 5 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-5Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4***~~

~~***+ Details***~~

~~***Name:us-gaap_OperatingLeasePayments Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration***~~

~~***- Definition***~~

~~***Weighted average discount rate for operating lease calculated at point in time.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4***~~

~~***+ Details***~~

~~***Name:us-gaap_OperatingLeaseWeightedAverageDiscountRatePercent Namespace Prefix:us-gaap_ Data Type:dtr-types:percentItemType Balance Type:na Period Type:instant***~~

~~***- Definition***~~

~~***Weighted average remaining lease term for operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4***~~

~~+ Details~~
~~Name:us-gaap_OperatingLeaseWeightedAverageRemainingLeaseTerm1 Namespace Prefix:us-gaap_ Data Type:xbrli:durationItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Amount of variable lease cost, excluded from lease liability, recognized when obligation for payment is incurred for finance and operating leases.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4~~

~~+ Details~~
~~Name:us-gaap_VariableLeaseCost Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration XML 55 R42.htm IDEA: XBRL DOCUMENT~~
~~Schedule of Maturities of Lease Liabilities (Details) - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Leases 2024 (7 days)$ 24 Total lease payments24 Less: interest Total lease liabilities24 Lease liabilities — short term24$ 429Lease liabilities — long term$ 8,327~~
~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:PULM_DisclosureLeasesAbstract Namespace Prefix:PULM_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of lessee's undiscounted obligation for lease payment for operating lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6~~

~~+ Details~~
~~Name:us-gaap_LesseeOperatingLeaseLiabilityPaymentsDue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of lessee's undiscounted obligation for lease payment for operating lease having initial or remaining lease term in excess of one year to be paid in remainder of current fiscal year.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6~~

~~+ Details~~
~~Name:us-gaap_LesseeOperatingLeaseLiabilityPaymentsRemainderOfFiscalYear Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of lessee's undiscounted obligation for lease payments in excess of discounted obligation for lease payments for operating lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6~~

~~+ Details~~
~~Name:us-gaap_LesseeOperatingLeaseLiabilityUndiscountedExcessAmount Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type: instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~

~~Name:us-gaap_OperatingLeaseLiability Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~

~~Name:us-gaap_OperatingLeaseLiabilityCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease, classified as noncurrent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~

~~Name:us-gaap_OperatingLeaseLiabilityNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant XML 56 R43.htm~~

~~IDEA: XBRL DOCUMENT~~
~~Leases (Details Narrative) $ in Millions 1 Months Ended~~
~~May 28, 2024~~
~~USD ($)~~
~~Jan. 07, 2022~~
~~ft$^2$~~
~~Mar. 31, 2024~~
~~USD ($)~~
~~Jun. 30, 2024~~
~~USD ($)~~
~~Lease Agreement [Member] Collaborative Arrangement and Arrangement Other than Collaborative [Line Items] Restricted cash $ 1.4 Lease Agreement [Member] | Cobalt Propco [Member] Collaborative Arrangement and Arrangement Other than Collaborative [Line Items] Area of land | ft$^2$ 20,000 Lessee, operating lease, description~~
~~lease provides for base rent of $0.1 million per month, payment of which began in March 2024. The Company is responsible for real estate taxes, maintenance, and other operating expenses applicable to the leased premises.~~
~~Payments for rent $ 0.1 Lease Assignment Agreement [Member] Collaborative Arrangement and Arrangement Other than Collaborative [Line Items] Decrease in right-of-use asset $ 8.4~~

~~- Definition~~

~~Increase decrease in right of use asset.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_IncreaseDecreaseInRightOfUseAsset Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Area of land held.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_AreaOfLand Namespace Prefix:us-gaap_ Data Type:dtr-types:areaItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 808 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479402/808-10-50-1~~

~~+ Details~~

~~Name:us-gaap_CollaborativeArrangementsAndNoncollaborativeArrangementTransactionsLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:~~

~~na Period Type:duration~~

~~- Definition~~

~~Description of lessee's operating lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3~~

~~+ Details~~
~~Name:us-gaap_LesseeOperatingLeaseDescription Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Cash payments to lessor's for use of assets under operating leases.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (g) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-25~~

~~+ Details~~
~~Name:us-gaap_PaymentsForRent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of cash restricted as to withdrawal or usage. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(1)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1~~

~~+ Details~~
~~Name:us-gaap_RestrictedCash Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Details~~
~~Name:us-gaap_TypeOfArrangementAxis=PULM_LeaseAgreementMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:us-gaap_RelatedPartyTransactionAxis=PULM_CobaltPropcoMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~
~~Name:us-gaap_TypeOfArrangementAxis=PULM_LeaseAssignmentAgreementMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 57 R44.htm IDEA: XBRL DOCUMENT~~
~~Income Taxes (Details Narrative) - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Income Tax Disclosure [Abstract]~~ ~~Income tax expense$ 0$ 0$ 0$ 0~~

~~***- References***~~

~~***No definition available.***~~

~~***+ Details***~~

~~***Name:us-gaap_IncomeTaxDisclosureAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***Amount of current income tax expense (benefit) and deferred income tax expense (benefit) pertaining to continuing operations.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-12Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 231 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482663/740-10-55-231Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 6.I.7) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479360/740-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-10Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (h) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Subparagraph (a) -SubTopic 20 -Topic 740 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482659/740-20-45-2Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(h)) -SubTopic 10 -Topic 235 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1***~~

~~+ Details~~

~~Name:us-gaap_IncomeTaxExpenseBenefit Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration XML 58 R45.htm IDEA: XBRL DOCUMENT~~

~~Schedule of Computation of Anti-Dilutive Weighted-Average Shares Outstanding (Details) - shares6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items] Total options and warrants to purchase common stock1,312,4851,554,747Options to Purchase Common Stock [Member] Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items] Total options and warrants to purchase common stock311,437393,254Warrants to Purchase Common Stock [Member] Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items] Total options and warrants to purchase common stock1,001,0481,161,493~~

~~- Definition~~

~~Securities (including those issuable pursuant to contingent stock agreements) that could potentially dilute basic earnings per share (EPS) or earnings per unit (EPU) in the future that were not included in the computation of diluted EPS or EPU because to do so would increase EPS or EPU amounts or decrease loss per share or unit amounts for the period presented.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1~~

~~+ Details~~

~~Name:us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareLineItems Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Details~~

~~Name:us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis=PULM_OptionsToPurchaseCommonStockMember Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis=PULM_WarrantsToPurchaseCommonStockMember Namespace Prefix: Data Type:na Balance Type: Period Type: XML 59 R46.htm IDEA: XBRL DOCUMENT~~

~~Subsequent Events (Details Narrative) $ in MillionsJul. 15, 2024~~
~~USD ($)~~ ~~Raad Severance Agreement [Member] | Subsequent Event [Member] Subsequent Event [Line Items]~~
~~Termination related payments$ 1.0~~

~~- Definition~~

~~Termination related payments.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:PULM_TerminationRelatedPayments Namespace Prefix:PULM_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Detail information of subsequent event by type. User is expected to use existing line items from elsewhere in the taxonomy as the primary line items for this disclosure, which is further associated with dimension and member elements pertaining to a subsequent event.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 830 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481674/830-30-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 855 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483399/855-10-50-2~~

~~+ Details~~

~~Name:us-gaap_SubsequentEventLineItems~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Details~~

~~Name:us-gaap_TypeOfArrangementAxis=PULM_RaadSeveranceAgreementMember~~ ~~Namespace Prefix: Data Type:na Balance Type: Period Type:~~

~~- Details~~

~~Name:us-gaap_SubsequentEventTypeAxis=us-gaap_SubsequentEventMember~~ ~~Namespace Prefix: Data Type:na Balance Type: Period Type:~~

EXCEL 60 Financial_Report.xlsx
IDEA: XBRL DOCUMENT begin 644 Financial_Report.xlsx M4$L#!!0 ( (I*#5D'04UB@0 +$ 0 9&]C4')O<',O87!P+GAM M;$V./0L",1!$_\IQO;=!P4)B0-!2L+
(/>QLOD&1#LD)^OCG!CVX>;QA&WPIG M*N*I#BV&5(_C(I(/ !47BK9.7:=N')=HI6-Y #OGDK7A.YNJQ<&4GPZ4A!0W_J=0U[R;UEA_6\#MI7E!+ P04 M " "*2@U9A-03@>T K @ $0
&1O8U!R;W!S+V-O&ULS9+! M2L0P$(9?17)O)VE%)'1S43PI""XHWD(RNQMLFI",M/OVMG&WB^@#>,S,GV^^ M@>E,E"8D?
$XA8B*'^6KR_9"EB1MV((H2()L#>IWK.3',S5U(7M/\3'N(VGSH M/4+#^0UX)&TU:5B 55R)3'762)-04T@GO#4K/GZFOL"L >S1XT 91"V J65B M/$Y]!Q? B-,/G\7T*[$4OT36SK
3LDINS4UCF,]MB4W[R#@[>GQI:Q;N2&3 M'@S.O[*3=(RX8>?)K^W=_?.![88WUQ6_K42[%:ULN!3\?7'|X7<1]L&ZG?O' MQF=!U<&ONU!?4$L#!!0 ( (I*#5F97)PC$ 8 )PG 3
>&PO=&AE M;64O=&AE;64Q+GAM;.U:6W/..!1^[Z_0>&?V;0O&-H&VM!-S:7;;M)F$[4X? MA1%8C6QY9)&$?[]'-A#+E@WMDDVZFSP$+.G[SD5'Y^@X>?/N+F+HAHB4\GA@
MV2_;UKNW+][@5S(D$4$P&:>O\, *I4Q>M5II ,,X?+&A T%116F]?(+3E'S/X%/F7/Z3H=,H%N,!M8('_.;Z?D3EJ(X53"Q,!J9S]6:\?1 MTDB @LE]E
6Z2?:CTQ4(,@T[.IU8SG9\]L3MGXS*VG0T;1K@X_%X.+;+THMP M' 3@4;N>PIWT;+^D00FTHVG09-CVVJZ1IJJ-4T_3]WW?ZYMHG J-6T_3:W?= MTXZ)QJW0>
V^\4^'PZZ)QJO0=.MI)B?]KFNDZ19H0D;CZWH2%;7E0-,@ %AP M=M;,T@.67BGZ=90:V1V[W4%<\%CN.8D1_L;%!-9ITAF6-$9RG9 %#@ WQ-%, M4'RO0;:*X,*2TER0UL\IM5
:")K(@?5'@B'%W*_]]9>[R:0S>IU].LYKE']I MJP&G[;N;SY/\<^CDGZ>3UTU"SG"\+ GQ^R-;88C'(CN]WV6'WV3T=N(]>IP+,BUY1&)$6?R"VZ MY!$XM4D-,A,_")V&F&I0'
*D"3&6H8;XM,:L$> 3?;>^",C?C8CWJV^:/5>A M6$G:A/@01AKBG'/F<]%L^P>E1M'V5;SC MFED)O816:I^JAS0^J!XR"@7QN1X^Y7IX"C>6QKQ0KH)[ ?_1VC?"J_B"P#E_
M+GW/I>^Y]#VATK\>WZV22$KYI9+2,6D$N!LT$DN/R+RO JQ GH9%LE" M0AMNZ5/U2I77Y:^Y*+@\6^3IKZ%T/BS/^3Q?Y[3-"S-#MW)+ZK:4OK4F.$KT
ML@'37[]EUVY".E,%.70[@:0KX#;;J=W#HXGIB1N0K3 M4I!OP_GIQ7@:XCG9!+E]F%=MY]C1T?OGP5&PH^\|EAW'B/*B(>ZAAIC/PT.' M>7M?F&>5QE T%&ULK"0L1K=@N-?
Q+!3@9& MH >#KU$"\E)58#%;Q@,KD*)\ M3(Q%Z'#GEUQ?X]&2X]NF9;5NKREW&6TB4CG":9@39ZO*WF6QP54=SU5;\K"^ M:CVT%4[/_EFMR)\,$4X6"Q)
(8Y07IDJB\QE3ON>;G*YZ(G;ZEW?! M8/+]<,E'#^4[YU_T74.N?O;=X_INDSM(3)QYQ1$!=$4"(Y4U#VT%SU&\Z.9X!ZSAW.;>KC"1:S_6-8>^3+?.7#;.MX#7N83 M+$.D?L%]BHJ
$:MBOKJO3_DEG#NT>_&!()O\UMND]MW@#'S4JUJE9"L1/TL' M?!^2!F.,6_0T7X\48JVFL:W&VC$,>8!8\PRA9CC?AT6:&C/5BZPYC0IO0=5 MY3_;U UH]@TT')$%7C&9MC:CY$X*/-
S^[PVPPL2.X>V+OP%02P,$% @ MBDH-64_.>CJ5!@ 7B8 !@ !X;"]W;W)K5 <];#C#'LQ#9/.^"B_=B7&1SR349BP*X'2 M+(ZI>#QA$5\?
=]S.]L)UN%A*?:$W/EK1!9LQ^75U)=19KU0)PI@E:<@3)-C\ MN#-Q/WI]1P?D3_P1LG7ZY!AIE%O.[_3)-#CN.+I$+&*^U!)4_;EG'HLBK:3* M\>]&M%/^I@Y\>KQ5/_A%;\D[T/J
MXU/N9^I]E>CF<<5LI'"XZW2_V)# J(9(@Q)I )9IHGB"G.D\H@L;$QP_IU%J MJPH/#&L(-2RAAKNUTY>,"LE$](BNV8H+:>.#I:3(K'A@5$.\@Q+O8,=N**B:
M//*QOYH/UJIL/S"L(>"H!!SM!GC%1,@#/9 B-91;7SE8J1PZ*\=.,+XAYV') M>;@;YWF8^C3:XIZKR]9Y!U;[@FU\8$Q#/M2H>V@FU5B$N$ >SU2#JW;G@;U?UQBK,RMR&V;(-6[(A2W,
M_7(WO8 Y:N2SXF=$Y8\[_>(?7/X[H> U5_0JTFK>QM^"37&"47]C<@^\V: M6]EAR5D6JK[B8O? RMN&7W*-87)AC_.2U]-GJE_?\'5B987ES@6-PV2QI+&5
MM0WOA(UWPK#=>L53J>:D MO\-5Y3A5H^BX!X[50<%Q34F-@*P^W!44T[CB?!. MGFB:2":*3R)Z*4ZWX%9.6+&*LPTOA(T7PCMY(;T<5\9>>8,%%_81"=:YY$F7 M^CY3,DHD*
2MO&WX(6+\$-G)#\UB&D7H)$O5[=3::VMTJE*Z<%A3/.."R$XN MZ"QF8J'?RE^4@EPJHQ"O:&)MUQK!RM0N'-<4U)@@LE,:::;9DJATA/%BF&J\- M*T2>?!W;*8E4S//;.7Z6?
TM$GS.IK&VB)U K\=M^*2O4!KF:_G9]/R;# <:C MP5'OWH9HW!"!/8S^6JS&G.UB_L%TX[/_NWOC=S*!JD-[T.,]R&#-_[R^4:> M9D/?
AD,BQB&1G5)+K\JSU$B2X3M/\/3V$9T*-4];H=LP3<28)O(_DDL5"98: MR4V"Q;&N<^#8IKC&.Y'7Y9/J\BLU 6/LN'/=:TMZ3'3S:$^4;FU+DZPQVL9FG
MO%INGIKD6X9ZYO%BY]4%U98J11&;JU!G_T -I*+8S%2<2+[*]P/=YUXR37OWF4C89BH)%Y"3W*_0(ID&T22:^Y+(MF[R_,L"\^" MYW>,?
Q<;0B2X+XM*7(PV4F[/)A.1;4B)Q2G;DDI]LV*\Q%*]\O5$;#G!N7$J MBPD*@GA28EJ-%G/SV35?S%DM"UJ1:PY$79:8/WPD!,N[&,'1XP=?Z'HC]0>3
MQ7R+U^2&R&_;:Z[>)EV4G):D$I15@)/5Q>@2GBU1JAV,Q5^4W(F]9Z"IW#+V M7;_\FE^, HV(%"23.@16_W9D28I"1U(X?K1!1]V8VG'_^3'Z+X:\(G.+!5FR
MXF^:R\W%:#8".5GANI!?V-TGTA**=+R,%<+\!7>M;3 "62TD*UMGA:"D5?,? MW[>)V'. TP$'U#J@YSJ$K4-HB#;(#*TK+/%BSMD=X-I:1=,/)C?&6[&AE9[& M&\G5MU3YR<6258(5-
,>2Y. C+G"5$7"CPPEP K[=7('W;S^ MX!6X.N&U0)7 MN9A/I!I9^T^R=I2/S2AH8)3/=74*PF ,4("F#O>EW_V*9,H=&O?PT'VB^':D M44<:F7CA$.F:X4.2=L]B$BDTHO0'L%A"%23]?
M[/;I.*Q2F(2=U0'.:8=SZL7YA0C)::;+4"-UH6L"1/OC3A$\ N<=Q9UKX$ES MU,&/O/ OLXS5*JMJ:\N(2O%M05P4(HM"'$9'#&R;%,W085$2ZD'J#/:LV&RXS
MFS&,!DHD[:BD7BI_*B)8TFH-"J)D$7"M?R=L=5*K%Y-\%R-OS!P-AK)O3*5+LYF#X M+$TO*+ZE!964N(4=>N7RI:"?VBV:G.%C\,20ZT93.T2\:AK2F,
M!B:E%T7XI"KRFGAU9V^^G.AM-83)S(+OT,QI,H"^%TWH5\WC+?$1ZH,3J*V MNM4]A&G;3-'0)M?+)/3KY!59$97+7.UQ.U+5[B)PR%]B+4W;*(9#"[.72.C7 MR$,9?
VJZ;6E#4QNH;16F@VK1*R#T2^!Q(HV. [;JP&\9UV=/)_#74D)H2V&8 MH(%:1KT2(K\2#M;R2TCZQW@!263+Z"P<)-G+*/++:%-J3Y08LM7146(.*QBE
M\4"_B/9.GGX57;*RI%)WB<@"H*Q^@J(#>9:-&NY89S^0_)S$(^3 M:?SX14X$75?FZN:&<%U E[J@=NI(0E4W +;=D$(/>0XJ]NA*A=#";/2XED*J M![TY8
D^UQ7I[FJ,P94ZTI:W2K/=5S#M7/W\P;N=IE<^P:.^6T'^;D6O358U MN?)-#VJF9VB*PG$ONAK^^YGFL6_4$L#!!0 ( M (I*#5G);%0+\0( ),* 8 >&PO=V]R:W-H965T&UL
MM99=;],P%(;_BA40 FDT'VW2;K21MDX(D"95]X +Q(6;G#;6'#O83COX]=A. MEB5=OS9!+AK;.>_KYYS4L<<;+NYD!J#0?4Z9G#B94L6%Z\HD@QS+'B^ Z2=+
M+G*L=%>L7%D(P*D5Y=0-/"]R 5S4%^+F= ]MW%)20Y,$LZ0@.7$N?0OIKX5V(AO!#:R MU48FE07G=Z;S.9TXGB$""HDR%EC?UC %2HV3YOA5FSK-G$;8;C^X?[3)ZV06
M6,*4T^\D5=G$&3DHA24NJ;KEFT]0)Q0:OX13:7_1HHH-APY*2JEX7HLU04Y8 M=SK IC)0),'T'7J/7B,7R4R/ MRK&K].S&PTWJF:ZJF8(],WTI60_UO3,4>,%@AWQZ6'X-B9;
[5M[OREV=6+_!'K^9_KN $#IK7>/D[@P56* UIB7L2JWR&EHOLS+6L=?S/,\?N^MV M"D?#.JC]!K7_/-3J%2!L@#QKDP4'D*<]S MO4A/*>W@M-(>#>MPA@UG^ S.D^H:/BE8X-
77%O(ID1WJJ*&.GD]-I"QW$T=/ M./I1& 2C<(OW>%R'=MC0#1]/JW<4J3!+"5OM0AZ>B'P\KH,\:I!'!Y'G((B& MO$3Z\[@&HZ\$L08G?O/* MC[P/NSZ,_\BL4XGSIA+G_^';
<_[DM43#0;3U[HX$=7!][W$_\UX$O'|YU(9M MD.V5?#"D"]K:>/T7@1Y9&;7K0=I#(16MVSHQF./:#18KPB2BL-0:KS?48E&=
M@*J.XH4]1"RXTD<2V\STJ1&$"=#/EYRKAXXYES3GT/@O4$L#!!0 ( (I* M#5D3=I3;3P4 \8 8 >&PO=V]R:W-H965T&ULK5G1 M)E+=\I4CUIPF:1-
4%H[GNJ%3)GDUFDZ:9Q_Y=,)J6>05_ MTX(]7XWPZ.7!7;[*I'[@3"?K9$7OJ7Q8?^3JSNFRI'E)*Y&S"G&ZO!J]QY=S M'.N !O%73I_%WC725!X9>](WM^G5R-5O1 NZD#I%HCXV]
(86AH,RK[:?R==6B+T W!?@M0&>&>#W!) V@!Q;P6\#_&,K M!&U 0]W9T9YPIRA<_1P/T-OWYRA-RBOT*>, MU2*I4C%QI'H?G=59M+6OM[6]GMH$?6"5S 2:5RE-@?
C9<'PX$.\H'3HQO!"$$HO-]U>??7/U #-)U!FGRD9Y\M]6"E737 M$^CO]X]""IO,AY/IY>Y2K),%O1]I]4Q0OJ&CZ8_X-#]"=+YE,EF
MITPV/U&R@Q'QNQ'QA[)/[^B&5C4%9]HV,FPB]>:PF>(@\";.9E]6 !3Y_B%H M9H/&/AD?@N8VB!"?=* #>D%'+QALN':]J5:(?E7[H*#B$F(:G++13IEL=LID
M\Q,E.QB)L!N)\)5&$S3ABPRI=5WMNAME)]9Z"8"&8YLIV.L$+R)&3]W8(!^' M@=%X-B@D?F@TG@V*7!+#C3?NZ(X'Z?Y"*]5Y1<,V2=4FF^MU3AL8B/#8)NRZ MV"!L@W X=@W"-
HB$GCG3 % 4N3#AJ",<#1+^G0FUPU%# 3TPJU9BU8$&B MQ1:/L1\00S0;%$3$G" V"'M!;+3>'$#A&/=,$>SN?*+[>L\L.2M?:"M?"%H^ MUZI_'L36!(%@)#;)S,!L.##6ESD$BX)QV$-
ZSQSCX2U)9I0KE]LXH;?M*)^! MVU*;Z43[TDFSS4Z:;7ZJ;(=CXNW&Q!MLQ-M*4I57ML,"CH5GSP%B3CD Y)'0 M[#\ %!.S^VR0'T0]O;>SWWC02[:]U_;<.U11M;;N@[DVW?
L:^]0:Q:Q*V,7AL+J<0*#0W& !$L-=#=^=T M\:!]F_Y!)2K4@@KR"RQO?1Y$V%I 1B)L-7 ,R/(]-60;#("_T>HCLCB8>= MY M1I/8,)+*$4Y1(R?/'6B:/!462(378I?
(B0K+%4\:*E'*!SO7A3[X Y=D6 MC X:\"*(37E F&O^V(%AUL\=".9=>'UMOS.>>-AY?K,\:5[4$CPSN6Y+OBH0 M"+,% F&V0 !L0*"=4<7#3O5S<]!'E2_?*-.QHIT<6BOE86LH++MVH,-
]8SM M)4D8>%X4F*(<"9P="YS#0!P0W"/-SH+B80_ZOZ09ZA?;,/:(OV^.;,UGE_CRQL,/)_IT^[F0'67?GM4 M_B'AJ[P2J*!+5&PO=V]R:W-H M965T&ULM9M1DYLV$,>_BL;-
M,E,'",)#*1WGDF,F:8SZ=SD MDO:ATP?.UIV9 '( WR7?O@)SQB A(W?[=?BRUC)?]> M)EEQ/=F6Y>[M;%:LMRR-BC=\QS+QGWN>IU$I#O.'6;'+6;2I&Z7)C%C6?)9& M<3997-
6_W>2+*[XODSAC-SD]]FD:Y3_>LX0_74_PY/F'3_'#MJQ^F"VN=M$# MNV7EE]U-+HYF1\HF3EE6Q#Q#.;N_GKS#;T/J5@UJBS]C]E2GW9WI87[RXF+NH8$N>
M_!5ORNWUQ)N@#;N/]DGYB3_]QIH+FB=%_1<]-;;6!*WW1X;/R!WKY)8OVFUA8OT)3 M].4V0"]?O$(O4)RASUN^+Z)L4US-2G%F%7^V;L[B_>$LR,!9W(C;B>5Y?0K" M*?
K[(TOO6/Z/@K34DY8\3<4->Q83Z#'O-N(:Q9T?)>@FBC=3<7G+:!>7XE@# M7>FAGU@INKJXR%649W'V4.A8H9[UF8MSZ3:;B=0?\T^.^2HV$;B:D;% M64LTB/.!XYQ>T)SZN!^@X
)_/_^$Y]:OJBX "0N!8)W,V.H7>TH?]#5%1Q M)H+.T,N$%\4K5(YM6W;ZSVLSEEUXCX_QGVNC?N'HMC7 MHX$8_=>'@;2H>L%KE(F,B!_C9X,U+TKE.*]U8) 5($XPE^+DT%Y'
'(5:EUU M\N$>\^%"YN-YD%'E1>O(\+&\=*4KQ11;5F]8@72Y@H2%0+!.3KUC3KVQ!=?' M*#\6 E25-"W)H#,!<0)/+B@LVZ=VKT/)9J+@99 T*%#0@'K=
M0]8C"CNU(%$!AQ4)/I'\&%R3Z)$FX<8C5[ID;D]T.O:B0 \:B:@ZFV_[S/1VZSA 4F/,NEM M0* *R83+ =[?O_A)MM-B8==V^H_W&1#0FU[Z.'6]G:LE^V*A]OY<$/I=RR+ M874%
<(E'30> I(50M&X"6^V/]>+?I$#6HTP2!S4+@&5AKJR1%7;J(EEA]*F2 M<2OUL5[K7U(GZY$FX9:U\D _N<"CH] TD(H6C>![=P UD\.F,Q/ZE$FB0,"
M!5B>0R".5"D#>0O/>.MFH%7R6"_EQY5A4"(>"A1 @598(?2IAR49<\ZL&_Y6 MZ.-12G_<" \E\:% 59,%B@+*MENH*"2#34%6E%.1DERHT**CW29*E0(8&5 M
\4E'H<'"E!:"$7K)K"5^V24W._+?'7BH&0^%"@@BOD"RW%\TE_EE>U$/W$= MW^TO\\J&V/7]@=& G"RDCUI)'YI548<;;$E=%]T#_014>8/20BA:-X&M0"=Z
M@6Y24.E1)HF#$NA$UM/8]_J=!,A;>,9;-P.M=B=Z[3ZJH-(S3$(/M=H.!5H1 M>?K (T[_^:4WZH:^5=WD(M5M*S, I;JA0 %1J6[']:W^_:]2W=[<=4D_R+(A M]BT\=
(>WJIO\)]6M#C>4ZB9C5?OW]5.(K1R4]RF27 M*M3Z.U6MOSN>W]_OI;";$I\X7L\P5!AB2H>FWFDKR*GQ^OOY<$,)99(X]&WS5#%7H"J6%7;J8EEAJ"F6 MZ>.]\^?
##;9Y7K5[7ME/8+?/P^Z?_S\VT--6SU.]GC>94=&C3!(')>NI M++2Q)0TF0-[",]ZZ&6AE/0782:]GF(0>2L]#@594(?@=#^/^$^R<63?\K=RG
MH^3^N!$>2N9#@8(&U'W!2E50R78#!95LJ"NH6E%.1XERLX(*2IQ3A:96#Q2@ M&^)!:2$4[9# V>CV^>+WX%U!+ P04 " "*2@U9P0T0B1T( M "U,@ & 'AL+W=O# M./=RX0"Z?
J+L,]]C+,"7+,WYS60OQ.%J-N/Q'F>(OZ<'G,M?MI1E2,BO;#?C M!X914E;*TAETG/DL0R2?K*_+LGNVOJ:%2$F.[QG@198A]GR+4_IT,W$G+P4/ M9+
<7JF"VOCZ@'7[$XM/AGLEOLP8E(1G..:$Y8'A[,_G@7D5>H"J4%G\1_,1/ M/@/5E0VEG]67GY.;B:.>"*=V2".[VCZ-TG$_F:RG( $;U&1B@?Z]!.N.U0^8$Q37OX%3[6M,P%QP07-
MZLKR"3*25__1EY](DPH21U\!UA5@OX(_4L&K*WCGMN#7%?QS6PC]"F779U7? M2^)")-#ZFM$GP)2U1%,?2O;+VI(ODJM >11,_DID/;&^HSFG*4F0P EX%/*? MC +! =V".\3WX*.)
Z^_Y2C(B'2Y@0_#]MS^;P')P9][6G"4)_QZ M)N3S*-197+=]6[4-1]KVP&\T%WL.HCS!B:9^:*X_-]2?21X:,N +&;?0"/A+ MD;\'GO,.0 ?ZFN>Y.
[^ZI^O.U[4>O;GU#AE>$QE>B>>-189R_[9T_Y;1#,C< MQ) @^:X:W$00S*]T3]]@?3VL2GQ7_(!B?#.1F8UC=L23]7??N'/G1QWC-L%" MFV"1);".;_S&-[X)??
V[G$%2RK5CKJHY+VNJ:>*XG@9+U[V>'4]YU5AY2W?> MM0HU5OYJV;.*-%9+./<;JTX7@Z:+@3'\/B3_R.Q7)2-!Y9P4TSPF*09YW7=5
MJC['*DX++M.7S$9G!VE@,TAM@H4VP2)+8!T/SAL/SHU!&F()&A-4+0CR!*", M,D'^*PMT/C'"7>H3FV!A!1:<1+CK]$?!T&9L""P: A=& C^<*4FY#:X4RS7 M1H"I1="4;J M&8X)X0?
*40IVC!8'L,=I J1L ;((ZXA<#1X%SMUE;U(R-JTG".BX.:>QZ.L; MZQ#H.NV*VS$OK/8HWV'>FZ[4\.5EFDP)VI!T?.JJX2T%I56TT"I:9 NMZZ@3 M:>2:\V\S=,WQ )
'XB\JPN(IM*O:825W+F%S8U4&OY=2(?3&G-M'"&NV4KJD?]"REY=:J\+**%M9HG64^A$&?VJ'5U/=&UJ1N*Y9X?^'Q6^-L-@J)MZ(>W545D%2UTAWIG
MZCN+00QJS!;.6')LA9%K5D:_G[.=HJ74JDZRBA:Z0Q4TG7NKOGS7F:V6'ASA MM-5+[NJB;522'S$_9X?*?8- ,7!J$RVTBA;90NON^;=Z#!IEQ/J^8/$>J=F,
M;L&!J9@7S^7,AO\MR$%M0>K\8T:]U#]6T<(:K9N#5WT%K+,*EOJ AZUJ@F;5 M-$@BNHC7$FI51UE%"^%0(ND(U5B-$MH**0@ORB!;DJ,\/B.#0*LBRBI::!4M MLH76]5
KRZ!9EMTS&F.K- MW-[%GK.JWMZ"IMNEB^!0X@4C"T#8ZCOX^LE8F7UD(C^21&:@S;-VQ&AIMRK\ MK**%;T'3TSZ4AJ.TM\(0FH6AHCW!,2NEB\SYR@7O*D>H2?
2(TO(@3TVJ\ND$ M([&Z;Z!^U_K!JDBTBA9"C?R;+U9^?RK0F,GEY(A,A*U,A&:9>'"[;Y;0 MA3^"#=Z1/%?1K]8WF!&JNVMQ:V[X8M*M:DHX5(O0F?M]6:0Q\Q9P-+I;50G-
MJO)/*E#ZM3$]E&RNMPSZY_(:,[CP!P?SYZ%%KZ)U"6F%(EP:ER0/]6D\:-;F0F^QZH>UYD@N6*S'\;>4#.Y M/NR/8IU5T-
OB#L^"BEZ!ZO:T%6F>6:3]VAPAG)&Z:JS3"SZ#O*6QG<_'10' M6;TJS&A"MB0>O?YA?IJ+_6KW,J/F%,V'_7.TM[1INN;@M4K,,RNQ,[;5Y, 3
MX%FZ21T4:_FW*LBLHH5O0=,*,D\CR$9.W[U6D'EF0=8_3M*,#;H12-8]]^CP ME[B\E5+>X>F/*[D)R6Y\C%@5:U;1PK>@Z7T4#*8WS^]?[YN=7,//,-N5[S]P
M4!XX5_>NF]+F'8L/Y9L%O?);]^K.U92'[E54O4'1PEE8]"QI MDERW^_I1MN-E0);U(9%(\1P=2B(]K91YM#FB@^="2#L+"V8'2 M*&DE4Z9@CDRS#:TVR-
(:5(@PCJ+SL&!4$H,'&>@='PA$L4PA.1C)\M9]!MZ8'[\QW[^SIW MRF7#+"Z5^,93E\^"RP!2S%@IW(.J/F";SYGG2Y2P]3]4;6P40%):IXH63 H* M+IN1/;?G\!I W
+B6G>S4:WRACDVGQI5@?'1Q.8G=:HUFL1QZ2]E[0RMS99+_8OZ(IJ$C1N\/DQ:]:-#Q/]#G<*^DRRWGDQ#LYB_@H MX<=2#F 4]2&.XO$1OE&7WJCF&
[TBO3XLE;1*\)0U#T*FL#)H4;K&H3)XSR63 M"6<"UN1$>GW.PO?KC76&WL^/0R?4"!@?%N!KZLIJEN LT'XO\X3!_/1D>!Y- MCJ0W[M(;'V/_[^T=11_6-AST]EEA50IZ^X8_]WMW,AG
&Y=7H&:KMKQ5W-%HI+6]UJ5*DNW$ M23E167;RD,H#AL0,89, %P UTGY]3C? R\@C>5U)'FP-25RZ3Y\^W2!/M]9] M\9520=PUM?
%GLRJ$]M7!@2\JU4@_MZTR>+*VKI$!EVYSX%NG9,F3FOI@N5@\ M/VBD-K/S4[YW[SPUE_XX/>5(%N')R?MG*C
M;E3XU%X[7!T,JY2Z4<9K:X13Z[/9Q>&KRV,:SP/^H=763WX+\F1E[1>Z>%>> MS19DD*I5$6@%B3^WZDK5-2T$,WY+:\Z&+6GB]'>_^EOV';ZLI%=7MOZG+D-U M-
GLY$Z5:RZX.'^SVSRKY\PNM5]C:_]B&\>^^&4FBLX'VZ3)L*#1)OZ5=PF' MR827BT3:,TX:"U,T&8CKFVM"ZV\D*84'U2A=A_?!-R7KO2G!P'V MT*H'1=K[,NZ]?&3OY^*]-
:'RXHTI5;D[_P!^#,XL>V+VC1];;A*_+E8^.)#IW_L*.*SNG0 M^_/FKJBDV?!^C?:L9,]HW(_O%PN%R#PXHDD#"^M*C%&0F5")C3+*\3)X MHEI"38[8MPZ+ZY;)*F%O?YV2C
M5V(_'[*]?/"5[6IL@KBBI)&?F/.Y,[%F,$CD^+>)1891E#R-=PIDF49FPCE" MYO#%B<\NC.FPQ@?V6V W*C/B#J> 4+?9>.H"V?!G%<(=U.QN/_*-4&EW;82"&NJJ!G7-$S6C

```
MG:%R2O$=K^]$$U4]&KPSBX=$JQ'CSLBN)$+-Q;L(D6VUP8:4Y8TT: H(6VQ5 MUT*6GU$-(];/(K3$T5!91'Q;:3@+E]>\2#1!+H+"FY\X?+I4E 4& 'I/FD3& M2[&6VHEV*BE)
(K0)X';S""0CK?LP,X#H$&I.K]A1@2\RH?=5X,06#V 3FI*4 M!@F-1\@VR>FX%6Q&Z_%0TGIZ 4ND=A0G]I35CEVBY-(6DAH!"P,FFO6D1$)3
MJ]0OW.\3*AFR1MY3LJB[%FV5*H>E+;'^P0:4YPGD#A&3R20]0#'?4>J5JK6Z5=&,.$OZB@/-/]1OG;Z5=DSQQ/;SL':N2T.%06=V!"(1U5]"YP7C["
M/@J@492$7K$24.!*!+"V+;D;V_&Q4B9-M^Y^\N0$I;U!A2&D].\*:6K+K@BP M "X3DOZ$_"&0Z3:!Y3NT9Q1#6>=3E*9;.X+")=VF"^53H2%/WKZ^0%7Y"E]F
M/B4+4>A6:@!6J[XGZ$/%QPPJI/$A:ABPBXP!5I"Y!]T':V!:Y^O(%K+5@?S0 MH6=OEFR/7!@[*A"W5 5*F&?F"=E0$:?@](%@!F-I[AX(\93)TP4+GC\*!^MR M;U#.^*('<5U+UUDB7+
(2Z[DOBE*)"VHCORB>,/ LLA#]4(TDW>!&+"%<+2FB M9(RQR%TT."RAG.C770W%=:@J0_XFO.R*NJ6,>X-Q$TL%O.<,4"%(K!G#,8W& M54<-5\V< %(3P=RR#X7L ,
<$96!0A29MXI5*W&8 M1T7(\E2^P(:">D<2R;[75$3\H2S1_%7GT7O[F&$]@BGK)RYDNWDY%Y^\HGMO M?- -=V_O3!9;PUA&OTNK4I]$Y9 TA7N/H?7+)[5;:+_#,*:%&FR
^1D%O&DC M[AQRN5ZCMB3_J46AKI3YS+*.\2KU6[66*UV/(C(VR#00!I)VL]@\,B<,>MWC M]1T@<*N*"E#3W\>L'0I'V0U QW%RXGD/BAR22./O&''7$!^B]
M0P2BPUT+U%DG6NLU-6I7UM"1=I*55T@%"/H'[;^(*W0N&5)$BFF7Z8/K.'DX M'5H<*KB>U5S=/BL6CTG$R*:=79C\<1>'7>9TL.!:W?=]J=U593ZME_5]]D1!
MYR8KMJSLVWB@9*I3WH().(:I![Z@Y+!^L3,391@:.M8]LG:+K*CN\ZP7M=[! M2GH.->)/;5K)=05Y3FE%841D=CLFK(BP6Y\"-D+1LY!BS)]?WM_%VH]I(^^F MIG/3EW(:*Z@[:I=[H-
ZJDL[0:/ 9%^AJ7\"NK&M34T5(=&0ZT]5S2++O.3GE M S&'QBZ^'0254Q!2-_[\4+S\%&%S?( MLE)YU*Y5),7?Z&7%,A?_[&K^!MOO?/UG\&5YTO+VXN>R/SF+LE]/H#.6&IZ]LJ?
LSB^3N MSK:37K,GK!S8Y*%6 (H:-BZ#= [[FN#H?CDC>#E.AR>=S2;%YQL'=+:TDL@Q M0'&\^.F5>-? T]L44D1^'"E>CV_+L@M6W@<)%3O/6$=2_( B
M]^OJ3GLVR3'OZ%C,UN9/$&J(,78:4Z90O. @XMGNHWB815!3P_.]Y7$'['WO MD \FGP:@%1O^_,)-N@GQ*\%P=_C&:]]*A;?TP?#EZ?P_4$L#!!0 ( (I* M#5F2;S_0D@( $H& 8
>&PO=V]R:W-H965T&ULI57; M;IM $'WG*T8TZE-D\$)LR[4MV4ZJIE)4*^[E>0V#08%=NKO$R=]W=L'4E1(W M55_8VSEGSNQEF!VD>M YHH&GJA1Z[N?&U-,@T$F.%=
<#6:.@E4RJBAL:JGV@ M:X4\=:2J#%@8CH**%\)?S-S<1BUFLC%E(7"C0#=5Q=7S"DMYF/M#_SAQ7^QS M8R>"Q:SF>]RB^59O%(V"7B4M*A2ZD (49G-
_.9RN8HMW@.\%'O1)'VPF.RD? M[. VG?NA-80E)L8J<&H><8UE:87(QL].T^]#6N)I_ZC^T>5.N>RXQK4L?Q2I MR>?^Q(<4,]Z4YEX>/F&7SY752V2IW1<.+39F/B2--
K+JR.2@*D3;\J=N'TX( MD_ 5 NL(S/EN SF7U]SPQ4S) RB+)C7;<:DZ-IDKA#V4K5&T6A#/+#8*:UZD MD1_\?[=+;TYMD88+4C M5#1T,Y&WIG2+A)=.P8:GMTOAX +BJS%]H]"
[I4G%18(01Q-@$?.V,C,'KM"1 MS_:%<;4OA(82,Z*&@_&5#ZJM7.W R-I5 MBYTT5'M<-Z=BC\H":#V3TAP'-D#_^UC\ E!+ P04 " "*2@U9="*>^$$# M !(!P &0 'AL+W=ODO7:-
+V8;$/M#2RB(JD2E)QTJ_?(>4H-M;UH@^6 M>9DY<\X,.9RNE?YA:D0+=Z*19A;6UK9G462*&@4SQZI%23N5TH)9FNI59%J- MK/1.HHG2.,XCP;@,YU._MM#SJ>ILPR4N-)A."*;O+
[!1ZUF8A \+7_BJMFXA MFD];ML)KM%_;A:99-*"47* T7$G06,W"\^3L(G/VWN ;Q[79&H-3LE3JAYN\ M+V=A[ AA@X5U"(S^;O$2F\8!$8V?&\QP".D MA9,02JQ8U]@O:OT.-
WI.'%ZA&N._L.YM,XI8=,8JL7&FN>"R_V=WFSQL.4SB MWSBD&X?4\^X#>9:OF67SJ59KT,Z:T-S 2_7>1(Y+5Y1KJVF7DY^=+S355]M[ M8+*$-S\[WE+&
[0@^HYU&E@(XLZC8@%WT8.EOP'*X4M+6!M[($LM=_XB(#>S2 M!W87Z4' #YT\AG$\@C1.LP-XXT'MV..-_T?M"!8-DW97-/Q]OC16TSGY9Y_T M'CG;C^SNSIEI68&SD"Z'07V+X?
S9DR2/7QW@G0V\LT/H?UJE@V#[J6;'P8$@ M<%-C<*E$R^3]LR>3-#E]96#''A_M)=)GC1J!RZ+IZ"30 &R-4'+3*L,:6&G5 MM< ,M$Q;4)7?O6)2?N2$=:.9-*R_M<_)B"X92? HGY7%
(!_!-5])7O'"%?%\ MI1%=: /7U+/*KD$'N5].0$<*AR,%K[% L40-X\2OC(-/;*DTLTK?/VJ"IW!$ MOV24G^3!)Z0F4*N&^(A6]]M-Z",X"OZJB!)"U6G);4<)V,D,F61QXM/860JY MO9&.3X-
+UG)+R2&9A$NBC$/-XSBX46Z]W9MOYSR:O,R(%]FSHNA$US!+Z2J1 MREMPUG<_\F%":!$<*.2@/#F94+(> 8/_.(=/12&U"OM MRVGX'8B^':!K![";>>?
O$@YKJC!%B'/(,]AW5Z*M[B90KWP/-U"H3MJ^T0VK MPS-QWG?'1_/^C;EB>L6E@08K*#N!FX@(,C^?\7U!+ P04 " "*2@U9:7(Q?,<" "3!@ &0 'AL M+W=O^ON,JF/3&2)J&E75N)
M%J9M @W!-AZF/;C);6/AV,%V*/S[73MIUDFE&M)>XJ]SC\^]MD\F&Z7O38%H MX:D4TDR#PMIJ'(8F*[!DYEA5*&EEI73)+ WU.C251I;[H%*$<10-PI)Q&:1F'' MDO,2I>%*@L;5-
#CKC^>IPWO #XX;L],'E\E2J7LW^)Q/@\@)0H&9=0R,FD=< MH!".B&0\M)Q!MZ4+W.UOV3_ZW"F7)3.X4.*.Y[:8!J,\MF M$ZTVH!V:V%S'I^JC21R7[E!NK:953G%V=I9ENL8<+I[HF
T:8#*'K[9 #8M: M:Y06+CE;WI(L.LY9\W_/$+_ .X4M(6!BYDCOG?\2%I[03'6\'S M^"#AEUH>0Q(=01S%Z0&^I"M XOF2%_BNV3-;BC9Q7PTF#/P\6QJKZ[@+5QZ>M7"Q \\4/7-
CB5^M@%"P4H+\@LOU&&[)B/):H%MZG8H>71;L M+@N<8X;EDJ!)W\\DO3ORG8:#RXR"R2 ,O(7^41SWJ1U&O075AV=,>)!32:^= M5$$\&D"2#GN7N&X7*V:)P4
<)Y#&7;VJ6F<%&ULK5I;<]LV%G[GK\!XNSO)C"S+YT0O-Y7COV(;UCY?'HF\<][4<3,X MJ'43_LO;J(=DP\7BG@W+N&')?(>#F,NWTLO7+ZW9"DNK08T^L*B\&\SIAHQR
MXRV>:NSSKV_TIM%KG'3Z$(NA;U\I< MO3I"B#AE/ZNCU__XV^GYXL4#(CP;1'CV$/4OL-6#= YS>3[/#M,7;]5GQ&Y+ M7[*@N;I6-M>RTK]+#JUA,9S7E^)*MY44'U5>-
J8R&]+ONW=7XLD__G:Q7"Y> M\&/^?/KBJ?A7DUVV5E?B]#G9^O2;F?"EHD-:V>P$B"JK"J$;;X1,>1&/\?*$ MZ*1GCL^&TT=^,P SB^6+[&.ILEYVJW(%D@5.
M:DQS#+CJFD*N*B6Z=FWAOZ*5.V82IWTEELOYHJ4%;9EJF57)*MI"VT+)O,3IKC4 7SJ/='.^^#NO>[;X^XP?*@;4:L?"'I+1 M?%:V1**_IQW[#NTS /4!;:#
[]7NX$95MY79*>6B]AL'C)7DBU![:IQX\+4U M19?[P:JC.@RR.[4T]%Q_'D[*MKBKA2@EA)3X94+$3RLQRZLZ^E' &K&^, M%^D!,R0TJ$NZZ#V.V+D^>+X&/S.S;^2)L>-
[&D*"A8H)DH^'Q>V2JK371V MH")^Q9$_@4TD:W$>@)C)@#X]_:FK=@-"<[1E4?^_:*QZ:[:-N&::O0VF'+$- M<%I;*1_,<%TBOXKE*N1J[8$<,RC6 9>@/E'I'-5 6-I*S^ $T:-4P;NTS:S:
M:$)PA@.V()TJV]8: (VDLSI?&LOT$8B"-L F@^IEPSM^;K2'GFX\MH"/D5/1 MECO'QJ5#"U5C,\ZC0/$]Z.TR_-*X-0C2(J?R+OI:@30M$+YU<-U>9.>[8L>! MIAO&$C"O R-.KA7\@#92
3+Q9)%X\AV?#<;-B,:^24;:"$;2C+'LF/2[6J_) MNP?5[6.'*) M.^<(F58(\IE8=1Y1L/J5MC%.HT+1=5=#M;I>P4U5R!ZUZ4+4 M1YNY8!;"N @%OQH@/92A%/MESED;W^;B,L]I-
PGT$>4GIW*1PB68A.**Z-IB MI7+90;M(7ECI+DD4UKM M/@5PLVHK;>%Z5$)I5D$_-F:,0T W69):3@<[]D;*4803V5$'Y)9(!G37,U)+F+Q<4,JX:C(/?E**,3'X![3:>"4U)=1-
5/[TA<@BKK)JH& MMGED0\1_@8BPJ$M5Q';C$1;L^C*4W0BYG'Z'/?H<=2=@^Q Z*&Z!LQFRH9'.;88N16FIP!H01U28JF%FY.*\1^ 5B!*BWC M6+0I&R$CZ.8P0A1VUHXF#Y*%9_
&>'IX!K&&I=%.KH%Q1DX"M(0P=4/]D7$\E?)S2'X[1<&EFM1DDE8'+R+ETQ-; M!(V@15*LG7Z!:>Z)A<:92@/E" UDQ:QQ8P/P)5_,>K[VU)^P$0W0J%L/+Q-U M:$D&;L
E6ZKQ\X>0XT N)77+H$SX-0B/(1?VN-)T54'LR!"CT8]Q)&%,KW]U MB]04@"V0FF=OQPSL2[AZR!?ZMN=>44.%9-NH(=E.\V@B_U=B,?]&G,_/Q>G\ M0IS-S_#]+*GE,X[H]
[)I_JFY>K9M#SX]E9?_>V;'78N*IA'/"$P'&K*+"G>!QH?1UP92PJNW]9B6VI C5Q MX"96-5RA$-/1K^_C3??FE^*-#N1N4)T3S]DEEQ_L X=;BW3'M*^(17*/('*D M=$_!3)X)D$%9J"N-C
^_.CL75]:XU2Y[:S6EVC>J@%\!P-Z#'NITI#@/@28< MA27B^TAGX J,C/:H##0TY/@4,TBC%2!%E08NK6O.T*RW619SB$%)]'[K]-@C MA>+)JHKC%_#B3 -9]+2
:^P8XN#T39S&C'79':WLLS_QN-D@0>Q%@12>&H V M-V1J1 CWFHDZWD4/&]0P[2F;),KQ_1T)WD\(7/SQ](L6X5J?Z7\EF!ZOPN@[[U. MQB:B]])(]8 HL\1YG.MJ8K*J[O'E+$EO
FVKLBGUD60(/<[05<4!D'A3;&\Y M/V:'G".H<0P()27<_G!\4;U]1@[BIP\#MP(U7C%4=//PZ>CC'J1/O M8I-RSQSB\)JQ2=TWQST; C[VS&Z@AI@/!YZ?Z*?DV^-@HN^>L"@633/41BKM
M1/F+_:0\M?1CZP(5]F,*JAFZ*IK5K+.KRJSE[YH*P!F._+^>N7?6P -;WR = MUF8HY+,6'5 M<]5Y;LS@4#"89]SORTD_= T@UL!9NI6R>5>9SHEZEP-)4%2@
M0115!W=$C\.N@@@M.[#K6+X_(&#V5Y6*(UU7Z88._/PT#G^^4*?9_T&GXDMU M"A0U.1*OZI67)/8["/F'!9%)I$I(9KEK5_$"%&*$C@(44-0HA0 MD_:VL'2%\
<W[,K1(C5:ECJGIAM1HF'DD4B!]M69+&2 ,/6VJ/D+]M)IV M-.A)2@[BT"JP5,M"$:KC,3+ 2H'2.IOFGHDFK]!W@E&:&$,U0QKN+=W/7PM5 M07*P"%*%+G>%-
EAD@S&"6Z3R/RCWE\4]:P(4.,82")L&$)FF49WE"P"B M<@=/'XB"'YLO#0(4PPA6<=-/ )(P>*0:ZJ,DB1=7\H0Q#!"&.NW0I"&;AE1: MSM!(C+KE"LDQ!-\L&6LF=H7IDQ!)72UZ]V-
6R8:FM9X+&[.]V,=M2$)L%)U12R*3XW9PH\V*M$;6N:D$ZQ5O:*Y MT;V]SGU3'"_7:P++I'M[=/8W&4-%;1QJ&W$L7WGQ+> X#1DZP]"SCU,V^!D- M_G@,'>.G@ F+3H;1-
4*'VFJ>C0SC5+KWD&&V':^-A.'9*,SHAA*YSV0R[R@KARC-.3JC*Y3-+5OL ] MR8.B<%A%5\CN:GDXK\>K@]H4#WG57=E&Z-/8A2YX>
[%4@($@85H6PC8YZYP/7$*7">!6)0X.:0,0+F&CA5O?_AN MS"B1%H\$Z5HAS.4D-BI[;/%0;54!! >'(><_G0WW?&0JOGEJ ]93 .8EUUS0 M]C2G187Y7C4\:78!+'BRVV>5J0^D#I9]D7-
M96K>Z0AQ.O5[N)$6'4Z+HS/F MB%3( Y<#@T5 :I?'Z7I80SYY=Z:4T=A W(7-B2;&D6$<&1=QY9$R;U,L);CYFQ(-7*S=7XGQQ/@!]#5*^?ZD 41ZRJE(&]_X
M)LD$BSI/\_G[+L/)$#3*&8N *=CT$SC.H8>G]EFL"B>]SF2HYRG.^ J-Y*.+ M]M0C@N/1C)1C['XMO1"EV88:MS'#X'XKTVN:K+]@>SC$'C#30_&T#[V'W)3; ME6.SYHX#D:#"[*@?.8:
[ZF%(F=Q/WID,#8;D&7!L7JIL8TW7CK>)T&:I]A#A MCK8EE^LPW9N2BN.^Z92?9]K9F!N'H(W> M7\%(?!8[I[1V1^S$Y&335%4IY^+E%5U+ ;CGXD;3#_4QY/ZB,$+#9B!U?
B>7\G*:T\4XG M&_#E#WCXE/'@:V'NF@[^0D4;TN^O],; [K%R-MLO9X=W66:CEW'C2Q??MYH4 MB>CT6W/,J?G>>IE>;H2WY&HNDANCWM^FET39W8N:_J4/,_0UO'7X?73B_#
MVY;C\O#.ZGMI-QJM;*76V+J8?_W\**!2_\6;EM^]7!GO3E(/,,! J0D !D !X;"]W M;W)K&ULC59;;]LV%'[WKSAPAR(%'%N^Y-)<#"1N MBF1HN]#IEH=A#[1$$640H4H4B&I.-
ZOWW+*V]]X64 M@9Y*;?QIMPBA.AH,?%K(4OB^K:3!26Y=*0*6;C'PE9,BBTJE'HR29']0"F6Z MTY.X=^.F)[8.6AEYX\C792G&$Q/*K&0MS+\7MTX MK :ME4R5TGAE#3F9GW;/AD?
G$Y:/ G\HN?1;W\21S*V]Y\55=MI-&)#4,@UL M0>#G47,ZCN5A>*T>]BE3.:BUN&; M75[*=3Q[;"^UVL?_M&QDAQ!..Q]LN58&@E*9YE<\K7G84CA,7E$8K15&$7?C M**+\)
(*8GCB[),?2L,8?,=2H#7#*<%)N@\.I@EZ8SFQ9@IS;8-/[DT& 1=X? MI&OM\T9]](KV/EU;$PI/%R:3V8_Z R!IX8PV<,Y';QK\M39]&B<]&B6CR1OV
MQFUXXVAO_(J]BX=:A17]>3;WP:$"_GHIQL;$Y&43W!5'OA*I/.VB[+UTC[([ M??]NN)\'#L MR4=?&!# $.TCT H]S6HLK[ROA4EE],/"9'.J*S[^!4'W$SK8ZR5)PG]8MY]; MNS&
<#M32AC:M1TRZZ^)D*X21Z,)-4U8Z=1RP@4.:YC%.&T) Z!]*%XKJ+ M\|<'$1IU+'BBT.WNN$?+0J4%+1%\KK3,.C'$Z/1BQI*U\AF'Z:M%8X_'NZ.#CY./P0V-*.*(&K(PJ9R.K
MM>\38R"N42"H*S%$M9='5%A'[37.I+> MK#F&YA0I1H735^$S\4 S4:D _77!;TJS.=U49Y^NKSJB#H5UZF]0 M-E]ML]-CVE 5*Q+:6\*]HU\D[X<24P9QJD<$!.*,7-B@8C9
A_$BWEO(!R [ MKG.019PDE:NTDS$+,-34#WLZ^WY-OZ$*'!.Y5/ O318['MI<,3,H=GC:R & MG],8W?VI9H<=1N#5$Y7-A23Y0B)<)[)MA!Y']=+('FQ=GZCC17PD<*: L+E)
MV]WV'7+67+_/XLTC!J6T4"@[+7.H)OV#O2ZYYF'0+(*MXF4\MP%7>_PL\):2 MC@5PGEL;-@MVT+[.IO\ 4$L#!!0 ( (I*#5GO,$53+0, '0' 9 M>&PO=V]R:W-H965T^[$IASYAP_]
(5%VOWMASY6JZ-4WW2- M:."I:WN]]FMC#C=AJ,L:.Z$7\H ]:792=<+04.U#?5 H*@=U;1@SEH6=:'I_ MLW)S]VJSDH-IFQ[O%>BAZX3Z?H>M/*[]R#]-?&[VM;$3X69U$'M\0//7X5[1
M*)R]5$V'O6YD#PIW:_\VNKGCUMX9_-W@49_]@ZUD*^4W.WA?K7UF$\(62V,] M"!*/^!K;UCJB-/Z=?/IS2 N>_Y^\OW.U4RU;H?&U;+\VE:G7?NY#A3LQM..S M//Z!4SVI]5?
*5KLO'$?;*/&A'+21W013!EW3CU(\3>MP!N3L)T \ ;'+>PSD MLGPCC-BLE#R"LM;DS?ZX4AU-R36]W90'HTC;$&H1_^^V^H<.'U;PY]!M40'9/=2"@GKOM1X0Z+
AO'U"538:X5XUI1T>&B7< M97/J,W\G4[&EF&^P1.3*)EPCG+Y&(!4523,)SNCBY&F2Y#%(63V(DHN1JC#@*@TM[@AEBV7J@QI[_#@P M\N#ZZE8:ZM+NMZ9G$94U(/U.2G,:V
#S0[OY#U!+ P04 " "*2@U9D.#2 M,',$ X"@ &0 'AL+W=O;%.^>>^Z5G.ZX>)(HHH)]D9=R9J=*55>#@8Q3+)AT>(4EG:RY*)BBK=@, M9"60)4:IR
>^ZPX'!SXUWY9B/N6URK,2EP)D711,/-]@SG>%8YQJ(:'QK,>VC2:UXNCZ@_VI\)U]63.(M MS[]FB4IG]MB&!->LSM4]W_V.K3^1QHMY+LTO[!K9,+ AKJ7B1:M,#(JL;/[9
MOHW#B<+8?47!;Q5\P[LQ9%B^8XK-IX+O0&AI0M,+XZK1)G)9J9/RH 2=9J2G MY@^*QT]]I[5<"M[R@7$NFPS4=*$+7,H.X1;IID/Q7D(;PD9\)JK*1/8OS&N+MDS59:"A1"L
MW*!9_[58226H3/[NM M0_]?23J+U,USXEBO68#'%"W]@97/("M>2BXD]!1A6>?4$R+;]^!]&3NPH!A2 MWH&5"=RC5$S1QG>]
.Z**N?/B#UXEPEJ1BZ,T"V!4>LPBOS=MSI3SQJ'\D!- M"LNL/A!,;&\37/:6AEY0846^783J[L'Y0@=<" M5R^C17N0U,)(DP&9[:%H&J()S']2369.B>)OJKED.CR@*N/@3 MF9"7L-
AL!&XH7Q0T2BC-VQB^L+Q&ZW.M*)%EHM5US#W_&CZPLJ;I#5[C" 1A MV O<(?Q"6V?BP\B)0MKT+1J::\QT%5#(<5]1[A.X"/S>F.)[22*1XXV[39Q&
M"@+/ZX7!2!OPG6@,0V<2&0.M[R8SW:I4)+UH--:J$\<=D6JHB?;A$[=.$RAA MAZ*M"2+YTUET=)7 H3VHMKE(VM)H>RD^[24* JV1!'/3'>I"%HT.29+I3#1\ M^HG.S)K1?JN3\GK-
DP<[)LD_UXG 8%G_88EM4]NI%E"UVZF;P8S3D8A>),A>-$00M^U M'G\NC 3K!MI8I$T$KJ=M1AYT70Z#D]N\0+$Q;Q9)N'6IFHO]^/7X+%HTKX$7 M\>9-]9&)#34TY+@F5=<913:
(YIW2;!2OS-M@Q16]-,PRI:<="BU YVO.U6&C M#1P?B_-_5!+ P04 " "*2@U9.47[PNP# %"0 &0 'AL+W=OK)VO5<32;_+0>%9E M@U_,7!N-MOS@*;1UK?
S^EHW;S;/S[+#QJ#=5E(U\,6O4ACJQ_+5Y\%CE TJI M:[9!.TN>U_-L>7YS>RGVR> WS;MP]$RB9.7<9UF\+^?91 BQX2(*@L+?EN_8 M& $"C;][S&P(*8['SP?T'Y-V:%FIP'?._*
[+6,VSZXQ*7JO6Q$>W^XE[/5>" M5S@3TB_M.MNK:49%&Z*K>VX")9;W*JK% MS+L=>;$&FCPDJQ?_12_+UZ_.WTS>G9!P.4BX/(7^_24["?'0Z58\P5;ZH1O+JGK5DRU*_5:4G
U0W6(XHB MWQ6_5S#Z*FJLM"^I43[NQ]1$:=:$T\?#Z3M[QJU2)2@!+++D&L^V1U0K(W2^ M-_^8$S\UH(1@( 7)GG6]:GW@2PQ0Q!&0(2J1J!5&]#<(3QGVE=,VZTS6S! .@[=9R0
-4@6-=I2SUZ^NI^=OW^%4(,TX[Q+(A=1 U)T3#+W4(2*NR\68 M7KK;\J/15+/?I $EA$UZ1!MW(18S,]5OA.82\&>+]V+AX6$F#X\EG\"U!+ P04 " "*2@U9 M2T^U&QH% "V"P &0
'AL+W=O?%;L3:S!EHPD-\F_OUW)<1(( MF;DOLBWOR[-OCW2YTN:[+1 =K*M2V:M>X5Q],1S:K,!*V(&N4=&?A3:5NE H_&[!-50FSN<52KZYZ26^[ M\44N"\<;P^O+6BSQ
=V_]6=#7\/.2BXK5%9J!0875[V;Y.)VS/)>X*O$E=U[ M!XYDKO5W_GB77_5B!H0E9HXM"'H\X1V6)1LB&#]:F[W.)2ONOV^MO_6Q4RQS M8?
%.E]]D[H]KWJP'.2Y$4[HO>O4WMO&9A3V$6_T8A;152CSLX\BA?"R>N+XU>@6%ILL8O/E2O3>"DXJ(\.$-_ M)>FYZP]((=G+H2-;O#/,6KW;H)?^1F\"]UJYPL(;E6-^J#\D#!V0= OD-
CUI M\'VC!C"*^Y#&Z?B$O5$7V,C;&_WOP(+>^+@>#\&%K46&5SWJLG4)W4.XXJ2091, B/!49WNJJ%VD A+)2RD@YS*.FW5,O0 M_-
))$J6_@O:M1815(;,"A$&HC:2AE.6&)JT4K.HT2&*6WZ/,#-TB 293B:(E>$'^2RU&2?".Q$0" < MC"9P9[2=;^"U(:KHPRWFI)7WHWMAK4S8=4C;3N!_'<9 F8?TDK!<)[.KA*
(44C*DHJ818 MM MW!EM56W)T?KPU@@BO64AJCX<%B'ZJ%OK MI11S64JW 3)NF(7/].*L8;_4Y,[/PQR1SQ"VC:$5J.GL+TA]:2,NI58^192; MX 37= S2,ZCN0M]^NX(
^_:V<@U5X$9D;CQ,KA?QH^!'1W OE'0RV@MXH ,W M;TJ,R.G= 830W&\"!!MY.]Y&]Q8]>O_[G+SS^T"(COXY:BDXR[1UT5NY;CDD M;% CI-.$UG$RHW4RY77ZH0\Q+W99-
X#,ED1D8GU-%)]*B=* ^-C:;G MM)[/)K3.9F/NLWX\G4:??"]+%>X34?3-']Z8GXDG-'07H5;A"PT35##B M6V1*0YK^*LLSQWC D\H9CU4,?U"[.J(X=AL=Q9(W" V5P_>/Q9]'Q1/USZ/I
MJ?I8S[#DSN&N9S[L'$:?:L+K.*9P:$2MPN9HKD)OO)A"+C;V+Z[\^*"$M=@$ MF+3_@4Z3"YY^:FDJ[-F!X&'^2?H+$O\R;Q\)L.V^?9T_G\W2)'T59C44XCF<
ME"PU'RPL>!H)'#O0AWMWJ0K-TM\8F=ZIPN%:U>UVE]*;&PO=V]R:W-H965TC%3K15V/YD[3+AQ8C5U\3[@ M)\?.'*S!99(J]>0VW_)Y$#E!*#"SCH'1:X-K%,(1D8R_.\Y@.-(!#]=
[]B\^ M=\HE90;72OSBN:WFP54 .1:L%?9>=5]QE\^YX\N4,/X)71^;) %DK;&JWH%) M094WS++%3*L.M(LF-K?PJ7HTB>/2%>7! M:O)RPMG%-YFI&N&1/:.9A988G3W,=NA5CX[?
0%_K9*V,O!9YIB_QH>D9) 3 M[^6LXI.$WULYAB0Z@SB*IR?XDB&]Q/,E[Z8'-]QD0IE6(_Q>IL9JNA!_CJ7< M,TZ/,[HFN38-RW >4!<8U!L,%A\_3"ZB3R?
T3@>]TU/L[Y;C)/JXMDD\'AW2 MPF.%H[6J&R:W4+$5.7:!PH/>KE&7?H(9R%0K;=_F M@W48DLM^-OP/[R?L+=,EEP8$%@2-QI?G >A^:O4;JQH_*5)E:>[X946#'K4+ M('^AE-UOW
'#KV/Q#U!+ P04 " "*2@U96ZX_$;$# #@" &0 'AL M+W=OO(#Q@3[DXL9VVUR4! MTO:&W;#;%9=N?1CVH-AT+%26/$FNVW\_2G9<%TV#NX?$DD5^_$B*I)>MT@^F M1+3P5
EI5F%I;7T9128KL6)FJFJ4=%(H73%+6[V/3*V1Y5ZI$E$\FYU%%>,R M7"_]NUN]7JK&"B[Q5H-IJHKIYRL4JEV%\_#PXAO?E]:]B-;+FNUQB_:O^E;3
M+AI0;)3ZL%M/N>K<.8(H<#,.@1& MCT>\1B$<$-'XK\<,!Y-.<;P^H/_J?2=?=LS@M1+W/+?E*KP((<>"-<)^4^UO MV/NS<'B9$L;_0]O))K,0LL985?7*Q*#BLGNRISX.
(X6+]Q3B7B'VO#M#GN4- MLVR]U*H%[:0)S2V\]UZ;R"IDK*UFDXYZ=GUGY3W/Y0Q<(L:MB73N(PLX;K3 M*.LQKCJ,^!V,_BBI"T-?)(YY]_U(^(SD(H/I*[BDX"_-W(*R6P"\2Q.3^ E
M@Y.)QTO>P?O$M.1R/W(2_MGLC-5T)_X]YF\'EQZ'I"\T>[A],DF5_DTN.&B<;9^B,PI C]@?0*LL*1BV0,=!%Q:1>K4?')" M[!J(?(9:6926,R$< V)++06P**C'&"BTJEX9H>K-
'D#53IW,:VB9UDQ2%^VC M3G(=S'&G6Z0_1]&P"H$ZL-_84B."4S7\":JN]-"5'E#AX% X7H06";EFO&9' MU*5EY$V2Y83^=?\ M@5=4&_82MC3B\D9@0-:N7QO?.
(6;@\+]@<*FI[#M*'Q]H1#<#6G94EK&'7%( M2^#3XE(2?.TO!=VRNM%928-EN*W^UB3S^21-SB'YF$SB11K<]U?G?8WY9#:C M7WI!J_D9:7],@CMEF1ANH"/7?
@=.,H\GZ<6"5HM%.CE/S^%87XM&4Z="O?>S MEU7L2[V?^%Z3TG@@(+4IU-SQ=ANK:C_#=LK2 M1/3+DCY!4#L!.B\4W<%^XPP,'S7K_P%02P,$% @ BDH-6:6+$N(1!0 MA@P !D
!X;"]W;W)K&ULI5?;-Z]'(Y=76 LW- UJVBF-K86G3[L8N<:B M*()2K4;9>/QB5 NIT^E)6+NVTQ/3>B4U7EMP;5T+NSY#95:GZ23M%V[DHO*\ M,)J>-&*!M^A_;ZXM?8TV*(6L43MI-
%@L3]/9Y/79(;XC0=LT.H,/>,(.BQQ'-4BH'(C;L.,]V89,7=]Q[]YQ [Q3(7#L^-^E,6 MOCI-CU(HL!2M\C=F]2MV\3QGO-PH%WYA%66S5RGDK?.F[I3)@UKJ^!3W71YV M%([&7U#
(.H4L^!T-!2\OA!?3$VM68%F:T/@EA!JTR3FIN2BWWM*N)#T_O6WG M#N]:U!XNE_3K3D:>8'ESE'<09Q$B^P+$"WAOM*\<7.H"BWW]$;FS\2GK?3K+ M'@5\V^HA'(P'D(VSPT?
P#C8Q'@2\@V^-$?Z:S9VWU!%_/Q1N1#M\&(U9\MHU M(L?3E&C@T"XQG3Y],GDQ/G[$U\.-KX>/H7];/1Z'F!P.D\]#OL!&6-]:3$P) MYY7$$B[O,6^9%'!5EC)'"U=NJ-4R>Q^0/P%
<(9T;8 DCM0EHBD[$.GO'Z MTR='638^#MOA?7+\(XOQWKFI&Z'7()K&FB46(. 7U&B%@ANB)/$(A"[@%I>T MIG.$V<(BUNPP8R<=]HT0#PKUY@8P7P>@.?H5HMZW3>L?
T)12&6"@ 13"LRN. MO8R!ONH#96$L2PQ3(HHD#.9$C4%O+^9;SJ8(DY=T64BMD%0(XNY MJ6OI/:)C5(O>1(LL.:-
(BL[G&W0^9/UR&^.VUE^I7A]P5[FDKYQ&R(ZX[97DG%+CRH+TS3;Q1!)/)]W& M'J7\)RI&"+ 1(3IRQGBA0A*Y^>\EG1VHULD/,!F.8=8T1FK/DLS$-YJ@9/U= MC-QPBY?
$%I=CO4;"A7=MH=J:B\DB7[.UV^"=;')^>;7EVB?\B!3*ND$-SSK5 MSNB6";L,&4#3E8?S*NA8YEX)7G?ERJF+Z4BE_"5B6YVO-,J%T'1!H0Z?%4OI M:$(-X-
V[\WW"_T:Y"OV<1=)/0L,FHFM68N>LL5)!:*PLB^U\1?,NZ,0HLR%\ MH.G4FZX(F8C0* QF-.!2J#92G2PR3PRS@^X\FWF,<1Z+D@O$<7!%%03K7 MA&=32QJF1>@DS_!5!+ P04 "
"*2@U9?\#0-G$* M "6' &0 'AL+W=O@"%PFP5Y:5Q/&-/P#;2=JT2&O$2?M0](':I20FN^1>DFO9]]?WS)#[(5M6 M$O0AL:0EA\,S9\X,N:<;Z[[YM5)!W-65\6>3=0C-FX,#7ZQ5+?W4-
```

```
LK@R=*Z M6@9\=:L#WS@E2YY45P?SV>SHH);:3,Y/^;=K=WYJVU!IHZZ=\&U=2W=_J2J[ M.9L<3KH?/NG5.M /!^>GC5RI&Q6^--
<.WPYZ*Z6NE?':&N'4\FQR36;DD*I4$]8R\+Z=65K?ZMR[ ^FQQ/1*F6LJW")[OYJTK[>47V"EMY_E]LTMC9 M1!2M#[9.D^%!K4W\*^\2#C\R89XFS-GON!![^58&>7[J[$8X&@UK]
(&WRK/A MG#84E)O@\%1C7CB_B<$0=BEN],KHI2ZD">*B*&QK@C8K<6TK76CEA32E^*0* MM?WX)N!WZ4HOGG4CGY\>!+A&"QP4R8W+Z,;\"3>.Q$=KPMJ+=Z94Y?;\ VRI
MW]>\V]?E?*_!O[5F*E[,BQ^D%VWOQA+U=@/SG8N&# Z_^NVO# MT=[+W?8HU][X1A;J;()D\LK=JLGYK[\<'LU.]GC[LO?VY3[KYY?2:T\QO2;; M)DC*@%U.
[C6SVTFVG3VP+3ZO5598!,]X50I\|D"IE %?EMI(4VA9"8_!"AD= MV+>P5N+*UHTT]T*;HFH1>;%63FDCUO)6B8521F#A1CH\:5KG6^)FL#S5M54B
MI5.KMF(WR&Y&#V]4T3H=.MJ^NRO6TJQXO5I[5I1G-.[77X[G\]G)S;LK_G1X M\GPJKI0+4#/X%#6/Q0-&EM8&8X,2I?9%97V+_0M#0ZIJM /,['>TO1M.8&[+.6%[4RB%S
MQ;.TH2_3FZGXR\7%=;>M;$!T")-UPM8Z<)"SW_Z.D#N>LD3$ M,>1>22<4*91X"R&L%\J)%X>L,2]R#*KPH'<5G")C'Z4#://CJ$1;K-M:>. ?
MI=*PM2T6Q0XL<$#^(3F(*5!0N,)LHUR.BX%G]$"/)2TCE[ $JD=Q8EWRFK' M6Z+DTA:5,P(6>DPTZTF)A*:6I3/06$1R1>2J@YDA) *EAF>)$Y3VY3-(#%/,MI5ZH2JM;%=V(LZ1?
RBKFXBZ\;#1_@NBPQ%$B2GB];4V8C#T@(H7T0/<9^\(?V"T5)4 91*>E1 M$3:J DZ)[TG*%$5=[96BG0J24310(]J.2MW.V7&C, T>>R(U;0)406QA@?9 M+B:56;8!_+HC04"<+BVF$(
A7OZ6JI%Z%PP*Y_#MZJ2"YOHDF>DSQQ/;UL' M:N1D'"J+7^!"(1TU;FW@O'R"?11 HR@)O6(EHD"5"&!E&]IN;(N'2IDTW;K[ MT9,3E/8:%8:0TG\JI*DMVR+
VR9D/0GM!\"F7XFL'R+WHAB**M\C-)X:4=0 MN*3;]$7Y5&AH)^_?7J"J/,*7F4_)0A2ZE1J 5:KK";I0<;M/A30^1 T#=I$Q MP HR]Z#[8 U,=AY'MI"-
#K0/'3KV9LGWR(6A<09Q2U6@A'EFGI U%7$*3A<( M9C!,<_= B*=,'ALL>/X@'*S+G4,YXXL>Q+4-?<\2X9*7L.>^*4HE+JBU_*9X M0L^SR$+T0Q62=(4?
8@GA:DD1)6>,1>ZBP6$)Y42_;BLHKD-5Z?,WX647U"UE MW!L,BU@JX!UG@ I!8LT0CG$TKEIJN"KF!) :">:&]U#(%G",4 ;&E;SW3Q5T
MM80ZD%#:CFZ\0X@B\U:Q:B4.\Z@(69[*%]A04.]((MGUFHJ(WY3L6>[OY5W]V_VMO=?_%<$][YH&M*OEV-_5X+NQM[F,W& M9D&Z+#:ML<#_E(JF#HX*-
:D==T5]4YJ/N@JA_1;WF;"J]P' 9D3%NHF,8#+* MY1)5+T6&FB?JESG3N.!@O$J=8*7E0E>#O VM.PV$@U156 :?F!/Z2M)%\B= MX"8:M:FBOT]YVY>TLNV!CN.X ',%GXJW+2>;-
I2F)F3HC.,Q)5"K<&NKV]C@ M CZNDQV . 3\4_B\ :CU8%\ M2M:^ARK@J]\JL;$MS%(7:[&+/RDXM\JTL[#E(4DCRC72+ZN&(#ZA$#A&( M&VX;H,X*UEBOJ87<(PA'O2
<[16$*VOH6L;U9V!QA6Q"M?JD_;==ZK#7W&YU MV%XCVUY#7*'URY#)4HS;=!]U72)01.2(P+ MY+_K *ZL:U)72DBTY#IGE>>09#]S],S[_.D[XWC-B8Q+04C'F:-
#5'G=I\KKO:GRX_>=N_)FK^W=>9,6S'[@@I4._@_9.I;.\950?RD+ 2N5 M1\.RB$3^!]U0S7/Q_U[L9L/%[A[8CWO8C_?"_OC>^!HR:*F*L7+O OM'+&9/
M6A3OO:\,ZAP/!_B;X_"VV;Y7VYHPG/OZ(TB?_SLOO"\M_O17;N\O;BZ[2QPQ MG-S2Z SM!4]?V%)WIV?)YPS;C$X]7>;+/BT]JA.B1T<';GOH1N"Q4N B.[:X,<[(CK)9/T53+R!8J0!7@?^
M#JS%EX8/\S3AM]GO.:S@=*'$9WD'+)]]MHTNQ.N7L^=OQ(<:.[U-(47DAY'B M[7!OFUUP"7N@3/$,%/N&%#^@R"='=:<]N^28=W1!P][F>PC5QQ@K#7E<*#;8 M5\-
L^U&\5D%04X/[L^W0&.Q=B7LP>E<$S5WQ&S$^+9H07QOUO_8OW2[BNZ9A M>'QC]U$ZG!^]J-024V?3USATN/@6+'X)MN$W3PL;(/#\<:TDJ@P-P'.Z4>^^ MT
+]J\CS_P%02P,$% @ BDH-692_2]N> @ ,@8 !D !X;"]W;W)K M&ULE55M;YLP$/[.KSBQ:MJDJA @+\H2I"3MU$ZJ M%C7=]MF!(Z""S6S3=/]^9T-
8)J59]P6_<,_+V=PQVPOYI')$#2]5R=79$)63--2[CQ52V2I!56E%_C^R*M8P=UX9O?6,IZ)1I<% MQ[4$U505D[^66(K]W!VXAXV'8I=KL^'%LYKM<(/Z6[V6M/)ZEK2HD*M"<)"8
MS=W%8+J,3+P-^%[@7AW-P62R%>+)+.[2N>L;0UABH@T#H^$95UB6AHAL_.PX MW5[2 (_G!_;/-G?*9^G.X0@P\5\!!!T@L+Y;(>ORFFD6SZ38@S31Q&8F M-E6+)G,%-
Y>RT9+>%H33\5IBS8H4;E[HFA4J8#R%KSI'":M&2N0:%DJA5O#A MD6U+5!]GGB9=@_:23F/9:@2O:(S@7G"=*[CA*:9_XSWRVYL.#J:7P5G"+PV_M@M"_A, /HC-\87\
(H>4+WWH(BU<.X53N+75TFMK4U%35+,&Y2T6C4#ZC&[]_ M-QCYG\X8CWKCT3GV>$,UFC8E@LC@S3=Y*HFS,J>3Z/02;2@7"B+2&A4,!G!P)\X MK9<@\"$\
[:;W3.X*KJ#$C*#^U7CH@FP[5+O0HK9=82LT]1@[S:FIHS0! M]#X30A\61J#_3<2_5!+ P04 " "*2@U9G$K$&,," O!@ &0 'AL M+W=OH2ZW1)
(Y+=RDW5M,N)YR=S#3=K[9/P&0&%_<5+^G$;0>^T_MP M<,OF LWA*+"4R<4'Z9IUVK!&K[ .X$I)NS1P(3/,7N(#4MC*C#8RI]%>PF^5 M/((X[$ 41LD>OK@M.Z[YXC?*[L!,,&E?
5@]_3N?&:GIA_NXJO6%.=C.[)CHQ M)4MQ[%.7&-0/Z$\^O.L-PD][=">M[F0?^^2&FC*K!(+*8??5[5*\EW.WXK<3 M>70GV-X)G&.*Q1PUQ+W:$WN7;*XTLTH_
;9'^QZZ].MU!OV!=XG43DLE,N!% MJ=4#N@A# 5WO1Y[S%"&OM.2VTEBG?F;I0A+VO#-5E)6EE-L;47SLG;&26R: M2R#>!17E6 =AZ-TJYR^W"WH!
[@P_)]2+XEF:5D4EF,6,NIP.)N6LF2.$8872 MEO]K'%TXZ'6.XP$<>K.=Q!V0^%QYKS^$76]"L-7$!>I%/:H,I*J2MNGGUMM. MP]-F"#R'-Z/TBND%EP8$Y@0-
CX[[/NAF/#6&564]$N;*TH"IETN:Z*A= .WG M2MF-X1*TWXC)?U!+ P04 " "*2@U922%6P,X" !V!@ &0 'AL+W=O M^ON H(@326-,G6M;25N@\$ M:!/5-M@#XL%-
;AMKCIW9SKK]>ZZ=-!2I]X"7^.O><\[UQ\EXK?2]*1 M/)5" MFDE06%N-PM!D!9;,'*H*):TLE2Z9I:%>A:;2R'*?5(HPCJ+CL&1;B6N^*JR;"*?CBJWP!NVW:JYI%'8H.2]1
M&JXD:%Q.@EE_=)JZ>!_PG>/:;/7!5;)0ZMX-/N>3('*"4&!F'0*CYA'/4 @' M1#(>6LR@HW2)V_T-^D=?.]6R8 ;/E+CCN2TFP4D .2Y9+>RU6G_"MIXCAY,\NF8ZW6
MH%TTH;F.+]5GDS@NW:'<6$VKG/+L=)9ENL8<+I[HF T:8#*K[9 #6>UUB@M M7'*VX();3JMO;]E"H'DW#BV1.X@P:XE.&Z+X!:)CN%+2%@8N9([YG_DAB>Z4
MQQOEI_%>P"^U/(0D.H XBM,]>$FW$XG'2U[ F[-G7YO? ;\M3!CX,5L8J^GN M_-
Q5ZJ9"_7[DI:TAYNDRI/FK6D8NOJ9(I>LK&DD@13%"R5($O@0!!EY#_R".^]0.HMX9554ZR>\A.1GVFC+2!(;#WJVR#K;%^,M-=,(')PFUPW0 NVY1N.4%)>J5=SRW
M^[6TC2UTLYVISAHO^1W>./(5TRLN#0A<4FIT.#@*0#&PO=V]R:W-H965T['#.S1? M]]>*1L'$4M8M=KJ6'2CZ--7*6WA0XE;T MC?DL#W_A6$]B^0K9:/>%PQ#+N0=%KXUL1S
I:.MNL.)A7(<3P(() XA&0.1T M#XF5ZM DKN[LIMP91=Z:<&;]72@E.J/A]R]BTZ#^ M8QD8HK7.H!@I;@.*Z!F*%#[*SE0:WG8EEK_B Y(S:8J.FFZBBX0?^FX.G/D0
ML2B^P,>G&KGCX_]3X[G2!F1\'FEOQ)7>BP)7'AUYC>H>O?5O+\*4O;]@*YYT MQ9?8UW=TP\J^09!;F/;A4V^T$5U9=[MS>B\RGM=[3#-[)LWLNOR'#AJ6\'?? M;E!9.7>5(/SLO=8]
ATLA+;V,X27$,;S/(='3^(\*?#43_AB-.>1_%=D-B*C1>BS.#O:V3O(,[EX#SV%XP=[9AN:GEPD\42H/8&MJRMJ8F M8R2%BZ*J\1ZIP1L+S9,$_IQ]D48T!&?,;N0"\@5M2\
[AW&T+3KI>BVKG>KN& M0O:=&1K@-#L]']=#UWP,'JZ>CT+MZDY#@UN"LGF6>*"&?CX,C-R['KJ1ACJR M^ZWH"41E \B_E=(&ULE5;;;N,V$'WW5PRTQ2(!
M;.ON2]8V8*=INPMLUXC=711%'VAI+ F11)6D8J=?WR%E*RZ@N-L7B11GSISA MW#0[JSPK<2U UD7!Q,L*P6)(]YKH&(QE\G3*LUJ14OUV?TGXSOY,N.2;SG^;;/CZ1XN%";.&PK>
M2<$SO!M#AN6/3+'%3/ #""U-:'IA7#7:1"XK=5 V2M!I1GIJL5$\>AIHOV*X MYP7%6C)S73=;MLM1WLYL16:TL!V=(%<-I/<&Y @^\U*E$A[*&.-_Z]M$K^7H MG3FNO*N G^IR"+
[3!\_Q@BMX?NNS;_#\MWQ.F<#!ROB\9B^48@J60K R0;/^ M8[F32E"^_-GE?(,==&/K&KJ3%8MP;E&12!3/:"W>OW-'SH7 -?;&A
MFHSK'('OP40.OE0F6DN=W)EZZ2)\%;*;\#;%WI[G5+%9F8#2F7 JV^QOE""- M:5Z]UA69AK@61CHEV>P(19,$J), *(38AO .SG[TWO*C]VM=[%!H/YL3"=],
M@6$\@.4S"FH8\'!$$64282VR"#L$'E&W)4WJGLCHB-8LARV* FY^1R;D+2R3 M1&#"%,)'DLBHV43PE>4U]K[42BI6QEK]_;N)YWH?X!,K:VI=X#:.@!\$?=\9 MP0^T'4X]&
_#@#:#'G6,/69$!K@ /%:9H.6-[_4GHRG1Z5;U/+MD;7XUMB$;G22?2(WG-1)0:>C$^TVBM3.?2 ML=;)I1]NH#/%]=W>SUA2/>1&FL4T1#+=WO0TA'$ [G0$;CB"P'-ZV^^[1H)U M?
&TLU"9\Q]4V0[5/;0)-ML5LD:)!DVV?&&EM$ M*5)+4K']]SND;-GN.MZ^4+S,G#G#.20U62G]PU2(%M:UD&8:5M8VEU%DYA76 MS Q4@Y)6%DK7S-)0+R/3:&2E=ZI%E,9Q'M6,RW
V\7-W>C91K15.*W/0!Y?)DU(_W."O^\M-4T'(=0XH*UPMZKU9^XS<<3G"MA? NKSC;+0IBW MQJIZZTP,:BZ[+UMO]^' 81R_X)!N'5+/NPOD6?[!+)M-M%J!=M:$YCH^5>]-
MY+AT17FPFE8Y^=G9#5)*!MX^LB>!YMTDL@3JEJ+Y%N"J TA? ,CA5DE;&?@D M2RR/_2,BTS-*=XRNTK. 7UHY@&'\'M(XS<[@#?L,AQYO>#;#4XEU?MEI/W<:
M+DW#YC@-2>X&]3.&LS>ODCS^<(95UK/*SJ'/'NATE:U 4 NX5G6C)$IKW,CS MA4]K.G8O\#Z/_%AA,#]"%!X1.T2@@PRV0A^5R4T_MI5&!"9+,'P-=5=4=$4% M*@GV)?
$FU!G""C4Y&$(0=+;-)>R2"OXGJ<#C>(R^%SSZ^(=BVL=]($8G5TXB M=<'FRMC@,U^3M>@GX#6D14)MEHRIS0O7%K_GP3>FN3L"A[9)G$&2CPDTAW2< M!(_*,G$,-
BQ&U([&.;7C<49M\CXNBN K[:@&+KM;DZZ?X)J9"AK&2[_AK%:M MVQHNYZ)U"7'IBU 3>*N1;CV[KYP@9EQPR^F@4L@T=?R'KLU'A0N<#X/O_OK! M\H(]HZ;;E"Y,=R5SN=R"6-
0U%! /TO_:EMS,'1_0S")I6/ M?EGEM\RVNDNB%\3-/K-30C\+?O] [J,$)_>O;!%:DI#7O-F5FRU)>[47*_/T M?E+\"SK_A;2"KPWML75UZ"ZB8.NP.5G?3L]O"RC9QKQS:LV.9->P34>3YF_0
M$!L/S3."4KJ*#%ZQ&O?3OM &ORNXQZV?[7X&/W0NX-^_^(VZ97G)I*/J"7.-! M02K2W=O<#:QJ_'OXI"R]KKY;T>\,:F= ZPNE[&[@ O0_2+-_ 5!+ P04 M" "*2@U9F_%L"@@# #8!@
&0 'AL+W=ON*2K<^3'LPR4&L.G9F.X7^ M^YV3D%*)HCWL 7*V[[[[/N?N,EHK_6!R1 N;0D@S]G-KR_,@,&F.!3/'JD1) M)TNE"V9IJ5>!*36RK XJ1!"%X4E0,"
[]R:C>F^G)2%56<(DS#:8J"J:?+E"H M]=CO^]N-6[[*K=L()J.2K7".]D9S]PZ$-:&:N*-I@8 M%%PV3[9I[V$GX#1\)2!J Z*:=Y.H9GG%+)N,M%J#=MZ$YHQ::AU-Y+AT+V5N M-
9URBK.3[_3>OREC8(8:YCG3"._NV$*@>3\*+"5P;D':@ETT8-$K8"=PK:3- M#7R4&68OXP,BUK&+MNPNHH. 7RMY#''8@RB,D@-X<:%2%65E65W(M)Q*RX^NN*A<2<-]77J8'4T?
45,G-@ME:!.)DPHE44BPH1X@FQ+QF!::6XYY5?/^2%G=+9 E("; M5%14'K#4J@";(Z0OQ=50=+[>RF*M+-/(VH'M>0M,667HK$KSW=PYRX!1T[N+
MZKCQ@@39<]C>K/E7/5$-8E;3-X.EV MN[$];;;5LWLS\Z^97G$B*'!)H>'Q<."#;N9HL["JK&?70EF:A+69TZ<'M7.@ M\Z6B&FP7+D'W,9O\!5!+ P04 " "*2@U9<7T/W.;;?DV/P^,3X
MD]@!2/2IR*F8.#LI]R/7%>D."BQNV!ZH>K)AO,!2W?*M*_8<<&9$1>X&GA>Z M!2;4F8Y-VX)/Q^P@)XSO/#4NRW4G=X$['>[R%%<@_M]@NN[MR:DI$"J"",
(@Z;B7/OCQ+?"$R//PF/I$4$. MJ=0(K+Z.,(<\UR0UCG\JJ%/'U,++ZV=Z8B:O)K/& N8L_XMD2G+A?E$IZJOYZ#T("0K*K$:04%H^8T_50MQ(5"<=D%0"8*7 M@OX50:\2]%X;H5\)^J^-
;*@$@Y>"\(H@K 2A6?MRLE<,.K@R[AQX9E3N!8H!UJ*/NO7AE_1)M]X/ M.@"N\J V(G@V8A9T$G\^T!O4\WY @1?T6P8T?[V\U[8>[XL>OR]ZTBV/(%5R MOTW>6,M>G=0]P^M?
X2WA"/0 :,-9H?-.)5TJU8LE=^=TG %-=RKUSUF(/J/? M*)Q[=&5G9WR]&XS$'J&G<_SN]Z!&U M889WS4[Q%S%)Y^2^NG"SJ6K]G-A]G=RQ.L&Z[=U:[=O::J9-6&03%MN$)99@#=]]
[_R'W+-> MDRND)9NMTB*KM-@J+;%%:UI]?)0M]8GJO?F'/%%^\P?S?V6]L@?Q>5YZ1E?'M\^8KXE M5* <-BJ4=W.K_@KP\D2TO)%L;T[PUDRJBF\N=X SX+J#>KYA3#[?Z #UN?3T
M/U!+ P04 " "*2@U96]@PX;@" "O!P &0 'AL+W=O,O(@>0Z% 65"RL7,KJQK9%FD.) MQ36K@*HW6\9++-64[VQ1<<"9$96%[3E.:)>84"N)S=J:)S&K94$HK#D2=5EB M_N<."M8L+-
=Z77@@NUSJ!3N)*[R##L'GM80E%H(X7QN_.T^D]JX7#\ MZO[%Y*YR><8"EJSX13*9+ZRYA3+8XKJ0#ZSY"ET^,^V7LD*87]1TL8Z%TEI( M5G9B15 2VC[QH:O#0.
&)P1>)_#^5>!W M\DVI*9M%98XB3FK$%<1RLW/3"U M,6J5#:'Z7]Q(KMX2I9/)1K5%5A> V!:M.5289.CS0?6( ($PS= /F0-'RYIS MH!+="@%2H,L52$P*<84^HJ?-
"EU>7*$+1"AZS%DME$S$ME1T^AMVVI' M"9)O-;U&OO,!>8X73,B7Y^4K2)7<-7+_K=Q6->D+X_6%\8R??\)O5(S;$\68 MRK2U#J:M]<:\$15.86&IG2> [\%*WK]S0^?35-[_R>Q-%?
R^"OXY]V2I%DB* M"],**:-"[0Y"=U,YMT:A,=)GQSX)9E%L[X>IC&-\IP]Y QCT@,%9P'N%Q#%- M80JIE--.L9YJ=9=JPK6PP!U.TG E=,54\,=TKLQ' /#QB
M'(>XSGR:,>P9P[.,II.G<,)Q/3SGB&<X1^CCH"@X1K<'QZF^RKYCOB-4H *V2N5<1RISWEX/ M[42RRIRPSTRJ\]H,&ULO5A= MCYLX%/TK%ENM6FDZ8$A(9C9!VF:VZJQ:-
>JTNP^K?7#@)K$*F-HFZ>ROKPT$ M0L=A&T3ZDO#A>Z[/];G.B6=[QC^++8!$7Y,X%7-K*V5V:]LBW$)"Q#7+(%5O MUHPG1*I;OK%%QH%$15
2VZ[C^'9":&H%L^+9D@R6!2?:%^.G3@6"G,A M65(%JQDD-"V_R=>J$$'0BP*T"W!\-\*H KR!:SJR@=4>;Z8UK M>N-.>DOC(EVA%(PKU0EV!I?Q$RX8CZ=F*GY-
Q>]>*;)BG$C&'X_;\1TD*^#& M5NR$.[<5!P)K,9_4S"<7W)$F0Y9A(+!6&:9U&:8_:T?JDJQ%!H M[5()Y-1\, M:O1N#+V5TM$*N>#3*4B\-/;=S(P>9?!-RX.-QM
MXQ8LR7()_$<%W\/'=:SR0&AM[HWMP_XE!3^H"QP*K5V*Q@?BWO[J;,'WR&06 M_.2)X%UOR@V]MCG:OX/IF,BJ^ CL\A?,?Y3O'VT3&$ \N,FUL>;8 MF>VT&
[^>LYV&=G2#!UYBW_F^S_==?)>MI;K3%8 A#S47>A14QC1G8:B+"FJ] M3V0# D\64M74H*F6H6X4T-*!:A[&430,:\I$D&?.-U-Y)EO#F8"9(KJM:ZH>
MQ\#E>A0,@HWCFBTK8QUAGC5T"3=@;IN90BOL64I6@]!,"J)@,0K.!V>3U,:[ M@*\,UGIK3ZR2N91WUOA4CH+()@0<"F,9*"XKF #GE@C3N.\X@_Y*"]S>;]@_
M..VH94XU3"3_QDI3C8)W 2EA05MNKN7Z(W1ZWEJ^0G+MOF3M8T^3@!2M-K+N MP)A!S81?Z4-7ART \NP'Q!T@?@I(GP$D'2!Q0GUF3M:4&IG2JZ)LM'(9C>N M-@Z-:IBP?
_'&*#QEB#/Y3..:14%&2B_N6-?B+S#&YP@=T. 5#&=?DBBI% M;;F/R!MR>S,EAP='Y( P0;Y4LM4(U5EH,!O+&1;=S6-_<_S,S4-R*86I-+D0
M)92[^!!5]%+BC91Q_"+AYU:^RGGF=#^S;>PSW= "1@%VK@:U@B!__6HPC-[OD_V? MR':*D/9%2%]BSZ> I 6COF6Q K26RK"?SK%/N:<;.CH[@5;Y(!IFX6I;T)\Q
MP[0/\6F&6QU1@UJZ0:%)(5MA_(OJO?TL.GGV.'*#PUO&-FXOIM+@UWLMA7.65 V ,\74IJ-82_H)W?^"U!+ P04 M " "*2@U9Z1W**/T" "+" &0 'AL+W=OF\E.R$<5
VCRG/!439U8Z^S2=5480T+5A<@@ MQ9VUD G5.)4;5V42:&1!"7=]SQNX"66I$TSLVD(&$Y%KSE)82*+R)*'RY1JX MV$V=CK-?N&6;6)L%-YAD= -+T/?
90N+,K5@BED"JF$B)A/74N>I#23K]'4\8P@X!!JPT#Q;PLSX-P0H8RGDM.I'FF A^,]^V?K M';VLJ(*9X \LTO'4&3DD@C7-N;X5NR]0^ND;OE!P97_)KHSU"!+F2HND!*."
MA*7%/WTN\W Z/1. /P2X/\KH%L"NM9HH@*>/J'?E [I=S\]\3V_UP"?M,Z-IRDN5T1"F#G:= KD%)WC[IC/P/C;9_4]D M1^:[E?EN&WOP@%U<.&=IB"\?VZWQC18L
\MB#HUMT/']SL3='AJI!PV]*N1( M7J^2UVN5-\,%%E)N%88B5=BX+-TT*2R(^@#5P+K,=W>L%EAOU+8;U5X M YM27D8U)K Q>_VZ-E.Z1]KJ,3V_6=J@DC9HE;9O]2R784Q-
KV/_9Q(O!ZE? MK&1XREF&Q[5N$MU*WER6I*F\!_6DC\;-SH:5LV&K,WM>-6D>UI/X.L_UD/$) M-:-*S:A5S9W0I@3*;,/AP2KLP1J6!RO_>[ VB1_5>VPX>BV_'C2NE;![<%68
M:_H[E1N6*L)AC2CO8HCN97'U%1,M,GM[K(3&N\@.8_Q: &D"<'\MA-Y/S(54 M?7\$?P!02P,$% @ BDH-6;R8'^IQ!@ &2D !D !X;"]W;W)K&ULM9K;;MLX$(;O\Q2$>T +)+$.$/B5-
#*26A.TB601) MNWM1](*6:)NH)'I).JX7^_[E!39LF75WDYN$DGF?$/-S\-HP*NED-_5C#%- M?B1QJJY;,ZWGE^VV"FI MMH97V;-[.;P2"QWSE-
U+HA9)0N7J(XO%\KIEMYX?//#I3)L'[>'5G$[9()-? MYO<2[MHE)>()2Q47*9%L'F]3,]R%X>7F9,%1N)^"\>Z=EU:] B M$9O01:P?
Q/(W5KQ0U_!"$:OL+UD6;:T6"1=*BZ0PAAXD/,W_TQ]%(#8,;'>/ M@5,8.-L&W3T&;F'@;AMT]AAT"H/.EL'>=^@6!MU#/?0*@UX6^SQ86:0]JNGP
M2HHED:8UT,Q%)E=F#0'FJ1E9CUK"KQSL]/"13U,^X2%--;F92L9@U&A%WGE, M4QXK\@>5DAKQWY,S\N71(^]>OR>O"4_)YYE8*)I&ZJJMH2,&UPX+IZ/[_9OM=@WX8
E%%PGJ/PT6D$WM$5<0:GQ+&<3MWK-%O_MODC/B6OM-?<.-W?K@O%KWH/_[;T22K<<4&[&<_?P[J6(%J$FMYR.>JCD-V74+EE"%Y!-K#=^^LGO6 MASK5,&$>)LS'A
5(L(K:G5+M3A-]6"X9L)JK4/*YV2[JA&W$'"LL)LS#A/G- MT;I?2+6 E?9$"Z)GC#RR4*01N8$ 1B:(I]G3D4CF-%T16%O)B,]C2I9,,L)H M.(.]7,T%;.OCF!%(*TC/>I.UZUAO3K,?
6;93QZM3(B:;M+>O!H[=_Z"(>&)R M!BD("872ZL08FV8:T@4"YJ#D>%5KR))Y+%:,JCI9\C@F:D;A92E<":#("CGK M,FR0>E8$1L^H)J9]*C39=' *J1*$BZJL*\;.="L$06"KBTVD&)70 %
(RFO)_ MJ!FV8)30=#&!9&P[D8D[&[7V8I];R=< MJ]J#3]3;R=TG]CMO?"NDNR74[;MFH$JI^&:I^8Z@\#BN<@CEJYBLDGRN8B>2)
MQO71:V0=&SU,F(<)\_L[:CB]G0&.Y+&BVJ!4;="H6KX,&<_P)3 M;4R8APGS,6$!$JRBMFVM:P96 M*S,JS4.E^06M^Y-\!,MI5<.-NH_=O,^R"9,29)/[%SOMGR: VZ.^&XV%5@M_YA#
[9;^36H MWNXW9 W+W=PQJP%;ES_LYOK'+^UQGR!->1(A-37/6]C34O63;0VUI()*\U!I M/BHMP*)5Q\BZ[F/W7W);0ZT$H=(\5)J/2@NP:%71UV4CN[EN=-"VAEH.*FB5
MU=*JV=90*SV'.0VPG%;%6%=Q[,:RP?"645A:;Y3BTS1;IG<7[%I]4 LXJ#0/ ME>:CT@(L6O7$P[J(XU@ON-XZJ.4<5)J'2O-1:0$6K2KZNNKC_*SJ$\ILEO.4 M2'/HZDQ,SA9P3Y5BM:MO
=Q:I( MS";@RCKO0^HO\W-X^8T6\^S&ULO5?;;MLX$/T50ET4+9"U+KXEJ2T@<;IH%W$W]+?;AZ(/M#2V MB8BB2U)Q"^S'[Y"297FALG6@-
\Q*7$.YQS.C#B3G9#W:@.@R5>>Y6KJ;;3> M7OJ^2C; J>J)+>3X9B4DIQJG^5$0C'Q.6>[%$_OL3L834>B, MY7 GB2HXI_+;-61B-_5";__@/5MOM'G@QY,M7<,"](?
MG<297Z.DC$.NF,B) MA-74NPHO9^' &-@5_S#8]<:8&"I+(>[-Y&TZ]0+C$620: -!\>O6>QK YWJ/_8YD,Q%KC>*O,Y32%OL9V[[D1Z%J MM:*]6M>1$W!.OY%^>$:B( K;W'%;_UGD/=
(/K/G X4V_/KN^Q>M_!V]1+!5+ M&6;?6:F^6%4'^>D6EY*W&KCZW"9[B3MHQS65XU)M:0)3#TN# OD 7OS\63@* M7K61[@CL2()!+<' A1[O:2M#^XPD NM+"B9V;95)
&,X)3C6DN:*VM+1)DBY MR\CN8BK?0XQUT/Y-_(,%=\:Q$^%4!AV!'9$-@\.%(7BB2*Z .U*A*[1C&1KWIO"7?'FJ;9]? MGO&P]=/C=NBQA*,#X>BD,"?
_DJN_Y^2OU0HDR]?.\'=#GWSR':$="W&X=85/ M=>T*.[UW=85V+,/AYA7^FJM7^--W+[=#IQ+V&TT3![FVO:1"'D6NR_ZI?EKW MJU>V2_,/R\MF=T[EFN6*9+!"TZ
WQJ^++/O'GB2;*= /OQHR[Q46;KB!+D^$M\B?7R\$A\'QWI MZ&P3Q7\G"Z52\ACX87(^6*3I\LUPF$P7*G"3TVBI0OV?AR@.W%1_C.?#9!DK M=Y9O%/A#9EG.,'"]<#
YR[^[B2=GT2KUO5#=Q"19!8$;/UTJ/]J<#^C@^8LO MWGR19E\,)V=+=ZYN5?IU>1/K3\.MRLP+5)AX44AB]7 ^N*!O+N4HVR#_Q9^> MVB25]R2;RGT4_9U]>#\
['UA91,I7TS23W)6??HDVOZMR0B+3FT9^DO\EF^*W M.;ZV#\|)LK]RFL?ZOI[=+)[=Z-\]6OB+1_GFQK$;I@GYO$]3U UG
M7C@G/U^IU/7\Y)>S8:K'R[8:3DOMRT*;U6@[Y&,4IHN$O MG:O9R^Z&.P[VDJ&"'U;A*;&M$\(LQLF/9$B2A1NKI'Q!1K"WZ;#S$>RZ=&1"OU[JW3PC M;Z-'_N)FQ\]%UEJYDH?
CRFY?R+5W]VX3_G7%QLWGI'O?VA)\CY50?+7OI05 MX_/]XV=K\$VR=*?]?* 76:+BM1I,?OJ!.M9OR.SX=G8<4Y]\6@7W*LYV]6V1 MMZ]ZQ\3^4[:?GW?^R8N]?Q>EKK]O&L5
(A\H6_GKB8Z1$BI/2+92*1+6:!O6R#"L=X\JGGJ)(C>Q-U7DWXH-[(NSD!U5CU-^ M.A[O/TS'VVC&QM$LO;C8_769PJ6*3(DB4PZ2*6J!HUNOMC:C%94T* 3,4YTR?QC1J%R/
AQK1A]PM8H6?)N%"'9 MQ% 2=IT@8(SA&#/UI@:9:W6OUYK3[$T,Z,6,Z-7>FTK=JC?Q<:TW,> 40S'1 MSIL:M(I\T69O8D 9]FJ5$=LMC1QA679-!@$W#,=-C]94CF0:(@"(&0&(7$>K
MF7*?KN@42,7EL8T)1V'6"@#%F6BXU&!,N<[&:GQ)BE6!8RQ^RB5C)S)WBV5QI;D M-!MC8.&QZ=*9R)-,0*Y?UC/!#KKTU?LJ$ZW1[3A @QDTK)MR8&F3R=
<;L9E_BP"YN7CJU\J52U_",B5?N(IE>DC/PI08M M8U_B@!C>1Z%D=I=KMU"24EBL)H. &HZCID=?*DRQIHB2YK53*U\J=5^T,PFKOFE J7DJ]5+ MHF(L:M:5!,[(5ZN7\)'V'YD$V_6 )-
```

GQ@MX)N5+)-/:6V3=[8\:%\]MM M3\J-$^(^I#I/@>>K)(WT"G6G"T^M\P6-S0$H)LU:QS%SPR6ZKGT@F3QVY[@\ M2.MXI7?\U3K\Y"X'J651B]]MJ/-
+6]__;UU=E^NWW2Z:)XO@=^7CPF]=&-YUZ8$%\]Z$VMT^R0CHLGCXH/ M:;3,G_:YC](T"O*W"^7J&68_T/]_B*+T^4,VP/;YK\E_4$L#!!0 ( (I* M#5E,"J\XY0(_,X* 9 >&PO=V]R:W-
H965T!C=AK M(XVR8.Q>=Z[BJ>7HB""%2&H+K%YKF$&::B<5QT-E:M5K.N%^>^M^:> 5S (+ MF+'TCL0RF5HC"\6PQ$4J;]CF"U1_^T7L528)]J4F&V1NC5C2$
MZF.\E5Q])4HGPSO,.:92H/?G(#%)!?]N1_3>?D"?T%MD(Y%@#F)B2[6<%ME1 M97U66GO/6 ?HFE&9"'1!8X@/];8*LX[5V\9ZYK4:?BUH#_6=C\AS/+\AGMF_MY&D/.6Z3_""/7?
\;OME@(>"B 2G2QUL]?W]0,="4A$[^;MJNT\YOM M=+Z>B!Q',+540@K@:[#"=V_

Z['PT1HH 8,8[@$7A$ MQ/$YE^"EV\"XZ7ME'3H3>[U/T[K>*VD&-

\"A1-P%B2[2IR)HH!D\H M5_"^/SA":5WLE2A!C1+\W\%LCP/EG$301%,:C?9H?+_G>D$O0PAHJN>@8WU@\=P-A?J@=GO M+L@,QB_^+QZ8O#-+E"",(>$A31"#:
<\8X.L1[BB#;,67$%9\ZQHI*A-*G]3- MIZ!G6"HBB, 7"H+(OR6,((H4DHSC>P%JE#Z5X?;U&OUC1EZ2F1 .(QI]#0,Q M[QEM
P4P)6DD'NGJ#R@(-16>3R.>_:)5OM9K&LA/N:!Q82PCB,,D_R?/12*V M#&SO@(%=&-B[!H<\.(6!DQ'-(\MHW1!!^EU&5XBIU1)-762YR:PEFS!191P+
M)M^&TD[TQ[(O@C0"1*=H+*C_A.X767X'*K^A>$$7-R!(&/%+] %]'M^@BU\O MNZ:0KA6 Z1=NAKD;^X ;#]W11,PYNDT""&KL1WI[;&L 3,FY)&ZOB0]M+>*? M:=)
CG6%;,MVZP+2F]^_+\UQ9NYHPG'*.C@9GG, [WXZY2!$F,S0@,LKCK[] M)9>@3P)B_E]=PG,\MQY/3?\U7Q ?>H8<;PYL"4;_MU^P9_U>1_9,8!7];DG= MU:'WOV:C!@$:+
(')K0/=/@/S0P[H@84^7*'[5'!!DD FYPH-2402'^HRDKMI M9V[4]K7LNVX#VUUSN4U5&\R)5)LEU::6ZNWW5(U4,6+?[B">_*NMKA;GV.J> M":Q"V2LI>V=N;.^*JFWM-
7^.U7E53MK7G#^]E;.@9M;K>RXKF-Y M.[VL]7\BNW;)KOUSQK:]-[:VU>CLCJTVF!.I=DJJG>.H/H)22*JG1_*KQ*06 M24F$_@$6HXM_@3!^6:%?QUKOT4,O"@9AC.+\NR>_@
%YX74]KH=J%5!>B>36 M(%7R@JV->K"TX(/9C,&,"#G/,@^A5'<^^D*B%+05UX/6%Q/5BH83@%[M"KRE MG?"Q RZUY11"U2N4(7A>A*Q6[@P+Y.T)_^#8;:^ST_;Z"$YE:&\8VN\;\C?
S MM?>FO-G [5VVVFA.9;O18%BK<]ZS81?(E1T;8]=I[3*L65?=V:NQ;T04_DDJ M"N_+*-MN-/=*5;.LLFU7>6P4$M9+I!-WE!,D3OV.\GZ@*O&-3L):+5+7?$4)
MR22J)^WM]9)MXV9KKU0_0@3AC0K">AET7&>^QKFUWW:=AK4W9C]"&>&--,)' M;J.W"(;7F.M=KA5#L_S,-P*!CW4J=G9J"FL5R2:$7\M!UK@8\;\!*##&3"W
MSE]B8+/L6(HCGZ:)R(]BRJ?ET=<@._Q-\OS<[,[PF8R(RB"J32U&BTYW2P_MBLIO!%UDISD3*@2-L\LYD "86B#?3RD5ZQOEH#P0[/\/4$L#!!0 ( (I* M#5GF)LW&PO=V]R:W-
H965TLS1G4RWFO+C4=1;&D&%V1@K(Q9,5 MH1GF8DO7.BLHX$B1LE2W#&.D9SC)-6^BSJZI-R$;GB8Y7%/$-EF&Z=,<4K*; M;J:V/[A)UC&7![HW*?
:EL#OBFLJ=GJM$B49Y"PA.:*PFFHS\S(P#4E0B+\2 MV+'&&DE7[@EYD)LOT50SY(T@A9!+"2P^MK" -)5*XA[_5]):;5,2F^N]^D?E MO'#F'C-8D/3O).+Q5+O04
0KO$GY#=E]ALHA5^J%)&7J+]I56$-#X89QDE5D M<8,LR/>4E1>M$D!D15:<0F.A>WDMIZ M6-U@7M[ ->N$&-KHB.8\9"O((HAZ^?YP_.L+7133JD%C[D,RMHX)?-_D9LHT3
M9!F6TW.?Q>OI=I\[_\]Z\)^MMX)AU_5A*SW[I?J(,873N:J):_PD6@1';TIQ MO@:Y/MG71H1$]M$"%PG':?
(=HA,TR\A&H+_]*231%PX9^Z>O.DK[3K]]V2Q4"5<52WZ=@79/=#>PCP]_;.%.:28/Z18,)!8 M*S^C.C^CW]Q=1D,F<4@Q?TBQ8""Q5A+/ZR2>_Z+N4NJZS4(Q?U%\JX>8KQ;G3 M:3
]&',\ZK28/I#; 04](,&PO=V]R:W-H965T.QG2PM+ T",?&EM9V[YY[' M=[9OLN'B5J:("N[RC,FIDRI5G+JNC%+,B3SA!3+]9<5%3I2>BL25A4 26Z<\ M

$[&=8\8W4\=W[A<^T"159L&=30]2 MX#6JFV(A],QM4&*:(Y.4,Q"XFCIG_NG<[QD':_&1XD;NC<%(67)^:R:7\=3Q M#"/,,%(&@NB_-9YCEADDS>-
K#>HT,8WC_O@>_;45K\4LB<1SGGVBL4JGSLB! M&%>DS-0'OGF#M:"!P8MX)NTO;"K;X=B!J)2*Y[6S9I!35OV3NWHC]AR"0PY! M[1!8WE4@R_*"*#*;"+X!8:PUFAE8J=9;DZ/,9.5:"?
V5:C\UNU8\NCTVNF(X MY[E.MB1VNYY=H"(TD_">"$',UCV'(Z ,KFB6:0,Y<96.;U#

B\[:/8;FGV+WCN40J/W>/XPA6P;[<@6[M\MB$BAL_O M-"1<*LQEJ[K^(Z@;-.H&G4FPK*$JT&A?'=FI>P&L-*D!OJJS#Z14*1?TVZ]U M5@FJ0@YL2'-OK6&XW;.PX;SL)/S.TQ(5-?&
[\N\$^LO"V'4,!W]YS(?/8*Z<:-N_]JAU@= MO#!?).A'5BK"8LJ2NJK:5(T?UGI[R?C>[LWPNLF:1Z/>U-_63#?67VZKO_>^ M^?
^Y;&H"_UA@L!,8=";CA@F,>,+,70=R[SG_J8SPSHSU;?,=CEI%5$%,LIHZ M\4X&!RIE]X+ZW4_H)]L587Q,UBATEP<%"LIC<_N5?\*[E7)W:!^V2 0,(:^:
MCA!BLFUM"]R]]BE'D=@F46H>)5-5)]6L-HWH6=5^[2.L6^Z\5>QL1P](*@@EYH!J\4."]BRZBLI9+FQ8@L5L,-M)3^RXY\PZ%EIOIQ5HOM'QQX;A1;*6R%9
M/02K$=2$]D]\/_AP$J!XS '>$.!- Z)' OPAP']JAF (")Z:834$=-+M7GMG M7(HE3M:<'1'7:,6F7SKWNVCE%Z%ZG=Q*KKX2%2>36[7PBK8"Q'9HR^J&4:!2 MZ-9[4/ZC[%ZM2
$"O4Q!8E*)5^@-^GR;HI2^^@#H[(4**,%%(;X=#D^7(BWE1&C&]Z#&]?>(N'?+;U OO,: M>8X7&,:S?7JX;Y+S:]FSG\Y^9H8_+@V_X_,?X>L70,Z$-,UL'QN88_7N=B4: MG,/&4MN7 'X
*_G]-S=T_C#9^IQDZ7.29<]$=C8!P3@!P1)[\H[<0X&JQ6GH M&<*.09\)A\2+W+5]."5WC@G<^!R3SC%A-,%D)]4>(7S F^ M4]O/LLJ>9'62V76"B4H#)IRJG&,\)YRH-
&!BUZPR"%6&BRH_,8FK_Y$8SM+Z MT6HB<8Y9Q9/AIW-,'$^LRN88UXDBL\9HU!@M:MQB4:(&DP*IX@7AFK7Z'"$T MKUJU-^N#0I:
:N5!RT$5&E*?,;TEE5H"I"*2@/$,B6;+SO>\B3-S3.!/,.D< M$ZZBB3-S3!SZ9F/BT9AXT9BO7:T"Q1M\ *Y*+U5=Z?J-T/T@7P*OU:&J2C^. MY=AMM&(Y4X0*_-
T4MUV.\U#='Z.N]QA#^I.9LU_)?&;WY6CWY8_971"1Z\6( ME+OP1)\74YAW?63RO>=QW9/UY%PX<>"<_B;;=?I,R;,?3-Z[;9^4DC7P?5?# M"]0YV)<.8^]X37C;5<>3_FOW:NL:^E-
UK>AO ?_1]W>2#YCO"15J6G8JE7,1 MJ0V*]W5^WY"LZ0K9.R956=R]ENIJ!%P#U/<=8_*AH1.,EZWD7U!+ P04 M" "*2@U9,B33[K," 6"0 &0 'AL+W=O:DH87 KD"SS'(OG*Z!\,W%Z
MSLO '5EER@RX\;C *YB#>BANA>ZYC4M*.9Q(""HDR#EC_K6$*E!HCG<;OVM-I0AKA=OO%_:MEURP+ M+&'*Z2^2JFSB1 Y*88E+JN[XYAO4/ /CEW J[2_:5'/#"P!]PGYGM]OD4^[
MY3-(M+QGY<%KN:LKT93#;\KA6[]@AY^%;L6H=/UVG3EK(UG@!":/DP2Q!J< M^.2H-_0NVZ#^D]DKQ*!!#+K<8U-
H=!JB%#_+LS;22CZTZXP1=3NS@(_ZS>*:EVPRF70A=$9Z$",08,QZ,2X!BE'^O H MT-ZJ#:!3WYX=:MML!_CLI1PVE,,/+Q;]^RHPQWN7Z_.6 >2A U)N&>]WC"@
MDZ/([_F72&9<**37,6_#"O=CA>\.7-^_:.:\RC9JLHT.S)9RMMJ9;*?I/VRY MZ!U1%/CA&R1WZ]8R7PPW6*P(DWJW++7,.P]UT41U"U<=Q0M[D2VXTM>B;6;Z MPP6$F:"?+SE7+QUS-
S:?0O$?4$L#!!0 ( (I*#5FGN%=\>P0 L7 9 M >&PO=V]R:W-H965TRCV0,MGBZ@D:B0=)T#_^!TI1;$Z1XD' GU)1)GW MX?&^Y(G'V5;(+RI#U'!7Y*4Z\S*MJU/?5VF&!5-
#46%)OZR$+)BFIES[JI+( MEM:HR/TH"$[\@O'2F_LNVLYGXF-SGF)UQ+4IBB8O+_7&S/O-![>'#UYDV M+_SYK&)K_(CZ4W4MJ>6WE"4OL%1:=AZ=).#(&ML>?'+=JYQG,5!9" M?
#&-]\LS+S >88ZI-@A&_V[Q$O/?'^@_V\G39!9,X:7( M_^)+G9UY4P^6N&*;7-^([2_83.C8\%*1*_L7MDW?P(-TH[0H&F/RH.!E_9_= M-8'8,8C")PRBQB#ZQN#)$4:-P>C;$:(G#,:-P?
BE!L>-@9VZ7_=!BYFFLUG M4FQ!FMY$,P\V^M::XL5+LU_^:DF_*[@-R8E,]J]@2/@ M)5SQ/"=!UBU)F"I%SBLFOODY>MJ]&#JQ=1+_"* MW4,T'4
41&/X]#&&UT=O]KAUV4_YE95#""86$\%*__A#.)G^M&]ZSWDCAS * MGW4G><:=#;DS"OHPG6"-6EU'ECONTQ7.UQ*1MK6&SU=8+%#^OPQ!&L(\>XE6-LZ:,GY*_\EK.%]+<6 MG-
,>*]>U,*Q<=MJ_ZPPEZ(R5T#7Z_(&8\%YCH?:J.':IHDM8[!*6.()U5#QN M53SNW50WJ+3DJ<8EI$QE^U3H!1RJ@DM8[!*6U+ PL#1S&+F=A\/QS+_=$]V3 M-KHG_RMEP5?:"0N6:
[B6HDI%;R[K'>+0^+N$Q2YAB2-81Z=)]]/D>^>RB4L5 M7<)BE[#$$:RCXK15<=J[V\ZIK "Q@MR(]K7O('31"SI4C1IVO),XJ*8)@C9U MU&%V.63B"-8)\[LVS.^>26I*(0Z
*CNS]LLUY";-#:B84:GDE:F6]L6\EWIH MS/M=M Y!)<4M)Z> BD];>KV29@O3"CD*AB&5'K8. )H&%.9:BQ9F>+@E5F=PJ:1QPCB'97)IFIA597SE!F6%I1GL [NDB:#!:<>
MPWU;V&5H$T>PSMH*@\?B+>B5[KJ60#6A+/6^I=3/.'0M.:7%#:USD*#EULT& MB:LQNU'>*9'#EQQ,E.+KTJ[XEY55_=2#X^Z2%CNE):YH77VB1WVB[WT@:3QP
MI:5+6NR4EKBB=;5\O+8(^^\M8DREW6[T&9'FDN^M6+W=4)O1=W1_>AO]-X5, M=VJ1)N1.[R6WU- M3-_Q-2\5?5579!H,)W1LD_7-:]W0HK)7BPNAM2CL8X9LB=)TH-
]70NB'AAF@ MO?^>_PM02P,$% @ BDH-68/$A+6" @ M@< !D !X;"]W;W)K&ULK55M;],P$/XK5IC0)L&<)FE!)8VT-D4;TM"T%_B M^. FU\::8P?;:U4 :+0M&5<3K]"Z
M&F.LL@)*HDY%!=R<+(4LB39;N<*JDD!R!RH9#GQ_A$M"N9?$SG8EDUC4FE$. M5Q*INBR)_#T%)C83;^#M#-=T56AKP$EVMD(UD(<6\W%_G$\^V%@$&F+0,QGS7,@#%+9*
[Q]^7T M.DD+W%_OV#^[V$TL"Z)@)MAWFNMBXGWT4 Y+4C-]+3;GT,8SM'R98,K]HDWC M.S3.6:VT*%NPN4%)>?,EVS8/>P##TP\(6D#P&! ] 0A;0/A2A:@%1"]5&+8
M%SIN8G>)2XDF22S%!DGK;=CLPF7?H4V^*+?OY$9+ )>H_N;E)T?'2"CA#EZ+80M2(\5S'61MZ2X*R5FC92P1-2 M(;H47!<*S7D.>0\^/8P?'["+?1H<)/Q2\U,4^N]0X =1SWUF+X>'
M?>'\G_K\G]4?)"/L'D+H^,)G'P)*J+'>+V?W6<]TF<]YH<\FN#P7B,J0:[A&=?('4$L#!!0 ( (I*#5E9$P8+ M00, "4, 9 >&PO=V]R:W-H965T@#(UU;1$12(RD[^_>]I&35]A1C 8RB
M+Y9(WGMXSN&E<#W=2O6D"P!#GGDI],PKC*FN?%]G!7"J+V4% E=64G%J<*C6 MOJX4T-PE\=*/@F#H<\J$ET[=W$*E4UF;D@E8**)KSJGZ]P9*N9UYH;>;^,S6 MA;$3?
CJMZ!J68/ZJ%@I'?H>2,PY",RF(@M7,NPZOYF%@$US$WPRV>N^=6"F/ M4C[9P8=\Y@66$920&0M!\;&!.92E14(>_[2@7K>G3=Q_WZ'_[L2CF$>J82[+ M!Y:;8N:-
/9+#BM:E^2RW[Z$5-+!XF2RU^R7;-C;P2%9K(WF;C PX$\V3/K=& M["4@3G]"U"9$QPG)"PEQFQ [H0TS)^N6&II.E=P29:,1S;XX;UPVJF""N/2 M*%QEF&?2)=9%7I=
Y(K,):]J0YV].+P6AEWRE,H/O/_GQZ?H!-WAL<.+WX!S[J: M[TQ=0E8K9ACZ>/>6LKDRSWP1U"]9WD2^K5G M>2:P Q>&G0O#GZ+XA^&PO=V]R:W-
H965TMM&36A7I#3:&190$D!8VZW1&5C.Q*JW@.$ E/K&9@;*KQ! M(3R1D_&TXR1M20\\G._9/P;OSLN*&;Q1X@?/['9"WA'(<,U*81>J_H0[/T// MERIAPA?]J)G<4$4A+8Y7<@9T"R?-
F9,^[^Y^RM-KMSR;)<&7PJ,;?PH7)? Y>W:!D7!KXRK9D_MLRNX )[#C OA#M+$U+K"'D[379%I4R0Z4>1S*3K0&[Z!J!L-X'YY"Y<75W_2 M4*>[%1^UXJ/ .SC!NV L@R56]%F>(EQO-
*+T5AYF*%>H?\(O^-M@NW?,QMER MOC_&IF I3HAK (.Z0I*\]?M4;==^?,=-OS?0#>_\]?_P0\]?'$9<&=1FJ-B^_]! M[* 5.SA[\M]0N\O(;-.:@EG,H&
O_O"/WH^&;138_#M1);V85H<"Z,$=]L_! MC.D-SPT(7#M,M_-V2$ W+=8$5A7A6J^4=4T2IEOW*J'V"6Y_K93=![Y3VG[FC)EH60I9#\GN*_.US M/B3=]#V)/-
U8Y6Q('L[>_E@H<_TF\O>3=RAC]<^08]=4NM9M^:HE\X"D6UC](T3.",.(LH,?*WT@"PP7'3;U' M@T+)3=D3XAV6G98L>]1B2,94\(GF$%70DHN5=_? ,55"ZL+9 (!>B%=@CWC$:5-
08IN6--=QDYWP"1)=D$N)M-,E$Z9[I-TR5KUV@@6 %R-)_-X6Y4%0-HC"KM(.=T MIB1U&M81S<#23ID0=_">YNV]R+> MJ.*/RGQ:V.5(9T.CL5O-"KYT]K)H!6#L79R=5I58?
11\)DOF%W]PPM& KN.B MN=+\E\T&K3*U#J9)],BTX=-MST]-JWNV-.MV6A:XYMX1:OZ[^SQCDFDJMD7; MWG_-
N_QBQ<(QF;W"*\VR)$E3;$?'XZ"",;9O:0H_839,&T1@>2#3G^TU7FV\0Y[O M ZRFSW4(ME*\$[&5XGL-2'C?("++PM7&\D $5@6L=R!_._T5#@F2:"JF#;L M"
<:1+,,0Z,5PCZ8ILCLI?,+UP9Z2),FR, )86$&28 @\C3B"*0 -&)(D[CVX M]SZ*U^^I>//?L]%O4$L#!!0 ( (I*#5F7BKL

-8?20$3; M8T.P6BP^0"X99K>]9!:G

BP9VUL(WW8M)N):RW(RFT!?%-/LNGT>-)( MI9-/'W=]+>P$;Q@/I5=&A\;8\$7!G7O:'S?%K7)]I6KE'V9)_[^&1#1*JT8]
M0C5+IHEP6W/WE['JT6@OZV5I35W/DG38\06L5^6SYF6$O)8KU[=XN?I'!I!9 MJQ+.3-DUH/T01PMU!-1NJUJ7""T;F"6GYA9LO)]P@8MJN#-QHFAG:E6%JU?B=UE+78+H0^@08$8
9J\&*-XL)(+,"X(19BWD[&NJ"@"Q>#7+I38D@CPC(HU>#/)5NBR"/"U[(A856]D]< MWX=.'#@A=27F?@M6G'86SY(/!.0';LAPMO4//=SYMTZU\81?Q!5XG+&G5,J> M\B*&4;4=_$P<4]
(LS&H9/8@;"\-,QG245E)VKS2-T7WFN\%,E$529HU\E=;* MO1A1PDB9C=$'Y]>5=.%A"_&*3]M^SDLI5Z3LLF@:Y0=!Q#D0Y.'#F@YTJ6 4
M1,H5*;,L+B'$;T1#>2)E%L6%+DT#XEK>CYDH+:3,7@BI55P:Y\0B9+#E5EK M9)0+4F89++N5@V]=.$BLB8]4!Z?QQ-RAH9LS5V%HNA"U=V;S$8I8N,61<_TMG_H!B3
M$D;V(L(X&#W*'!FS.9YGZ8.(E$@R9I'063"F)15,FZKA#ZJKH;(>2!#XI(& MY9B/DW,9!@_Y=B_/.!R!=J=&@4\;) MF8WS9.QGD<2Y/:?TDW-7N% HAV&?
M[V\/\D%^2.&NB^T]EIT?)D]4^[C:7E#V*;CMLU^] M&(<48U+V*7K[3':?12M8*PW55;B$"^VEK,N%%?%GJ.D61[%DL^[J^C2TS?6E MD=7N*^ON"_&G_P!02P,$% @ BDH-6?
TLU:6N 0 P1L !H !X;"]? M/L@*.!8*=*@/96UMCS^&W^RUK.O4)7I4)_C_M#$WN54G>.\ MV*?4?#@7U_MP*F._;L+Y=F5;MZZ M-N$_$^OM]K .G_7Z^Q3.Z8_![J=NCW$?
0BIZ][+=A30OW*5ZGH[N?I#^;7+1 M6V[F1;O<2.%R!RD$:?X@@R#+'^0AR.BOJK01Z*^JM M!'HKZJT$>BOJK01Z*^JM!'H;ZFT$>AOJ;01Z&^IM!'I;9[.$0&]#O8U ;T.] MC4!O0[V-
0&]#O8U ;T.]C4!O0[V-0&^/>GL"O3WJ[0GT]JBW)]#;H]Z>0&_? MV>PFT-NCWIY ;X]Z^W?J'=.U"O'9\UCC\]])=;K=&YZ/OR]\?)SOO^!UG!W_L M%K]02P,$% @ BDH-62;ZAZ>U 0
W!L !, !;0V]N=&5N=%]4>7!E M&ULS9G-;L(P$(1?!>6*B+&=TA\!E[;7ED-?P$TV)"*")+=M0>/LZX4=J M1:,B*G4NL1+OSHR]TG?)]&UGR
VV==6X651X;QX8#QAJ6X\-7[D6XUH/GVB7*TK/WC>AL^NU,TLLE2Y:/"X+VR] M9I$RIBI3Y<,^VS39-Y?1P2$.G5V-*TKCAJ$@8F<=VIV?#0Y]KQNRMLQHL%#6
MOZ@Z5+%MQ9S?5>3B?HDS&76>EREE.EW7H25VQI+*7$'DZRK>BP[[G7VX8=H_ M^=7^G4R?8:A<6&U)_?7_IG:-:U4V1W_6_=2;?P)02P$"% ,4 M " "*2@U9!T%-8H$ "Q $ @ $
9&]C4')O M<',O87!P+GAM;%!+ 0(4 Q0 ( (I*#5F$U!.![0 "L" 1 M " :\ !D;V-0&UL4$L! A0#% @ BDH-64_.>CJ5!@ 7B8 !@ ("! M# @ 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @
MBDH-61-VE-M/!0 #Q@ !@ ("!"1@ 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH-670BGOA! P 2 < !D ("! MGST 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% M @ BDH-
6=>E(/.,! J0D !D ("!75, 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH-65NN/Q&Q P X @ !D M ("!KVP 'AL+W=O&PO=V]R M:W-H965T&UL M4$L! A0#% @ BDH-
692_2]N> @ ,@8 !D ("!AX M 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ MBDH-67 O6[0B P 8 < !D ("!6XD 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH-69OQ; H( P
MV 8 !D ("!@90 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH-6?:^A^O? P Z!4 !D M ("!KIX 'AL+W=O&PO=V]R:W-H M965T&UL4$L! M A0#% @ BDH-6;R8'^IQ!@ &2D
!D ("!F*@ 'AL M+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH- M64P*KSCE @ S@H !D ("!=;H 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH-6;4!]T5> P J@L M !D
("!UL4 'AL+W=O&PO=V]R:W-H965T&UL4$L! A0#% @ BDH-6:>X5WQ[! "Q< !D M ("!,M 'AL+W=O&PO=V]R:W-H965T M&UL4$L! A0# M% @ BDH-
69&I)&PO7W)E;',O=V]R:V)O;VLN>&UL+G)E;'-0 M2P$"% ,4 " "*2@U9)O]'I[4! #<&P $P @ '=YP I6T-O;G1E;G1?5'EP97-=+GAM;%!+!08 -@ V +$. ##Z0 ! end XML 61 Show.js
IDEA: XBRL DOCUMENT // Edgar(tm) Renderer was created by staff of the U.S. Securities and Exchange Commission. Data and content created by government employees
within the scope of their employment are not subject to domestic copyright protection. 17 U.S.C. 105. var Show={};Show.LastAR=null,Show.showAR=function(a,r,w)
{if(Show.LastAR)Show.hideAR();var e=a;while(e&&e.nodeName!='TABLE')e=e.nextSibling;if(!e||e.nodeName!='TABLE'){var ref=((window)?
w.document:document).getElementById(r);if(ref){e=ref.cloneNode(!0); e.removeAttribute('id');a.parentNode.appendChild(e)}}
if(e)e.style.display='block';Show.LastAR=e};Show.hideAR=function(){Show.LastAR.style.display='none'};Show.toggleNext=function(a){var
e=a;while(e.nodeName!='DIV')e=e.nextSibling;if(!e.style){}else if(!e.style.display){}else{var d,p_;if(e.style.display=='none'){d='block';p='-'}else{d='none';p='+'}
e.style.display=d;if(a.textContent){a.textContent=p+a.textContent.substring(1)}else{a.innerText=p+a.innerText.substring(1)}}} XML 62 report.css IDEA: XBRL DOCUMENT
/* Updated 2009-11-04 */ /* v2.2.0.24 */ /* DefRef Styles */ .report table.authRefData{ background-color: #def; border: 2px solid #2F4497; font-size: 1em; position: absolute; }
.report table.authRefData a { display: block; font-weight: bold; } .report table.authRefData p { margin-top: 0px; } .report table.authRefData .hide { background-color:
#2F4497; padding: 1px 3px 0px 0px; text-align: right; } .report table.authRefData .hide a:hover { background-color: #2F4497; } .report table.authRefData .body { height:
150px; overflow: auto; width: 400px; } .report table.authRefData table{ font-size: 1em; } /* Report Styles */ .pl a, .pl a:visited { color: black; text-decoration: none; } /* table */
.report { background-color: white; border: 2px solid #acf; clear: both; color: black; font: normal 8pt Helvetica, Arial, san-serif; margin-bottom: 2em; } .report hr { border: 1px
solid #acf; } /* Top labels */ .report th { background-color: #acf; color: black; font-weight: bold; text-align: center; } .report th.void { background-color: transparent; color:
#000000; font: bold 10pt Helvetica, Arial, san-serif; text-align: left; } .report .pl { text-align: left; vertical-align: top; white-space: normal; width: 200px; white-space: normal; /*
word-wrap: break-word; */ } .report td.pl a.a { cursor: pointer; display: block; width: 200px; overflow: hidden; } .report td.pl div.a { width: 200px; } .report td.pl a:hover {
background-color: #ffc; } /* Header rows... */ .report tr.rh { background-color: #acf; color: black; font-weight: bold; } /* Calendars... */ .report .rc { background-color: #f0f0f0;
} /* Even rows... */ .report .re, .report .reu { background-color: #def; } .report .reu td { border-bottom: 1px solid black; } /* Odd rows... */ .report .ro, .report .rou { background-
color: white; } .report .rou td { border-bottom: 1px solid black; } .report .rou table td, .report .reu table td { border-bottom: 0px solid black; } /* styles for footnote marker */

.report .fn { white-space: nowrap; } /* styles for numeric types */ .report .num, .report .nump { text-align: right; white-space: nowrap; } .report .nump { padding-left: 2em; }
.report .nump { padding: 0px 0.4em 0px 2em; } /* styles for text types */ .report .text { text-align: left; white-space: normal; } .report .text .big { margin-bottom: 1em; width:
17em; } .report .text .more { display: none; } .report .text .note { font-style: italic; font-weight: bold; } .report .text .small { width: 10em; } .report sup { font-style: italic; }
.report .outerFootnotes { font-size: 1em; } XML 64 FilingSummary.xml IDEA: XBRL DOCUMENT 3.24.2.u1 html1321901false480false5 falsefalseR1.htm00000001 - Document -
CoverSheethttp://pulmatrix.com/role/CoverCoverCover1 falsefalseR2.htm00000002 - Statement - Consolidated Balance
SheetsSheethttp://pulmatrix.com/role/BalanceSheetsConsolidated Balance SheetsStatements2 falsefalseR3.htm00000003 - Statement - Consolidated Balance Sheets
(Parenthetical)Sheethttp://pulmatrix.com/role/BalanceSheetsParentheticalConsolidated Balance Sheets (Parenthetical)Statements3 falsefalseR4.htm00000004 - Statement -
Consolidated Statements of Operations (Unaudited)Sheethttp://pulmatrix.com/role/StatementsOfOperationsConsolidated Statements of Operations (Unaudited)Statements4
falsefalseR5.htm00000005 - Statement - Consolidated Statements of Stockholders' Equity
(Unaudited)Sheethttp://pulmatrix.com/role/StatementsOfStockholdersEquityConsolidated Statements of Stockholders' Equity (Unaudited)Statements5
falsefalseR6.htm00000006 - Statement - Consolidated Statements of Cash Flows (Unaudited)Sheethttp://pulmatrix.com/role/StatementsOfCashFlowsConsolidated Statements
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Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer)." } } }, "auth_ref": [ "r37" ] }, "PULM_AccruedPurchasesOfPropertyAndEquipment": { "xbrltype": "monetaryItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "AccruedPurchasesOfPropertyAndEquipment", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/ScheduleOfAccruedExpensesAndOtherCurrentLiabilitiesDetails": { "parentTag": "us-gaap_AccruedLiabilitiesAndOtherLiabilities", "weight": 1.0, "order": 4.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfAccruedExpensesAndOtherCurrentLiabilitiesDetails" ], "lang": { "en-us": { "role": { "label": "Accrued purchases of property and equipment", "documentation": "Accrued purchases of property and equipment." } } }, "auth_ref": [] }, "us-gaap_AccumulatedDepreciationDepletionAndAmortizationPropertyPlantAndEquipment": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccumulatedDepreciationDepletionAndAmortizationPropertyPlantAndEquipment", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails": { "parentTag": "us-gaap_PropertyPlantAndEquipmentNet", "weight": -1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails" ], "lang": { "en-us": { "role": { "negatedLabel": "Less accumulated depreciation and amortization", "label": "Accumulated Depreciation, Depletion and Amortization, Property, Plant, and Equipment", "documentation": "Amount of accumulated depreciation, depletion and amortization for physical assets used in the normal conduct of business to produce goods and services." } } }, "auth_ref": [ "r22", "r98", "r325" ] }, "us-gaap_AdditionalPaidInCapital": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdditionalPaidInCapital", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_StockholdersEquity", "weight": 1.0, "order": 3.0 } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets" ], "lang": { "en-us": { "role": { "label": "Additional paid-in capital", "documentation": "Amount of excess of issue price over par or stated value of stock and from other transaction involving stock or stockholder. 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Excludes amount capitalized." } } }, "auth_ref": [ "r233", "r238" ] }, "dei_AmendmentDescription": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "AmendmentDescription", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Amendment Description", "documentation": "Description of changes contained within amended document." } } }, "auth_ref": [] }, "dei_AmendmentFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "AmendmentFlag", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Amendment Flag", "documentation": "Boolean flag that is true when the XBRL content amends previously-filed or accepted submission." } } }, "auth_ref": [] }, "dei_AnnualInformationForm": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "AnnualInformationForm", "presentation": [

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"http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Audited Annual Financial Statements", "documentation": "Boolean flag with value true on a form if it is an annual report containing audited financial statements." } } }, "auth_ref": [ "r504" ] }, "us-gaap_AwardTypeAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AwardTypeAxis", "presentation": [ "http://pulmatrix.com/role/ScheduleOfWarrantsOutstandingDetails" ], "lang": { "en-us": { "role": { "label": "Award Type [Axis]", "documentation": "Information by type of award under share-based payment arrangement." } } }, "auth_ref": [ "r207", "r208", "r209", "r210", "r211", "r212", "r213", "r214", "r215", "r216", "r217", "r218", "r219", "r220", "r221", "r222", "r223", "r224", "r225", "r226", "r227", "r228", "r229", "r230", "r231", "r232" ] }, "us-gaap_BasisOfAccountingPolicyPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", 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Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation." } } }, "auth_ref": [ "r11", "r96", "r447" ] }, "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations", "crdr": "debit", "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "periodStartLabel": "Cash, cash equivalents and restricted cash \u2014 beginning of period", "periodEndLabel": "Total cash, cash equivalents and restricted cash", "label": "Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Including Disposal Group and Discontinued Operations", "documentation": "Amount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including, but not limited to, disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": [ "r11", "r57", "r112" ] }, "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/StatementsOfCashFlows": { "parentTag": null, "weight": null, "order": null, "root": true } }, "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "totalLabel": "Net decrease in cash, cash equivalents and restricted cash", "label": "Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Period Increase (Decrease), Including Exchange Rate Effect", "documentation": "Amount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": [ "r0", "r57" ] }, "PULM_CiplaAgreementMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "CiplaAgreementMember", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Cipla Agreement [Member]", "documentation": "Cipla Agreement [Member]" } } }, "auth_ref": [] }, "PULM_CiplaTechnologiesLlcMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "CiplaTechnologiesLlcMember", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Cipla Technologies LLC [Member]", "documentation": "Cipla Technologies LLC [Member]" } } }, "auth_ref": [] }, "dei_CityAreaCode": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "CityAreaCode", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "City Area Code", "documentation": "Area code of city" } } }, "auth_ref": [] }, "us-gaap_ClassOfStockDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ClassOfStockDomain", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "documentation": "Share of stock differentiated by the voting rights the holder receives. Examples include, but are not limited to, common stock, redeemable preferred stock, nonredeemable preferred stock, and convertible stock." } } }, "auth_ref": [ "r91", "r101", "r102", "r103", "r115", "r134", "r135", "r137", "r139", "r146", "r147", "r160", "r173", "r175", "r176", "r177", "r180", "r181", "r183", "r184", "r186", "r189", "r195", "r282", "r352", "r353", "r354", "r355", "r358", "r359", "r360", "r361", "r362", "r363", "r364", "r365", "r366", "r367", "r368", "r369", "r381", "r402", "r420", "r434", "r435", "r436", "r437", "r438", "r511", "r524", "r530" ] }, "us-gaap_ClassOfWarrantOrRighstDateFromWhichWarrantsOrRightsExercisable": { "xbrltype": "dateItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ClassOfWarrantOrRighstDateFromWhichWarrantsOrRightsExercisable", "presentation": [ "http://pulmatrix.com/role/ScheduleOfWarrantsOutstandingDetails" ], "lang": { "en-us": { "role": { "label": "Warrants, Issue Date", "documentation": "Date the warrants or rights are exercisable, in YYYY-MM-DD format." } } }, "auth_ref": [ "r196" ] }, "us-gaap_ClassOfWarrantOrRightExercisePriceOfWarrantsOrRights1": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ClassOfWarrantOrRightExercisePriceOfWarrantsOrRights1", "presentation": [ "http://pulmatrix.com/role/ScheduleOfWarrantsOutstandingDetails" ], "lang": { "en-us": { "role": { "label": "Warrants, Exercise Price", "documentation": "Exercise price per share or per unit of warrants or rights outstanding." } } }, "auth_ref": [ "r196" ] }, "us-gaap_ClassOfWarrantOrRightOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ClassOfWarrantOrRightOutstanding", "presentation": [ "http://pulmatrix.com/role/ScheduleOfWarrantsOutstandingDetails", "http://pulmatrix.com/role/WarrantsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Number of Shares Underlying Warrants, Outstanding Total", "verboseLabel": "Purchase of warrants", "documentation": "Number of warrants or rights outstanding." } } }, "auth_ref": [] }, "PULM_CobaltPropcoMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "CobaltPropcoMember", "presentation": [ "http://pulmatrix.com/role/LeasesDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Cobalt Propco [Member]", "documentation": "Cobalt Propco [Member]" } } }, "auth_ref": [] }, "us-gaap_CollaborativeArrangementsAndNoncollaborativeArrangementTransactionsLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CollaborativeArrangementsAndNoncollaborativeArrangementTransactionsLineItems", "presentation": [ "http://pulmatrix.com/role/LeasesDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Collaborative Arrangement and Arrangement Other than Collaborative [Line Items]", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": [ "r263" ] }, "PULM_CommissionPercentage": { "xbrltype": "percentItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "CommissionPercentage", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Commission percentage", "documentation": "Commission percentage." } } }, "auth_ref": [] }, "us-gaap_CommitmentsAndContingencies": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommitmentsAndContingencies", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_LiabilitiesAndStockholdersEquity", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets" ], "lang": { "en-us": { "role": { "label": "Commitments and contingencies (Note 10)", "documentation": "Represents the caption on the face of the balance sheet to indicate that the entity has entered into (1) purchase or supply arrangements that will require expending a portion of its resources to meet the terms thereof, and (2) is exposed to potential losses or, less frequently, gains, arising from (a) possible claims against a company's resources due to future performance under contract terms, and (b) possible losses or likely gains from uncertainties that will ultimately be resolved when one or more future events that are deemed likely to occur do occur or fail to occur." } } }, "auth_ref": [ "r41", "r73", "r320", "r380" ] }, "us-gaap_CommitmentsAndContingenciesDisclosureAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommitmentsAndContingenciesDisclosureAbstract", "lang": { "en-us": { "role": { "label": "Commitments and Contingencies Disclosure [Abstract]" } } }, "auth_ref": [] }, "us-gaap_CommitmentsAndContingenciesDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommitmentsAndContingenciesDisclosureTextBlock", "presentation": [ "http://pulmatrix.com/role/CommitmentsAndContingencies" ], "lang": { "en-us": { "role": { "label": "Commitments and Contingencies", "documentation": "The entire disclosure for commitments and contingencies." } } }, "auth_ref": [ "r65", "r167", "r168", "r441", "r539", "r541" ] }, "us-gaap_CommitmentsDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommitmentsDisclosureTextBlock", "presentation": [ "http://pulmatrix.com/role/SignificantAgreements" ], "lang": { "en-us": { "role": { "label": "Significant Agreements", "documentation": "The entire disclosure for significant arrangements with third parties, which includes operating lease arrangements and arrangements in which the entity has agreed to expend funds to procure goods or services, or has agreed to commit resources to supply goods or services, and operating lease arrangements. Descriptions may include identification of the specific goods and services, period of time covered, minimum quantities and amounts, and cancellation rights." } } }, "auth_ref": [ "r65" ] }, "us-gaap_CommonStockMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockMember", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative", "http://pulmatrix.com/role/StatementsOfStockholdersEquity" ], "lang": { "en-us": { "role": { "label": "Common Stock [Member]", "documentation": "Stock that is subordinate to all other stock of the issuer." } } }, "auth_ref": [ "r478", "r479", "r480", "r482", "r483", "r484", "r485", "r526", "r527", "r529", "r578", "r635", "r637" ] }, "us-gaap_CommonStockParOrStatedValuePerShare": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockParOrStatedValuePerShare", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Common stock, par value", "documentation": "Face amount or stated value per share of common stock." } } }, "auth_ref": [ "r44" ] }, "us-gaap_CommonStockSharesAuthorized": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockSharesAuthorized", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Common stock, shares authorized", "documentation": "The maximum number of common shares permitted to be issued by an entity's charter and bylaws." } } }, "auth_ref": [ "r44", "r381" ] }, "us-gaap_CommonStockSharesIssued": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockSharesIssued", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Common stock, shares issued", "documentation": "Total number of common shares of an entity that have been sold or granted to shareholders (includes common shares that were issued, repurchased and remain in the treasury). These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury." } } }, "auth_ref": [ "r44" ] }, "us-gaap_CommonStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockSharesOutstanding", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Common stock, shares outstanding", "documentation": "Number of shares of common stock outstanding. Common stock represent the ownership interest in a corporation." } } }, "auth_ref": [ "r6", "r44", "r381", "r399", "r637", "r638" ] }, "us-gaap_CommonStockValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockValue", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_StockholdersEquity", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets" ], "lang": { "en-us": { "role": { "label": "Common stock, $0.0001 par value \u2014 200,000,000 shares authorized; 3,652,285 shares issued and outstanding at June 30, 2024 and December 31, 2023", "documentation": "Aggregate par or stated value of issued nonredeemable common stock (or common stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity." } } }, "auth_ref": [ "r44", "r322", "r470" ] }, "us-gaap_ComputerEquipmentMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ComputerEquipmentMember", "presentation": [ "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails" ], "lang": { "en-us": { "role": { "label": "Computer Equipment [Member]", "documentation": "Long lived, depreciable assets that are used in the creation, maintenance and utilization of information systems." } } }, "auth_ref": [] }, "us-gaap_ConcentrationRiskBenchmarkDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskBenchmarkDomain", "presentation": [ "http://pulmatrix.com/role/SummaryOfSignificantAccountingPoliciesAndRecentAccountingStandardsDetailsNarrative" ], "lang": { "en-us": { "role": { 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"http://pulmatrix.com/role/SummaryOfSignificantAccountingPoliciesAndRecentAccountingStandardsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Concentration risk percentage", "documentation": "For an entity that discloses a concentration risk in relation to quantitative amount, which serves as the \"benchmark\" (or denominator) in the equation, this concept represents the concentration percentage derived from the division." } } }, "auth_ref": [ "r16", "r17", "r31", "r32", "r158" ] }, "us-gaap_ConcentrationRiskTypeDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskTypeDomain", "presentation": [ "http://pulmatrix.com/role/SummaryOfSignificantAccountingPoliciesAndRecentAccountingStandardsDetailsNarrative" ], "lang": { "en-us": { "role": { "documentation": "For an entity that discloses a concentration risk as a percentage of some financial balance or benchmark, identifies the type (for example, asset, liability, net assets, geographic, customer, employees, supplier, lender) of the concentration." } } }, "auth_ref": [ "r16", "r17", "r31", "r32", "r158", "r440" ] }, "dei_CountryRegion": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "CountryRegion", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Country Region", "documentation": "Region code of country" } } }, "auth_ref": [] }, "dei_CoverAbstract": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "CoverAbstract", "lang": { "en-us": { "role": { "documentation": "Cover page." } } }, "auth_ref": [] }, "dei_CurrentFiscalYearEndDate": { "xbrltype": "gMonthDayItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "CurrentFiscalYearEndDate", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Current Fiscal Year End Date", "documentation": "End date of current fiscal 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The risk is the materially adverse effects of loss of a significant customer." } } }, "auth_ref": [ "r61", "r158" ] }, "us-gaap_DeferredCostsCapitalizedPrepaidAndOtherAssetsDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DeferredCostsCapitalizedPrepaidAndOtherAssetsDisclosureTextBlock", "presentation": [ "http://pulmatrix.com/role/PrepaidExpensesAndOtherCurrentAssetsTables" ], "lang": { "en-us": { "role": { "label": "Schedule of Prepaid Expenses and Other Current Assets", "documentation": "Tabular disclosure of the amounts paid in advance for capitalized costs that will be expensed with the passage of time or the occurrence of a triggering event, and will be charged against earnings within one year or the normal operating cycle, if longer; the aggregate carrying amount of current assets, not separately presented elsewhere in the balance sheet; and other deferred costs." } } }, "auth_ref": [] }, "us-gaap_DeferredRevenue": { 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} } }, "auth_ref": [ "r370", "r372", "r386", "r387", "r388", "r389", "r390", "r391", "r392", "r394", "r395", "r396", "r397", "r408", "r409", "r410", "r411", "r414", "r415", "r416", "r417", "r429", "r430", "r431", "r432", "r478", "r480", "r582", "r583", "r584", "r585", "r586", "r587", "r588", "r589" ] }, "us-gaap_DerivativeInstrumentRiskAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DerivativeInstrumentRiskAxis", "presentation": [ "http://pulmatrix.com/role/ScheduleOfStockOptionActivityDetails" ], "lang": { "en-us": { "role": { "label": "Derivative Instrument [Axis]", "documentation": "Information by type of derivative contract." } } }, "auth_ref": [ "r28", "r29", "r30", "r71", "r370", "r372", "r386", "r387", "r388", "r389", "r390", "r391", "r392", "r394", "r395", "r396", "r397", "r408", "r409", "r410", "r411", "r414", "r415", "r416", "r417", "r429", "r430", "r431", "r432", "r449", "r478", "r480", "r582", "r583", "r584", "r585", "r586", "r587", "r588", "r589" ] }, "PULM_DisclosureLeasesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "DisclosureLeasesAbstract", "lang": { "en-us": { "role": { "label": "Leases", "verboseLabel": "Schedule Of Components Of Lease Expenses", "terseLabel": "Schedule Of Maturities Of Lease Liabilities" } } }, "auth_ref": [] }, "us-gaap_DisclosureOfCompensationRelatedCostsShareBasedPaymentsTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DisclosureOfCompensationRelatedCostsShareBasedPaymentsTextBlock", "presentation": [ "http://pulmatrix.com/role/Stock-basedCompensation" ], "lang": { "en-us": { "role": { "label": "Stock-based Compensation", "documentation": "The entire disclosure for share-based payment arrangement." } } }, "auth_ref": [ "r202", "r206", "r234", "r235", "r237", "r461" ] }, "us-gaap_DisclosureOfCompensationRelatedCostsSharebasedPaymentsAbstract": { "xbrltype": "stringItemType", 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Annual Report", "documentation": "Boolean flag that is true only for a form used as an annual report." } } }, "auth_ref": [ "r500", "r503", "r504" ] }, "dei_DocumentFiscalPeriodFocus": { "xbrltype": "fiscalPeriodItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentFiscalPeriodFocus", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Fiscal Period Focus", "documentation": "Fiscal period values are FY, Q1, Q2, and Q3. 1st, 2nd and 3rd quarter 10-Q or 10-QT statements have value Q1, Q2, and Q3 respectively, with 10-K, 10-KT or other fiscal year statements having FY." } } }, "auth_ref": [] }, "dei_DocumentFiscalYearFocus": { "xbrltype": "gYearItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentFiscalYearFocus", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Fiscal Year Focus", "documentation": "This is focus fiscal year of the document report in YYYY format. For a 2006 annual report, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006." } } }, "auth_ref": [] }, "dei_DocumentPeriodEndDate": { "xbrltype": "dateItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentPeriodEndDate", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Period End Date", "documentation": "For the EDGAR submission types of Form 8-K: the date of the report, the date of the earliest event reported; for the EDGAR submission types of Form N-1A: the filing date; for all other submission types: the end of the reporting or transition period. The format of the date is YYYY-MM-DD." } } }, "auth_ref": [] }, "dei_DocumentPeriodStartDate": { "xbrltype": "dateItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentPeriodStartDate", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Period Start Date", "documentation": "The start date of the period covered in the document, in YYYY-MM-DD format." } } }, "auth_ref": [] }, "dei_DocumentQuarterlyReport": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentQuarterlyReport", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Quarterly Report", "documentation": "Boolean flag that is true only for a form used as an quarterly report." } } }, "auth_ref": [ "r501" ] }, "dei_DocumentRegistrationStatement": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentRegistrationStatement", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Registration Statement", "documentation": "Boolean flag that is true only for a form used as a registration statement." } } }, "auth_ref": [ "r489" ] }, "dei_DocumentShellCompanyEventDate": { "xbrltype": "dateItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentShellCompanyEventDate", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Shell Company Event Date", "documentation": "Date of event requiring a shell company report." } } }, "auth_ref": [ "r503" ] }, "dei_DocumentShellCompanyReport": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentShellCompanyReport", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Shell Company Report", "documentation": "Boolean flag that is true for a Shell Company Report pursuant to section 13 or 15(d) of the Exchange Act." } } }, "auth_ref": [ "r503" ] }, "dei_DocumentTransitionReport": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentTransitionReport", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Transition Report", "documentation": "Boolean flag that is true only for a form used as a transition report." } } }, "auth_ref": [ "r506" ] }, "dei_DocumentType": { "xbrltype": "submissionTypeItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentType", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Document Type", "documentation": "The type of document being provided (such as 10-K, 10-Q, 485BPOS, etc). The document type is limited to the same value as the supporting SEC submission type, or the word 'Other'." } } }, "auth_ref": [] }, "dei_DocumentsIncorporatedByReferenceTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentsIncorporatedByReferenceTextBlock", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Documents Incorporated by Reference [Text Block]", "documentation": "Documents incorporated by reference." } } }, "auth_ref": [ "r492" ] }, "us-gaap_EarningsPerShareAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareAbstract", "lang": { "en-us": { "role": { "label": "Earnings Per Share [Abstract]" } } }, "auth_ref": [] }, "us-gaap_EarningsPerShareBasic": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareBasic", "presentation": [ "http://pulmatrix.com/role/StatementsOfOperations" ], "lang": { "en-us": { "role": { "label": "Net loss per share attributable to common stockholders - basic", "documentation": "The amount of net income (loss) for the period per each share of common stock or unit outstanding during the reporting period." } } }, "auth_ref": [ "r110", "r122", "r123", "r124", "r125", "r126", "r127", "r132", "r134", "r137", "r138", "r139", "r143", "r259", "r262", "r276", "r277", "r317", "r329", "r450" ] }, "us-gaap_EarningsPerShareDiluted": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareDiluted", "presentation": [ "http://pulmatrix.com/role/StatementsOfOperations" ], "lang": { "en-us": { "role": { "label": "Net loss per share attributable to common stockholders - diluted", "documentation": "The amount of net income (loss) for the period available to each share of common stock or common unit outstanding during the reporting period and to each share or unit that would have been outstanding assuming the issuance of common shares or units for all dilutive potential common shares or units outstanding during the reporting period." } } }, "auth_ref": [ "r110", "r122", "r123", "r124", "r125", "r126", "r127", "r134", "r137", "r138", "r139", "r143", "r259", "r262", "r276", "r277", "r317", "r329", "r450" ] }, "us-gaap_EarningsPerShareTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareTextBlock", "presentation": [ "http://pulmatrix.com/role/NetLossPerShare" ], "lang": { "en-us": { "role": { "label": "Net Loss Per Share", "documentation": "The entire disclosure for earnings per share." } } }, "auth_ref": [ "r131", "r140", "r141", "r142" ] }, "us-gaap_EmployeeRelatedLiabilitiesCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EmployeeRelatedLiabilitiesCurrent", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/ScheduleOfAccruedExpensesAndOtherCurrentLiabilitiesDetails": { "parentTag": "us-gaap_AccruedLiabilitiesAndOtherLiabilities", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfAccruedExpensesAndOtherCurrentLiabilitiesDetails" ], "lang": { "en-us": { "role": { "verboseLabel": "Clinical and consulting", "label": "Employee-related Liabilities, Current", "documentation": "Total of the carrying values as of the balance sheet date of obligations incurred through that date and payable for obligations related to services received from employees, such as accrued salaries and bonuses, payroll taxes and fringe benefits. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer)." } } }, "auth_ref": [ "r37" ] }, "us-gaap_EmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsLineItems", "presentation": [ "http://pulmatrix.com/role/ScheduleOfStock-basedCompensationExpensesDetails" ], "lang": { "en-us": { "role": { "label": "Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": [] }, "dei_EntityAddressesTable": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityAddressesTable", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Addresses [Table]", "documentation": "Container of address information for the entity" } } }, "auth_ref": [ "r491" ] }, "dei_EntityBankruptcyProceedingsReportingCurrent": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityBankruptcyProceedingsReportingCurrent", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Bankruptcy Proceedings, Reporting Current", "documentation": "For registrants involved in bankruptcy proceedings during the preceding five years, the value Yes indicates that the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court; the value No indicates the registrant has not. Registrants not involved in bankruptcy proceedings during the preceding five years should not report this element." } } }, "auth_ref": [ "r495" ] }, "dei_EntityCentralIndexKey": { "xbrltype": "centralIndexKeyItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCentralIndexKey", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Central Index Key", "documentation": "A unique 10-digit SEC-issued value to identify entities that have filed disclosures with the SEC. It is commonly abbreviated as CIK." } } }, "auth_ref": [ "r491" ] }, "dei_EntityCommonStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCommonStockSharesOutstanding", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Common Stock, Shares Outstanding", "documentation": "Indicate number of shares or other units outstanding of each of registrant's classes of capital or common stock or other ownership interests, if and as stated on cover of related periodic report. Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument [Domain] of the Entity Listings, Instrument." } } }, "auth_ref": [] }, "dei_EntityCurrentReportingStatus": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCurrentReportingStatus", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Current Reporting Status", "documentation": "Indicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth_ref": [] }, "dei_EntityDomain": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityDomain", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative", "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "documentation": "All the names of the entities being reported upon in a document. Any legal structure used to conduct activities or to hold assets. Some examples of such structures are corporations, partnerships, limited liability companies, grantor trusts, and other trusts. This item does not include business and geographical segments which are included in the geographical or business segments domains." } } }, "auth_ref": [] }, "dei_EntityEmergingGrowthCompany": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityEmergingGrowthCompany", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Emerging Growth Company", "documentation": "Indicate if registrant meets the emerging growth company criteria." } } }, "auth_ref": [ "r491" ] }, "dei_EntityExTransitionPeriod": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityExTransitionPeriod", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Elected Not To Use the Extended Transition Period", "documentation": "Indicate if an emerging growth company has elected not to use the extended transition period for complying with any new or revised financial accounting standards." } } }, "auth_ref": [ "r510" ] }, "dei_EntityFileNumber": { "xbrltype": "fileNumberItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFileNumber", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity File Number", "documentation": "Commission file number. The field allows up to 17 characters. The prefix may contain 1-3 digits, the sequence number may contain 1-8 digits, the optional suffix may contain 1-4 characters, and the fields are separated with a hyphen." } } }, "auth_ref": [] }, "dei_EntityFilerCategory": { "xbrltype": "filerCategoryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFilerCategory", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Filer Category", "documentation": "Indicate whether the registrant is one of the following: Large Accelerated Filer, Accelerated Filer, Non-accelerated Filer. Definitions of these categories are stated in Rule 12b-2 of the Exchange Act. This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth_ref": [ "r491" ] }, "dei_EntityIncorporationStateCountryCode": { "xbrltype": "edgarStateCountryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityIncorporationStateCountryCode", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Incorporation, State or Country Code", "documentation": "Two-character EDGAR code representing the state or country of incorporation." } } }, "auth_ref": [] }, "dei_EntityInteractiveDataCurrent": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityInteractiveDataCurrent", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Interactive Data Current", "documentation": "Boolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files)." } } }, "auth_ref": [ "r507" ] }, "dei_EntityPrimarySicNumber": { "xbrltype": "sicNumberItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityPrimarySicNumber", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Primary SIC Number", "documentation": "Primary Standard Industrial Classification (SIC) Number for the Entity." } } }, "auth_ref": [ "r504" ] }, "dei_EntityPublicFloat": { "xbrltype": "monetaryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityPublicFloat", "crdr": "credit", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Public Float", "documentation": "The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter." } } }, "auth_ref": [] }, "dei_EntityRegistrantName": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityRegistrantName", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Registrant Name", "documentation": "The exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC." } } }, "auth_ref": [ "r491" ] }, "dei_EntityShellCompany": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityShellCompany", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Shell Company", "documentation": "Boolean flag that is true when the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act." } } }, "auth_ref": [ "r491" ] }, "dei_EntitySmallBusiness": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntitySmallBusiness", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Small Business", "documentation": "Indicates that the company is a Smaller Reporting Company (SRC)." } } }, "auth_ref": [ "r491" ] }, "dei_EntityTaxIdentificationNumber": { "xbrltype": "employerIdItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityTaxIdentificationNumber", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Tax Identification Number", "documentation": "The Tax Identification Number (TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS." } } }, "auth_ref": [ "r491" ] }, "dei_EntityVoluntaryFilers": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityVoluntaryFilers", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Voluntary Filers", "documentation": "Indicate 'Yes' or 'No' if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act." } } }, "auth_ref": [] }, "dei_EntityWellKnownSeasonedIssuer": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityWellKnownSeasonedIssuer", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Entity Well-known Seasoned Issuer", "documentation": "Indicate 'Yes' or 'No' if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Is used on Form Type: 10-K, 10-Q, 8-K, 20-F, 6-K, 10-K/A, 10-Q/A, 20-F/A, 6-K/A, N-CSR, N-Q, N-1A." } } }, "auth_ref": [ "r508" ] }, "us-gaap_EquityAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EquityAbstract", "lang": { "en-us": { "role": { "label": "Equity [Abstract]" } } }, "auth_ref": [] }, "us-gaap_EquityComponentDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EquityComponentDomain", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative", "http://pulmatrix.com/role/StatementsOfStockholdersEquity" ], "lang": { "en-us": { "role": { "documentation": "Components of equity are the parts of the total Equity balance including that which is allocated to common, preferred, treasury stock, retained earnings, etc." } } }, "auth_ref": [ "r6", "r92", "r107", "r108", "r109", "r117", "r118", "r119", "r121", "r126", "r128", "r130", "r145", "r161", "r162", "r163", "r197", "r249", "r250", "r256", "r257", "r258", "r260", "r261", "r262", "r268", "r269", "r270", "r271", "r272", "r273", "r275", "r283", "r284", "r285", "r286", "r287", "r288", "r290", "r292", "r306", "r328", "r342", "r343", "r344", "r358", "r420" ] }, "dei_Extension": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "Extension", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Extension", "documentation": "Extension number for local phone number." } } }, "auth_ref": [] }, "dei_FormerAddressMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "FormerAddressMember", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Former Address [Member]", "documentation": "Former address for entity" } } }, "auth_ref": [ "r502", "r505" ] }, "us-gaap_GeneralAndAdministrativeExpense": { "xbrltype": "monetaryItemType", "nsuri": 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"http://pulmatrix.com/role/ScheduleOfStock-basedCompensationExpensesDetails" ], "lang": { "en-us": { "role": { "documentation": "Location in statement of income where disaggregated amount has been reported." } } }, "auth_ref": [ "r165", "r166", "r279", "r280", "r281", "r339", "r341", "r405", "r444", "r464", "r606" ] }, "us-gaap_IncomeTaxDisclosureAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncomeTaxDisclosureAbstract", "lang": { "en-us": { "role": { "label": "Income Tax Disclosure [Abstract]" } } }, "auth_ref": [] }, "us-gaap_IncomeTaxDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncomeTaxDisclosureTextBlock", "presentation": [ "http://pulmatrix.com/role/IncomeTaxes" ], "lang": { "en-us": { "role": { "label": "Income Taxes", "documentation": "The entire disclosure for income tax." } } }, "auth_ref": [ "r116", "r241", "r243", "r244", "r245", "r246", "r247", "r248", 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Includes, but is not limited to, description of operating lease and maturity analysis of operating lease liability." } } }, "auth_ref": [ "r291" ] }, "us-gaap_Liabilities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "Liabilities", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_LiabilitiesAndStockholdersEquity", "weight": 1.0, "order": 1.0 } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets" ], "lang": { "en-us": { "role": { "totalLabel": "Total liabilities", "label": "Liabilities", "documentation": "Amount of liability recognized for present obligation requiring transfer or otherwise providing economic benefit to others." } } }, "auth_ref": [ "r9", "r36", "r37", "r38", "r39", "r40", "r41", "r42", "r115", "r160", "r173", "r174", "r175", "r176", "r177", "r178", "r179", "r180", "r181", "r265", "r266", "r267", "r282", "r379", "r451", "r488", "r546", "r594", "r595" ] }, 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Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit." } } }, "auth_ref": [ "r111" ] }, "us-gaap_NetCashProvidedByUsedInFinancingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInFinancingActivitiesAbstract", "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "label": "Cash flows from financing activities:" } } }, "auth_ref": [] }, "us-gaap_NetCashProvidedByUsedInInvestingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivities", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/StatementsOfCashFlows": { "parentTag": "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "totalLabel": "Net cash used in investing activities", "label": "Net Cash Provided by (Used in) Investing Activities", "documentation": "Amount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets." } } }, "auth_ref": [ "r111" ] }, "us-gaap_NetCashProvidedByUsedInInvestingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivitiesAbstract", "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "label": "Cash flows from investing activities:" } } }, "auth_ref": [] }, "us-gaap_NetCashProvidedByUsedInOperatingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInOperatingActivities", "calculation": { "http://pulmatrix.com/role/StatementsOfCashFlows": {

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consolidation and basis of presentation of financial statements disclosure." } } }, "auth_ref": [ "r34", "r70", "r349", "r350" ] }, "us-gaap_OtherAccruedLiabilitiesCurrent": {
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Preferred shares typically represent an ownership interest in the company." } } }, "auth_ref": [ "r478", "r479", "r482", "r483", "r484", "r485", "r635", "r637" ] }, "us-gaap_PreferredStockParOrStatedValuePerShare": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PreferredStockParOrStatedValuePerShare", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Preferred stock, par value", "documentation": "Face amount or stated value per share of preferred stock nonredeemable or redeemable solely at the option of the issuer." } } }, "auth_ref": [ "r43", "r183" ] }, "us-gaap_PreferredStockSharesAuthorized": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PreferredStockSharesAuthorized", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Preferred stock, shares authorized", "documentation": "The maximum number of nonredeemable preferred shares (or preferred stock redeemable solely at the option of the issuer) permitted to be issued by an entity's charter and bylaws." } } }, "auth_ref": [ "r43", "r381" ] }, "us-gaap_PreferredStockSharesIssued": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PreferredStockSharesIssued", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Preferred stock, shares issued", "documentation": "Number of shares issued for nonredeemable preferred shares and preferred shares redeemable solely at option of issuer. 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Note: elements for number of nonredeemable preferred shares, par value and other disclosure concepts are in another section within stockholders' equity." } } }, "auth_ref": [ "r43", "r321", "r470" ] }, "PULM_PrepaidClinicalAndConsulting": { "xbrltype": "monetaryItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "PrepaidClinicalAndConsulting", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails": { "parentTag": "us-gaap_PrepaidExpenseAndOtherAssetsCurrent", "weight": 1.0, "order": 1.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails" ], "lang": { "en-us": { "role": { "label": "Clinical and consulting", "documentation": "Prepaid clinical and consulting." } } }, "auth_ref": [] }, "us-gaap_PrepaidExpenseAndOtherAssetsCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PrepaidExpenseAndOtherAssetsCurrent", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_AssetsCurrent", "weight": 1.0, "order": 4.0 }, "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails": { "parentTag": null, "weight": null, "order": null, "root": true } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets", "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails" ], "lang": { "en-us": { "role": { "label": "Prepaid expenses and other current assets", "totalLabel": "Total prepaid expenses and other current assets", "documentation": "Amount of asset related to consideration paid in advance for costs that provide economic benefits in future periods, and amount of other assets that are expected to be realized or consumed within one year or the normal operating cycle, if longer." } } }, "auth_ref": [ "r520" ] }, "us-gaap_PrepaidInsurance": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PrepaidInsurance", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails": { "parentTag": "us-gaap_PrepaidExpenseAndOtherAssetsCurrent", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails" ], "lang": { "en-us": { "role": { "label": "Insurance", "documentation": "Amount of asset related to consideration paid in advance for insurance that provides economic benefits within a future period of one year or the normal operating cycle, if longer." } } }, "auth_ref": [ "r448", "r456", "r538" ] }, "PULM_PrepaidSoftwareAndHostingCosts": { "xbrltype": "monetaryItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "PrepaidSoftwareAndHostingCosts", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails": { "parentTag": "us-gaap_PrepaidExpenseAndOtherAssetsCurrent", "weight": 1.0, "order": 3.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfPrepaidExpensesAndOtherCurrentAssetsDetails" ], "lang": { "en-us": { "role": { "label": "Software and hosting costs", "documentation": "Prepaid software and hosting costs." } } }, "auth_ref": [] }, "us-gaap_ProceedsFromIssuanceOfCommonStock": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProceedsFromIssuanceOfCommonStock", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/StatementsOfCashFlows": { "parentTag": "us-gaap_NetCashProvidedByUsedInFinancingActivities", "weight": 1.0, "order": 1.0 } }, "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "label": "Proceeds from issuance of common stock, net of issuance costs", "documentation": "The cash inflow from the additional capital contribution to the entity." } } }, "auth_ref": [ "r1" ] }, "us-gaap_ProceedsFromRelatedPartyDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProceedsFromRelatedPartyDebt", "crdr": "debit", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Proceeds from related party debt", "documentation": "The cash inflow from a long-term borrowing made from related parties where one party can exercise control or significant influence over another party; including affiliates, owners or officers and their immediate families, pension trusts, and so forth. Alternate caption: Proceeds from Advances from Affiliates." } } }, "auth_ref": [ "r10" ] }, "us-gaap_ProductInformationLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProductInformationLineItems", "presentation": [ "http://pulmatrix.com/role/SummaryOfSignificantAccountingPoliciesAndRecentAccountingStandardsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Product Information [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": [ "r171", "r542", "r543", "r544" ] }, "us-gaap_ProductLiabilityContingencyTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProductLiabilityContingencyTable", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Product Liability Contingency [Table]", "documentation": "Disclosure of information about product liability contingency arising from reasonably possible loss from liability related to individual product." } } }, "auth_ref": [ "r171", "r542", "r543", "r544" ] }, "srt_ProductOrServiceAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ProductOrServiceAxis", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Product and Service [Axis]" } } }, "auth_ref": [ "r156", "r315", "r331", "r332", "r333", "r334", "r335", "r336", "r337", "r446", "r458", "r471", "r473", "r474", "r476", "r477", "r544", "r545", "r549", "r605", "r607", "r608", "r609", "r610", "r611", "r612", "r613", "r614", "r615", "r616", "r617", "r618", "r619", "r620", "r621", "r622", "r623", "r624", "r625", "r626", "r627", "r628", "r629", "r630", "r631", "r632", "r633", "r634" ] }, "srt_ProductsAndServicesDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ProductsAndServicesDomain", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "auth_ref": [ "r156", "r315", "r331", "r332", "r333", "r334", "r335", "r336", "r337", "r446", "r458", "r471", "r473", "r474", "r476", "r477", "r544", "r545", "r549", "r605", "r607", "r608", "r609", "r610", "r611", "r612", "r613", "r614", "r615", "r616", "r617", "r618", "r619", "r620", "r621", "r622", "r623", "r624", "r625", "r626", "r627", "r628", "r629", "r630", "r631", "r632", "r633", "r634" ] }, "us-gaap_PropertyPlantAndEquipmentAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentAbstract", "lang": { "en-us": { "role": { "label": "Property, Plant and Equipment [Abstract]" } } }, "auth_ref": [] }, "us-gaap_PropertyPlantAndEquipmentByTypeAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentByTypeAxis", "presentation": [ "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails" ], "lang": { "en-us": { "role": { "label": "Long-Lived Tangible Asset [Axis]", "documentation": "Information by type of long-lived, physical assets used to produce goods and services and not intended for resale." } } }, "auth_ref": [ "r5", "r305" ] }, "us-gaap_PropertyPlantAndEquipmentDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentDisclosureTextBlock", "presentation": [ "http://pulmatrix.com/role/PropertyAndEquipmentNet" ], "lang": { "en-us": { "role": { "label": "Property and Equipment, Net", "documentation": "The entire disclosure for long-lived, physical asset used in normal conduct of business and not intended for resale. Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections." } } }, "auth_ref": [ "r63", "r85", "r88", "r89" ] }, "us-gaap_PropertyPlantAndEquipmentGross": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentGross", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails": { "parentTag": "us-gaap_PropertyPlantAndEquipmentNet", "weight": 1.0, "order": 1.0 } }, "presentation": [ "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails" ], "lang": { "en-us": { "role": { "label": "Total property and equipment", "documentation": "Amount before accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth_ref": [ "r64", "r97", "r326" ] }, "us-gaap_PropertyPlantAndEquipmentLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentLineItems", "presentation": [ "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails" ], "lang": { "en-us": { "role": { "label": "Property, Plant and Equipment [Line Items]", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": [ "r305" ] }, "us-gaap_PropertyPlantAndEquipmentNet": { "xbrltype":

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Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth_ref": [ "r5", "r305", "r318", "r326", "r470" ] }, "us-gaap_PropertyPlantAndEquipmentTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentTextBlock", "presentation": [ "http://pulmatrix.com/role/PropertyAndEquipmentNetTables" ], "lang": { "en-us": { "role": { "label": "Schedule of Property and Equipment", "documentation": "Tabular disclosure of physical assets used in the normal conduct of business and not intended for resale. Includes, but is not limited to, balances by class of assets, depreciation and depletion expense and method used, including composite depreciation, and accumulated deprecation." } } }, "auth_ref": [ "r5" ] }, "us-gaap_PropertyPlantAndEquipmentTypeDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentTypeDomain", "presentation": [ "http://pulmatrix.com/role/ScheduleOfPropertyAndEquipmentDetails" ], "lang": { "en-us": { "role": { "documentation": "Listing of long-lived, physical assets that are used in the normal conduct of business to produce goods and services and not intended for resale. Examples include land, buildings, machinery and equipment, and other types of furniture and equipment including, but not limited to, office equipment, furniture and fixtures, and computer equipment and software." } } }, "auth_ref": [ "r64", "r305" ] }, "PULM_RaadSeveranceAgreementMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "RaadSeveranceAgreementMember", "presentation": [ "http://pulmatrix.com/role/SubsequentEventsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Raad Severance Agreement [Member]", "documentation": "Raad Severance Agreement [Member]" } } }, "auth_ref": [] }, "srt_RangeAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "RangeAxis", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Statistical Measurement [Axis]" } } }, "auth_ref": [ "r169", "r170", "r171", "r172", "r200", "r201", "r229", "r230", "r231", "r239", "r278", "r312", "r313", "r314", "r338", "r340", "r347", "r371", "r372", "r425", "r426", "r427", "r428", "r433", "r442", "r443", "r455", "r457", "r460", "r465", "r466", "r467", "r468", "r473", "r480", "r540", "r548", "r580", "r597", "r598", "r599", "r600", "r601" ] }, "srt_RangeMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "RangeMember", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "auth_ref": [ "r169", "r170", "r171", "r172", "r200", "r201", "r229", "r230", "r231", "r239", "r278", "r312", "r313", "r314", "r338", "r340", "r347", "r371", "r372", "r425", "r426", "r427", "r428", "r433", "r442", "r443", "r455", "r457", "r460", "r465", "r466", "r467", "r468", "r473", "r480", "r540", "r548", "r580", "r597", "r598", "r599", "r600", "r601" ] }, "PULM_ReductionOfOperatingLeaseRightofuseAssetAndLeaseLiabilityUponLeaseModification": { "xbrltype": "monetaryItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "ReductionOfOperatingLeaseRightofuseAssetAndLeaseLiabilityUponLeaseModification", "crdr": "debit", "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "label": "Reduction of operating lease right-of-use asset and lease liability upon lease modification", "documentation": "Reduction of operating lease rightofuse asset and lease liability upon lease modification." } } }, "auth_ref": [] }, "us-gaap_RelatedPartyTransactionAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RelatedPartyTransactionAxis", "presentation": [ "http://pulmatrix.com/role/LeasesDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Related Party Transaction [Axis]", "documentation": "Information by type of related party transaction." } } }, "auth_ref": [ "r307", "r308", "r593" ] }, "us-gaap_RelatedPartyTransactionDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RelatedPartyTransactionDomain", "presentation": [ "http://pulmatrix.com/role/LeasesDetailsNarrative" ], "lang": { "en-us": { "role": { "documentation": "Transaction between related party." } } }, "auth_ref": [] }, "us-gaap_ResearchAndDevelopmentExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpense", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/StatementsOfOperations": { "parentTag": "us-gaap_OperatingExpenses", "weight": 1.0, "order": 1.0 } }, "presentation": [ "http://pulmatrix.com/role/StatementsOfOperations" ], "lang": { "en-us": { "role": { "label": "Research and development", "documentation": "Amount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity." } } }, "auth_ref": [ "r240", "r444", "r453", "r602" ] }, "us-gaap_ResearchAndDevelopmentExpenseMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpenseMember", "presentation": [ "http://pulmatrix.com/role/ScheduleOfStock-basedCompensationExpensesDetails" ], "lang": { "en-us": { "role": { "label": "Research and Development Expense [Member]", "documentation": "Primary financial statement caption in which the reported facts about research and development expense have been included." } } }, "auth_ref": [] }, "PULM_ResearchAndDevelopmentServiceMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "ResearchAndDevelopmentServiceMember", "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Research and Development Service [Member]", "documentation": "Research and Development Service [Member]" } } }, "auth_ref": [] }, "us-gaap_RestrictedCash": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCash", "crdr": "debit", "presentation": [ "http://pulmatrix.com/role/LeasesDetailsNarrative" ], "lang": { "en-us": { "role": { "verboseLabel": "Restricted cash", "label": "Restricted Cash", "documentation": "Amount of cash restricted as to withdrawal or usage. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits." } } }, "auth_ref": [ "r515", "r523", "r603", "r604" ] }, "us-gaap_RestrictedCashCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCashCurrent", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_AssetsCurrent", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets", "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "label": "Restricted cash", "periodEndLabel": "Restricted cash", "documentation": "Amount of cash restricted as to withdrawal or usage, classified as current. 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Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits." } } }, "auth_ref": [ "r81", "r516", "r523" ] }, "us-gaap_RetainedEarningsAccumulatedDeficit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsAccumulatedDeficit", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/BalanceSheets": { "parentTag": "us-gaap_StockholdersEquity", "weight": 1.0, "order": 4.0 } }, "presentation": [ "http://pulmatrix.com/role/BalanceSheets" ], "lang": { "en-us": { "role": { "label": "Accumulated deficit", "documentation": "Amount of accumulated undistributed earnings (deficit)." } } }, "auth_ref": [ "r46", "r67", "r323", "r345", "r346", "r356", "r382", "r470" ] }, "us-gaap_RetainedEarningsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsMember", "presentation": [ "http://pulmatrix.com/role/StatementsOfStockholdersEquity" ], "lang": { "en-us": { "role": { "label": "Retained Earnings [Member]", "documentation": "Accumulated undistributed earnings (deficit)." } } }, "auth_ref": [ "r92", "r117", "r118", "r119", "r121", "r126", "r128", "r130", "r161", "r162", "r163", "r249", "r250", "r256", "r257", "r258", "r260", "r261", "r262", "r268", "r270", "r271", "r273", "r275", "r290", "r292", "r342", "r344", "r358", "r637" ] }, "us-gaap_RevenueFromContractWithCustomerExcludingAssessedTax": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerExcludingAssessedTax", "crdr": "credit", "calculation": { "http://pulmatrix.com/role/StatementsOfOperations": { "parentTag": "us-gaap_OperatingIncomeLoss", "weight": 1.0, "order": 1.0 } }, "presentation": [ "http://pulmatrix.com/role/SignificantAgreementsDetailsNarrative", "http://pulmatrix.com/role/StatementsOfOperations" ], "lang": { "en-us": { "role": { "label": "Revenues", "verboseLabel": "Revenue", "documentation": "Amount, excluding tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise." } } }, "auth_ref": [ "r76", "r77", "r144", "r149", "r150", "r153", "r155", "r156", "r157", "r158", "r198", "r199", "r315" ] }, "us-gaap_RevenueFromContractWithCustomerMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerMember", "presentation": [ "http://pulmatrix.com/role/SummaryOfSignificantAccountingPoliciesAndRecentAccountingStandardsDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Revenue from Contract with Customer Benchmark [Member]", "documentation": "Revenue from satisfaction of performance obligation by transferring promised product and service to customer, when it serves as benchmark in concentration of risk calculation." } } }, "auth_ref": [ "r158", "r512" ] }, "us-gaap_RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability", "crdr": "debit", "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "label": "Operating lease right-of-use asset obtained in exchange for operating lease obligation", "documentation": "Amount of increase in right-of-use asset obtained in exchange for operating lease liability." } } }, "auth_ref": [ "r301", "r469" ] }, "PULM_SaleAgreementMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "SaleAgreementMember", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Sale Agreement [Member]", "documentation": "Sale Agreement [Member]" } } }, "auth_ref": [] }, "us-gaap_SaleOfStockConsiderationReceivedOnTransaction": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SaleOfStockConsiderationReceivedOnTransaction", "crdr": "debit", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Sale of stock, consideration received on transaction", "documentation": "Cash received on stock transaction after deduction of issuance costs." } } }, "auth_ref": [] }, "us-gaap_SaleOfStockNameOfTransactionDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SaleOfStockNameOfTransactionDomain", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "lang": { "en-us": { "role": { "documentation": "Sale of the entity's stock, including, but not limited to, initial public offering (IPO) and private placement." } } }, "auth_ref": [] }, "us-gaap_SaleOfStockNumberOfSharesIssuedInTransaction": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SaleOfStockNumberOfSharesIssuedInTransaction", "presentation": [ "http://pulmatrix.com/role/CommonStockDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Number of shares issued in transaction", "documentation": "The number of shares issued or sold by the subsidiary or equity method investee per stock transaction." } } }, "auth_ref": [] }, "us-gaap_ScheduleOfAccountsPayableAndAccruedLiabilitiesTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccountsPayableAndAccruedLiabilitiesTableTextBlock", "presentation": [ "http://pulmatrix.com/role/AccruedExpensesAndOtherCurrentLiabilitiesTables" ], "lang": { "en-us": { "role": { "label": "Schedule of Accrued Expenses and Other Current Liabilities", "documentation": "Tabular disclosure of the (a) carrying value as of the balance sheet date of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business (accounts payable); (b) other payables; and (c) accrued liabilities. Examples include taxes, interest, rent and utilities. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer). 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Includes, but is not limited to, amount expensed in statement of income or comprehensive income, amount capitalized in statement of financial position, and corresponding reporting line item in financial statements." } } }, "auth_ref": [ "r25" ] }, "us-gaap_ScheduleOfEmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsTextBlock", "presentation": [ "http://pulmatrix.com/role/Stock-basedCompensationTables" ], "lang": { "en-us": { "role": { "label": "Schedule of Stock-based Compensation Expenses", "documentation": "Tabular disclosure of allocation of amount expensed and capitalized for award under share-based payment arrangement to statement of income or comprehensive income and statement of financial position. 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The main difference between warrants and call options is that warrants are issued and guaranteed by the company, whereas options are exchange instruments and are not issued by the company. Also, the lifetime of a warrant is often measured in years, while the lifetime of a typical option is measured in months. Disclose the title of issue of securities called for by warrants and rights outstanding, the aggregate amount of securities called for by warrants and rights outstanding, the date from which the warrants or rights are exercisable, and the price at which the warrant or right is exercisable." } } }, "auth_ref": [ "r23" ] }, "dei_Security12bTitle": { "xbrltype": "securityTitleItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "Security12bTitle", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Title of 12(b) Security", "documentation": "Title of a 12(b) registered security." } } }, "auth_ref": [ "r490" ] }, "dei_Security12gTitle": { "xbrltype": "securityTitleItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "Security12gTitle", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Title of 12(g) Security", "documentation": "Title of a 12(g) registered security." } } }, "auth_ref": [ "r494" ] }, "dei_SecurityExchangeName": { "xbrltype": "edgarExchangeCodeItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "SecurityExchangeName", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Security Exchange Name", "documentation": "Name of the Exchange on which a security is registered." } } }, "auth_ref": [ "r493" ] }, "dei_SecurityReportingObligation": { "xbrltype": "securityReportingObligationItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "SecurityReportingObligation", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Security Reporting Obligation", "documentation": "15(d), indicating whether the security has a reporting obligation under that section of the Exchange Act." } } }, "auth_ref": [ "r499" ] }, "PULM_SeriesAConvertiblePreferredStockMember": { "xbrltype": "domainItemType", "nsuri": "http://pulmatrix.com/20240630", "localname": "SeriesAConvertiblePreferredStockMember", "presentation": [ "http://pulmatrix.com/role/BalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Series A Convertible Preferred Stock [Member]", "documentation": "Series A Convertible Preferred Stock [Member]" } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensation": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensation", "crdr": "debit", "calculation": { "http://pulmatrix.com/role/StatementsOfCashFlows": { "parentTag": "us-gaap_NetCashProvidedByUsedInOperatingActivities", "weight": 1.0, "order": 4.0 } }, "presentation": [ "http://pulmatrix.com/role/StatementsOfCashFlows" ], "lang": { "en-us": { "role": { "verboseLabel": "Stock-based compensation", "label": "Share-Based Payment Arrangement, Noncash Expense", "documentation": "Amount of noncash expense for share-based payment arrangement." } } }, "auth_ref": [ "r3" ] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardLineItems", "presentation": [ "http://pulmatrix.com/role/ScheduleOfWarrantsOutstandingDetails", "http://pulmatrix.com/role/Stock-basedCompensationDetailsNarrative" ], "lang": { "en-us": { "role": { "label": "Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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contingently issuable shares or units and other shares or units not deemed outstanding, determined by relating the portion of time within a reporting period that common shares or units have been outstanding to the total time in that period." } } }, "auth_ref": [ "r132", "r139" ] }, "dei_WrittenCommunications": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "WrittenCommunications", "presentation": [ "http://pulmatrix.com/role/Cover" ], "lang": { "en-us": { "role": { "label": "Written Communications", "documentation": "Boolean flag that is true when the Form 8-K filing is intended to satisfy the filing obligation of the registrant as written communications pursuant to Rule 425 under the Securities Act." } } }, "auth_ref": [ "r509" ] } } } }, "std_ref": { "r0": { "role": "http://fasb.org/us-gaap/role/ref/legacyRef", "Name": "Accounting Standards Codification", "Section": "45", "Paragraph": "1", "SubTopic": "230", "Topic": "830", "Publisher": "FASB", 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Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024 (the “Annual Report”).</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The financial information as of June 30, 2024, and for the three and six months ended June 30, 2024 and 2023, is unaudited. In the opinion of management, all adjustments (including those which are normal and recurring) considered necessary for a fair presentation of the interim financial information have been included. The balance sheet data as of December 31, 2023 was derived from audited consolidated financial statements. The results of the Company’s operations for any interim periods are not necessarily indicative of the results that may be expected for any other interim period or for a full fiscal year.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Based on its current operating plan, the Company believes that its cash and cash equivalents as of June 30, 2024, will be adequate to fund its currently anticipated operating expenses for at least twelve months from the date these condensed consolidated financial statements are issued. The Company will need to secure additional funding in the future, from one or more equity or debt financings, collaborations, or other sources, in order to carry out all of the Company’s planned research and development activities and regulatory activities; commercialize product candidates; or conduct any substantial, additional development requirements requested by the FDA. Additional funding may not be available to the Company on acceptable terms, or at all. If the Company is unable to secure additional capital, it will be required to significantly decrease the amount of planned expenditures and may be required to cease operations. In addition, any disruption in the capital markets could make any financing more challenging, and there can be no assurance that Pulmatrix will be able to obtain such financing on commercially reasonable terms or at all. Curtailment of operations would cause significant delays in the Company’s efforts to develop and introduce its products to market, which is critical to the realization of its business plan and the future operations of the Company.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_843_eus-gaap--UseOfEstimates_zLzYKKyYJB98" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span id="xdx_863_zhZcMX1wTAP5">Use of Estimates</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"> <span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">In preparing the condensed consolidated financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, as well as the reported amounts of expenses during the reporting period. Due to inherent uncertainty involved in making estimates, actual results may differ from these estimates. On an ongoing basis, the Company evaluates its estimates and assumptions. The most significant estimates and assumptions in the Company’s condensed consolidated financial statements include, but are not limited to, estimates of future expected costs in order to derive and recognize revenue and estimates related to clinical trial accruals and upfront deposits.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i> </i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i> </i></b></span></p> <p id="xdx_84A_eus-gaap--ConcentrationRiskCreditRisk_zzOXXkpSaNwe" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span id="xdx_86C_zuZLD5vdxVec">Concentrations of Credit Risk</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Cash is a financial instrument that potentially subjects the Company to concentrations of credit risk. For all periods presented, substantially all of the Company’s cash was deposited in accounts at a single financial institution that management believes is creditworthy, and the Company has not incurred any losses to date. The Company is exposed to credit risk in the event of default by this financial institution for amounts in excess of the Federal Deposit Insurance Corporation insured limits.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i> </i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">For the three and six months ended June 30, 2024, revenue from one customer accounted for <span id="xdx_902_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20240401__20240630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_ziQZagZ0KA96" title="Concentration risk percentage">61</span>% and <span id="xdx_90D_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20240101__20240630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_zp1m27hn9Nbh" title="Concentration risk percentage">89</span>%, respectively, of revenue recognized in the accompanying condensed consolidated financial statements. For the three and six months ended June 30, 2023, revenue from one customer accounted for <span id="xdx_907_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20230401__20230630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_zPS6yGRSZlY6" title="Concentration risk percentage"><span id="xdx_907_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20230101__20230630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_zoIaHg3uE78b" title="Concentration risk percentage">100</span></span>% of revenue recognized in the accompanying condensed consolidated financial statements. As of June 30, 2024, two customers accounted for <span id="xdx_902_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20240101__20240630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--AccountsReceivableMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--TwoCustomerMember_zmdC67TpHkj7" title="Concentration risk percentage">100</span>% of accounts receivable. As of December 31, 2023, one customer accounted for <span id="xdx_907_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20230101__20231231__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--AccountsReceivableMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_zRYlveo9t6Ld" title="Concentration risk percentage">100</span>% of accounts receivable.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_84C_ecustom--SignificantAccountingPolicyTextBlock_zl4Y1DiN4q9i" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span id="xdx_863_zcIcSCIpcD1g">Summary of Significant Accounting Policies</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company’s significant accounting policies are described in Note 2, <i>Summary of Significant Accounting Policies and Recent Accounting Standards</i>, in the Annual Report. During the six months ended June 30, 2024, the Company did not make any changes to its significant accounting policies.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_848_eus-gaap--NewAccountingPronouncementsPolicyPolicyTextBlock_zaVpbTrdDkyd" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span id="xdx_865_z7kncZ4knd82">Recent Accounting Pronouncements</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (“FASB”) or other standard setting bodies that are adopted by the Company as of the specified effective date. The Company did not adopt any new accounting pronouncements during the six months ended June 30, 2024 that had a material effect on its condensed consolidated financial statements.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">In December 2023, the FASB issued Accounting Standard Update 2023-09, <i>Income Taxes (Topic 740): Improvements to Income Tax Disclosures </i>(“ASU 2023-09”). The guidance in ASU 2023-09 improves the transparency of income tax disclosures by greater disaggregation of information in the rate reconciliation and income taxes paid disaggregated by jurisdiction. The standard becomes effective for the annual period beginning on January 1, 2025, with early adoption permitted. The Company is currently evaluating the impact that the adoption of ASU 2023-09 may have on its consolidated financial statements.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">As of June 30, 2024, there are no other new, or existing recently issued, accounting pronouncements that are of significance, or potential significance, that impact the Company’s condensed consolidated financial statements.</span></p> <p id="xdx_857_zfAjAjmYM3N9" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_84D_eus-gaap--BasisOfAccountingPolicyPolicyTextBlock_zBvDLsBPcyf1" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span id="xdx_869_zFCd42H2h7l7">Basis of Presentation</span> </i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The condensed consolidated financial statements of the Company included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”) have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024 (the “Annual Report”).</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The financial information as of June 30, 2024, and for the three and six months ended June 30, 2024 and 2023, is unaudited. In the opinion of management, all adjustments (including those which are normal and recurring) considered necessary for a fair presentation of the interim financial information have been included. The balance sheet data as of December 31, 2023 was derived from audited consolidated financial statements. The results of the Company’s operations for any interim periods are not necessarily indicative of the results that may be expected for any other interim period or for a full fiscal year.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Based on its current operating plan, the Company believes that its cash and cash equivalents as of June 30, 2024, will be adequate to fund its currently anticipated operating expenses for at least twelve months from the date these condensed consolidated financial statements are issued. The Company will need to secure additional funding in the future, from one or more equity or debt financings, collaborations, or other sources, in order to carry out all of the Company’s planned research and development activities and regulatory activities; commercialize product candidates; or conduct any substantial, additional development requirements requested by the FDA. Additional funding may not be available to the Company on acceptable terms, or at all. If the Company is unable to secure additional capital, it will be required to significantly decrease the amount of planned expenditures and may be required to cease operations. In addition, any disruption in the capital markets could make any financing more challenging, and there can be no assurance that Pulmatrix will be able to obtain such financing on commercially reasonable terms or at all. Curtailment of operations would cause significant delays in the Company’s efforts to develop and introduce its products to market, which is critical to the realization of its business plan and the future operations of the Company.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_843_eus-gaap--UseOfEstimates_zLzYKKyYJB98" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span id="xdx_863_zhZcMX1wTAP5">Use of Estimates</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"> <span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">In preparing the condensed consolidated financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the

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date of the condensed consolidated financial statements, as well as the reported amounts of expenses during the reporting period. Due to inherent uncertainty involved in
making estimates, actual results may differ from these estimates. On an ongoing basis, the Company evaluates its estimates and assumptions. The most significant estimates
and assumptions in the Company’s condensed consolidated financial statements include, but are not limited to, estimates of future expected costs in order to derive and
recognize revenue and estimates related to clinical trial accruals and upfront deposits.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span
style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i> </i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span
style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span
style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i> </i></b></span></p> <p id="xdx_84A_eus-gaap--ConcentrationRiskCreditRisk_zzOXXkpSaNwe"
style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span
id="xdx_86C_zuZLD5vdxVec">Concentrations of Credit Risk</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align:
justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-
align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Cash is a financial instrument that potentially subjects the Company to
concentrations of credit risk. For all periods presented, substantially all of the Company’s cash was deposited in accounts at a single financial institution that management
believes is creditworthy, and the Company has not incurred any losses to date. The Company is exposed to credit risk in the event of default by this financial institution for
amounts in excess of the Federal Deposit Insurance Corporation insured limits.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align:
justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i> </i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif;
margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">For the three and six months ended June 30, 2024, revenue from
one customer accounted for <span id="xdx_902_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20240401__20240630__us-gaap--
ConcentrationRiskByBenchmarkAxis__us-gaap--RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--
CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_ziQZagZ0KA96" title="Concentration risk percentage">61</span>% and
<span id="xdx_90D_eus-gaap--ConcentrationRiskPercentage1_pid_dp_uPure_c20240101__20240630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--
RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--
OneCustomerMember_zp1m27hn9Nbh" title="Concentration risk percentage">89</span>%, respectively, of revenue recognized in the accompanying condensed consolidated
financial statements. For the three and six months ended June 30, 2023, revenue from one customer accounted for <span id="xdx_907_eus-gaap--
ConcentrationRiskPercentage1_pid_dp_uPure_c20230401__20230630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--
RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--
OneCustomerMember_zPS6yGRSZlY6" title="Concentration risk percentage"><span id="xdx_907_eus-gaap--
ConcentrationRiskPercentage1_pid_dp_uPure_c20230101__20230630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--
RevenueFromContractWithCustomerMember__us-gaap--ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--
OneCustomerMember_zoIaHg3uE78b" title="Concentration risk percentage">100</span></span>% of revenue recognized in the accompanying condensed consolidated
financial statements. As of June 30, 2024, two customers accounted for <span id="xdx_902_eus-gaap--
ConcentrationRiskPercentage1_pid_dp_uPure_c20240101__20240630__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--AccountsReceivableMember__us-gaap--
ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--TwoCustomerMember_zmdC67TpHkj7"
title="Concentration risk percentage">100</span>% of accounts receivable. As of December 31, 2023, one customer accounted for <span id="xdx_907_eus-gaap--
ConcentrationRiskPercentage1_pid_dp_uPure_c20230101__20231231__us-gaap--ConcentrationRiskByBenchmarkAxis__us-gaap--AccountsReceivableMember__us-gaap--
ConcentrationRiskByTypeAxis__us-gaap--CustomerConcentrationRiskMember__srt--MajorCustomersAxis__custom--OneCustomerMember_zRYlveo9t6Ld" title="Concentration
risk percentage">100</span>% of accounts receivable.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-
family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> 0.610.891111<p id="xdx_84C_ecustom--SignificantAccountingPolicyTextBlock_zl4Y1DiN4q9i"
style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span
id="xdx_863_zcIcSCIpcD1g">Summary of Significant Accounting Policies</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt;
text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin:
0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company’s significant accounting policies are described in Note 2,
<i>Summary of Significant Accounting Policies and Recent Accounting Standards</i>, in the Annual Report. During the six months ended June 30, 2024, the Company did not
make any changes to its significant accounting policies.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-
family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_848_eus-gaap--NewAccountingPronouncementsPolicyPolicyTextBlock_zaVpbTrdDkyd"
style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b><i><span
id="xdx_865_z7kncZ4knd82">Recent Accounting Pronouncements</span></i></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align:
justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-
align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">From time to time, new accounting pronouncements are issued by the Financial
Accounting Standards Board (“FASB”) or other standard setting bodies that are adopted by the Company as of the specified effective date. The Company did not adopt any new
accounting pronouncements during the six months ended June 30, 2024 that had a material effect on its condensed consolidated financial statements.</span></p> <p
style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p>
<p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">In December
2023, the FASB issued Accounting Standard Update 2023-09, <i>Income Taxes (Topic 740): Improvements to Income Tax Disclosures </i>(“ASU 2023-09”). The guidance in
ASU 2023-09 improves the transparency of income tax disclosures by greater disaggregation of information in the rate reconciliation and income taxes paid disaggregated by
jurisdiction. The standard becomes effective for the annual period beginning on January 1, 2025, with early adoption permitted. The Company is currently evaluating the
impact that the adoption of ASU 2023-09 may have on its consolidated financial statements.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt;
text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin:
0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">As of June 30, 2024, there are no other new, or existing recently issued,
accounting pronouncements that are of significance, or potential significance, that impact the Company’s condensed consolidated financial statements.</span></p> <p
id="xdx_804_ecustom--DisclosureOfPrepaidExpensesAndOtherCurrentAssetsTextBlock_zKeFxZ3TLmb1" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-
align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>3. <span id="xdx_824_zlhd1otAPyi2">Prepaid Expenses and Other Current
Assets</span></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times,
Serif; font-size: 10pt"> </span></p> <p id="xdx_89B_eus-gaap--DeferredCostsCapitalizedPrepaidAndOtherAssetsDisclosureTextBlock_zcSzH4qlS4p8" style="font: 10pt Times
New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Prepaid expenses and other current
assets consisted of the following:</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt 0pt 0pt 0; text-align: justify"><span
id="xdx_8B9_zL9CXwhFknni" style="display: none">Schedule of Prepaid Expenses and Other Current Assets</span><span style="font-family: Times New Roman, Times, Serif;
font-size: 10pt"> </span></p> <table cellpadding="0" cellspacing="0" style="font: 10pt Times New Roman, Times, Serif; margin-left: auto; border-collapse: collapse; width:
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solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif;
font-size: 10pt"><b>June 30,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New
Roman, Times, Serif; font-size: 10pt"><b>2024</b></span></p></td><td> </td><td> </td> <td colspan="2" id="xdx_49F_20231231_zG2BvSg4Nmjg" style="border-bottom:
Black 1pt solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times,
Serif; font-size: 10pt"><b>December 31,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family:
Times New Roman, Times, Serif; font-size: 10pt"><b>2023</b></span></p></td><td> </td></tr> <tr id="xdx_402_ecustom--
PrepaidClinicalAndConsulting_iI_pn3n3_maPEAOAzMg1_zRZFR68wE8Te" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="width: 60%; text-
align: left">Clinical and consulting</td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">457</td><td
style="width: 1%; text-align: left"> </td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">30</td><td
style="width: 1%; text-align: left"> </td></tr> <tr id="xdx_403_eus-gaap--PrepaidInsurance_iI_pn3n3_maPEAOAzMg1_z4MJz1v2ry3k" style="vertical-align: bottom;
background-color: White"> <td>Insurance</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">438</td><td style="text-align: left"> </td>
<td> </td> <td style="text-align: left"> </td><td style="text-align: right">232</td><td style="text-align: left"> </td></tr> <tr id="xdx_40F_ecustom--
PrepaidSoftwareAndHostingCosts_iI_pn3n3_maPEAOAzMg1_zKf31XyRusOj" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align:
left">Software and hosting costs</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">86</td><td style="text-align: left"> </td><td> </td> <td
style="text-align: left"> </td><td style="text-align: right">108</td><td style="text-align: left"> </td></tr> <tr id="xdx_40C_eus-gaap--
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style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">220</td><td style="text-align: left"> </td>
<td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">372</td><td style="text-align:
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color: rgb(204,238,255)"> <td style="text-align: left; padding-left: 10.1pt">Total prepaid expenses and other current assets</td><td> </td> <td style="border-bottom: Black
2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">1,201</td><td style="text-align: left"> </td><td> </td> <td
style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">742</td><td style="text-align:
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Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span style="font-family: Times New
Roman, Times, Serif; font-size: 10pt"></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times
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style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Prepaid
expenses and other current assets consisted of the following:</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt 0pt 0pt 0; text-align: justify">
<span id="xdx_8B9_zL9CXwhFknni" style="display: none">Schedule of Prepaid Expenses and Other Current Assets</span><span style="font-family: Times New Roman,
Times, Serif; font-size: 10pt"> </span></p> <table cellpadding="0" cellspacing="0" style="font: 10pt Times New Roman, Times, Serif; margin-left: auto; border-collapse:
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Roman, Times, Serif; font-size: 10pt"><b>June 30,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-
family: Times New Roman, Times, Serif; font-size: 10pt"><b>2024</b></span></p></td><td> </td><td> </td> <td colspan="2" id="xdx_49F_20231231_zG2BvSg4Nmjg"
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Times New Roman, Times, Serif; font-size: 10pt"><b>December 31,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center">
<span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>2023</b></span></p></td><td> </td></tr> <tr id="xdx_402_ecustom--
PrepaidClinicalAndConsulting_iI_pn3n3_maPEAOAzMg1_zRZFR68wE8Te" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="width: 60%; text-
align: left">Clinical and consulting</td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">457</td><td
style="width: 1%; text-align: left"> </td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">30</td><td
style="width: 1%; text-align: left"> </td></tr> <tr id="xdx_403_eus-gaap--PrepaidInsurance_iI_pn3n3_maPEAOAzMg1_z4MJz1v2ry3k" style="vertical-align: bottom;
background-color: White"> <td>Insurance</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">438</td><td style="text-align: left"> </td>
<td> </td> <td style="text-align: left"> </td><td style="text-align: right">232</td><td style="text-align: left"> </td></tr> <tr id="xdx_40F_ecustom--
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left">Software and hosting costs</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">86</td><td style="text-align: left"> </td><td> </td> <td
style="text-align: left"> </td><td style="text-align: right">108</td><td style="text-align: left"> </td></tr> <tr id="xdx_40C_eus-gaap--
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OtherPrepaidExpenseCurrent_iI_pn3n3_maPEAOAzMg1_zSSm8fUDouqh" style="vertical-align: bottom; background-color: White"> <td>Other</td><td> </td> <td
style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">220</td><td style="text-align: left"> </td>
<td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">372</td><td style="text-align:
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color: rgb(204,238,255)"> <td style="text-align: left; padding-left: 10.1pt">Total prepaid expenses and other current assets</td><td> </td> <td style="border-bottom: Black
2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">1,201</td><td style="text-align: left"> </td><td> </td> <td
style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">742</td><td style="text-align:
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Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font:
10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company’s Property
and equipment, net, were included in the disposal group as part of the MannKind Transaction (as defined in Note 6, <i>Significant Agreements</i>. Refer to that note for
further details and accounting discussion). The Company recorded a full write-down of its net property and equipment balance as of June 30, 2024:</span></p> <p
id="xdx_897_eus-gaap--PropertyPlantAndEquipmentTextBlock_z4MUS4Hh94s9" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span
style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><span id="xdx_8B8_zCq1f0ieWx8h" style="display: none">Schedule of Property and
Equipment</span> </span><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span><span style="font-family: Times New Roman, Times, Serif;
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font-size: 10pt"><b>June 30,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New
Roman, Times, Serif; font-size: 10pt"><b>2024</b></span></p></td><td> </td><td> </td> <td colspan="2" id="xdx_494_20231231_z0Yb5t2LWdm1" style="border-bottom:
Black 1pt solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times,
Serif; font-size: 10pt"><b>December 31,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family:
Times New Roman, Times, Serif; font-size: 10pt"><b>2023</b></span></p></td><td> </td></tr> <tr id="xdx_408_eus-gaap--
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bottom; background-color: rgb(204,238,255)"> <td style="width: 60%; text-align: left">Laboratory equipment</td><td style="width: 2%"> </td> <td style="width: 1%; text-
align: left">$</td><td style="width: 16%; text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0577">-</span></td><td style="width: 1%; text-align: left"> </td><td
style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">1,656</td><td style="width: 1%; text-align: left"> </td>
</tr> <tr id="xdx_407_eus-gaap--PropertyPlantAndEquipmentGross_iI_pn3n3_hus-gaap--PropertyPlantAndEquipmentByTypeAxis__us-gaap--
LeaseholdImprovementsMember_zMtz6JYofZ2k" style="vertical-align: bottom; background-color: White"> <td style="text-align: left">Leasehold improvements</td>
<td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0580">-</span></td><td style="text-align: left"> </td>
<td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0581">-</span></td><td style="text-align: left"> </td>
</tr> <tr id="xdx_409_eus-gaap--PropertyPlantAndEquipmentGross_iI_pn3n3_hus-gaap--PropertyPlantAndEquipmentByTypeAxis__custom--
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and equipment</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0583">-</span></td><td style="text-
align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">401</td><td style="text-align: left"> </td></tr> <tr id="xdx_40D_eus-gaap--
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bottom; background-color: White"> <td style="text-align: left">Computer equipment</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span
style="-sec-ix-hidden: xdx2ixbrl0586">-</span></td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">237</td>
<td style="text-align: left"> </td></tr> <tr id="xdx_409_eus-gaap--PropertyPlantAndEquipmentGross_iI_pn3n3_hus-gaap--PropertyPlantAndEquipmentByTypeAxis__custom--
CapitalInProgressMember_zeyHV6SF8rFj" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align: left">Capital in progress</td>
<td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right"><span style="-sec-ix-hidden:
xdx2ixbrl0589">-</span></td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom:
Black 1pt solid; text-align: right">600</td><td style="text-align: left"> </td></tr> <tr id="xdx_402_eus-gaap--
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family: Times New Roman, Times, Serif; font-size: 10pt">Total property and equipment</span></td><td> </td> <td style="text-align: left"> </td><td style="text-align:
right"><span style="-sec-ix-hidden: xdx2ixbrl0592">-</span></td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align:
right">2,894</td><td style="text-align: left"> </td></tr> <tr id="xdx_40C_eus-gaap--
AccumulatedDepreciationDepletionAndAmortizationPropertyPlantAndEquipment_iNI_pn3n3_di_msPPAENzYP1_zPxyNDGGCDl3" style="vertical-align: bottom; background-
color: rgb(204,238,255)"> <td style="text-align: left">Less accumulated depreciation and amortization</td><td> </td> <td style="border-bottom: Black 1pt solid; text-align:
left"> </td><td style="border-bottom: Black 1pt solid; text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0595">-</span></td><td style="text-align: left"> </td>
<td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">(1,736</td><td style="text-align:
left">)</td></tr> <tr id="xdx_400_eus-gaap--PropertyPlantAndEquipmentNet_iTI_pn3n3_mtPPAENzYP1_zS9cwM9f2S1g" style="vertical-align: bottom; background-color:
White"> <td style="text-align: left">Property and equipment, net</td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-
bottom: Black 2.5pt double; text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0598">-</span></td><td style="text-align: left"> </td><td> </td> <td style="border-
bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">1,158</td><td style="text-align: left"> </td></tr>
</table> <p id="xdx_8AD_zCSARojuYl4l" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman,
Times, Serif; font-size: 10pt"></span> </p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New
Roman, Times, Serif; font-size: 10pt">Depreciation and amortization expense for the six months ended June 30, 2024 and 2023 was $<span id="xdx_90E_eus-gaap--
DepreciationAndAmortization_pn3n3_c20240101__20240630_z7Pk4vkmcdAf" title="Depreciation and amortization">106</span> and $<span id="xdx_90C_eus-gaap--
DepreciationAndAmortization_pn3n3_c20230101__20230630_zko9x4mOAnjc" title="Depreciation and amortization">64</span>, respectively.</span></p> <p style="font:
10pt Times New Roman, Times, Serif; margin: 0pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b> </b></span></p> <p id="xdx_897_eus-
gaap--PropertyPlantAndEquipmentTextBlock_z4MUS4Hh94s9" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family:
Times New Roman, Times, Serif; font-size: 10pt"><span id="xdx_8B8_zCq1f0ieWx8h" style="display: none">Schedule of Property and Equipment</span> </span><span
style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <table
cellpadding="0" cellspacing="0" style="font: 10pt Times New Roman, Times, Serif; margin-left: auto; border-collapse: collapse; width: 80%; margin-right: auto"> <tr
style="vertical-align: bottom"> <td> </td><td> </td> <td colspan="2" id="xdx_49B_20240630_zuQV5RLXf7ij" style="border-bottom: Black 1pt solid; text-align: center"><p
style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>June 30,
</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size:
10pt"><b>2024</b></span></p></td><td> </td><td> </td> <td colspan="2" id="xdx_494_20231231_z0Yb5t2LWdm1" style="border-bottom: Black 1pt solid; text-align:
center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">
<b>December 31,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman,
Times, Serif; font-size: 10pt"><b>2023</b></span></p></td><td> </td></tr> <tr id="xdx_408_eus-gaap--PropertyPlantAndEquipmentGross_iI_pn3n3_hus-gaap--
PropertyPlantAndEquipmentByTypeAxis__custom--LaboratoryEquipmentMember_zqLGpxfSurp1" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td
style="width: 60%; text-align: left">Laboratory equipment</td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align:
right"><span style="-sec-ix-hidden: xdx2ixbrl0577">-</span></td><td style="width: 1%; text-align: left"> </td><td style="width: 2%"> </td> <td style="width: 1%; text-
align: left">$</td><td style="width: 16%; text-align: right">1,656</td><td style="width: 1%; text-align: left"> </td></tr> <tr id="xdx_407_eus-gaap--
PropertyPlantAndEquipmentGross_iI_pn3n3_hus-gaap--PropertyPlantAndEquipmentByTypeAxis__us-gaap--LeaseholdImprovementsMember_zMtz6JYofZ2k" style="vertical-
align: bottom; background-color: White"> <td style="text-align: left">Leasehold improvements</td><td> </td> <td style="text-align: left"> </td><td style="text-align:
right"><span style="-sec-ix-hidden: xdx2ixbrl0580">-</span></td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align:
right"><span style="-sec-ix-hidden: xdx2ixbrl0581">-</span></td><td style="text-align: left"> </td></tr> <tr id="xdx_409_eus-gaap--
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style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align: left">Office furniture and equipment</td><td> </td> <td style="text-align:
left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0583">-</span></td><td style="text-align: left"> </td><td> </td> <td style="text-align:
left"> </td><td style="text-align: right">401</td><td style="text-align: left"> </td></tr> <tr id="xdx_40D_eus-gaap--PropertyPlantAndEquipmentGross_iI_pn3n3_hus-gaap--
PropertyPlantAndEquipmentByTypeAxis__us-gaap--ComputerEquipmentMember_zV2wQNhGUUvl" style="vertical-align: bottom; background-color: White"> <td style="text-
align: left">Computer equipment</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0586">-</span></td>
<td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">237</td><td style="text-align: left"> </td></tr> <tr
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style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align: left">Capital in progress</td><td> </td> <td style="border-bottom: Black 1pt
solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0589">-</span></td><td style="text-align:
left"> </td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">600</td><td
style="text-align: left"> </td></tr> <tr id="xdx_402_eus-gaap--PropertyPlantAndEquipmentGross_iI_pn3n3_maPPAENzYP1_zD5WPTCSzUg2" style="vertical-align: bottom;
background-color: White"> <td> <span style="display: none; font-family: Times New Roman, Times, Serif; font-size: 10pt">Total property and equipment</span></td>
<td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0592">-</span></td><td style="text-align: left"> </td>
<td> </td> <td style="text-align: left"> </td><td style="text-align: right">2,894</td><td style="text-align: left"> </td></tr> <tr id="xdx_40C_eus-gaap--
AccumulatedDepreciationDepletionAndAmortizationPropertyPlantAndEquipment_iNI_pn3n3_di_msPPAENzYP1_zPxyNDGGCDl3" style="vertical-align: bottom; background-
color: rgb(204,238,255)"> <td style="text-align: left">Less accumulated depreciation and amortization</td><td> </td> <td style="border-bottom: Black 1pt solid; text-align:
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<td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">(1,736</td><td style="text-align:
left">)</td></tr> <tr id="xdx_400_eus-gaap--PropertyPlantAndEquipmentNet_iTI_pn3n3_mtPPAENzYP1_zS9cwM9f2S1g" style="vertical-align: bottom; background-color:
White"> <td style="text-align: left">Property and equipment, net</td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-
bottom: Black 2.5pt double; text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0598">-</span></td><td style="text-align: left"> </td><td> </td> <td style="border-
bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">1,158</td><td style="text-align: left"> </td></tr>
</table> 16560004010002370006000002894000173600011580001060006400<p id="xdx_80C_eus-gaap--
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style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>5. <span id="xdx_826_zedeYIbGiU23">Accrued Expenses and Other Current Liabilities</span></b>
</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size:
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Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Accrued expenses and other current liabilities consisted of
the following:</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt 0pt 0pt 0; text-align: center"><span id="xdx_8B3_zvgraedtFPjh" style="display:
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style="vertical-align: bottom"> <td style="text-align: center"> </td><td> </td> <td colspan="2" id="xdx_499_20240630_zd65EomPbHci" style="border-bottom: Black 1pt solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>June 30,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>2024</b></span></p></td><td> </td><td> </td> <td colspan="2" id="xdx_49A_20231231_zS1edLYq0Q46" style="border-bottom: Black 1pt solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>December 31,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>2023</b></span></p></td><td> </td></tr> <tr id="xdx_406_eus-gaap--AccruedProfessionalFeesCurrent_iI_pn3n3_maALCzWj2_z5Yz7RcN79L" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="width: 60%; text-align: left">Wages and incentives</td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">1,221</td><td style="width: 1%; text-align: left"> </td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">70</td><td style="width: 1%; text-align: left"> </td></tr> <tr id="xdx_40C_eus-gaap--EmployeeRelatedLiabilitiesCurrent_iI_pn3n3_maALCzWj2_zuOMrwoiICr3" style="vertical-align: bottom; background-color: White"> <td style="text-align: left">Clinical and consulting</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">296</td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">347</td><td style="text-align: left"> </td> </tr> <tr id="xdx_407_ecustom--AccruedLegalAndPatentCurrent_iI_pn3n3_maALCzWj2_z6S5Fqgtlirg" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align: left">Legal and patents</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">223</td><td style="text-align: left"> </td> <td> </td> <td style="text-align: left"> </td><td style="text-align: right">42</td><td style="text-align: left"> </td></tr> <tr id="xdx_40C_ecustom--AccruedPurchasesOfPropertyAndEquipment_iI_pn3n3_maALCzWj2_zHqAa9sbJPNk" style="vertical-align: bottom; background-color: White"> <td style="text-align: left">Accrued purchases of property and equipment</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0618">-</span></td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">389</td><td style="text-align: left"> </td></tr> <tr id="xdx_409_eus-gaap--OtherAccruedLiabilitiesCurrent_iI_pn3n3_maALCzWj2_z15VAOo5f7h7" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td>Other</td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">43</td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">99</td><td style="text-align: left"> </td></tr> <tr id="xdx_40F_eus-gaap--AccruedLiabilitiesAndOtherLiabilities_iTI_pn3n3_mtALCzWj2_zgQoMT52kdab" style="vertical-align: bottom; background-color: White"> <td style="text-align: left; padding-left: 10pt">Total accrued expenses and other current liabilities</td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">1,783</td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">947</td><td style="text-align: left"> </td></tr> </table> <p id="xdx_8AA_zZhiohYe8q4e" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_890_eus-gaap--ScheduleOfAccountsPayableAndAccruedLiabilitiesTableTextBlock_z3WTlv4l1ooh" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Accrued expenses and other current liabilities consisted of the following:</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt 0pt 0pt 0; text-align: center"><span id="xdx_8B3_zvgraedtFPjh" style="display: none">Schedule of Accrued Expenses and Other Current Liabilities</span><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <table cellpadding="0" cellspacing="0" style="font: 10pt Times New Roman, Times, Serif; margin-left: auto; border-collapse: collapse; width: 80%; margin-right: auto"> <tr style="vertical-align: bottom"> <td style="text-align: center"> </td><td> </td> <td colspan="2" id="xdx_499_20240630_zd65EomPbHci" style="border-bottom: Black 1pt solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>June 30, </b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>2024</b></span></p></td><td> </td><td> </td> <td colspan="2" id="xdx_49A_20231231_zS1edLYq0Q46" style="border-bottom: Black 1pt solid; text-align: center"><p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> <b>December 31,</b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>2023</b></span></p></td><td> </td></tr> <tr id="xdx_406_eus-gaap--AccruedProfessionalFeesCurrent_iI_pn3n3_maALCzWj2_z5Yz7RcN79L" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="width: 60%; text-align: left">Wages and incentives</td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">1,221</td><td style="width: 1%; text-align: left"> </td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left">$</td><td style="width: 16%; text-align: right">70</td><td style="width: 1%; text-align: left"> </td></tr> <tr id="xdx_40C_eus-gaap--EmployeeRelatedLiabilitiesCurrent_iI_pn3n3_maALCzWj2_zuOMrwoiICr3" style="vertical-align: bottom; background-color: White"> <td style="text-align: left">Clinical and consulting</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">296</td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">347</td><td style="text-align: left"> </td> </tr> <tr id="xdx_407_ecustom--AccruedLegalAndPatentCurrent_iI_pn3n3_maALCzWj2_z6S5Fqgtlirg" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align: left">Legal and patents</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">223</td><td style="text-align: left"> </td> <td> </td> <td style="text-align: left"> </td><td style="text-align: right">42</td><td style="text-align: left"> </td></tr> <tr id="xdx_40C_ecustom--AccruedPurchasesOfPropertyAndEquipment_iI_pn3n3_maALCzWj2_zHqAa9sbJPNk" style="vertical-align: bottom; background-color: White"> <td style="text-align: left">Accrued purchases of property and equipment</td><td> </td> <td style="text-align: left"> </td><td style="text-align: right"><span style="-sec-ix-hidden: xdx2ixbrl0618">-</span></td><td style="text-align: left"> </td><td> </td> <td style="text-align: left"> </td><td style="text-align: right">389</td><td style="text-align: left"> </td></tr> <tr id="xdx_409_eus-gaap--OtherAccruedLiabilitiesCurrent_iI_pn3n3_maALCzWj2_z15VAOo5f7h7" style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td>Other</td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">43</td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right">99</td><td style="text-align: left"> </td></tr> <tr id="xdx_40F_eus-gaap--AccruedLiabilitiesAndOtherLiabilities_iTI_pn3n3_mtALCzWj2_zgQoMT52kdab" style="vertical-align: bottom; background-color: White"> <td style="text-align: left; padding-left: 10pt">Total accrued expenses and other current liabilities</td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">1,783</td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left">$</td><td style="border-bottom: Black 2.5pt double; text-align: right">947</td><td style="text-align: left"> </td></tr> </table> 1221000700002960003470002230004200038900043000990001783000947000<p id="xdx_804_eus-gaap--CommitmentsDisclosureTextBlock_zm6VLyAdePUl" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>6. <span id="xdx_824_ze7yfRUsZS9g">Significant Agreements</span></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><i>Development and Commercialization Agreement with Cipla Technologies LLC (“Cipla”)</i></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">On April 15, 2019, the Company entered into a Development and Commercialization Agreement (the “Cipla Agreement”) with Cipla for the co-development and commercialization, on a worldwide exclusive basis, of PUR1900, the Company’s inhaled iSPERSE<i><sup>™ </sup></i>drug delivery system (the “Product”) enabled formulation of the antifungal drug itraconazole, which is only available as an oral drug, for the treatment of all pulmonary indications, including allergic bronchopulmonary aspergillosis (“ABPA”) in patients with asthma. The Company entered into an amendment to the Cipla Agreement on November 8, 2021 (the “Second Amendment”) and a subsequent amendment on January 6, 2024 (the “Third Amendment”). All references to the Cipla Agreement herein refer to the Cipla Agreement, as amended.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company received a non-refundable upfront payment of $<span id="xdx_906_eus-gaap--ProceedsFromRelatedPartyDebt_pn5n6_c20240101__20240630__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember_zeZztZKv2S2g" title="Proceeds from related party debt">22.0</span> million (the “Upfront Payment”) under the Cipla Agreement. Upon receipt of the Upfront Payment, the Company irrevocably assigned to Cipla the following assets, solely to the extent that each covers the Product in connection with any treatment, prevention, and/or diagnosis of diseases of the pulmonary system (“Pulmonary Indications”): all existing and future technologies, current and future drug master files, dossiers, third-party contracts, regulatory filings, regulatory materials and regulatory approvals, patents, and intellectual property rights, as well as any other associated rights and assets directly related to the Product, specifically in relation to Pulmonary Indications (collectively, the “Assigned Assets”), excluding most specifically the Company’s iSPERSE<i><sup>™</sup></i> technology. A portion of the Upfront Payment was deposited by the Company into a bank account, along with an equal amount from the Company, and was dedicated to the development of the Product (the “Initial Development Funding”). The Initial Development Funding was depleted during the year ended December 31, 2021, at which point the Company and Cipla each became responsible for a portion of the development costs actually incurred as described below (the “Co-Development Phase”).</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin-top: 0pt; margin-bottom: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><span id="xdx_900_ecustom--AgreementDescription_c20240101__20240630_zOa0JL6gNrXf" title="Agreement description">Pursuant to the Second Amendment, the Company and Cipla were each responsible for 60% and 40%, respectively, of the Company’s overhead costs and the time spent by the Company’s employees and consultants on development of the Product (“Direct Costs”). The Company will share all other development costs with Cipla that are not Direct Costs, such as the cost of clinical research organizations, manufacturing costs and other third-party costs, on a 50/50 basis.</span></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Pursuant to the Third Amendment, the Company and Cipla agreed that, during the period commencing on January 6, 2024 and ending July 30, 2024 (the “Wind Down Period”), the Company will complete all Phase 2b activities, assign or license all patents to Cipla and their registration with the appropriate authorities in regions other than the United States, complete a physical and demonstrable technology transfer and secure all data from the Phase 2b study for inclusion in the safety database. The Company will share costs with Cipla during the Wind Down Period in the same proportions in effect with the Second Amendment discussed above, but subject to a maximum reimbursement amount by Cipla as approved by the joint steering committee.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><i>Accounting Treatment</i></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company concluded that because both it and Cipla are active participants in the arrangement and are exposed to the significant risks and rewards of the collaboration, the Company’s collaboration with Cipla is within the scope of Accounting Standards Codification (“ASC”) 808, <i>Collaborative Arrangements </i>(“ASC 808”). The Company concluded that Cipla is a customer since they contracted with the Company to obtain research and development services and a license to the Assigned Assets, each of which is an output of the Company’s ordinary activities, in exchange for consideration. Therefore, the Company has applied the guidance in ASC 606, <i>Revenue from Contracts with Customers </i>(“ASC 606”) to account for the research and development services and a license within the contract. The Company determined that the research and development services and license to the Assigned Assets are considered highly interdependent and highly interrelated and therefore are considered a single combined performance obligation because Cipla cannot benefit from the license without the performance by the Company of the research and development services. Such research and development services are highly specialized and proprietary to the Company and therefore not available to Cipla from any other third party.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin-top: 0pt; margin-bottom: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"></span> </p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company initially determined the total transaction price to be $<span id="xdx_902_ecustom--TransactionCosts_iI_pn5n6_c20240630_zFr1KIHUEQAj" title="Transaction cost">22.0</span> million – comprised of $<span id="xdx_905_ecustom--TransactionCosts_iI_pn5n6_c20240630__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__dei--LegalEntityAxis__custom--

~~CiplaTechnologiesLlcMember__srt--ProductOrServiceAxis__custom--ResearchAndDevelopmentServiceMember_zI5lYggRhXs" title="Transaction cost">12.0</span> million for research and development services for the Product and $<span id="xdx_902_ecustom--TransactionCosts_iI_pn5n6_c20240630__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__srt--ProductOrServiceAxis__custom--IrrevocableLicenseMember_zCjBSe3Yc7Jk" title="Transaction cost">10.0</span> million for the irrevocable license to the Assigned Assets. Any consideration related to the Co-Development Phase was not initially included in the transaction price as such amounts are subject to the variable consideration constraint. Additionally, upon commercialization, Cipla and the Company will share equally, both positive and negative total free cash-flows earned by Cipla in respect of the Product. However, the Company has not included such free cash-flows in the transaction price as these milestones are constrained.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Revenue is recognized for the Cipla Agreement as the research and development services are provided using an input method, according to the ratio of costs incurred to the total costs expected to be incurred in the future to satisfy the Company’s obligations. In management’s judgment, this input method is the best measure of the transfer of control of the combined performance obligation. The amounts received that have not yet been recognized as revenue are recorded in deferred revenue on the Company’s consolidated balance sheets, with amounts expected to be recognized in the next 12 months recorded as current.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company concluded that the Third Amendment is a contract modification that should be accounted for as part of the existing contract. During the three and six months ended June 30, 2024, the Company recognized $<span id="xdx_909_eus-gaap--RevenueFromContractWithCustomerExcludingAssessedTax_pn5n6_c20240401__20240630__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__srt--ProductOrServiceAxis__custom--ResearchAndDevelopmentServiceMember_zon2AoCEaEY2" title="Revenue">0.9</span> million and $<span id="xdx_90E_eus-gaap--RevenueFromContractWithCustomerExcludingAssessedTax_pn5n6_c20240101__20240630__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__srt--ProductOrServiceAxis__custom--ResearchAndDevelopmentServiceMember_zglMrNFgnce7" title="Revenue">6.6</span> million, respectively, in revenue related to the research and development services and irrevocable license to the Assigned Assets in the Company’s consolidated statements of operations, as compared to $<span id="xdx_902_eus-gaap--RevenueFromContractWithCustomerExcludingAssessedTax_pn5n6_c20230401__20230630__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__srt--ProductOrServiceAxis__custom--ResearchAndDevelopmentServiceMember_z4USGpU4yKg9" title="Revenue">1.8</span> million and $<span id="xdx_90D_eus-gaap--RevenueFromContractWithCustomerExcludingAssessedTax_pn5n6_c20230101__20230630__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__srt--ProductOrServiceAxis__custom--ResearchAndDevelopmentServiceMember_zRWokS6qjFIe" title="Revenue">3.3</span> million, respectively, recognized during the three and six months ended June 30, 2023. The revenue recognized during the six months ended June 30, 2024 was primarily associated with the cumulative catch-up recorded in the three months ended March 31, 2024, from the contract modification, that had been included in deferred revenue at the beginning of the period. As of June 30, 2024, the aggregate transaction price related to the Company’s unsatisfied obligations was $<span id="xdx_906_eus-gaap--DeferredRevenue_iI_pn5n6_c20240630__us-gaap--TypeOfArrangementAxis__custom--CiplaAgreementMember__dei--LegalEntityAxis__custom--CiplaTechnologiesLlcMember_zrBwRFFhuPth" title="Deferred revenue">0.3</span> million and was recorded in deferred revenue, all of which was current.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; text-align: center; margin-top: 0pt; margin-bottom: 0pt"> </p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> <i>Agreements with MannKind Corporation (“MannKind”)</i></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"> <span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">On May 28, 2024, the Company executed certain agreements with MannKind and the Company’s landlord (collectively, the “MannKind Transaction”), all of which closed during July 2024. The agreements with MannKind included a Bill of Sale and Assignment Agreement (the “Bill of Sale”) with respect to the assignment of the Company’s rental facility at 36 Crosby Drive, Bedford, Massachusetts (the “Bedford Facility”) to MannKind along with the transfer of all leasehold improvements, laboratory equipment and other related personal property. In connection with the assignment of the Bedford Facility, the Company, MannKind and Cobalt Propco 2020, LLC (the “Landlord”) entered into an Amendment to Lease and Consent to Assignment of Lease (the “Lease Assignment Agreement”) pursuant to that certain Lease Agreement, dated as of January 7, 2022 (the “Lease Agreement”), by and between the Company and the Landlord. Pursuant to the Lease Assignment Agreement, MannKind assumed all of the Company’s obligations under the Lease Agreement, including all rent and other payments.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">In connection with the transactions contemplated by the Bill of Sale and Lease Assignment Agreement, the Company and MannKind entered into an Intellectual Property Cross License Agreement (the “Cross License Agreement”). Pursuant to the Cross License Agreement, the Company granted to MannKind (i) an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of Clofazimine, (ii) an exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of nontuberculous mycobacteria lung disease in humans, (iii) an exclusive license to develop, use, manufacture, market, offer and sell iSPERSE formulations of insulin, (iv) a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of endocrine disease in humans, and (v) a non-exclusive license to develop, use, manufacture, market, offer and sell formulations of iSPERSE with one more active pharmaceutical ingredients for the treatment of interstitial lung diseases (including IPF, PPF and other related lung diseases) in humans (collectively, the “Out-License”).</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Additionally, pursuant to the Cross License Agreement, MannKind granted to the Company (i) the exclusive right to develop, use, manufacture, market, offer and sell its single-use disposable dry powder inhaler (including all modifications or improvement thereto made by or on behalf of the Company, the “Cricket Device”) for the inhaled delivery of dihydroergotamine in any formulation whatsoever, including the Company’s PUR3100 treatment of acute migraine and (ii) a non-exclusive license to develop, use, manufacture, market, offer and sell the Cricket Device for the inhaled delivery of one more active pharmaceutical ingredients formulated with iSPERSE for the treatment of neurological disease in humans (collectively, the “In-License”).</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin-top: 0pt; margin-bottom: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Additionally, pursuant to the Master Services Agreement, by and between the Company and MannKind, MannKind shall provide certain development services to the Company, including but not limited to, activities to develop a dry powder formulation of the active pharmaceutical ingredient that the Company provides to MannKind for oral inhalation using iSPERSE.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">To maintain continuity of iSPERSE platform knowledge, MannKind hired certain members of the Company’s research and development staff in July 2024.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><i>Accounting Treatment</i></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"> <span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company determined that the MannKind Transaction represents a combined agreement for accounting purposes, as the individual components have the same overall commercial objectives and the consideration under each component is dependent on the other components.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The consideration due to the Company in the MannKind Transaction consists solely of the non-cash consideration in the form of the In-License. The fair value of the non-cash consideration received should be allocated to the other components of the MannKind Transaction to determine the consideration received for the other components. The Company determined that the fair value of the In-License is immaterial given that adequate alternative inhaler devices are already available on the market (and indeed, the Company has already established use of another third-party inhalation device in their PUR3100 Phase 1 trial that performed well as a DHE delivery device as reported in a peer-reviewed publication), and considering optional purchases of Cricket Devices are at market prices. Accordingly, the consideration allocated to other components of the MannKind Transaction was immaterial.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; text-align: center; margin-top: 0pt; margin-bottom: 0pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b> </b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company accounted for the Lease Assignment Agreement upon execution as a lease modification that reduced the lease term to the assignment date in July 2024. Accordingly, the Company remeasured its operating lease liability as of the modification date to reflect the decrease in fixed lease payments, with the amount of the remeasurement, $<span id="xdx_909_ecustom--IncreaseDecreaseInRightOfUseAsset_pn5n6_c20240528__20240528__us-gaap--TypeOfArrangementAxis__custom--LeaseAssignmentAgreementMember_zusStHVOKUSe" title="Decrease in right-of-use asset">8.4</span> million, adjusted by a corresponding reduction to the right-of-use asset. Refer to Note 11, <i>Leases,</i> for further details.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company concluded that the Out-License component of the MannKind Transaction was within the scope of ASC 606, as the monetization of its core technology represents an output of the Company’s ordinary activities. The Company transferred control of the combined licenses of iSPERSE to MannKind at a point in time in July 2024 upon closing of the MannKind Transaction; however, no revenue was recognized because the consideration allocated to the Out-License component was immaterial. </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company determined that its operating lease right-of-use asset and property and equipment subject to the Bill of Sale represented a disposal group that became held for sale during the second quarter of 2024 and remained classified as held for sale as of June 30, 2024, which should be measured at the lower of its carrying value or fair value less costs to sell. Since the fair value of the disposal group was considered immaterial, the Company recorded a full write-down of the disposal group’s carrying value as of June 30, 2024, in the amount of $<span id="xdx_90E_ecustom--DisoposalOfCarryingValue_pn5n6_c20240101__20240630_z7Q9BUQ1j2tc" title="Disposal of carrying value">2.6</span> million.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Concurrent with the closing of the MannKind Transaction, the Company terminated and MannKind hired the majority of the Company’s research and development employees, representing approximately two-thirds of the Company’s workforce. During the quarter ended June 30, 2024, the Company agreed to provide termination benefits to these employees, which has been included in the balance of accrued expenses and other current liabilities on the consolidated balance sheet as of June 30, 2024, and was paid to the employees in July 2024.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin-top: 0pt; margin-bottom: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b> </b></span></p> 22000000.0Pursuant to the Second Amendment, the Company and Cipla were each responsible for 60% and 40%, respectively, of the Company’s overhead costs and the time spent by the Company’s employees and consultants on development of the Product (“Direct Costs”). The Company will share all other development costs with Cipla that are not Direct Costs, such as the cost of clinical research organizations, manufacturing costs and other third-party costs, on a 50/50 basis.22000000.012000000.010000000.0900000660000018000003300000300000840000002600000<p id="xdx_808_eus-gaap--StockholdersEquityNoteDisclosureTextBlock_zElqraydgT3c" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>7. <span id="xdx_822_zBLCdqxjRT6i">Common Stock</span></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">In May 2021, the Company entered into an~~

~~margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p id="xdx_895_eus-gaap--ScheduleOfAntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareTextBlock_zpqrjq6MrSoa" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted-average shares outstanding, because such securities had an anti-dilutive impact:</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: center"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><span id="xdx_8BD_z37ArapvTbx8" style="display: none">Schedule of Computation of Anti-Dilutive Weighted-Average Shares Outstanding</span></span></span><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <table cellpadding="0" cellspacing="0" style="font: 10pt Times New Roman, Times, Serif; margin-left: auto; border-collapse: collapse; width: 90%; margin-right: auto"> <tr style="vertical-align: bottom"> <td> </td><td style="font-weight: bold"> </td> <td colspan="6" style="border-bottom: Black 1pt solid; font-weight: bold; text-align: center">Three and Six Months Ended June 30,</td><td style="font-weight: bold"> </td></tr> <tr style="vertical-align: bottom"> <td> </td><td style="font-weight: bold"> </td> <td colspan="2" style="border-bottom: Black 1pt solid; font-weight: bold; text-align: center">2024</td><td style="font-weight: bold"> </td><td style="font-weight: bold"> </td> <td colspan="2" style="border-bottom: Black 1pt solid; font-weight: bold; text-align: center">2023</td><td style="font-weight: bold"> </td></tr> <tr style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="width: 60%; text-align: left">Options to purchase common stock</td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left"> </td><td style="width: 16%; text-align: right"><span id="xdx_90B_eus-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount_pid_c20240101__20240630__us-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis__custom--OptionsToPurchaseCommonStockMember_z7gV32K73eC4" title="Options to purchase common stock">311,437</span></td><td style="width: 1%; text-align: left"> </td><td style="width: 2%"> </td> <td style="width: 1%; text-align: left"> </td><td style="width: 16%; text-align: right"><span id="xdx_90F_eus-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount_pid_c20230101__20230630__us-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis__custom--OptionsToPurchaseCommonStockMember_zMiRU7Rw28yd" title="Options to purchase common stock">393,254</span></td><td style="width: 1%; text-align: left"> </td></tr> <tr style="vertical-align: bottom; background-color: White"> <td style="text-align: left">Warrants to purchase common stock</td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right"><span id="xdx_90E_eus-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount_pid_c20240101__20240630__us-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis__custom--WarrantsToPurchaseCommonStockMember_z9XntgTxlXU2" title="Warrants to purchase common stock">1,001,048</span></td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 1pt solid; text-align: left"> </td><td style="border-bottom: Black 1pt solid; text-align: right"><span id="xdx_90B_eus-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount_pid_c20230101__20230630__us-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis__custom--WarrantsToPurchaseCommonStockMember_zfJHY77j15Kh" title="Warrants to purchase common stock">1,161,493</span></td><td style="text-align: left"> </td></tr> <tr style="vertical-align: bottom; background-color: rgb(204,238,255)"> <td style="text-align: left; padding-left: 10pt">Total options and warrants to purchase common stock</td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left"> </td><td style="border-bottom: Black 2.5pt double; text-align: right"><span id="xdx_909_eus-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount_pid_c20240101__20240630_z44at5nb9Mf7" title="Total options and warrants to purchase common stock">1,312,485</span></td><td style="text-align: left"> </td><td> </td> <td style="border-bottom: Black 2.5pt double; text-align: left"> </td><td style="border-bottom: Black 2.5pt double; text-align: right"><span id="xdx_906_eus-gaap--AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount_pid_c20230101__20230630_zVCReInH8kH5" title="Total options and warrants to purchase common stock">1,554,747</span></td><td style="text-align: left"> </td></tr> </table> 3114373932541001048116149313124851554747<p id="xdx_806_eus-gaap--SubsequentEventsTextBlock_zTalsfJZqTJl" style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><b>14. <span id="xdx_82C_zHfcn743rK12">Subsequent Events</span></b></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><i>Departure of Chief Executive Officer</i></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">On July 15, 2024, the Board of Directors (the “Board”) of the Company approved a General Release and Severance Agreement (the “Raad Severance Agreement”), by and between the Company and Teofilo Raad, dated as of July 19, 2024, and effective as of the same date (the “Separation Date”). Effective as of the Separation Date, Mr. Raad’s employment with the Company ceased and Mr. Raad relinquished all positions, offices, and authority with the Company and any affiliates, including as a member of the Board and all committees thereto, and the Amended and Restated Employment Agreement by and between the Company and Mr. Raad, dated as of June 28, 2019, was terminated.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">Pursuant to the terms of the Raad Severance Agreement, the Company will provide to Mr. Raad certain termination-related payments totaling approximately $<span id="xdx_90A_ecustom--TerminationRelatedPayments_pn5n6_c20240715__20240715__us-gaap--TypeOfArrangementAxis__custom--RaadSeveranceAgreementMember__us-gaap--SubsequentEventTypeAxis__us-gaap--SubsequentEventMember_zjXis3gSBY1l" title="Termination related payments">1.0</span> million, less all lawful and authorized withholdings and deductions. Any outstanding equity awards granted to Mr. Raad under the Company’s equity compensation plans and that would have vested during the 12-month period following the Separation Date became fully vested as of the Separation Date.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: left"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"><i>Appointment of Interim Chief Executive Officer</i></span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">On July 15, 2024, the Board approved the appointment of Peter Ludlum as the Interim Chief Executive Officer (the “Interim CEO”), effective as of July 20, 2024 (“Ludlum Effective Date”), pursuant to an amendment to the consulting agreement, by and between the Company and Danforth Advisors, LLC, dated as of November 29, 2021, and amended on April 8, 2022, and October 20, 2022.</span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt"> </span></p> <p style="font: 10pt Times New Roman, Times, Serif; margin: 0pt; text-align: justify"><span style="font-family: Times New Roman, Times, Serif; font-size: 10pt">The Company has completed an evaluation of all other subsequent events after the balance sheet date of June 30, 2024 through the date the condensed consolidated financial statements were issued to ensure that the condensed consolidated financial statements include appropriate disclosure of events both recognized in the condensed consolidated financial statements as of June 30, 2024, and events which occurred subsequently but were not recognized in the condensed consolidated financial statements. The Company has concluded that no subsequent events have occurred that require disclosure, except as disclosed within the condensed consolidated financial statements.</span></p> 1000000.0~~