REFINITIV

# DELTA REPORT

## 10-Q

PDSB - PDS BIOTECHNOLOGY CORP

10-Q - MARCH 31, 2024 COMPARED TO 10-Q - SEPTEMBER 30, 2023

The following comparison report has been automatically generated

| TOTAL DELTAS | 1500 |
|---|---|
| CHANGES | 104 |
| DELETIONS | 472 |
| ADDITIONS | 924 |





REFINITIV

**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**Washington, D.C. 20549**

# FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2023 March 31, 2024

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission file number 001-37568

# PDS Biotechnology Corporation

(Exact name of registrant as specified in its charter)

| **Delaware** | **26-4231384** |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (IRS Employer Identification No.) |

**303A College Road East, Princeton, NJ 08540**
(Address of principal executive offices)

**(800) 208-3343**
(Registrant's telephone number)

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading symbol(s) | Name of each exchange on which registered |
|---|---|---|
| Common Stock, par value $0.00033 per share | PDSB | The Nasdaq Stock Market LLC |

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 ☒ No ☐

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 (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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 "large accelerated filer", "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| Large accelerated filer ☐ | Accelerated filer ☐ | Non-accelerated filer ☒ | Smaller reporting company Reporting Company ☒ |
|---|---|---|---|

Emerging growth company ☐

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. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The number of shares of the registrant's Common Stock, par value $0.00033 per share, outstanding as of November 7, 2023 May 8, 2024 was 31,107,763. 36,679,275.

**PDS BIOTECHNOLOGY CORPORATION**

**FORM 10-Q FOR THE QUARTER ENDED September 30, 2023**
**March 31, 2024**

**INDEX**



*Index*

**PART 1. FINANCIAL INFORMATION**

**ITEM 1. FINANCIAL STATEMENTS**

**PDS BIOTECHNOLOGY CORPORATION AND SUBSIDIARY**

**Condensed Consolidated Balance Sheets**

| | September 30, 2023 (unaudited) | December 31, 2022 | March 31, 2024 (unaudited) | December 31, 2023 |
|---|---|---|---|---|
| ASSETS | | | | |
| Current assets: | | | | |
| Cash and cash equivalents | $ 54,251,387 | $ 73,820,160 | $ 66,634,417 | $ 56,560,517 |
| Prepaid expenses and other assets | 2,587,025 | 2,660,230 | 2,051,348 | 2,494,558 |

| | | | | |
|---|---|---|---|---|
| Total current assets | 56,838,412 | 76,480,390 | 68,685,765 | 59,055,075 |
| | | | | |
| Property and equipment, net | 138,866 | - | 129,398 | 134,132 |
| Financing lease right-of-use assets | 210,543 | 374,888 | | |
| Operating lease right-of-use asset | - | 152,645 | | |
| Financing lease right-to-use assets | | | 191,203 | 200,873 |
| | | | | |
| Total assets | $ 57,187,821 | $ 77,007,923 | $ 69,006,366 | $ 59,390,080 |
| | | | | |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | | | |
| Current liabilities: | | | | |
| Accounts payable | $ 5,366,564 | $ 1,219,287 | $ 6,000,831 | $ 6,982,824 |
| Accrued expenses | 3,732,727 | 8,313,708 | 1,714,111 | 2,424,692 |
| Note payable - short term | | | 7,291,667 | 4,166,667 |
| Financing lease obligation-short term | 54,537 | 56,612 | 57,081 | 55,794 |
| Operating lease obligation-short term | - | 231,429 | | |
| Total current liabilities | 9,153,828 | 9,821,036 | 15,063,690 | 13,629,977 |
| | | | | |
| Noncurrent liabilities: | | | | |
| Note payable, net of debt discount | 23,412,764 | 23,020,844 | 16,651,420 | 19,506,183 |
| Financing lease obligation-long term | 137,401 | 164,013 | 108,211 | 122,973 |
| Total liabilities: | $ 32,703,993 | $ 33,005,893 | $ 31,823,321 | $ 33,259,133 |
| | | | | |
| STOCKHOLDERS' EQUITY | | | | |
| Common stock, $0.00033 par value, 75,000,000 shares authorized at September 30, 2023 and December 31, 2022, 31,007,763 shares and 30,170,317 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively | 10,233 | 9,956 | | |
| Common stock, $0.00033 par value, 75,000,000 shares authorized at March 31, 2024 and December 31, 2023, 36,679,275 shares and 33,094,521 shares issued and outstanding at March 31, 2024 and December 31, 2023, respectively | | | 12,104 | 10,921 |
| Additional paid-in capital | 158,075,994 | 145,550,491 | 192,275,033 | 170,620,641 |
| Accumulated deficit | (133,602,399) | (101,558,417) | (155,104,092) | (144,500,615) |
| Total stockholders' equity | 24,483,828 | 44,002,030 | 37,183,045 | 26,130,947 |
| | | | | |
| Total liabilities and stockholders' equity | $ 57,187,821 | $ 77,007,923 | $ 69,006,366 | $ 59,390,080 |

See accompanying notes to the condensed consolidated financial statements.



Index

**PDS BIOTECHNOLOGY CORPORATION AND SUBSIDIARY**

**Condensed Consolidated Statements of Operations and Comprehensive Loss**

**(Unaudited)**

| | Three Months Ended September 30, | | Nine Months Ended September 30, | | Three Months Ended March 31, | |
|---|---|---|---|---|---|---|
| | 2023 | 2022 | 2023 | 2022 | 2024 | 2023 |
| Operating expenses: | | | | | | |
| Research and development expenses | $ 6,448,528 | $ 4,352,987 | $ 20,297,066 | $ 13,275,947 | $ 6,704,164 | $ 5,843,686 |
| General and administrative expenses | 4,071,158 | 2,926,209 | 12,341,207 | 9,575,122 | 3,393,463 | 3,578,728 |
| Total operating expenses | 10,519,686 | 7,279,196 | 32,638,273 | 22,851,069 | 10,097,627 | 9,422,414 |
| | | | | | | |
| Loss from operations | (10,519,686) | (7,279,196) | (32,638,273) | (22,851,069) | (10,097,627) | (9,422,414) |
| | | | | | | |
| Interest income (expenses), net | | | | | | |
| Interest income (expense), net | | | | | | |
| Interest income | 739,404 | 252,073 | 2,219,399 | 332,318 | 668,895 | 729,341 |
| Interest expense | (1,068,887) | (397,327) | (3,031,129) | (397,326) | (1,174,745) | (966,845) |

| | | | | | | |
|---|---|---|---|---|---|---|
| Interest income (expenses), net | (329,483) | (145,254) | (811,730) | (65,008) | | |
| Interest income (expense), net | | | | | (505,850) | (237,504) |
| | | | | | | |
| Loss before income taxes | (10,849,169) | (7,424,450) | (33,450,003) | (22,916,077) | | |
| Benefit for income taxes | - | - | 1,406,021 | 1,198,905 | | |
| Net loss and comprehensive loss | (10,849,169) | (7,424,450) | (32,043,982) | (21,717,172) | (10,603,477) | (9,659,918) |
| | | | | | | |
| Per share information: | | | | | | |
| Net loss per share, basic and diluted | $ (0.35) | $ (0.26) | $ (1.04) | $ (0.76) | $ (0.30) | $ (0.32) |
| | | | | | | |
| Weighted average common shares outstanding, basic, and diluted | 30,910,520 | 28,458,688 | 30,715,458 | 28,452,997 | | |
| Weighted average common shares outstanding basic and diluted | | | | | 34,815,870 | 30,428,053 |

See accompanying notes to the condensed consolidated financial statements.



Index

**PDS BIOTECHNOLOGY CORPORATION AND SUBSIDIARY**

**Condensed Consolidated Statements of Changes in Stockholders' Equity**

**(Unaudited)**

| | Common Stock | | | | |
|---|---|---|---|---|---|
| | Shares Issued | Amount | Additional Paid-in Capital | Accumulated Deficit | Total Equity |
| **January 1, 2022** | **28,448,612** | **$ 9,387** | **$ 123,904,602** | **$ (60,703,562)** | **$ 63,210,427** |
| **Stock based compensation expense** | **-** | **-** | **1,128,973** | **-** | **1,128,973** |
| **Issuances of common stock, from exercise of stock options** | **2,282** | **1** | **7,487** | **-** | **7,488** |
| **Net loss** | **-** | **-** | **-** | **(8,473,522)** | **(8,473,522)** |
| **Balance - March 31, 2022** | **28,450,894** | **$ 9,388** | **$ 125,041,062** | **$ (69,177,084)** | **$ 55,873,366** |
| **Stock based compensation expense** | **-** | **-** | **1,348,601** | **-** | **1,348,601** |
| **Issuances of common stock, from exercise of stock options** | **7,794** | **3** | **22,426** | **-** | **22,429** |
| **Net loss** | **-** | **-** | **-** | **(5,819,200)** | **(5,819,200)** |
| **Balance - June 30, 2022** | **28,458,688** | **$ 9,391** | **$ 126,412,089** | **$ (74,996,284)** | **$ 51,425,196** |
| **Stock based compensation expense** | **-** | **-** | **1,344,349** | **-** | **1,344,349** |
| **Issuances of warrants** | **-** | **-** | **1,713,714** | **-** | **1,713,714** |
| **Net loss** | **-** | **-** | **-** | **(7,424,450)** | **(7,424,450)** |
| **Balance - September 30, 2022** | **28,458,688** | **$ 9,391** | **$ 129,470,179** | **$ (82,420,734)** | **$ 47,058,836** |

| | Common Stock | | | | |
|---|---|---|---|---|---|
| | Shares Issued | Amount | Additional Paid-in Capital | Accumulated Deficit | Total Equity |
| **January 1, 2023** | **30,170,317** | **$ 9,956** | **$ 145,550,491** | **$ (101,558,417)** | **$ 44,002,030** |
| **Stock-based compensation expense** | **–** | **–** | **2,080,319** | **–** | **2,080,319** |
| Issuances of common stock from the Sales Agreement, net | **553,293** | **183** | **4,588,339** | **–** | **4,588,522** |
| **Net loss** | **–** | **–** | **–** | **(9,659,918)** | **(9,659,918)** |
| **Balance - March 31, 2023** | **30,723,610** | **$ 10,139** | **$ 152,219,149** | **$ (111,218,335)** | **$ 41,010,953** |

| | Common Stock | | | | |
|---|---|---|---|---|---|
| | Shares Issued | Amount | Additional Paid-in Capital | Accumulated Deficit | Total Equity |

| | | | | | |
|---|---|---|---|---|---|
| **January 1, 2023** | **30,170,317** | **$ 9,956** | **$ 145,550,491** | **$ (101,558,417 )** | **$ 44,002,030** |
| **Stock based compensation expense** | **-** | **-** | **2,080,319** | **-** | **2,080,319** |
| **Issuances of common stock from the Sales Agreement, net** | **553,293** | **183** | **4,588,339** | **-** | **4,588,522** |
| **Net loss** | **-** | **-** | **-** | **(9,659,918 )** | **(9,659,918 )** |
| **Balance - March 31, 2023** | **30,723,610** | **$ 10,139** | **$ 152,219,149** | **$ (111,218,335 )** | **$ 41,010,953** |
| **Stock based compensation expense** | **-** | **-** | **2,105,538** | **-** | **2,105,538** |
| **Issuances of common stock, from exercise of stock options** | **1,409** | **1** | **8,848** | **-** | **8,849** |
| **Issuance of common stock for consulting agreement** | **100,000** | **33** | **609,967** | **-** | **610,000** |
| **Issuances of common stock from the Sales Agreement, net** | **43,169** | **14** | **243,729** | **-** | **243,743** |
| **Net loss** | **-** | **-** | **-** | **(11,534,895 )** | **(11,534,895 )** |
| **Balance - June 30, 2023** | **30,868,188** | **$ 10,187** | **$ 155,187,231** | **$ (122,753,230 )** | **$ 32,444,188** |
| **Stock based compensation expense** | **-** | **-** | **2,073,607** | **-** | **2,073,607** |
| **Issuances of common stock from the Sales Agreement, net** | **139,575** | **46** | **815,156** | **-** | **815,202** |
| **Net loss** | **-** | **-** | **-** | **(10,849,169 )** | **(10,849,169 )** |
| **Balance - September 30, 2023** | **31,007,763** | **$ 10,233** | **$ 158,075,994** | **$ (133,602,399 )** | **$ 24,483,828** |

| | Common Stock | | | | |
|---|---|---|---|---|---|
| | **Shares Issued** | **Amount** | **Additional Paid-in Capital** | **Accumulated Deficit** | **Total Equity** |
| **January 1, 2024** | 33,094,521 | $ 10,921 | $ 170,620,641 | $ (144,500,615 ) | $ 26,130,947 |
| Stock-based compensation expense | – | – | 1,630,011 | – | 1,630,011 |
| Issuances of common stock from the Sales Agreement, net | 3,428,681 | 1,131 | 19,493,342 | – | 19,494,473 |
| Issuances of common stock, from exercise of stock options | 156,073 | 52 | 531,039 | – | 531,091 |
| Net loss | – | – | – | (10,603,477 ) | (10,603,477 ) |
| **Balance - March 31, 2024** | 36,679,275 | $ 12,104 | $ 192,275,033 | $ (155,104,092 ) | $ 37,183,045 |

See accompanying notes to the condensed consolidated financial statements.



Index

**PDS BIOTECHNOLOGY CORPORATION AND SUBSIDIARY**

**Condensed Consolidated Statements of Cash Flows**

**(Unaudited)**

| | Nine Months Ended September 30, | | Three Months Ended March 31, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2024 | 2023 |
| **Cash flows from operating activities:** | | | | |
| Net loss | $ (32,043,982) | $ (21,717,172) | $ (10,603,477) | $ (9,659,918) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | | |
| Stock-based compensation expense | 6,259,464 | 3,821,923 | 1,630,011 | 2,080,319 |
| Issuance of shares in consulting agreement | 610,000 | - | | |
| Amortization of debt discount | 391,920 | 72,722 | 270,236 | 121,997 |
| Depreciation expense | 12,624 | 86 | 4,735 | 3,155 |
| Operating lease expense | 160,685 | 180,772 | – | 60,257 |
| Finance lease depreciation expense | 30,297 | 37,417 | 9,670 | 10,957 |
| Changes in assets and liabilities: | | | | |
| Prepaid expenses and other assets | 73,205 | (1,171,337) | 443,210 | (113,758) |
| Finance lease right-of-use asset | - | (306,487) | | |
| Accounts payable | 4,147,277 | 727,987 | (981,993) | 852,774 |
| Accrued expenses | (4,580,981) | 240,799 | (710,581) | (6,455,317) |
| Finance lease liabilities | - | 138,402 | | |
| Operating lease liabilities | (239,469) | (205,885) | – | (89,102) |
| Net cash used in operating activities | (25,178,960) | (18,180,773) | (9,938,189) | (13,188,636) |

| | | | | |
|---|---|---|---|---|
| **Cash flows from financing activities:** | | | | |
| Proceeds from issuance of note payable | - | 25,000,000 | | |
| Payment for debt issuance costs | - | (449,329) | | |
| Proceeds from exercise of stock options | 8,849 | 29,917 | 531,091 | – |
| Payments of finance lease obligations | (46,129) | - | (13,475) | (20,667) |
| Proceeds from issuance of common stock, net of issuance costs | 5,647,467 | - | 19,494,473 | 4,588,522 |
| Net cash provided by financing activities | 5,610,187 | 24,580,588 | 20,012,089 | 4,567,855 |
| **Net increase in cash and cash equivalents** | (19,568,773) | 6,399,815 | 10,073,900 | (8,620,781) |
| Cash and cash equivalents at beginning of period | 73,820,160 | 65,242,622 | 56,560,517 | 73,820,160 |
| **Cash and cash equivalents at the end of period** | $ 54,251,387 | $ 71,642,437 | $ 66,634,417 | $ 65,199,379 |
| **Supplemental information of cash and non-cash transactions:** | | | | |
| Cash paid for interest | $ 3,031,129 | $ 62,500 | $ 1,174,745 | $ 966,845 |
| Fair value of warrants issued in connection with debt | $ - | $ 1,713,741 | | |

See accompanying notes to the condensed consolidated financial statements.



Index

**PDS BIOTECHNOLOGY CORPORATION AND SUBSIDIARY**
**Notes to Condensed Consolidated Financial Statements (Unaudited)**

**Note 1 – Nature of Operations**

PDS Biotechnology Corporation, a Delaware corporation (the "Company" or "PDS Biotech"), is a clinical-stage immunotherapy company developing a growing pipeline of targeted cancer and infectious disease immunotherapies based on its Versamune®, Versamune® plus our IL12 fused antibody-drug conjugate (ADC) PDS01ADC (formerly PDS0301/M9241) and Infectimune® T cell-activating platforms and PDS01ADC tumor targeting immunocytokine. The Company believes its molecularly targeted immunotherapies have potential designed to overcome the limitations of current immunotherapy approaches through and vaccine technologies. The Company develops proprietary platforms designed to train and enable the activation of the right type, quantity immune system to attack and potency of T cells. Versamune, destroy disease; Versamune®, and Versamune plus Versamune® in combination with PDS01ADC is for treatments in oncology and Infectimune, Infectimune® for treatments in infectious disease. diseases. When paired with an antigen, which is a disease-related protein that is recognizable by the immune system, Versamune Versamune® and Infectimune Infectimune® have both been shown to induce, in vivo, large quantities of high-quality, highly potent polyfunctional CD4 helper and CD8 killer T cells, a specific sub-type of T cell that is more effective at killing infected or target cells. Infectimune PDS01ADC is a novel investigational tumor-targeting fusion protein of Interleukin 12 that enhances the proliferation, potency, infiltration and longevity of T cells in the tumor microenvironment and is therefore designed to overcome the limitations of cytokine therapy which today has resulted in high toxicity and limited therapeutic potential. Infectimune® is also designed to promote the induction of disease-specific neutralizing antibodies. PDS01ADC is an investigational tumor targeting IL-12 that enhances the proliferation, potency and longevity of T cells in the tumor microenvironment. Versamune plus PDS01ADC enhances the proliferation, potency and longevity of antigen specific multifunctional CD8 T cells in the tumor microenvironment and works synergistically to overcome tumor immune suppression.

The Company's immuno-oncology clinical product candidates are of potential interest for use as a component of combination clinical product candidates (for example, in combination with other leading technologies such as immune checkpoint inhibitors) to provide more effective treatments across a range of advanced and/or refractory cancers. The Company is also evaluating our its immunotherapies as monotherapies in early-stage disease. PDS Biotech The Company is developing targeted clinical product candidates to treat several cancers, including Human Papillomavirus (HPV)-positive associated cancers, melanoma, colorectal, lung, breast and prostate cancers. The Company's infectious disease candidates are candidate is of potential interest for use in universal influenza vaccines.

**Note 2 – Summary of Significant Accounting Policies**

**(A) Unaudited interim financial statements:**

The interim balance sheet at September 30, 2023, the statements of operations and comprehensive loss and changes in stockholders' equity and cash flows for the three and nine months ended September 30, 2023 and 2022 are unaudited. The accompanying unaudited condensed consolidated financial statements for all periods presented are referred to as "Condensed Consolidated Financial Statements", and have been prepared by the Company in United States ("U.S.") dollars and in accordance with U.S. GAAP, generally accepted accounting principles ("U.S. GAAP") for interim financial reporting and pursuant to the rules and regulations for reporting on Form 10-Q, which do not conform in accordance with all respects to the requirements of the Securities U.S. GAAP for annual financial statements. Accordingly, certain information and Exchange Commission ("SEC") for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally disclosures required by U.S. GAAP can be condensed or omitted. These condensed for complete consolidated financial statements have been prepared on the same basis as the Company's annual financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments that are necessary for a fair statement of its financial information. The results of operations for the three and nine months ended September 30, 2023 are not necessarily indicative of included herein. Accordingly, these notes to the results to be expected for the year ending December 31, 2023 or for any other future annual or interim period. The balance sheet as of December 31, 2022 included herein was derived from the audited consolidated financial statements as of that date. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements prepared in accordance with U.S. GAAP that are contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the U.S.

Securities and Exchange Commission (“SEC”) on March 28, 2024. The unaudited condensed consolidated financial statements have been prepared using accounting policies that are consistent with the policies used in preparing the Company’s audited consolidated financial statements and notes thereto as of and for the year ended December 31, 2022, filed by December 31, 2023. The unaudited Condensed Consolidated Financial Statements reflect all normal and recurring adjustments necessary for a fair statement of the Company with Company’s financial position and results of operations for the SEC in its Annual Report on Form 10-K on March 28, 2023. interim periods. The operating results for the interim periods presented are not necessarily indicative of the results expected for the full year.

**(B) Use of estimates:**

The preparation of the condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of expenses at the date of the condensed consolidated financial statements and during the reporting periods, and to disclose contingent assets and liabilities at the date of the condensed consolidated financial statements. Actual results could differ from those estimates. The most significant estimate relates to the fair value of securities underlying stock-based compensation.

**(C) Significant risks and uncertainties:**

The Company’s operations are subject to a number of factors that may affect its operating results and financial condition. Such factors include, but are not limited to: the Company’s ability to complete clinical and trials necessary to obtain regulatory product licenses, the regulatory approvals needed to pursue development of its clinical candidates, products, the Company’s adherence to covenants under its debt agreement, the Company’s ability to preserve its cash resources, the Company’s review of strategic alternatives, the ability to add clinical product candidates to its pipeline, the Company’s intellectual property, the ability to efficiently and effectively conduct its clinical trials, competition from products manufactured and sold or being developed by other companies, the price of, and demand for, Company products if approved for sale, the Company’s ability to negotiate favorable licensing or other manufacturing and marketing agreements for its products, and the Company’s ability to raise capital, and the effects of health epidemics, pandemics, or outbreaks of infectious diseases. capital.



Index

The Company currently has no commercially approved products. As such, there can be no assurance that the Company’s future research and development programs will be successfully commercialized. Developing and commercializing a product requires significant time and capital and is subject to regulatory review and approval as well as competition from other biotechnology and pharmaceutical companies. The Company operates in an environment of rapid change and is dependent upon the continued services of its employees and consultants and obtaining and protecting its intellectual property.

**(D) Cash equivalents and concentration of cash balance:**

The Company considers all highly liquid securities with a maturity weighted average of less than three months to be cash equivalents. The Company’s cash and cash equivalents in bank deposit accounts, at times, may exceed federally insured limits.

**(E) Research and development:**

Costs incurred in connection with research and development activities are expensed as incurred. These costs include licensing fees to use certain technology in the Company’s research and development projects as well as fees paid to consultants and entities that perform certain research and testing on behalf of the Company.

Costs for certain development activities, such as clinical trials, are recognized based on an evaluation of the progress to completion of specific tasks using data, such as patient enrollment, clinical trial site activations or information provided by vendors on their actual costs incurred. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred.

**(F) Patent costs:**

The Company expenses patent costs as incurred and classifies such costs as general and administrative expenses in the accompanying condensed consolidated statements of operations and comprehensive loss.

**(G) Stock-based compensation:**

The Company accounts for its stock-based compensation in accordance with ASC Topic 718, Compensation—Stock Compensation (“ASC 718”). ASC 718 requires all stock-based payments to employees, directors and non-employees to be recognized as expense in the condensed consolidated statements of operations and comprehensive loss based on their grant date fair values. In order to determine the fair value of stock options on the date of grant, the Company uses the Black-Scholes option-pricing model. Inherent in this model are assumptions related to expected stock-price volatility, option term, risk-free interest rate and dividend yield. While the risk-free interest rate and dividend yield are less subjective assumptions that are based on factual data derived from public sources, the expected stock-price volatility and option term assumptions require a greater level of judgment. The Company expenses the fair value of its stock-based compensation awards to employees and directors on a straight-line basis over the requisite service period, which is generally the vesting period. The Company recognizes forfeitures as they occur.

**(H) Net loss per common share:**

Basic and diluted net loss per common share is determined by dividing net loss attributable to common stockholders by the weighted average common shares outstanding during the period. For all periods presented, the common shares underlying the stock options and warrants have been excluded from the calculation because their effect would be anti-dilutive. Therefore, the weighted average shares outstanding used to calculate both basic and diluted loss per common share is the same.

The potentially dilutive securities excluded from the determination of diluted loss per share as their effect is antidilutive, are as follows:

| | As of September 30, | | As of March 31, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2024 | 2023 |
| Stock options to purchase Common Stock | 5,383,902 | 4,370,846 | 5,314,661 | 5,295,911 |
| Warrants to purchase Common Stock | 506,229 | 506,229 | 466,112 | 506,229 |
| Total | 5,890,131 | 4,877,075 | 5,780,773 | 5,802,140 |



Index

**(I) Income taxes:**

The Company provides for deferred income taxes under the asset and liability method, which requires deferred tax assets and liabilities to be recognized for the future tax consequences attributable to net operating loss carryforwards and for differences between the financial statement carrying amounts and the respective tax bases of assets and liabilities. Deferred tax assets are reduced if necessary, by a valuation allowance if it is more likely than not that some portion or all of the deferred tax assets will not be realized.



Index

**(J) Fair value of financial instruments:**

FASB ASC 820, Fair Value Measurement, specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect market assumptions. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement).

The three levels of the fair value hierarchy are as follows:

- Level 1 — Unadjusted quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Level 1 primarily consists of financial instruments whose value is based on quoted market prices such as exchange-traded instruments and listed equities.

- Level 2 — Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly (e.g., quoted prices of similar assets or liabilities in active markets, or quoted prices for identical or similar assets or liabilities in markets that are not active). Level 2 includes financial instruments that are valued using models or other valuation methodologies.

- Level 3 — Unobservable inputs for the asset or liability. Financial instruments are considered Level 3 when their fair values are determined using pricing models, discounted cash flows or similar techniques and at least one significant model assumption or input is unobservable.

**(K) Leases:**

The Company determines if an arrangement is a lease at inception and recognizes the lease in accordance with ASC 842, Leases (“ASC 842”). Both financing and operating leases are included in right-of-use (“ROU”) assets, lease obligation-short term and lease obligation-long term in the Company’s condensed consolidated balance sheets. ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the Company’s obligation to make lease payments arising from the lease. The ROU assets and lease liabilities are recognized at the lease commencement date based on the present value of the lease payments over the lease term. The Company determines the portion of the lease liability that is current as the difference between the calculated lease liability at the end of the current period and the lease liability that is projected 12 months from the current period.

**(L) New accounting standards:**

*Recently Adopted Accounting Pronouncements*

Recently issued accounting pronouncements did not, or are not believed by management to, have a material effect on our present or future condensed consolidated financial statements.

*Recent Accounting Pronouncements Not Yet Adopted*

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which improves the disclosures required for reportable segments in the Company’s annual and interim financial statements, primarily through enhanced disclosures about significant segment expenses. ASU 2023-07 is effective for annual periods beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024. Adoption of this ASU should be applied retrospectively to all prior periods presented in the financial statements. Early adoption is permitted. The Company is currently evaluating the impact that adopting this standard will have on the consolidated financial statements and disclosures and given the Company has one reportable segment, this policy is not expected to have a material impact on the consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, Improvements to Income Tax Disclosures, which requires public entities, on an annual basis, to provide disclosures of specific categories in the rate reconciliation, additional information for reconciling items that meet a quantitative threshold and income taxes paid disaggregated by jurisdiction. ASU 2023-09 is effective for annual periods beginning after December 15, 2024. Early adoption is permitted. The Company is currently evaluating the impact that adopting this standard will have on the consolidated financial statements and disclosures.



Index

**Note 3 – Liquidity and Capital Resources**

As of September 30, 2023 March 31, 2024, the Company had $54.3 million $66.6 million of cash and cash equivalents. The Company's primary uses use of cash are is to fund operating expenses, primarily research and development expenditures. Cash used to fund operating expenses is impacted by the level of activities undertaken, as well as the timing of when the Company pays these expenses, as reflected in the change to the Company's outstanding accounts payable and accrued expenses. Since inception, the Company has experienced net losses and negative cash flows from operations each fiscal year. The Company has no revenues and expects to continue to incur operating losses for the foreseeable future and may never become profitable. In addition, the Loan and Security Agreement allows for the lenders to call the outstanding balance of the term loans if the minimum cash balances outlined in the Loans and Security Agreement are not maintained.

The Company funds its operations through equity and/or debt financings such as the following:

In April 2022, the Company received approximately $1.2 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant to the Company's participation in the New Jersey Technology Business Tax Certificate Transfer NOL program for tax year 2020.

In August 2022, the Company filed a shelf registration statement, or the 2022 Shelf Registration Statement, with the SEC for the issuance of common stock, preferred stock, warrants, rights, debt securities, and units, up to an aggregate amount of $150 million, $50 million of which covers the offer, issuance and sale by the Company of its common stock under the Sales Agreement (as discussed below). The 2022 Shelf Registration Statement was declared effective on September 2, 2022.



Index

In August 2022, the Company entered into an At Market Issuance Sales Agreement, or the Sales Agreement, with B. Riley Securities, Inc. and BTIG, LLC, each an Agent and collectively the Agents, with respect to an at-the-market offering program under which the Company may offer and sell, from time to time at its sole discretion, shares of its common stock, having an aggregate offering price of up to $50 million, or the Placement Shares, through or to the Agents, as sales agents or principals. Upon delivery of a placement notice and subject to the terms and conditions of the Sales Agreement, the Agents may sell the Placement Shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act of 1933, as amended, including, without limitation, sales made through The Nasdaq Capital Market or on any other existing trading market for the Company's common stock. The Agents will use commercially reasonable efforts to sell the Placement Shares from time to time, based upon the Company's instructions (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company will pay the Agents a commission equal to three percent (3%) of the gross sales proceeds of any Placement Shares sold through the Agents under the Sales Agreement, and the Company has also provided the Agents with customary indemnification and contribution rights. The Company is not obligated to make any sales of its common stock under the Sales Agreement. The offering of Placement Shares Shares pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all Placement Shares subject to the Sales Agreement or (ii) termination of the Sales Agreement in accordance with its terms. For the year ended December 31, 2022 December 31, 2023, the Company sold 1,238,491 2,642,269 shares of common stock with for a net value of $9.9 million $16.1 million pursuant to the Sales Agreement. During the three quarter ended March 31, 2024 and nine months ended September 30, 2023, 2023, the Company sold 139,575 3,428,681 and 736,037 553,293 shares respectively, of its common stock with for a net value of $0.8 million $19.5 and $5.6 million $4.6 million, respectively, pursuant to the Sales Agreement.

In August 2022, the Company entered into a venture loan and security agreement, or the Loan and Security Agreement, with Horizon Technology Finance Corporation, as lender and collateral agent for itself and the other lenders. The Loan and Security Agreement provides for the following 6 separate and independent term loans: (a) a term loan in the amount of $7,500,000, or Loan A, (b) a term loan in the amount of $10,000,000, or Loan B, (c) a term loan in the amount of $3,750,000, or Loan C, (d) a term loan in the amount of $3,750,000, or Loan D, (e) a term loan in the amount of $5,000,000, or Loan E, and (f) a term loan in the amount of $5,000,000, or Loan F, (with each of Loan A, Loan B, Loan C, Loan D, Loan E, and Loan F, individually a Loan and, collectively, the Loans). Loan A, Loan B, Loan C, and Loan D were delivered to the Company on August 24, 2022. In total, the Company received $24.6 million in net proceeds. Loan E and Loan F were uncommitted Loans that could have been advanced by the lenders upon the parties agreement prior to July 31, 2023 upon the satisfaction of certain conditions. At this time the option to advance Loan E and Loan F has expired and Loan E and Loan F are no longer available to the Company under the Loan and Security Agreement. The Company may only use the proceeds of the Loans for working capital or general corporate purposes. Each Loan matures on the 48-month anniversary following the applicable funding date unless accelerated pursuant to certain events of default. Payments on the principal balance begin on October 1, 2024 and are paid monthly in the succeeding 24 months. The principal balance of each Loan bears a floating interest. The interest rate is calculated initially and, thereafter, each calendar month as the sum of (a) the per annum rate of interest from time to time published in The Wall Street Journal as contemplated by the Loan and Security Agreement, or any successor publication thereto, as the "prime rate" then in effect, plus (b) 5.75%; provided that, in the event such rate of interest is less than 4.00%, such rate shall be deemed to be 4.00% for purposes of calculating the interest rate. Interest is payable on a monthly basis based on each Loan principal amount outstanding the preceding month. The Company, at its option upon at least ten (10) business days' written notice to the lenders, may prepay all (and not less than all) of the outstanding Loan by simultaneously paying to each lender an amount equal to (i) any accrued and unpaid interest on the outstanding principal balance of the Loans; plus (ii) an amount equal to (A) if such Loan is prepaid on or before the Loan Amortization Date (as defined in the Loan and Security Agreement) applicable to such Loan, 3% of the then outstanding principal balance of such Loan, (B) if such Loan is prepaid after the Loan Amortization Date applicable to such Loan, but on or before the date that is 12 months after such Loan Amortization Date, 2% of the then outstanding principal balance of such Loan, or (C) if such Loan is prepaid more than 12 months after the Loan Amortization Date but prior to the stated maturity date applicable to such Loan, 1% of the then outstanding principal balance of such Loan; plus (iii) the outstanding principal balance of such Loan; plus (iv) all other sums, if any, that shall have become due and payable thereunder. No prepayment premium will be applied to any outstanding balance of any Loan paid on the stated maturity date.

The Loan and Security Agreement contains customary representations, warranties and covenants, including maintenance of minimum cash balances as well ascovenants by the Company limiting additional indebtedness, liens, including on intellectual property, guaranties, mergers and consolidations, substantial asset sales, investments and loans, certain corporate changes, transactions with affiliates, and fundamental changes.

In April 2023, the Company received approximately $1.4 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant to the Company's participation in the New Jersey Technology Business Tax Certificate Transfer NOL program for tax year 2021.



In April 2024, the Company received approximately $0.9 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant to its participation in the New Jersey Technology Business Tax Certificate Transfer of Net Operating Loss (NOL) program for tax year 2022.

*Going Concern*

The Company evaluated whether there are any conditions and events, considered in the aggregate, that raise substantial doubt about its ability to continue as a going concern within one year after the filing of this Quarterly Report on Form 10-Q in accordance with ASC 205-40. Subtopic 205-40, Going Concern . Since inception, the Company has experienced net losses and negative cash flows from operations each fiscal year. The Company has no revenues and expects to continue to incur operating losses for the foreseeable future and may never become profitable.In addition, the Loan and Security Agreement allows for the lenders to call the outstanding balance of the term loans if the minimum cash balances outlined in the Loan and Security Agreement are not maintained.

The Company's budgeted cash requirements in 2023 2024 and beyond include expenses related to continuing development and clinical trials. trialsas well as payments on its debt. The Company plans to execute its operating plan by obtaining additional capital, principally through entering into collaborations, strategic alliances, or license agreements with third parties and/or additional public or private debt and equity financing. However, there is no assurance that additional capital and/or financing will be available to the Company, and even if available, whether it will be on terms acceptable to the Company or its existing shareholders or in the amounts required. The Company may also enter into government funding programs and consider selectively partnering for clinical development and commercialization. The sale of additional equity would result in additional dilution to the Company's stockholders. Incurring debt financing would result in debt service obligations, and the instruments governing such debt could provide for operating and financing covenants that would restrict its operations. If the Company is unsuccessful in securing sufficient financing, it may need to delay, reduce, or eliminate its research and development programs, which could adversely affect its business prospects, grant rights to third parties to develop and market immunotherapies that the Company would otherwise prefer to develop and market itself or cease operations. Any of these actions could harm its business, results of operations and prospects. Failure to obtain adequate financing also may adversely affect the Company's ability to operate as a going concern.

As a result of these uncertainties, and as its plans are outside of management's control, the Company has concluded that substantial doubt exists about the Company's ability to continue as a going concern for a period of at least 12 months from the date of the issuance of these unaudited condensed consolidated financial statements. The unaudited condensed consolidated financial statements do not include any adjustments to the carrying amounts and classifications of assets and liabilities that would result if the Company was unable to continue as a going concern.

**Note 4 – Fair Value of Financial Instruments**

There were no transfers among Levels 1, 2, or 3 during the three and nine months month ended September 30, 2023 March 31, 2024 or 2022. 2023.

| | Fair Value Measurements at Reporting Date Using | | | | Fair Value Measurements at Reporting Date Using | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | Quoted Prices in Active Markets (Level 1) | Quoted Prices in Inactive Markets (Level 2) | Significant Unobservable Inputs (Level 3) | Total | Quoted Prices in Active Markets (Level 1) | Quoted Prices in Inactive Markets (Level 2) | Signifi Unobserval (Leve |
| As of September 30, 2023: (unaudited) | | | | | | | | |
| As of March 31, 2024: (unaudited) | | | | | | | | |
| Cash and cash equivalents | $ 54,251,387 | $ 54,251,387 | $ – | $ – | $ 66,634,417 | $ 66,634,417 | $ – | $ |
| As of December 31, 2022 | | | | | | | | |
| As of December 31, 2023 | | | | | | | | |
| Cash and cash equivalents | $ 73,820,160 | $ 73,820,160 | $ – | $ – | $ 56,560,517 | $ 56,560,517 | $ – | $ |

The carrying value of the Note PayableLoan and Security Agreement approximated its fair value at September 30, 2023 as of March 31, 2024 due to its variable rate.



**Note 5 – Leases**

Operating Lease:

Effective March 5, 2020, the Company entered into a sublease for approximately 11,200 square feet of office space located at 25B Vreeland Road, Suite 300, Florham Park, NJ. The sublease commenced on May 1, 2020 and will continue for with a term of forty (40) months with an option to renew through October 31, 2027. As of The sublease term

expired on August 31, 2023 the lease term has expired, and was not renewed. Upon inception of the sublease, the Company recognized approximately $0.7 million of a ROU asset assets and operating lease liabilities. The discount rate used to measure the operating lease liability as of May 1, 2020 was 9.15%. Throughout the period described above, the Company has maintained, and continues to maintain, a month-to-month lease for its research facilities at the Princeton Innovation Center BioLabs located at 303A College Road E, Princeton NJ, 08540.



Index

Supplemental cash flow information related to operating leases is as follows:

| | As of September 30, | |
|---|---|---|
| | 2023 | 2022 |
| Cash paid for operating lease liabilities | $ 239,469 | $ 205,885 |

| | As of March 31, | |
|---|---|---|
| | 2024 | 2023 |
| Cash paid for operating lease liabilities | $ – | $ 89,102 |

Financing Lease:

The Company has financed certain laboratory equipment as follows:

| | As of September 30, | |
|---|---|---|
| | 2023 | 2022 |
| Cash paid for finance lease liabilities | $ 60,684 | $ 306,487 |

| | As of March 31, | |
|---|---|---|
| | 2024 | 2023 |
| Cash paid for finance lease liabilities | $ 17,463 | $ 20,667 |

Maturity of the Company's financing lease liability liabilities is as follows:

| | | |
|---|---|---|
| Year ended September 30, | | |
| 2023 | $ 17,464 | |
| Year ended December 31, | | |
| 2024 | $ 69,850 | $ 52,387 |
| 2025 | $ 69,850 | 69,850 |
| 2026 | $ 40,108 | 40,108 |
| 2027 and after | $ 26,724 | |
| 2027 | | 26,721 |
| 2028 and after | | 1 |
| Total future minimum lease payments | 223,996 | 189,067 |
| Less imputed interest | (32,058) | (23,775) |
| Remaining lease liability | $ 191,938 | $ 165,292 |

The Company entered into four financing leases for laboratory equipment with a total cost of $251,959 with four to five-year terms and a capitalized interest rate of 9.15%. Each of the lease agreements include a bargain purchase option to acquire the equipment at the end of the lease term. The aggregate monthly payments are approximately $6,000. In During the nine months year ended September 30, 2023 December 31, 2023, the Company exercised a the bargain purchase option, which resulted in recognition of property and equipment of $151,490.

**Note 6 – Accrued Expenses**

Accrued expenses and other liabilities consist of the following:

| | As of September 30, 2023 | As of December 31, 2022 | As of March 31, 2024 | As of December 31, 2023 |
|---|---|---|---|---|
| Accrued research and development | $ 79,910 | $ 5,645,737 | $ 457,229 | $ - |
| Accrued professional fees | 1,570,401 | 550,259 | 531,294 | 827,863 |

| | | | | |
|---|---|---|---|---|
| Accrued compensation | 1,785,173 | 1,837,330 | 418,449 | 1,289,690 |
| Accrued interest on debt | 296,875 | 280,382 | 306,771 | 306,771 |
| Accrued rent | 368 | - | 368 | 368 |
| Total | $ 3,732,727 | $ 8,313,708 | $ 1,714,111 | $ 2,424,692 |



Index

**Note 7 – Stock-Based Compensation**

In 2014, the Company's stockholders approved the 2014 Equity Incentive Plan (the "Original Plan") pursuant to which the Company may grant up to 91,367 shares as ISOs, NQs and restricted stock units ("RSUs"), subject to increases as hereafter described (the "Plan Limit"). In addition, on January 1, 2015, and each January 1 thereafter and prior to the termination of the 2014 Equity Incentive Plan, pursuant to the terms of the 2014 Equity Incentive Original Plan, the Plan Limit was and shall be increased by the lesser of (x) 4% of the number of shares of Common Stock outstanding as of the immediately preceding December 31 and (y) such lesser number as the Board of Directors ("Board") may determine in its discretion. In March 2019, the Board adopted and the Company's stockholders approved the Amended and Restated PDS Biotechnology Corporation 2014 Equity Incentive Plan was (the "Prior Plan") which amended and restated which removed the Original Plan in order to remove the annual increase component and was limited to 826,292 shares.

As previously disclosed, on On December 8, 2020, the Board of Directors of adopted and on June 17, 2021, the Company adopted, subject to stockholder approval, stockholders approved, the Second Amended and Restated PDS Biotechnology Corporation 2014 Equity Inventive Plan (the "Restated Plan"), which amended and restated the Amended and Restated PDS Biotechnology Corporation 2014 Equity Incentive Plan (the "Current "Restated Plan"). At , which amended and restated the annual meeting of stockholders on June 17, 2021 the stockholders voted to approve the Restated Plan at the Annual Meeting. Prior Plan. The Restated Plan is identical to the Current Prior Plan in all material respects, except as follows: (a) the number of shares of Common Stock authorized for issuance under the Restated Plan will increase was increased from 826,292 shares to 3,339,243 4,165,535 shares, plus the total number of shares that remained available for issuance, that are were not covered by outstanding awards issued under the Current Prior Plan, immediately prior to December 8, 2020; and (b) the Restated Prior Plan will was amended to terminate on December 7, 2030, unless earlier terminated. On May 19, 2023, the Board adopted, subject to stockholder approval, the Third Amended and Restated PDS Biotechnology Corporation 2014 Equity Incentive Plan (the "Third Restated Plan"). At the 2023 annual meeting of stockholders held on July 14, 2023, the Company's stockholders approved an amendment the Third Restated Plan, which amended and restated the Restated Plan to increase the total amount of shares authorized for issuance thereunder. The Third Restated Plan is identical to the Current Restated Plan increasing in all material respects, except, the number of shares of common stock Common Stock authorized for issuance under the Third Restated Plan increased from 4,165,535 to 6,565,535 shares. 6,565,535. As of September 30, 2023 March 31, 2024, there were 119,013 2,645,723 shares available for grant under the Third Restated Plan.

In 2018, the Company's stockholders approved the 2018 Stock Incentive Plan pursuant to which the Company may grant up to 558,071 shares as (i) Stock Options, (ii) Stock Appreciation Rights, (iii) Restricted Stock, (iv) Preferred Stock, (v) Stock Reload Options and/or (vi) Other Stock-Based Awards. As of September 30, 2023, there were 190,799 shares available for grant under the Restated Plan.

Pursuant to the terms of the Plans, ISOs Third Restated Plan, stock options have a term of ten years from the date of grant or such shorter term as may be provided in the option agreement. Unless specified otherwise in an individual option agreement, ISOs generally vest over a four-year period. Unless terminated by the Board, the Plans shall continue to remain effective for a term of ten years or until such time as no further awards may be granted and all awards granted under the Plans are no longer outstanding.

On June 17, 2019, the Board adopted the 2019 Inducement Plan (the "Inducement Plan"). The Inducement Plan provides for the grant of non-qualified stock options. The Inducement Plan was recommended for approval by the Compensation Committee of the Board and subsequently approved and adopted by the Board without stockholder approval pursuant to Rule 5635(c)(4) of the Nasdaq Listing Rules. On December 8, 2020, the Company amended the Inducement Plan solely to increase the total number of shares of Common Stock common stock reserved for issuance under the Inducement Plan from 200,000 shares to 500,000 shares.On May 17, 2022, the Company further amended the Inducement Plan solely to increase the total number of shares of Common Stock reserved for issuance under the Inducement Plan from 500,000 shares to 1,100,000 shares. On January 22, 2024, the Company further amended the Inducement Plan solely to increase the total number of shares of Common Stock reserved for issuance under the Inducement Plan from 1,100,000 shares to 2,100,000 shares. The 2019 Inducement Plan provides for the grant of non-qualified stock options. The Inducement Plan, and each amendment thereto, was recommended for approval by the Compensation Committee of the Board and subsequently approved and adopted by the Board without stockholder approval pursuant to Rule 5635(c)(4) of the Nasdaq Listing Rules.

The Inducement Plan is administered by the Compensation Committee of the Board. In accordance with Rule 5635(c)(4) of the Nasdaq Listing Rules, non-qualified stock options under the 2019 Inducement Plan may only be made to an employee who has not previously been an employee of the Company or member of the Board (or any parent or subsidiary of the Company), or following a bona fide period Directors of non-employment by the Company (or a any parent or subsidiary of the Company), if he or she is granted such non-qualified stock options in connection with his or her commencement of employment with the Company or a subsidiary and such grant is an inducement material to his or her entering into employment with the Company or such subsidiary. As of September 30, 2023 March 31, 2024, there were 185,315 1,232,200 shares available for grant under the 2019 Inducement Plan.

The Company's following table summarizes the components of stock-based compensation expense related to stock options was recognized in operating expense as follows: the condensed consolidated statements of operations and comprehensive loss for the three months ended March 31, 2024 and 2023:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2024 | 2023 |
| | (unaudited) | |
| Research and development | $ 551,918 | $ 800,764 |
| General and administrative | 1,078,093 | 1,279,555 |

| | | |
|---|---|---|
| Total | $ 1,630,011 | $ 2,080,319 |

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2023 | 2022 |
| | (unaudited) | | (unaudited) | |
| Stock-Based Compensation | | | | |
| Research and development | $ 782,249 | $ 493,083 | $ 2,389,561 | $ 1,349,664 |
| General and administrative | 1,291,358 | 851,267 | 3,869,903 | 2,472,259 |
| Total | $ 2,073,607 | $ 1,344,350 | $ 6,259,464 | $ 3,821,923 |



Index

There were 59,500 938,648 and 1,214,000 of 1,124,600 options granted during the three months ended March 31, 2024 and nine month periods ended September 30, 2023, respectively and 87,000 and 1,526,005 of options granted during the three and nine month period ended September 30, 2022, 2023, respectively. The fair value of options granted during the three and nine months ended September 30, 2023 March 31, 2024 and 2022 2023 was estimated using the Black-Scholes option valuation model utilizing the following assumptions.
assumptions:

| | Three Months Ended March 31, | |
|---|---|---|
| | 2024 | 2023 |
| | Weighted Average | Weighted Average |
| | (unaudited) | |
| Volatility | 145.41 % | 142.02 % |
| Risk-Free Interest Rate | 3.98 % | 4.06 % |
| Expected Term in Years | 6.08 | 6.08 |
| Dividend Rate | – | – |
| Fair Value of Option on Grant Date | $ 5.22 | $ 10.79 |

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2023 | 2022 |
| | Weighted Average | Weighted Average | Weighted Average | Weighted Average |
| | (unaudited) | | (unaudited) | |
| Volatility | 150.26 % | 101.43 % | 142.47 % | 99.56 % |
| Risk-Free Interest Rate | 3.92 % | 3.03 % | 4.04 % | 1.70 % |
| Expected Term in Years | 5.59 | 6.08 | 6.06 | 6.41 |
| Dividend Rate | – | – | – | – |
| Fair Value of Option on Grant Date | $ 4.77 | $ 2.58 | $ 10.35 | $ 4.80 |

The following table summarizes the number of options outstanding and the weighted average exercise price:

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life in Years | Aggregate Intrinsic Value |
|---|---|---|---|---|
| Options outstanding at December 31, 2023 | 5,029,345 | $ 6.43 | 7.42 | $ 4,395,227 |
| Granted | 938,648 | 5.58 | 9.90 | – |
| Exercised | (156,073 ) | 3.40 | | |
| Forfeited and expired | (497,259 ) | 8.64 | | |
| Options outstanding at March 31, 2024 | 5,314,661 | $ 6.16 | 7.60 | $ 2,327,199 |
| Vested and expected to vest at March 31, 2024 | 5,314,661 | $ 6.16 | 7.60 | $ 2,327,199 |
| Exercisable at March 31, 2024 | 2,858,485 | $ 5.80 | 6.42 | $ 1,971,346 |

| | Number of Shares | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life in Years | Aggregate Intrinsic Value |
|---|---|---|---|---|
| Options outstanding at December 31, 2022 | 4,171,311 | $ 5.56 | 7.89 | $ 32,779,920 |
| Granted | 1,214,000 | 11.14 | | |
| Exercised | (1,409 ) | - | | |
| Forfeited and expired | - | - | | |
| Options outstanding at September 30, 2023 | 5,383,902 | $ 6.82 | 7.63 | $ 4,685,828 |
| Vested and expected to vest at September 30, 2023 | 5,383,902 | $ 6.82 | 7.63 | $ 4,685,828 |
| Exercisable at September 30, 2023 | 2,722,797 | $ 5.72 | 6.67 | $ 3,225,309 |

As of March 31, 2024

At September 30, 2023 there was approximately $18,568,032 $15,111,713 of unamortized stock option compensation expense, which is expected to be recognized over a remaining average vesting period of 2.51 2.95 years.

The Company entered into an agreement with DC Consulting for certain consulting services and issued 100,000 shares in connection with the agreement.

**Note 8 – Income Taxes**

InThe Company records a valuation allowance against its deferred tax assets to reduce the net carrying value to an amount that it believes is more likely than not to be realized. In assessing the realizability of the net deferred tax assets, the Company considers all relevant positive and negative evidence to determine whether it is more likely than not that some portion or all of the deferred income tax assets will not be realized. The realization of the gross deferred tax assets is dependent on several factors, including the generation of sufficient taxable income prior to the expiration of the net operating loss carryforwards. The Company expects to have a loss for 2023 2024 and therefore there will be no current income tax expense. Additionally, there was The Company recorded a full valuation allowance against the net deferred tax assets as of September March 30, 2023 31, 2024 and December 31, 2022 2023. As such, Consequently, the Company recorded no income tax benefit due to realization uncertainties.

The Company's Company is subject to a U.S. federal statutory income tax rate is of 21%. The primary factor impacting the effective tax rate for the three and nine months ended September 30, 2023 March 31, 2024 is the anticipated full year operating loss which will require a full valuation allowances allowance against any associated net deferred tax assets.

Entities are also required to evaluate, measure, recognize and disclose any uncertain income tax positions taken on their income tax returns. The Company has analyzed its tax positions and has concluded that as of September 30, 2023 March 31, 2024, there were no uncertain positions. The Company's U.S. federal and state net operating losses have occurred since its inception and as such, tax years subject to potential tax examination could apply from that date because the utilization of net operating losses from prior years opens the relevant year to audit by the IRS and/or state taxing authorities. The Company did not have any unrecognized tax benefits and has not accrued any interest or penalties for the three and nine months ended September March 30, 2023 31, 2024 and or for the year ended December 31, 2022. 2023. In April 2024, the Company received approximately $0.9 million from the sale of its New Jersey state net operating losses.



Index

In accordance with the State of New Jersey's Technology Business Tax Certificate Program, which allows certain high technology and biotechnology companies to sell unused NOL carryforwards to other New Jersey-based corporate taxpayers, the Company sold New Jersey NOL carryforwards, resulting in the recognition of $1.4 million and $1.2 million of income tax benefit, net of transaction costs in the nine months ended September 30, 2023 and 2022, respectively.

**Note 9 – Commitments and Contingencies**

Rent

For month-to-month arrangements not impacted by the adoption of ASC 842, rent for the three and nine months ended September 30, 2023 March 31, 2024 and 2023 was $106,171 $66,000 and $359,373 respectively, compared to the three and nine months ended September 30, 2022 of $55,500 and $165,500. $66,000, respectively.

Exclusive License Agreement

The Company also agreed to pay Merck KGaA, Darmstadt, Germany a royalty of 10% on aggregate net sales of product as specified in the Merck KGaA License Agreement on a product-by-product and country-by-country basis until the later of: (i) ten years after the first commercial sale of a product in a given country; and (ii) the expiration or invalidation of the licensed patents covering the compound or product in such country. The royalty rate is subject to reduction in that the event that a product is not covered by a valid patent claim, a biosimilar to the compound or the product comes on the market in a particular country, or if the Company obtains a license to any intellectual property owned or controlled by a third-party which, but for which such license would be infringed by making, using or selling the compound.

Legal Proceedings

The Company is currently not a party to, and the Company's property is not currently the subject of, any material pending legal proceedings. The Company may be involved, from time to time, in legal proceedings and claims arising in the ordinary course of business. Such matters are subject to many uncertainties and outcomes are that may not be predictable with assurance.

**Note 10 – Venture Loan and Security Agreement**

In August 2022, the Company entered into a Venture Loan and Security Agreement (the "Loan and Security Agreement") with Horizon Technology Finance Corporation, as a lender and collateral agent for itself and the other Lenders (in such capacity, the "Collateral Agent"), and the other persons party thereto from time to time as lenders ("Lenders").

*Term loan Amounts*. The Loan and Security Agreement provides for the following six (6) separate and independent term loans: (a) a term loan in the amount of $7,500,000 ("Loan A"), (b) a term loan in the amount of $10,000,000 ("Loan B"), (c) a term loan in the amount of $3,750,000 ("Loan C"), (d) a term loan in the amount of $3,750,000 ("Loan D"), (e) a term loan in the amount of $5,000,000 ("Loan E"), and (f) a term loan in the amount of $5,000,000 ("Loan F") (with each of Loan A, Loan B, Loan C, Loan D, Loan E, and Loan F, individually a "Loan" and, collectively, the "Loans"). Loan A, Loan B, Loan C, and Loan D were delivered to the Company on August 24, 2022. Loan E and Loan F were uncommitted Loans that could have been advanced by the Lenders upon the parties agreement prior to July 31, 2023 upon the satisfaction by the Company of certain agreed upon conditions. At this time the option has expired and Loan E and Loan F are no longer available to the Company under the Loan and Security Agreement. The Company may only use the proceeds of the Loans for working capital or general corporate purposes.

*Maturity*. Each Loan matures on the 48 month anniversary following the applicable date on which a Loan is made to or on account of the Company under the Loan and Security Agreement (the "Maturity Date") unless accelerated pursuant to agreed upon events of default. All amounts outstanding under each Loan will be due and payable upon the earlier of the Maturity Date or the acceleration of the loans and commitments upon an event of default. Payments on the principal balance begin on October 1, 2024 and are paid monthly in the succeeding 24 months.



Index

*Interest Rate*. The principal balance of each Loan bears a floating interest. The interest rate is calculated initially and, thereafter, each calendar month as the sum of (a) the per annum rate of interest from time to time published in The Wall Street Journal as contemplated by the Loan and Security Agreement, or any successor publication thereto, as the "prime rate" then in effect, plus (b) 5.75%; provided that, in the event such rate of interest is less than 4.00%, such rate shall be deemed to be 4.00% for purposes of calculating the interest rate. Interest is payable on a monthly basis based on each Loan principal amount outstanding during the preceding month.



Index

*Amortization.* Each Loan shall commence amortization upon the date set forth on the promissory note executed in connection with the respective Loan, upon which the Company is required to commence making equal payments of principal plus accrued interest on the outstanding principal amount of the respective Loan (the "Loan Amortization Date"), and continuing thereafter on the first business day of each calendar month through the Maturity Date.

*Prepayment Premium.* The Company may, at its option upon at least ten (10) business days' written notice to the Lenders, prepay all (and not less than all) of the outstanding Loan by simultaneously paying to each Lender an amount equal to (i) any accrued and unpaid interest on the outstanding principal balance of the Loans; plus (ii) an amount equal to (A) if such Loan is prepaid on or before the Loan Amortization Date applicable to such Loan, three percent (3%) of the then outstanding principal balance of such Loan, (B) if such Loan is prepaid after the Loan Amortization Date applicable to such Loan, but on or before the date that is twelve (12) months after such Loan Amortization Date, two percent (2%) of the then outstanding principal balance of such Loan, or (C) if such Loan is prepaid more than twelve (12) months after the Loan Amortization Date but prior to the stated Maturity Date applicable to such Loan, one percent (1%) of the then outstanding principal balance of such Loan; *plus* (iii) the outstanding principal balance of such Loan; *plus* (iv) all other sums, if any, that shall have become due and payable hereunder. No prepayment premium will be applied to any outstanding balance of any Loan paid on the stated Maturity Date.

*Security*. The Company's obligations are secured by a security interest in all of the assets of the Company, subject to limited exceptions and excluding the Company's intellectual property.

*Covenants; Representations and Warranties; Other Provisions*. The Loan and Security Agreement contains customary representations, warranties and covenants, including maintenance of minimum cash balances as well as covenants by the Company limiting additional indebtedness, liens, including on intellectual property, guaranties, mergers and consolidations, substantial asset sales, investments and loans, certain corporate changes, transactions with affiliates, and fundamental changes. As of March 31, 2024, the Company is in compliance with all covenants in all material respects.

*Default Provisions*. The Loan and Security Agreement provides for events of default customary for term loans of this type, including but not limited to non-payment, breaches or defaults in the performance of covenants, insolvency, and bankruptcy by and/or of the Company.

*Warrant and Debt Discount.* In connection with the Loan and Security Agreement, the Company issued Horizon Technology Finance Corporation and Powerscourt Investments XXV, LP warrants to purchase an aggregate total of 381,625 shares of the Company's common stock at an initial exercise price of $3.6685 per share. Each warrant is classified as equity and is exercisable at any time for a period beginning on the date of grant and ending on the earlier of (A) 10 years from the date of grant, and (B) the closing of (A) (i) the sale, lease, exchange, conveyance or other disposition of all or substantially all of the Company's property or business, or (ii) its merger into or consolidation with any other corporation (other than a wholly-owned subsidiary of the Company), or any transaction (including a merger or other reorganization) or series of related transactions, in which more than 50% of the voting power of the Company is disposed of, in each case, for cash or for marketable securities meeting certain requirements as described in the applicable warrants. The key assumptions used in the Black-Scholes option pricing model were (i) expected term of 10 years, (ii) a risk-free rate of 3.11%, (iii) expected volatility of 93.8%, (iv) and no estimated dividend yield. In addition, the Company incurred third party and lender fees of $449,329 for during the nine months ended September 30, 2022. These proceeds were allocated on a basis that approximates the relative fair value method. The fair value of the warrant and fees incurred were recorded as a debt discount and are being recognized as interest expense over the life of the Loan and Security Agreement using the effective interest method. The unamortized debt discount was $2,524,736 $1,994,412 as of September 30, 2023 March 31, 2024. The

For the three months ended March 31, 2024 and 2023, the Company recognized interest expense of $1,064,300 $1,170,758 and $3,016,572 for the three $961,753, respectively, of which $270,236 and nine months ended September 30, 2023 and $158,397 and $391,920 $121,997, respectively, was related to the amortization of the debt discount for the three and nine months ended September 30, 2023. discount.

**Note 11 – Retirement Plan**

The Company has a 401(k) defined contribution plan for the benefit for of all employees and permits voluntary contributions by employees, subject to IRS-imposed limitations. The 401(k) employer contributions were $32,861 $66,488 and $164,631 $94,907 for the three and nine months ended September 30, 2023, respectively, compared to the three March 31, 2024 and nine months ended September 30, 2022 of $31,515 and $119,232 2023, respectively.

**Note 12– Subsequent Events**

In April 2024, the Company received approximately $0.9 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant to its participation in the New Jersey Technology Business Tax Certificate Transfer of Net Operating Loss (NOL) program for tax year 2022.



Index

**ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited interim condensed consolidated financial statements and related notes thereto appearing elsewhere in this Quarterly Report on Form 10-Q (this "Quarterly Report") and with the audited financial statements and notes thereto of the Company as of and for the year ended December 31, 2022 December 31, 2023 on Form 10-K, filed with the Securities and Exchange Commission, or SEC, on March 28, 2023 March 28, 2024.*

**Cautionary Note Regarding Forward-Looking Statements**

This Quarterly Report contains forward-looking statements (including within the meaning of Section 21E of the United States Securities Exchange Act of 1934, as amended, and Section 27A of the United States Securities Act of 1933, as amended) concerning the Company and other matters. These statements may discuss goals, intentions and expectations as to future plans, trends, events, results of operations or financial condition, or otherwise, based on current beliefs of the Company's management, as well as assumptions made by, and information currently available to, management. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "anticipate," "plan," "likely," "believe," "estimate," "project," "intend," "forecast," "guidance", "outlook" and other similar expressions among others. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Actual results could differ materially from those contained in any forward-looking statement as a result of various factors, including, without limitation:

- the Company's ability to protect its intellectual property rights;
- the Company's anticipated capital requirements, including the Company's anticipated cash runway and the Company's current expectations regarding its plans for future equity financings;
- the Company's dependence on additional financing to fund its operations and complete the development and commercialization of its clinical candidates, and the risks that raising such additional capital may restrict the Company's operations or require the Company to relinquish rights to the Company's technologies or clinical candidates;
- the Company's limited operating history in the Company's current line of business, which makes it difficult to evaluate the Company's prospects, the Company's business plan or the likelihood of the Company's successful implementation of such business plan;
- the timing for the Company or its partners to initiate the planned clinical trials for its Versamune® products, including PDS0101, PDS0103, PDS0203 and other Versamuneand Infectimune others, alone or in combination with PDS01ADC, as well as Infectimune® based clinical candidates and the future success of such trials;
- the successful implementation of the Company's research and development programs and collaborations, including any collaboration trials concerning the Company's Versamune Versamune®, PDS01ADC and Infectimune Infectimune® based clinical candidates and the Company's interpretation of the results and findings of such programs and collaborations and whether such results are sufficient to support the future success of the Company's clinical candidates;
- the success, timing and cost of the Company's ongoing clinical trials and anticipated clinical trials for the Company's current clinical candidates, including statements regarding the timing of initiation, pace of enrollment and completion of the trials (including our ability to fully fund our disclosed clinical trials, which assumes no material changes to our currently projected expenses), futility analyses, presentations at conferences and data reported in an abstract, and receipt of interim results (including, without limitation, any preclinical results or data), which are not necessarily indicative of the final results of the Company's ongoing clinical trials;
- expectations for the clinical and preclinical development, manufacturing, regulatory approval, and commercialization of our the Company's clinical candidates;
- any Company statements about its understanding of clinical candidates' mechanisms of action and interpretation of preclinical and early clinical results from its clinical development programs and any collaboration trials; the acceptance by the market of the Company's clinical candidates, if approved;
- the timing of and the Company's ability to obtain and maintain U.S. Food and Drug Administration or other regulatory authority approval of, or other action with respect to, the Company's clinical candidates; and

- other factors, including legislative, regulatory, political and economic developments not within the Company's control, including unforeseen circumstances or other disruptions to normal business operations arising from or related to those listed under Part II, Item 1A. Risk Factors.



Index

Any forward-looking statements in this Quarterly Report reflect our current views with respect to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, whether as a result of new information, future events or otherwise.

In this Quarterly Report, unless otherwise stated or the context otherwise indicates, references to "PDS Biotech," "the Company," "we," "us," "our" and similar references refer to PDS Biotechnology Corporation, a Delaware corporation.



Index

**Company Overview**

We are a clinical-stage immunotherapy company developing a growing pipeline of targeted cancer and infectious disease immunotherapies based on our Versamune®, Versamune® plus IL12 Versamune® T cell activator and Versamune® in combination with our interleukin 12 (IL-12) fused anti-body drug conjugate (ADC) PDS01ADC (formerly PDS0301/M9241) and Infectimune®PDS01ADC. In addition, we are developing the Infectimune® T cell-activating platforms and PDS01ADC tumor targeting immunocytokine. cell-activator in infectious diseases.

We believe our investigational targeted immunotherapies have the potential to overcome the limitations of current immunotherapy approaches through effective conversion of the activation immune suppressive tumor to an immunogenic microenvironment in addition to the induction of the right type, potency and quantity and potency of tumor-targeting killer (CD8) T cells. Versamune, Our Versamune® immunotherapies and Versamune plus Versamune® in combination with PDS01ADC, are utilized for treatments in oncology, and Infectimune, Infectimune® is utilized for treatments in preventive vaccines against infectious disease. agents. When paired with an antigen, which is a disease-related protein that is recognizable by the immune system, Versamune Versamune® and Infectimune Infectimune® have both been shown to induce, *in vivo,* large quantities of high-quality, highly potent polyfunctional disease-specific CD4 helper and CD8 killer T cells, a specific sub-type of T cell that is has shown potential to be more effective at killing infected or target cells. Infectimune Infectimune® is also designed to promote the induction of disease-specific neutralizing antibodies. PDS01ADC is an investigational tumor targeting IL-12 that enhances we believe may enhance the proliferation, potency and longevity of T cells in the tumor microenvironment. Versamune plus microenvironment and reduces the prevalence of immune suppressive cells and components within the tumor. We believe that our proprietary combination of Versamune® and PDS01ADC enhances may enhance the proliferation, potency and longevity of antigen specific multifunctional CD8 T cells in the tumor microenvironment and works work synergistically to overcome tumor immune suppression. inhibit or treat cancer.

***Recent Developments***

In December 2022, we executed an exclusive global license agreement with Merck KGaA, Darmstadt, Germany for the tumor targeting IL12 IL-12 fused antibody drug conjugate, M9241, which joined our pipeline as PDS01ADC. PDS01ADC is a novel investigational tumor-targeting fusion protein of Interleukin 12 that enhances the proliferation, potency, infiltration and longevity of T cells in the tumor microenvironment and is therefore designed to overcome the limitations of cytokine therapy which today have resulted in high toxicity and limited therapeutic potential. The proprietary combination of Versamune plus Versamune® and PDS01ADC is designed to overcome tumor immune suppression utilizing a different mechanism from immune checkpoint inhibitors (ICI). The ownership of both assets we believe will streamline the registrational process and its use. The combination of Versamune® and IL-12 PDS01ADC to overcome immune suppression is patented by PDS Biotech us, and we believe our ownership of both assets will streamline the clinical development, registrational process and their potential therapeutic use. .In a Phase 2 National Cancer Institute (NCI)-led clinical trial in ICI resistant patients, the combination of PDS0101 and PDS01ADC administered with an investigational bi-functional ICI resulted in a median overall survival of approximately 20 months, which compares favorably to the months. The historical median survival of 3-4 months reported in ICI resistant HPV-positive cancers when treated with ICIs is 3-4 months, and best reported median survival to date with systemic therapy of is 8.2 months in ICI resistant head and neck cancer.

In February 2023, we announced a successful completion of a Type B meeting with the FDA for the triple combination of PDS0101 and PDS01ADC with an FDA-approved immune checkpoint inhibitor for the treatment of recurrent/metastatic, ICI resistant head and neck cancer that is positive for the human papilloma virus (HPV) HPV type 16. In recent interactions with the FDA, we confirmed the required contents of a clinical protocol for the potential registrational trial.

In June 2023, an abstract was presented at the 2023 American Society of Clinical Oncology: Abstract number 6012, Safety and Efficacy of Immune Checkpoint Inhibitor (ICI) Naïve Cohort from Study of PDS0101 and Pembrolizumab in HPV16-Positive Head and Neck Squamous Cell Carcinoma (HNSCC). The abstract was also selected as one of the featured posters reviewed by an expert panel in the Head and Neck Cancer discussion session.

In September 2023, data on our investigational universal flu vaccine, PDS0202, were was presented at the 9th European Scientific Working Group on Influenza (ESWI) conference. These This data demonstrated broad neutralization across multiple influenza strains in animals and provided protection against infection after challenging animals not previously exposed to flu with lethal doses of the pandemic H1N1 flu virus.



Index

In October 2023, data demonstrating PDS0101 in combination with standard-of-care (SOC) chemoradiotherapy was associated with a rapid decline in human papillomavirus circulating cell-free DNA (ctHPV-DNA), a potential predictive biomarker of treatment response. The data from the IMMUNOCERV Phase 2 clinical trial were featured in an oral presentation at the American Society for Radiation Oncology Annual Meeting.

In October 2023, updated interim data based on an August 2ndAugust 2, 2023 cut off from our VERSATILE-002 Phase 2 clinical trial evaluating the combination of PDS0101 in combination with Merck's anti-PD-1 therapy, KEYTRUDA® Keytruda® (pembrolizumab) which is the FDA-approved standard of care for first-line treatment of recurrent/metastatic head and neck cancer was presented. The data was presented at a Company-sponsored key opinion leader roundtable. roundtable that we sponsored.



Index

In October 2023, interim safety and immune response data was presented for the first-in-human Phase1/2 clinical trial evaluating PDS01ADC in combination with current SOC chemotherapy, docetaxel, to treat metastatic castration sensitive and castration resistant prostate cancer. The data was featured in an oral presentation at the 11th Annual Meeting of the International Cytokine & Interferon Society.

In October 2023, immune response data from a preliminary analysis of a subset if of patients in our VERSATILE-002 Phase 2 clinical trial was presented at the European Society for Medical Oncology Congress 2023.

In November 2023, we announced updated interim survival data from our NCI-led Phase 2 trial investigating the triple combination study. of PDS0101, PDS01ADC and an investigational immune checkpoint inhibitor (ICI) in two groups of advanced cancer patients with various types of human papillomavirus (HPV) 16-positive cancers. The data showed 75% Survival of ICI naïve patients at 36 months.

In November 2023, preclinical data from our NCI-led trial including PDS0101, PDS01ADC and an HDAC inhibitor in ICI-resistant HPV-16 positive cancer was presented during a poster presentation at the Society for Immunotherapy of Cancer 38th Annual Meeting.

***Clinical Candidate Pipeline***

*VERSATILE-002: PDS0101 + KEYTRUDA® Keytruda®*

In November 2020, our VERSATILE-002 Phase 2 clinical trial evaluating the combination of PDS0101 in combination with Merck's anti-PD-1 therapy, KEYTRUDA® Keytruda® (pembrolizumab) which is the FDA-approved standard of care for first-line treatment of recurrent/metastatic head and neck cancer commenced. Enrollment in stage 2 of 2 for the ICI naïve arm and the ICI resistant arms are complete. The clinical trial will evaluate the efficacy and safety of this therapeutic combination as a first and second line treatment in patients with recurrent or metastatic head and neck cancer and high-risk human papillomavirus-16 (HPV16) infection.

In this trial sponsored by PDS Biotech-sponsored trial Biotech, patients whose cancer has returned following initial treatment or spread will be treated with the combination of PDS0101 and KEYTRUDA® Keytruda® to evaluate if the addition of PDS0101 might improve the efficacy reported in published studies of KEYTRUDA® Keytruda® alone. Patients in the trial will receive a total of 5 cycles of combination therapy in the context of standard of care KEYTRUDA® Keytruda® therapy administered every three weeks until disease progression. The primary endpoint of VERSATILE-002 is the objective response rate– rate, or ORR, – at six months following initiation of treatment. There are two cohorts in the trial. Cohort 1 is for patients who have yet to be treated with an immune checkpoint inhibitor (ICI naïve) and cohort 2 which consists of patients who have failed immune checkpoint inhibitor therapy (ICI resistant).

In February 2022, we achieved the preliminary efficacy milestone of at least four or more objective responses of the first 17 patients in the ICI naïve arm that allowed that arm to proceed to full enrollment. We also announced detailed preliminary safety data which showed that the combination is well tolerated without evidence of enhanced or significant toxicity in the first 18 patients in the ICI naïve arm. We have completed enrollment in Stage 1 of the ICI resistant arm and we are waiting for sufficient follow up to conduct the futility analysis.



Index

In June 2022, we presented additional preliminary efficacy and safety data from this trial at the ASCO Annual Meeting (Weiss J et al. J Clin Oncol 40, 2022 (suppl 16; abstr 6041)). The abstract provided preliminary data on 19 patients (safety) with available imaging data for 17 of the 19 patients (efficacy). Data on 17 patients was presented. Highlights from the abstract were as follows:

- Confirmed and unconfirmed response rates thus far (tumor shrinkage greater than 30%) seen in 7/17 (41.2%) patients in comparison to the published results of approximately 19% for approved ICIs, used as monotherapy for recurrent or metastatic head and neck cancer, with 2 of the 7 having complete responses (CR)
- Stable disease (SD) was reported in 6/17 (35.3%) patients, with 4 of the 6 (67%) experiencing tumor shrinkage of less than 30%
- Clinical efficacy (ORR + SD) was seen in 13/17 (76.5%) patients
- Progressive/ongoing disease was reported in 4/17 (23.5%) patients

- Patients had received a median of 4/5 doses of PDS0101 (range 1-5) and 9/35 doses of KEYTRUDA® Keytruda® (range 1-18)
- There were no treatment-related adverse events greater than or equal to Grade 3 (N=19)
- No patients required dose interruption or reduction on the combination treatment
- No patients discontinued the combination treatment
- At 9 months of follow up (median not yet achieved):
  - Progression free survival (PFS) rate was 55.2%
  - Overall survival (OS) rate was 87.2%
- No no control or comparative studies have been conducted between ICIs and PDS0101



Index

In May 2022, we expanded this trial into Europe and in June 2022, as described above, we received Fast Track designation from the US FDA for PDS0101 in combination with pembrolizumab.Keytruda®.

In August 2022, our independent Data Monitoring Committee (DMC) met and evaluated data from 43 patients and noted there were no Grade 3 or greater treatment-related adverse events attributed to the combination. The DMC recommended continuing the trial with no modifications.

In October 2022, we announced the results of an end-of-phase 2 meeting with the FDA for PDS0101 in combination with KEYTRUDA®Keytruda®. We have completed the plan for the a potential Phase 3 clinical program that will support the submission of a BLA for PDS0101 and have submitted our plan to the FDA.

In December 2022, we completed the first stage of enrollment in the ICI resistant arm. Cohort follow-up is in progress that will permit a futility analysis to determine progression to stage 2 enrollment is in progress.

In May 2023, we completed enrollment in the ICI naïve arm. We filed our amended IND with the FDA in the third quarter of 2023. In October 2023, we received feedback from the FDA on the amended IND. Later in October, as part of business development discussions, we received insights from a potential business partners on the Phase 3 clinical protocol. The clinical and medical teams are currently evaluating this feedback and therefore plan to initiate a Phase 3 trial, VERSATILE-003 in the first quarter of 2024.

In June 2023, an abstract was presented at the 2023 American Society of Clinical Oncology: Abstract number 6012, Safety and Efficacy of Immune Checkpoint Inhibitor (ICI) Naïve Cohort from Study of PDS0101 and Pembrolizumab in HPV16-Positive Head and Neck Squamous Cell Carcinoma (HNSCC). The abstract was also selected as one of the featured posters to be reviewed by an expert panel in the Head and Neck Cancer discussion session. Data on 34 patients was presented. The data from the abstract is as follows:

- Estimated 12-month overall survival rate was 87.1%. Published results are 36-50% with approved ICIs used alone.
- Median progression-free survival was 10.4 months (95% CI 4.2, 15.3). Published results are median PFS of 2-3 months for approved ICIs when used as monotherapy in patients with similar PD-L1 levels.
- A disease control rate (disease stabilization or tumor shrinkage) of 70.6% (24/34)
- Confirmed and unconfirmed objective response rate is 41.2% (14/34 patients), which is identical to the preliminary response rate data PDS Biotech previously reported at ASCO 2022 (7/17 patients). To date these responses have been confirmed in nine of the 34 patients (26.5%), including one complete response.
- 15/34 patients (44.1%) had stable disease.
- 9/34 patients (26.5%) had progressive disease.
- 4/48 (8.3%) of patients had a Grade 3 treatment-related adverse event (TRAE). No Grade 4 or higher TRAEs were observed.



Index

In October 2023, at a key opinion roundtable updated interim data was presented based on an August 2nd cut off August 2, 2023 cut-off from our VERSATILE-002 Phase 2 clinical trial evaluating the combination of PDS0101 in combination with Merck's anti-PD-1 therapy, KEYTRUDA® Keytruda® (pembrolizumab) which is the an FDA-approved standard of care for first-line treatment of recurrent/metastatic head and neck cancer. Data on 52 patients was presented. The data from the roundtable based on investigator assessment were was as follows:

Highlights from the ICI naïve cohort include:

- 24-month overall survival (OS) rate is 74%; published 24-month survival rate of less than 30% for approved ICI.
- 12-month OS rate is 80%; published results of 30-50% with approved ICIs1. ICIs.
- Tumor shrinkage seen in 60% (31/52) of patients.
- Confirmed overall response rate (ORR) ORR is 27% (14/52) to date.
- Median progression-free survival (PFS) is 8.1 months to date; published results of 2-3 months PFS with approved ICIs.
- 13% (8/62) of patients experienced Grade 3 treatment-related adverse events (TRAE) and 0% (0/62) experienced Grade 4 or 5 TRAE; published results report 13-17% Grade 3-5 TRAE with approved ICI monotherapy.
- 60% (33/55) of patients have CPS score of 1-19 (who generally have a weaker response to KEYTRUDA®Keytruda®), and 40% (22/55) have CPS score >20 (who generally have a higher response to KEYTRUDA®Keytruda®).

Highlights form from the ICI refractory cohort include:

- The 12-month OS rate is 56%. The published median 12-month OS rate is 17% with no salvage chemotherapy following tumor progression on ICI (ICI Resistant).
- 0% (0/21) confirmed ORR suggests that PDS0101's impact on survival does not appear to be dependent on tumor shrinkage.
- 4% (1/25) of patients experienced Grade 3 TRAE and 0% (0/21) patients experienced Grade 4 and 5 TRAE.



Index

In May 2024, at a virtual key opinion leader event, updated interim data was presented based on a February 15, 2024 cut-off from our VERSATILE-002 Phase 2 clinical trial evaluating the combination of PDS0101 in combination with Merck's anti-PD-1 therapy, Keytruda® (pembrolizumab) which is an FDA-approved standard of care for first-line treatment of recurrent/metastatic head and neck cancer. Data on 53 patients was presented. The data from the event based on investigator assessment was as follows:

Highlights from the ICI naïve cohort with CPS > 1include:

- Median overall survival of 30 months; published results for ICIs are 7-18 months.
- Confirmed overall response rate ORR is 34% (18/53) to date; published results for comparable patients receiving treatment with ICIs are less than 20%.
- Confirmed complete responses, partial responses and stable disease according to RECIST v1.1 were seen in 75.5% of patients.
- Median progression-free survival (PFS) is 6.3 months to date; published results of 2-3 months PFS with approved ICIs.
- The combination of PDS0101 and Keytruda® appeared to be well tolerated with 11% (7/62) of patients experienced Grade 3 treatment-related adverse events (TRAE) and 2% (1/62) experienced Grade 4 or 5 TRAE; published results report 13-17% Grade 3-5 TRAE with approved ICI monotherapy.
- 60% (32/53) of patients have CPS score of 1-19 (who generally have a weaker response to Keytruda®), and 40% (21/53) have CPS score >20 (who generally have a higher response to Keytruda®).

During the May 2024 event, we also announced an updated clinical strategy with a two-part registrational trial focused on the triple combination of Versamune® HPV + PDS01ADC + pembrolizumab as a first line treatment in HPV16-positive recurrent/metastatic HNSCC.

*National Cancer Institute: PDS0101+ M9241 (now PDS01ADC) +Bintrafusp Alfa*

In June 2020, the first patient was dosed under a PDS0101 Cooperative Research and Development Agreement (CRADA), in the NCI led Phase 2 investigator-initiated trial evaluating PDS0101 with an IL-12 ADC now PDS01ADC, and M7824 (Bintrafusp alfa), which is owned by EMD Serono (Merck KGaA) in patients with advanced HPV-positive cancers who have failed prior treatment. In February 2021, the NCI's Phase 2 clinical trial of PDS0101 for the treatment of advanced HPV-positive cancers had achieved its preliminary objective response target in patients naïve to check point inhibitors which allowed for full enrollment of approximately 20 patients in this group. In addition, based on promising results in the ICI naïve arm, the trial was amended to allow enrollment of a separate cohort of IC -resistant patients for assessment of safety and activity of the triple combination. The trial has been closed for enrollment. Preliminary efficacy assessment of the triple combination in this added group of 29 ICI resistant patients has been completed and evaluation of long-term patient survival is ongoing.

Preclinical study results arising from this CRADA were published in the Journal for ImmunoTherapy of Cancer, *Immunomodulation to enhance the efficacy of an HPV therapeutic vaccine (Journal for ImmunoTherapy of Cancer2020;8:e000612. Doi:10.1136/ jitc-2020-000612)*, and indicate that PDS0101 generated both HPV-specific T cells and an associated antitumor response when used as a monotherapy. When PDS0101 was combined with the two other novel clinical-stage anti-cancer agents, Bintrafusp Alfa and M9241 (which is now owned by us and referred to as PDS01ADC), the preclinical data suggested that all three therapeutic agents worked synergistically to provide superior tumor T cell responses and subsequent tumor regression when compared to any of the agents alone or the 2-component combinations. The published preclinical data demonstrating powerful activity of the triple combination appears to be corroborated in the Phase 2 trial, and this triple combination could form the basis of a unique platform providing improved cancer treatments across multiple cancers.

Index

In June 2022, at the 2022 ASCO Annual Meeting, the NCI provided an update to the preliminary data presented at the 2021 meeting (Strauss J et al. *J Clin Oncol* 40, 2022 [suppl 16; abstr 2518]). This included data from 30 HPV16-positive patients and highlights were as follows:

- Objective response (OR = ≥30% tumor reduction) was seen in 88% (7/8) of patients with ICI naive disease; 4/7 (57%) patients' responses are ongoing (median 17 months).
- With ICI resistant patients: PDS0301 PDS01ADC dosing appears to affect response rates, with 5/8 (63%) patients receiving PDS0301 PDS01ADC at 16.8 mcg/kg achieving an OR compared to 1/14 (7%) patients who received PDS0301 PDS01ADC at 8 mcg/kg achieving an OR; 4/6 (67%) patients' responses are ongoing (median 12 months).
- Tumor reduction was seen in 45% (10/22) of patients with ICI resistant disease, including patients receiving high or low dose PDS0301. PDS01ADC.
- In ICI resistant patients treated with high or low dose PDS0301, PDS01ADC, survival outcomes were similar (p=0.96 by Kaplan Meier analysis). At a median of 12 months of follow up 17/22 (77%) of patients were alive.
- In ICI naïve patients 6/8 (75%) were alive at median 17 months of follow up.
- Similar OR and survival were seen across all types of HPV16-positive cancers.
- Preliminary safety data: 13/30 (43%) of patients experienced Grade 3 treatment-related adverse events (AEs), and 2/30 patients (7%) experienced Grade 4 AEs. There were no grade 5 treatment-related AEs.



Index

We believe the study trial results to date strongly suggest, in agreement with the published preclinical studies, that all 3 drugs contribute to the clinical outcomes.

In September 2022, we determined, in agreement with the NCI, to select the ICI resistant patients as the preferred treatment group in the on-going PDS0101-based triple combination therapy in advanced HPV-positive cancers and the trial was closed to further enrollment given the ICI resistant arm had been fully recruited.

In October 2022, we presented additional interim data as follows:

- Survival data: 66% (19/29) of HPV16-positive ICI resistant patients in the cohort were alive at a median follow up of 16 months.
- Safety profile: 48% (24/50) patients experienced Grade 3 treatment-related adverse events (AEs), and 4% (2/50) patients experienced Grade 4 AEs. There were no Grade 35 treatment-related AEs.
- HPV16-positive ICI naïve patients: 75% (6/8) were alive at a median follow up of 25 months and 38% (3/8) of responders had a complete response.

In December 2022, we presented interim data as follows:

- Median OS was 21 months in 29 checkpoint inhibitor resistant patients who received the triple combination. The reported historical median OS in patients with ICI resistant disease is 3-4 months seen with checkpoint inhibitors and best reported median survival to date with systemic therapy of 8.2 months in ICI resistant head and neck cancer.
- In ICI naïve subjects, 75% remain alive at a median follow-up of 27 months. As a result, median OS had not yet been reached. Historically median OS for similar patients with platinum experienced ICI naïve disease is 7-11 months.
- Objective response rate (ORR) in ICI resistant patients who received the optimal dose of the triple combination is 63% (5/8). In current approaches ORR is reported to be less than 10%.
- ORR in ICI naïve patients with the triple combination is 88%. In current approaches ORR is reported to be less than 25% with FDA-approved ICIs in HPV-positive cancers.
- Safety data had not changed since October's update. 48% (24/50) of patients experienced Grade 3 (moderate) treatment-related adverse events (AEs), and 4% (2/50) patients experienced Grade 4 (severe) AEs, compared with approximately 70% of patients receiving the combination of ICIs and chemotherapy reporting Grade 3 and higher treatment-related AEs..

In February 2023, we announced the successful completion of a Type B meeting with the FDA for the combination therapy of PDS0101, PDS01ADC, and an FDA-approved immune checkpoint inhibitor for the treatment of recurrent/metastatic HPV-positive ICI-resistant head and neck cancer. We confirmed the required contents of the trial design for a potential registrational trial of the combination.



Index

In November 2023, we released updated interim survival data as follows:

- 75% of immune checkpoint inhibitor (ICI) naïve patients remain alive at 36 months; published median overall survival (OS) in similar patients is 7-11 months

- 12-month survival rate in (ICI) resistant patients is of 72%
- Median OS in ICI resistant HPV-positive patients is approximately 20 months; published median OS is 3.4 months

*MD Anderson Cancer Center (IMMUNOCERV): PDS0101+ Chemoradiotherapy*

In October 2020, another a PDS0101 Phase 2 IIT was initiated with The University of Texas MD Anderson Cancer Center and is actively recruiting patients. This clinical trial is investigating the safety and anti-tumor efficacy of PDS0101 in combination with standard-of-care chemo-radiotherapy, or CRT, and their correlation with critical immunological biomarkers in patients with locally advanced cervical cancer. We believe that Versamune Versamune® has strong T cell induction with the potential to enhance efficacy of the current standard of care CRT treatment in this indication with the FDA at this meeting.

In November 2022, data from this trial was included in a poster presentation at the 2022 SITC Annual Meeting which included the following:

- 9 of the 17 patients had completed a Day 170 post-treatment Positron Emission Tomography, Computed Tomography (PET CT) scan to assess the status of the cancer. This included 78% (7/9) of treated patients with advanced cervical cancer (FIGO stage III or IV).
- 100% (9/9) of patients treated with the combination of PDS0101 and CRT had an objective response.
- 89% (8/9) of patients treated with the combination of PDS0101 and CRT demonstrated a complete response (CR) on Day 170 by PET CT. One patient who received 3 of the 5 scheduled doses of PDS0101 showed signs of residual disease. One patient who had a CR died from an event unrelated to either their underlying disease or treatment.
- 1-year disease-free survival and 1-year overall survival of 89% (8/9) in patients treated with the combination of PDS0101 and CRT.
- As previously reported, data confirm PDS0101 treatment activates HPV16-specific CD8 T cells. This increase was not seen in patients who did not receive PDS0101. The increase in HPV16-specific T cells generated by the treatment is positively correlated with tumor cell death, suggesting cytotoxic CD8 T cells are important mediators of antigen-specific immunity.
- The data affirm affirms that PDS0101 activates Type 1 interferon pathway in humans, mimicking the mechanism previously demonstrated in preclinical studies in animal models.
- Toxicity of PDS0101 remains limited to low-grade local injection site reactions.



Index

In October 2023, data demonstrating PDS0101 in combination with standard-of-care (SOC) chemoradiotherapy was associated with a rapid decline in human papillomavirus circulating cell-free DNA (ctHPV-DNA), a potential predictive biomarker of treatment response. The data from the IMMUNOCERV Phase 2 clinical trial were was featured in an oral presentation at the American Society for Radiation Oncology Annual Meeting which included the following:

- Earlier and greater proportion of ctDNA clearance with PDS0101 plus chemoradiation (CRT) vs. SOC CRT alone (81.3% clearance after 3 weeks vs. 30.3% with SOC (p=0.0018), and 91.7% of clearance at 5 weeks vs. 53.1% with SOC (p=0.0179).

- Baseline ctDNA levels correlated with the International Federation of Gynecology and Obstetrics (FIGO) stage and lymph node involvement; 100% of patients treated with PDS0101 had cancer that had spread to the lymph nodes.

*Mayo Clinic: PDS0101 Monotherapy and in combination with KEYTRUDA®Keytruda®*

In February 2022, we initiated an Investigator-Initiated Trial (ITT), MC200710, for PDS0101 alone or in combination with the immune checkpoint inhibitor, KEYTRUDA®Keytruda®, in patients with HPV-positive oropharyngeal cancer (HPV(+)OPSCC) at high risk of recurrence. The trial is being led by Drs. David Routman, Katharine Price, Kathryn Van Abel, and Ashish Chintakuntlawar at Mayo Clinic, a nationally and internationally recognized center of excellence for the treatment of head and neck cancers. We believe that this trial not only broadens our addressable patient population of those affected by the increasing incidence of HPV(+)OPSCC, but also allows us to better understand the activity of PDS0101 alone or in combination with KEYTRUDA®Keytruda® in earlier stages of disease. This trial is currently open for enrollment.



Index

In this trial, treatment will be administered before patients proceed to transoral robotic surgery (TORS) with curative intent. Treatment in this setting is referred to as neoadjuvant treatment. PDS0101 has been shown to induce killer T cells that target and kill HPV-positive cancers, either alone or in combination with ICIs in preclinical studies, and in combination in clinical studies of patients with advanced recurrent/metastatic HPV-positive cancers. This trial will explore whether PDS0101 with or without checkpoint inhibition may increase HPV-specific anti-tumor responses, potentially resulting in tumor shrinkage, pathologic regression, and decreases in circulating tumor DNA (ctDNA).

*PDS0102*

PDS0102 is an investigational immunotherapy utilizing tumor-associated and immunologically active T cell receptor gamma alternate reading framed protein (TARP) from the NCI. PDS0102 is designed to treat TARP-associated cancers including, acute myeloid leukemia (AML), prostate and breast cancer. In our preclinical work, in the administration of PDS0102, the Versamuine+ Versamune®+TARP antigen combination led to the induction of large numbers of tumor targeted killer T cells. In addition, the TARP tumor antigen alone has already been studied at the NCI in men with prostate cancer and has been shown to be safe, and immunogenic with slowing tumor growth rates (NCT00972309). We are evaluating the next steps in the clinical development of PDS0102 and are seeking nondilutive financings to move the program into clinical trials.

*PDS0103*

In April 2020, the above mentioned CRADA between PDS Biotech-NCI CRADA Biotech and the NCI was expanded beyond PDS0101 to include clinical and preclinical development of PDS0103. PDS0103 is an investigational immune therapy owned by PDS Biotech and designed to treat cancers associated with the mucin-1, or MUC1, oncogenic protein. These include cancers such as ovarian, breast, colorectal and lung cancers. PDS0103 combines Versamune Versamune® with novel highly immunogenic agonist epitopes of MUC1 developed by the NCI and licensed by PDS. PDS Biotech. PDS0103 is currently in the tech transfer, and clinical scale up and manufacturing stage.

MUC1 is highly expressed in several types of cancer and has been shown to be associated with drug resistance and poor disease prognosis in breast, colorectal, lung and ovarian cancers, for which PDS0103 is being developed. Expression of MUC1 is often associated with poor disease prognosis, due in part to drug resistance. In preclinical studies, and similarly to PDS0101, PDS0103 demonstrated the ability to generate powerful MUC1-specific CD8 killer T cells.

In the first quarter of 2022, we held a pre-IND meeting with the FDA on PDS0103 and we are prepared to submit our IND package by the first half end of 2024. However, the actual submission date may potentially be impacted by the allocation of resources to initiate the a pivotal trial for PDS0101. Our primary goal is commercialization of PDS0101 and allocation of resources to implement an earlier than planned start of a registrational trial may delay PDS0103 initiation.

*Our current pipeline of Versamune based therapies is as follows: in combination with PDS01ADC.*




Index

*IL-12 Oncology Immunocytokine Pipeline*

*PDS01ADC (formerly known as PDS0301/M9241 and NHS-IL-12 ) is a novel investigational IL12 IL-12 fused antibody drug conjugate (IgG1), tumor-targeting interleukin 12 (IL-12) immune-cytokine that enhances the proliferation, potency and longevity of T cells in the tumor microenvironment. Together with Versamune Versamune® based immunotherapies, PDS01ADC works synergistically to overcome tumor immune suppression and to promote a targeted T cell attack against cancers. As with Versamune, Versamune®, PDS01ADC is given by a simple subcutaneous injection. Clinical data suggests the addition of PDS01ADC to Versamune Versamune® based immunotherapies may demonstrate significant disease control in advanced cancer patients by shrinking tumors and/or prolonging life.*

*With the exclusive global license agreement with Merck KGaA, Darmstadt, Germany for PDS01ADC, we believe we have simplified our registrational pathway for the NCI-led triple combination by owning both PDS0101 and PDS01ADC and combining these agents with an FDA approved ICI. PDS01ADC has been designed to overcome the limitations of cytokine therapy as explained above, and based on extensive preclinical studies performed at the NCI evaluating PDS01ADC as a monotherapy and also in combinations with established standard of care treatments for cancer, we believe that PDS01ADC has significant potential as a cytokine therapy independent of Versamune. Versamune®. Based on the informative preclinical studies, a number of ITT Phase 2 trials are currently in progress at the NCI, some of which are outlined below:*

- *Phase II Study Evaluating ICI Naïve and Resistant Patients with HPV-positive malignancies treated with PDS01ADC, PDS0101 and bintrafusp alfa.*
- *A Phase II Study Evaluating T-Cell Clonality After Stereotactic Body Radiation Therapy Alone and in Combination with the Immunocytokine PDS01ADCin PDS01ADC in Localized High and Intermediate Risk Prostate Cancer Treated with Androgen Deprivation Therapy*
- *A Phase I/II Study of PDS01ADC in Combination with Docetaxel in Adults with Metastatic Castration Sensitive and Castration Resistant Prostate Cancer*
- *Phase I/II of PDS01ADC going forward as a Monotherapy in Advanced Kaposi Sarcoma*
- *Phase I/II of PDS01ADC in Combination of with a Histone Deacetylase (HDAC) Inhibitor in ICI resistant MUC1-positive colon and bladder cancers among others*

*In October 2023, interim safety and immune response data was presented for the first-in-human Phase1/ Phase 1/2 clinical trial evaluating PDS01ADC in combination with current SOC chemotherapy, docetaxel, to treat metastatic castration sensitive and castration resistant prostate cancer. The data was featured in an oral presentation at the 11th Annual Meeting of the International Cytokine & Interferon Society. Data The data presented as follows: included the following:*

- *Decrease in PSA levels was seen in all patients at all three tested doses of PDS0301 PDS01ADC and 61% of patients had at least a 60% decrease in PSA levels.*
- *All doses of the combination were well-tolerated with one patient experiencing Grade 4 neutropenia.*

- *Administration of the combination was associated with decreases in T reg cells and increases in activated natural killer (NK) cells, memory CD8 T cells, proliferating CD4 and CD8 T cells and cytokines INF-γ and Interleukin 10 (IL-10).*
- *The changes in immune responses with the combination were independent of the PDS0301 PDS01ADC dose.*

*We are working closely with the NCI to determine the best pathway forward for the prioritized PDS01ADC studies, as well as evaluating the use of PDS01ADC in combination with other Versamune Versamune® based clinical candidates.*



Index

*Our current pipeline of IL12 fused antibody conjugated PDS01ADC based therapies is as follows:*


*Infectimune Infectimune® Development Strategy*

*We believe that the key differentiating attributes of the Infectimune Infectimune® platform technology are strong induction of CD8 and CD4 T cells as well as antibodies which can be leveraged to improve treatment and preventive options in several infectious disease indications. In January 2022, we presented preclinical data on our universal flu program sponsored by the National Institute of Allergy and Infectious Disease (NIAID) demonstrating the potential of the Infectimune Infectimune® technology with computationally designed influenza proteins developed by the laboratory of Dr. Ted Ross at the University of Georgia to generate broadly protective anti-influenza immune responses across multiple strains of influenza. This data has provided a unique opportunity to highlight Infectimune's Infectimune®'s potentially transformative utility in the development of more broadly effective and longer lasting protective vaccines. Current preventive and prophylactic vaccine approaches and technologies predominantly focus on creating strong induction of antibody responses. However, the induction of T cell responses, in addition to antibody responses, provides more durable and broad protection against infectious diseases.*



Index

*Based on the promising preclinical data with the universal seasonal flu vaccine and the current focus of the NIAID in developing more effective flu vaccines, we have decided to opportunistically focus our near-term infectious disease activities to align with the interests of the NIAID Collaborative Influenza Vaccine Innovation Centers (CIVICs) program. This will involve development of a universal seasonal flu vaccine and the potential development of a universal pandemic influenza vaccine based on similar computationally designed antigens as have shown promise with Infectimune. Infectimune®.*

*In July 2022, universal flu vaccine preclinical data for PDS0202 at the 41st American Society of Virology meeting; Abstract number 3733830, Infectimune Infectimune® enhances antibodies elicited by COBRA hemagglutinin influenza vaccine. We are evaluating the next steps in the clinical development and funding for PDS0202.*

*The preclinical results for Infectimune Infectimune® based vaccines were published in two separate articles in the peer reviewed journal Viruses in February 2023: 1. preclinical studies demonstrating complete protection against sickness after lethal challenge with live SARS-CoV-2 or influenza viruses (Gandhapudi SK et al. Viruses 2023, 15, 432) and 2. Dramatically enhanced CD4 T cell responses to recombinant influenza proteins compared to leading commercial vaccine adjuvants (Henson TR et al. Viruses 2023, 15, 538).*

*In September 2023, preclinical data on our investigational universal flu vaccine, PDS0202, were was presented at the 9th European Scientific Working Group on Influenza (ESWI) conference. These This data demonstrated active neutralization across multiple influenza viruses in animals and provided protection against infection and weight loss after challenging with high doses of H1N1 viruses when they were not previously exposed to flu.*

***Our current clinical pipeline of Versamune®, PDS01ADC and Infectimune® based therapies is as follows:***
***26***

Index


***Liquidity***

***We have never been profitable and have incurred net losses in each year since inception. Our net losses were $32.0 million $10.6 million, and $21.7 million $9.7 million for the nine three months ended September 30, 2023 March 31, 2024 and 2022, 2023, respectively. As of September 30, 2023 March 31, 2024, we had an accumulated deficit of $133.6 million $155.1 million. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with these operations.***

***As of September 30, 2023 March 31, 2024, we had $54.3 million $66.6 million in cash and cash equivalents.***

***Our future funding requirements will depend on many factors, including the following:***

- *the timing and costs of our planned clinical trials;*
- *the timing and costs of our planned preclinical studies of our Versamune® platform;*
- *the outcome, timing and costs of seeking regulatory approvals;*
- *the terms and timing of any future collaborations, licensing, consulting or other arrangements that we may enter into;*
- *the amount and timing of any payments we may be required to make in connection with the licensing, filing, prosecution, maintenance, defense and enforcement of any patents or patent applications or other intellectual property rights; and*
- *the extent to which we license or acquire other products and technologies.*



Index

***SELECTED FINANCIAL OPERATIONS OVERVIEW***

***Revenue***

*We have not generated any revenues from commercial product sales and do not expect to generate any such revenue in the near future. We may generate revenue in the future from a combination of research and development payments, license fees and other upfront payments or milestone payments.*

***Research and Development Expenses***

*Research and development expenses include employee-related expenses, licensing fees costs to acquire license rights to use certain technology in our research and development projects, costs of acquiring, developing and manufacturing clinical trial materials, as well as fees paid to consultants and various entities that perform certain research and testing on our behalf. Costs for certain development activities, such as clinical trials, are recognized based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations or information provided by vendors on their actual costs incurred. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected in the condensed consolidated financial statements as prepaid or accrued expenses. Costs incurred in connection with research and development activities are expensed as incurred.*

*We expect that our research and development expenses will increase significantly over the next several years as we advance our platforms including Versamune based immuno-oncology, IL12 Fused antibody drug candidates in oncology, Versamune® and Infectimune based infectious disease PDS01ADC product candidates into and through clinical trials, pursue regulatory approval of our investigational Versamune® product and PDS01ADC candidates and prepare for a possible commercial launch, all of which will also require a significant investment in contract and internal research services, manufacturing process validation and inventory related costs.*

*The process of conducting human clinical trials necessary to obtain regulatory approval is costly and time consuming. We may never succeed in achieving marketing approval. approval for our clinical product candidates. The probability of successful commercialization of our drug product candidates may be affected by numerous factors, including clinical data obtained in future trials, competition, manufacturing capability and commercial viability. As a result, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of any of our product candidates.*



Index

***Results of Operations***

*The following table summarizes the results of our operations for the three months ended September 30, 2023 March 31, 2024 and 2022: 2023:*

| | Three Months Ended September 30, | | Increase (Decrease) | | Three Months Ended March 31, | | Increase | |
|---|---|---|---|---|---|---|---|---|
| | 2023 | 2022 | $ Amount | % | 2024 | 2023 | $ Amount | % |
| | (in thousands) | | | | (in thousands) | | | |
| *Operating expenses:* | | | | | | | | |
| *Research and development expenses* | $ 6,449 | $ 4,353 | $ 2,096 | 48% | $ 6,704 | $ 5,844 | $ 860 | 15% |
| *General and administrative expenses* | 4,071 | 2,926 | 1,145 | 39% | 3,393 | 3,579 | (186) | (5)% |
| *Total operating expenses* | 10,520 | 7,279 | 3,241 | 45% | 10,097 | 9,423 | 674 | 7% |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Loss from operations | (10,520) | (7,279) | (3,241) | 45% | (10,097) | (9,423) | (674) | 7% |
| Interest income (expense), net | (329) | (145) | (184) | 127% | (506) | (237) | (269) | 114% |
| Net loss and comprehensive loss | $ (10,849) | $ (7,424) | $ (3,425) | 46% | $ (10,603) | $ (9,660) | $ (943) | 10% |

Research and Development Expenses

Research and development (R&D) expenses increased to $6.4 million $6.7 million for the three months ended September 30, 2023 March 31, 2024 from $4.4 million $5.8 million for the three months ended September 30, 2022 March 31, 2023. The increase of $2.0 million is $0.9 million in 2024 was primarily attributable to an increase of $1.3 million $1.2 million in clinical trials, studies and $0.7 million medical affairs offset by a decrease of $0.1 million in personnel costs, including $0.3 million $0.1 million in non-cash stock-based compensation. professional fees and $0.1 million in manufacturing costs.

General and Administrative Expenses

General and administrative expenses increaseddecreased to $4.1 million $3.4 million for the three months ended September 30, 2023 March 31, 2024 from $2.9 million $3.6 million for the three months ended September 30, 2022 March 31, 2023. The increasedecrease of $1.2 million is primarily attributable to an increase of $0.7 million in personnel costs, including $0.5 million in non-cash stock-based compensation, and $0.5 million in investor relations costs.

Comparison of the Nine months September 30, 2023 and 2022

The following table summarizes the results of our operations for the nine months September 30, 2023 and 2022:

| | Nine Months Ended September 30, | | Increase (Decrease) | |
|---|---|---|---|---|
| | 2023 | 2022 | $ Amount | % |
| | (in thousands) | | | |
| Operating expenses: | | | | |
| Research and development expenses | $ 20,297 | $ 13,276 | $ 7,021 | 53% |
| General and administrative expenses | 12,341 | 9,575 | 2,766 | 29% |
| Total operating expenses | 32,638 | 22,851 | 9,787 | 43% |
| Loss from operations | (32,638) | (22,851) | (9,787) | 43% |
| Interest income (expense), net | (812) | (65) | (747) | 1,149% |
| Benefit from income taxes | 1,406 | 1,199 | 207 | 17% |
| Net loss and comprehensive loss | $ (32,044) | $ (21,717) | $ (10,327) | 48% |

Research and Development Expenses

Research and development (R&D) expenses increased to $20.3 million for the nine months September 30, 2023 from $13.3 million for the nine months ended September 30, 2022. The increase of $7.0 million $0.2 million was primarily attributable to an increase a decrease of $0.5 million in personnel costs offset by an increase of $2.0 million, including $1.0 million $0.3 million in non-cash stock-based compensation, clinical trials of $3.4 million, manufacturing expenses of $1.4 million and professional fees and facilities costs of $0.2 million.



Index

General and Administrative Expenses

General and administrative expenses increased to $12.3 million for the nine months September 30, 2023 from $9.6 million for the nine months ended September 30, 2022. The increase of $2.7 million was primarily attributable to an increase in personnel costs of $2.0 million, including $1.4 million in non-cash stock-based compensation, and $0.7 million in investor relations costs.

Benefit from Income Taxes

Income tax benefit was $1.4 million for the nine months ended September 30, 2023 and $1.2 million for the nine months ended September 30, 2022. The increase of $0.2 million was due to an increase in the amount of New Jersey NOL carryforwards sold when compared to the comparable period.

Liquidity and Capital Resources

*In April 2022, we received approximately $1.2 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant our participation in the New Jersey Technology Business Tax Certificate Transfer NOL program for tax year 2020.*

*In August 2022, we filed a shelf registration statement, or the 2022 Shelf Registration Statement, with the SEC for the issuance of common stock, preferred stock, warrants, rights, debt securities, and units, up to an aggregate amount of $150 million, $50 million of which covers the offer, issuance and sale by us of our common stock under the Sales Agreement (as discussed below). The 2022 Shelf Registration Statement was declared effective on September 2, 2022.*

*In August 2022, we entered into an At Market Issuance Sales Agreement, or the Sales Agreement, with B. Riley Securities, Inc. and BTIG, LLC, each an Agent and collectively the Agents, with respect to an at-the-market offering program under which we may offer and sell, from time to time at our sole discretion, shares of our common stock, having an aggregate offering price of up to $50 million, or the Placement Shares, through or to the Agents, as sales agents or principals. Upon delivery of a placement notice and subject to the terms and conditions of the Sales Agreement, the Agents may sell the Placement Shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act of 1933, as amended, including, without limitation, sales made through The Nasdaq Capital Market or on any other existing trading market for our common stock. The Agents will use commercially reasonable efforts to sell the Placement Shares from time to time, based upon our instructions (including any price, time or size limits or other customary parameters or conditions we may impose). We will pay the Agents a commission equal to three percent (3%) of the gross sales proceeds of any Placement Shares sold through the Agents under the Sales Agreement, and we have also have provided the Agents with customary indemnification and contribution rights. We are not obligated to make any sales of our common stock under the Sales Agreement. The offering of Placement Shares pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all Placement Shares subject to the Sales Agreement or (ii) the termination of the Sales Agreement in accordance with its terms. For the year ended December 31, 2022 December 31, 2023, we sold 1,238,491 2,642,269 shares of our common stock with a net value of $9.9 million $16.1 million pursuant to the Sales Agreement. During the three quarter ended March 31, 2024 and nine months ended September 30, 2023, 2023, we sold 139,575 3,428,681 and 736,037 553,293 shares of our common stock with a net value of $0.8 million $19.5 and $5.7 million $4.6 million, respectively, pursuant to the Sales Agreement.*

*In August 2022, we entered into a venture loan and security agreement, or the Loan and Security Agreement, with Horizon Technology Finance Corporation, as lender and collateral agent for itself and the other lenders. The Loan and Security Agreement provides for the following 6 separate and independent term loans: (a) a term loan in the amount of $7,500,000, or Loan A, (b) a term loan in the amount of $10,000,000, or Loan B, (c) a term loan in the amount of $3,750,000, or Loan C, (d) a term loan in the amount of $3,750,000, or Loan D, (e) a term loan in the amount of $5,000,000, or Loan E, and (f) a term loan in the amount of $5,000,000, or Loan F, (with each of Loan A, Loan B, Loan C, Loan D, Loan E, and Loan F, individually a Loan and, collectively, the Loans). Loan A, Loan B, Loan C, and Loan D were delivered to us on August 24, 2022. Loan E and Loan F were uncommitted Loans that could have been advanced by the Lenders upon the parties agreement prior to July 31, 2023 upon the satisfaction by the Company of certain agreed upon conditions. At this time the option has expired and Loan E and Loan F are no longer available to the Company under the Loan and Security Agreement . Agreement. We may only use the proceeds of the Loans for working capital or general corporate purposes.*

*Each Loan matures on the 48-month anniversary following the applicable funding date unless accelerated pursuant to agreed upon events of default. Payments on the principal balance begin on October 1, 2024 and are paid monthly in the succeeding 24 months. The principal balance of each Loan bears a floating interest. The interest rate is calculated initially and, thereafter, each calendar month as the sum of (a) the per annum rate of interest from time to time published in The Wall Street Journal as contemplated by the Loan and Security Agreement, or any successor publication thereto, as the "prime rate" then in effect, plus (b) 5.75%; provided that, in the event such rate of interest is less than 4.00%, such rate shall be deemed to be 4.00% for purposes of calculating the interest rate.*



Index

*Interest is payable on a monthly basis based on each Loan principal amount outstanding the preceding month. We, at our option upon at least ten (10) business days' written notice to the lenders, may prepay all (and not less than all) of the outstanding Loan by simultaneously paying to each lender an amount equal to (i) any accrued and unpaid interest on the outstanding principal balance of the Loans; plus (ii) an amount equal to (A) if such Loan is prepaid on or before the Loan Amortization Date (as defined in the Loan and Security Agreement) applicable to such Loan, 3% of the then outstanding principal balance of such Loan, (B) if such Loan is prepaid after the Loan Amortization Date applicable to such Loan, but on or before the date that is 12 months after such Loan Amortization Date, 2% of the then outstanding principal balance of such Loan, or (C) if such Loan is prepaid more than 12 months after the Loan Amortization Date but prior to the stated maturity date applicable to such Loan, 1% of the then outstanding principal balance of such Loan; plus (iii) the outstanding principal balance of such Loan; plus (iv) all other sums, if any, that shall have become due and payable thereunder. No prepayment premium will be applied to any outstanding balance of any Loan paid on the stated maturity date.*

*In connection with the Loan and Security Agreement, we issued Horizon Technology Finance Corporation and Powerscourt Investments XXV, LP warrants to purchase an aggregate total of 381,625 shares of our common stock at an initial exercise price of $3.6685 per share. Each warrant is classified as equity and is exercisable at any time for a period beginning on the date of grant and ending on the earlier of (A) 10 years from the date of grant, and (B) the closing of (A) (i) the sale, lease, exchange, conveyance or other disposition of all or substantially all of the our property or business, or (ii) its merger into or consolidation with any other corporation (other than a wholly-owned subsidiary of the Company), or any*

*transaction (including a merger or other reorganization) or series of related transactions, in which more than 50% of the voting power of the Company is disposed of, in each case, for cash or for marketable securities meeting certain requirements as described in the applicable warrants. The key assumptions used in Black-Scholes option pricing model were (i) expected term of 10 years, (ii) a risk-free rate of 3.11%, (iii) expected volatility of 93.8%, and (iv) no estimated dividend yield.*



Index

*In April 2023, we received approximately $1.4 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant our participation in the New Jersey Technology Business Tax Certificate Transfer NOL program for tax year 2021.*

*In April 2024, we received approximately $0.9 million from the net sale of tax benefits to an unrelated, profitable New Jersey corporation pursuant to its participation in the New Jersey Technology Business Tax Certificate Transfer of Net Operating Loss (NOL) program for tax year 2022.*

*As of September 30, 2023 March 31, 2024, we had $54.3 million $66.6 million in cash and cash equivalents. Our primary uses of cash are to fund operating expenses, primarily research and development expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses.*

*We evaluated whether there are any conditions and events, considered in the aggregate, that raise substantial doubt about our ability to continue as a going concern within one year beyond the filing of this Quarterly Report on Form 10-Q. Our budgeted cash requirements in 2024 and beyond include expenses related to continuing development and clinical studies as well as payments on our debt.*

*We plan to continue to fund our operations and capital funding needs through existing cash and additional equity and/or debt financings. financing. However, we cannot be certain that additional financing will be available when needed or that, if available, financing will be obtained on terms favorable to us or our existing stockholders. We may also enter into government funding programs and consider selectively partnering for clinical development and commercialization. The sale of additional equity would result in additional dilution to our stockholders. Incurring debt financing would result in debt service obligations, and the instruments governing such debt could provide for operating and financing covenants that would restrict our operations. If we are unable to raise additional capital in sufficient amounts or on acceptable terms, we may be required to delay, limit, reduce, or terminate our clinical product development or future commercialization efforts or grant rights to develop and market immunotherapies that we would otherwise prefer to develop and market ourselves. In addition, the Loan and Security Agreement allows for the lenders to call the outstanding balance of the term loans if the minimum cash balances outlined in the Loans and Security Agreement are not maintained. Any of these actions could harm our business, results of operations and prospects.*

*We evaluated whether there are any conditions and events, considered in the aggregate, that raise substantial doubt about Failure to obtain adequate financing also may adversely affect our ability to continue operate as a going concern within one year after the filing concern.*

*As a result of this Quarterly Report on Form 10-Q. While we intend to finance our cash needs principally through collaborations, strategic alliances, or license agreements with third parties and/or debt or equity financings, there is no assurance that new financing will be available to us on commercially acceptable terms or in the amounts required, if at all. As such, these uncertainties, and as its plans are outside of management's control, we have concluded that substantial doubt exists about our ability to continue as a going concern for a period of at least 12 months from the date of the issuance of these unaudited condensed consolidated financial statements. We have based this estimate on assumptions The unaudited condensed consolidated financial statements do not include any adjustments to the carrying amounts and classifications of assets and liabilities that may prove would result if were unable to be wrong, and we could use our capital resources sooner than we currently expect. continue as a going concern.*



Index

***Cash Flows***

*The following table shows a summary of our cash flows for each of the periods indicated (in thousands):*

| | Nine Months Ended September 30, | | Three Months Ended March 31, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2024 | 2023 |
| Net cash used in operating activities | $ (25,179) | $ (18,181) | $ (9,938) | $ (13,189) |
| Net cash provided by financing activities | 5,610 | 24,581 | 20,012 | 4,568 |
| Net increase in cash and cash equivalents | $ (19,569) | $ 6,400 | | |
| Net increase (decrease) in cash and cash equivalents | | | $ 10,074 | $ (8,621) |

***Net Cash Used in Operating Activities***

*Net cash used in operating activities was $25.2 million $9.9 million and $18.2 million $13.2 million for the nine three months ended September 30, 2023 March 31, 2024 and 2022, 2023, respectively. The increase decrease in net cash used in operating activities of $7.0 million $3.3 million was primarily due to an increase in net loss of $10.3 million, reduced by the increase a decrease in the non-cash stock-based compensation expense of $2.4 million, $0.5 million offset by an increase in net loss of $1.0 million and changes in the timing of working capital requirements, including changes in prepaid expenses and other assets, accrued expenses and accounts payable. The increase in accounts payable, specifically, is primarily the result of a dispute with a certain vendor and we are working towards resolving this dispute.*

***Net Cash Provided by Financing Activities***

*Net cash provided by financing activities for the nine three months ended September 30, 2023 was due to the receipt of net proceeds of $5.6 million due to the sale of common stock under the Sales Agreement. Net cash provided by financing activities for the nine months ended September 30, 2022 March 31, 2024 and 2023 was primarily due to the receipt of net proceeds of $24.6 million due to $19.5 million and $ 4.6 million, respectively, from the Venture Loan.*
***sale of common stock under the Sales Agreement.***





***Operating Capital Requirements***

*To date, we have not generated any product revenue. We do not know when, or if, we will generate any product revenue and we do not expect to generate significant product revenue unless and until we obtain regulatory approval and commercialize one of our current or future product candidates. We anticipate that we will continue to generate losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory approvals for, our vaccine product candidates, and begin to commercialize any approved vaccine candidates. products. We are subject to all of the risks incident to the development of new products, and may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may harm our business. We expect to incur additional costs associated with operating as a public company and anticipate that we will need substantial additional funding in connection with our continuing operations.*

*We evaluated whether there are any conditions and events, considered in the aggregate, that raise substantial doubt about our ability to continue as a going concern within one year after the filing of this Quarterly Report. Our budgeted cash requirements in 2023 2024 and beyond include expenses related to continuing development and clinical studies. studies as well as payments on our debt. Until we can generate significant cash from our operations, we expect to continue to fund our operations with available financial resources. These financial resources may not be adequate to sustain our operations. While we intend to finance our cash needs principally through collaborations, strategic alliances, or license agreements with third parties and/or debt or equity financings, there is no assurance that new financing will be available to us on commercially acceptable terms or in the amounts required, if at all. As such, we In addition, the Loan and Security Agreement allows for the lenders to call the outstanding balance of the term loans if the minimum cash balances outlined in the Loans and Security Agreement are not maintained. We have concluded that substantial doubt exists about our ability to continue as a going concern for a period of at least 12 months from the date of the issuance of these unaudited condensed consolidated financial statements.*





*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 and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:*

- *the initiation, progress, timing, costs and results of our planned clinical trials;*
- *the effects of health epidemics, pandemics, or outbreaks of infectious diseases, on our business operations, financial condition, results of operations and cash flows;*
- *the outcome, timing and cost of meeting regulatory requirements established by the U.S. Food and Drug Administration, or FDA, the European Medicines Agency, or EMA, and other comparable foreign regulatory authorities;*
- *the cost of filing, prosecuting, defending and enforcing our patent claims and other intellectual property rights;*
- *the cost of defending potential intellectual property disputes, including patent infringement actions brought by third parties against us now or in the future;*
- *the effect of competing technological and market developments;*
- *the cost of establishing sales, marketing and distribution capabilities in regions where we choose to commercialize our products on our own; and*
- *the initiation, progress, timing and results of our commercialization of our clinical candidates, if approved, for commercial sale.*

*Please see the section titled "Risk Factors" elsewhere in the Quarterly Report and Annual Report for additional risks associated with our operations.*

***Purchase Commitments***

***We have no material non-cancelable purchase commitments with service providers as we have generally contracted on a cancelable, purchase order basis.***



Index

***Critical Accounting Policies and Estimates***

***Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. GAAP. Our accounting policies are more fully described in Note 2 to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q. As described in Note 2, the preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Estimates are assessed each period and updated to reflect current information. Actual results may differ from these estimates under different assumptions or conditions. We believe that the discussion in our management's discussion and analysis addresses our most critical accounting policies, which are those that are most important to the portrayal of our financial condition and results of operations and require management's most difficult, subjective and complex judgments.***

***There have been no material changes to our critical accounting policies and estimates during the nine three months ended September 30, 2023 March 31, 2024 from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023.***

***Off-Balance Sheet Arrangements***

***We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.***

***Smaller Reporting Company***

***As of January 1, 2021, we were no longer an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. However, we remain a "smaller reporting company," as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended. We will cease to be a smaller reporting company if we have a non-affiliate public float in excess of $250 million and annual revenues in excess of $100 million, or a non-affiliate public float in excess of $700 million, determined on an annual basis. As a smaller reporting company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not smaller reporting companies. We will continue to take advantage of some or all of the available exemptions.***



Index

***ITEM 3: QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK***

***Interest Rate Risk***

***We are exposed to market risks in the ordinary course of our business and from risk related changes in the interest rate on our debt borrowings. These market risks are principally limited to interest rate fluctuations. rates. As of September 30, 2023 March 31, 2024, our cash equivalents consisted of bank deposits and money market accounts accounts. Additionally, the principal balance of our Loan and our debt is Security agreement with Horizon Technology Finance Corporation bears a variable floating interest rate instrument. pegged to the prime rate. Our primary exposure to market risk is interest income rate sensitivity, which is affected by changes in the general level of U.S. interest rates. The primary objective Historically, the net impact of our investment activities is to preserve principal and liquidity while maximizing income without significantly increasing risk. We do not enter into investments for trading or speculative purposes. Due to the short-term nature of our investment portfolio and debt agreement, we do not believe an immediate 100 basis point increase fluctuations in interest rates would have a not been material effect on the fair market value of our portfolio, and, accordingly, we do not expect our operating results or cash flows to be materially affected by a sudden change in market interest rates. us.***

***Inflation Risk***

***Inflation generally affects us by increasing our cost of labor and pricing of contracts. We do not believe that inflation has had a material effect on our business, financial condition, or results of operations during the three months ended September 30, 2023 March 31, 2024.***

***ITEM 4. 4: CONTROLS AND PROCEDURES***

***Evaluation of Disclosure Controls and Procedures***

***An evaluation was carried out, under the supervision of and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15 (e)) under the Securities Exchange Act of 1934, or the Exchange Act, as of the end of the period covered by this report. Based on the evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that the information required to be disclosed by us in the reports we file or submit under the Exchange Act was recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.***



Index

***Changes in Internal Control over Financial Reporting***

***There were no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) identified in connection with the evaluation identified above that occurred during the quarter ended September 30, 2023 March 31, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.***

***PART II. OTHER INFORMATION***

***ITEM 1. LEGAL PROCEEDINGS***

***The information in Note 9 to the Condensed Consolidated Financial Statements condensed consolidated financial statements contained in Part I, Item 1 of this Quarterly Report on Form 10-Q is incorporated herein by reference. There are no matters which constitute material pending legal proceedings to which we are a party other than those incorporated into this item by reference from Note 9 to our Condensed Consolidated Financial Statements condensed consolidated financial statements for the quarter ended September 30, 2023 March 31, 2024 contained in this Quarterly Report on Form 10-Q.***

***ITEM 1A. RISK FACTORS***

***With the exception of the risk factor noted below, there There have been no material changes from our risk factors as previously reported in our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023. However, any investment in our business involves a high degree of risk. Before making an investment decision, you should carefully consider the information we include in this Quarterly Report on Form 10-Q, including our unaudited interim condensed consolidated financial statements and accompanying notes, our Annual Report on Form 10-K for the year ended December 31, 2022 December 31, 2023 filed on March 28, 2023 March 28, 2024, including our financial statements and related notes contained therein, and the additional information in the other reports we file with the Securities and Exchange Commission. These risks may result in material harm to our business and our financial condition and results of operations. In this event, the market price of our common stock may decline and you could lose part or all of your investment. Additional risks that we currently believe are immaterial may also impair our business operations. Our business, financial conditions and future prospects and the trading price of our common stock could be harmed as a result of any of these risks.***



Index

***We have identified conditions and events that raise substantial doubt regarding our ability to continue as a going concern.***

***We have incurred net losses and utilized cash in operations since inception. In addition, as of September 30, 2023, we had approximately $54.3 million in cash and cash equivalents, and during the nine months ended September 30, 2023, we used $18.2 million of cash in operations and expect to continue to incur significant cash outflows and incur future additional losses to execute our operating plan. While we intend to finance our cash needs principally through collaborations, strategic alliances, or license agreements with third parties and/or debt or equity financings, there is no assurance that new financing will be available to us on commercially acceptable terms or in the amounts required, if at all. Due to the uncertainty in securing additional funding, and the insufficient amount of cash and cash equivalents as of September 30, 2023, we have concluded that substantial doubt exists about our ability to continue as a going concern within one year after the date of the filing of this Quarterly Report. If we are unsuccessful in securing sufficient financing, we may need to delay, reduce, or eliminate our research and development programs, which could adversely affect our business prospects, or cease operations.***

***Our unaudited condensed consolidated financial statements included in this Quarterly Report have been prepared on a going concern basis under which an entity is able to realize its assets and satisfy its liabilities in the ordinary course of business. The unaudited condensed consolidated financial statements do not give effect to any adjustments relating to the carrying values and classification of assets and liabilities that would be necessary should we be unable to continue as a going concern within one year after the date that the financial statements are issued.***

***Our future operations are dependent upon the successful entry into collaborations, strategic alliances, or license agreements with third parties and/or on the identification and successful completion of equity or debt financing and the achievement of profitable operations at an indeterminate time in the future. There can be no assurances that we will be successful in completing these collaborations or alliances, equity or debt financing or in achieving profitability. As such, there can be no assurance that we will be able to continue as a going concern.***

***Substantial doubt about our ability to continue as a going concern may materially and adversely affect the price per share of our common stock, and it may be more difficult for us to obtain financing. If potential collaborators decline to do business with us or potential investors decline to participate in any future financings due to such concerns, our ability to increase our cash position may be limited. The perception that we may not be able to continue as a going concern may cause others to choose not to deal with us due to concerns about our ability to meet our contractual obligations. If we are unable to continue as a going concern, you could lose all or part of your investment in our Company.***

***ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS***

***None There were no unregistered sales of the Company's equity securities during the three months ended March 31, 2024.***

***ITEM 3. DEFAULTS UPON SENIOR SECURITIES***

***None.***

***ITEM 4. MINE SAFETY DISCLOSURES***

***Not applicable.***

**ITEM 5. OTHER INFORMATION**

During the quarter ended September 30, 2023, none of our directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934) adopted, terminated or modified a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-K). None.



Index

**ITEM 6. EXHIBITS**



Index

**EXHIBIT INDEX**

| Exhibit Number | Exhibit Description |
|---|---|
| 10.1+ 10.1+ | Third Amended Executive Employment Agreement by and Restated between Kirk V. Shephard, M.D. and PDS Biotechnology Corporation, 2014 Equity Incentive Plan effective as of January 22, 2024 (incorporated by reference to Exhibit 10.27 to the Registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 28, 2024). |
| 10.2+ | PDS Biotechnology Corporation 2019 Inducement Plan, as amended (filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Securities on January 22, 2024, and Exchange Commission on July 17, 2023). incorporated by reference herein). |
| 10.3*+ | Executive Employment Agreement by and between Stephan F. Toutain and PDS Biotechnology Corporation, effective as of May 1, 2024. |
| 31.1* | Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2* | Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1 * | Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith). |

| | |
|---|---|
| 32.2 * | Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith). |
| 101.INS* | Inline XBRL Instance Document (the - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document) document. |
| 101.SCH* | Inline XBRL Taxonomy Extension Schema Document With Embedded Linkbase Documents. |
| 101.CAL* | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF* | XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB* | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE* | XBRL Taxonomy Extension Presentation Linkbase Document |
| 104 | Cover Page Interactive Data File (formatted as inline Inline XBRL and with applicable taxonomy extension information contained in Exhibit Exhibits 101). |

* Filed herewith (unless otherwise noted as being furnished herewith)

+ Indicates management compensatory plan or arrangement.

* Filed herewith (unless otherwise noted as being furnished herewith)
+ Indicates management compensatory plan or arrangement.



Index

**SIGNATURES**

**Pursuant to the requirements of the Exchange Act, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.**

**PDS Biotechnology Corporation**

**November 14, 2023 May 15, 2024** **By: /s/ Frank Bedu-Addo**
**Frank Bedu-Addo, Ph.D.**
**President and Chief Executive Officer**
**(Principal Executive Officer)**

**November 14, 2023 May 15, 2024** **By: /s/ Matthew HillLars Boesgaard**
**Matthew Hill**
**Lars Boesgaard**
**Chief Financial Officer**
**(Principal Financial and Accounting Officer)**



**Exhibit 10.3**

## EXECUTIVE EMPLOYMENT AGREEMENT

This **EXECUTIVE EMPLOYMENT AGREEMENT** (the "*Agreement*") is entered into effective May 1, 2024 (the "*Effective Date*"), by and between Stephan F. Toutain, MS, MBA ("*Executive*") and PDS Biotechnology Corporation, a Delaware corporation (the "*Company*"). Each of the Company and Executive is a "*Party*" and, collectively, they are the "*Parties*." The Company desires to employ Executive and the Parties wish to enter into this Agreement to govern the terms and conditions of the Executive's employment with the Company.

Accordingly, in consideration of the mutual promises and covenants contained herein, the Parties agree to the following:

1. **EMPLOYMENT BY THE COMPANY.**

361.1At-Will Employment. Executive shall be employed by the Company on an "at will" basis, meaning either the Company or Executive may terminate Executive's employment at any time, with or without cause or advance notice; provided, however, that Executive agrees to provide the Company with not less than thirty (30) days advance written notice of any resignation, although the Company may waive such notice period in its discretion (except as otherwise set forth in Section 6.4 below). This Agreement shall constitute the full and complete agreement between Executive and the Company regarding the "at will" nature of Executive's employment with the Company, which may be changed only in an express written agreement signed by Executive and a duly authorized officer of the Company. Executive's rights to any compensation following a termination shall be only as set forth in Section 6. Executive's employment is subject to a three (3) month probationary period ("Probationary Period"). During this Probationary Period, Company will have an opportunity to evaluate Executive's performance. This Probationary Period does not change the "at-will" employment relationship. This offer is contingent upon the satisfactory completion of a background search by the Company with your cooperation.

1.2Position. Subject to the terms set forth herein, the Company agrees to employ Executive in the position of Chief Operations Officer. Executive hereby accepts such employment. Executive will report to the Chief Executive Officer and/or such other persons as may be directed by the Board of Directors (the "*Board*"). As a full-time salaried, exempt employee, Executive will be expected to work Executive's normal business hours as required by Executive's job duties and agreed to by the Company.

1.3Duties. Executive shall faithfully perform all duties related to the position or positions held by Executive, including but not limited to all duties set forth in this Agreement and/or in the Bylaws, as applicable, of the Company related to the position or positions held by Executive and all additional duties as may be prescribed or directed from time to time by the Company or the Board, as the case may be. Executive shall devote Executive's full business time and attention to the performance of Executive's duties and responsibilities on behalf of the Company and in furtherance of their best interests. Executive shall make such business trips at the Company's expense to such places as may be necessary for or otherwise directed by the Company.

1.4Company Policies. Executive shall comply with all policies, standards, rules, and regulations of the Company (a "*Company Policy*" or collectively, the "*Company Policies*") and all applicable government laws, rules, and regulations that are now or hereafter in effect. Executive acknowledges receipt of copies of all written Company Policies that are in effect as of the date of this Agreement. Notwithstanding the foregoing, in the event that the terms of this Agreement differ from or are in conflict with the Company's general employment policies or practices, this Agreement shall control.

2. **COMPENSATION.**

2.1Base Salary. Executive will be paid a base salary at the rate of ***$450,000*** per annum ("*Base Salary*"), payable in accordance with the Company's regular salary payment schedule and subject to applicable taxes and withholdings. The Base Salary of the Executive for subsequent years of this Agreement may be increased, decreased, or may stay the same, depending on the Executive's performance and the performance of the Company.



2.2Bonus. During the period Executive is employed with the Company, Executive will be eligible to earn an annual discretionary performance-based bonus, with a target bonus opportunity equal to ***40%*** of the Base Salary. Performance metrics with respect to said bonus will be determined by the Board or the compensation committee of the Board. Executive shall be eligible for said bonus only if Executive is employed on the last day of the performance period. Any earned annual bonus will be paid by in the year following the year in which the applicable performance period ends and Executive will need to be employed by the Company at the time the annual bonus is paid.

2.3Equity Awards. In addition to Executive's Base Salary and bonus eligibility, as a material inducement to Executive joining the Company, Executive will receive a nonqualified stock option to purchase ***200,000*** shares of the Company's common stock under the PDS Biotechnology Corporation 2019 Inducement Plan (as amended, the "*Inducement Plan*"), subject to the approval of the Board and the requirements under the inducement grant exception under Nasdaq Rule 5635(c)(4). The exercise price of the options will be at fair market value on the date of grant and shall be subject to 4-year vesting period with 25% of the options vesting on the first anniversary of the grant date and the remaining options vesting in equal parts over the 36-month period thereafter. The terms of this grant shall be subject to and governed by the Inducement Plan and a stock option agreement between Executive and the Company.

2.4Benefits. Executive will be eligible to participate on the same basis as similarly situated employees of the Company in the Company's benefit plans in effect from time to time during Executive's employment. All matters of eligibility for coverage or benefits under any benefit plan shall be determined in accordance with the provisions of such plan. The Company reserves the right to change, alter, or terminate any benefit plan in its sole discretion.

2.5Expense Reimbursement. The Company shall reimburse Executive for all customary and appropriate business-related expenses actually incurred and documented in accordance with Company Policy, as in effect from time to time. For the avoidance of doubt, to the extent that any reimbursements payable to Executive are subject to the provisions of Section 409A of the Code: (a) any such reimbursements will be paid no later than December 31 of the year following the year in which the expense was incurred, (b) the amount of expenses reimbursed in one year will not affect the amount eligible for reimbursement in any subsequent year, and (c) the right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit. If under the terms of this Agreement the Executive is entitled to a tax gross-up payment, the gross-up payment will be made by December 31 of the year following the year in which the Executive remits the related taxes.

3. **PROPRIETARY INFORMATION, INVENTIONS, NON-COMPETITION AND NON-SOLICITATION OBLIGATIONS**.

3.1Proprietary Information & Restrictive Covenant Agreement. As a condition of employment and/or continued employment with the Company, Executive agrees to execute and abide by a Proprietary Information & Restrictive Covenant Agreement (the "*Proprietary Information Agreement*"), attached hereto as Exhibit A simultaneously with the

Executive's execution of this Agreement. The Proprietary Information Agreement may be amended by the Parties from time to time without regard to this Agreement. The Proprietary Information Agreement contains provisions that are intended by the Parties to survive and do survive termination of this Agreement.

3.2Permissible Communications. Notwithstanding anything to the contrary in the Proprietary Information Agreement, Executive acknowledges that nothing in the Confidential Information Agreement shall be construed to prohibit Executive from (a) filing a charge or complaint with, or participating in any proceeding before, a government agency authorized to enforce and investigate suspected violations of federal anti-discrimination laws, labor relations laws, occupational health and safety laws, wage and hour laws, and such similar state or local laws; (b) reporting possible violations of federal securities laws to the appropriate government enforcing agency and making such other disclosures that are expressly protected under such laws, or (c) responding truthfully to inquiries from, or otherwise cooperating with, any governmental or regulatory investigation (the activities set forth in clauses (a) through (c) are collectively referred to as the "*Protected Activities*"). Executive understands that in connection with such Protected Activity, Executive is permitted to disclose documents or other information as permitted by law, and without giving notice to, or receiving authorization from, the Company; *provided, however*, that Executive agrees to take all reasonable precautions to prevent any unauthorized use or disclosure of any information that may constitute Proprietary Information under the Proprietary Information Agreement to any parties other than the appropriate government agencies. Executive further understands that "Protected Activity" does not include the disclosure of any Company attorney-client privileged communications, and that any such disclosure without the Board's written consent shall constitute a material breach of this Agreement.



3.3 Defend Trade Secrets Act. Pursuant to the Defend Trade Secrets Act of 2016, Executive acknowledges that Executive will not have criminal or civil liability under any Federal or State trade secret law for the disclosure of a trade secret that (a) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney and may use the trade secret information in the court proceeding, if Executive (x) files any document containing the trade secret under seal and (y) does not disclose the trade secret, except pursuant to court order.

4.**OUTSIDE ACTIVITIES DURING EMPLOYMENT.** Except with the prior written consent of the Board, Executive will not, while employed by the Company, undertake or engage in any other employment, occupation, or business enterprise that would interfere with Executive's responsibilities and the performance of Executive's duties hereunder or otherwise create an actual, potential or apparent conflict of interest with respect to Executive's employment hereunder, except for (i) reasonable time devoted to volunteer services for or on behalf of such religious, educational, non-profit, and/or other charitable organization, (ii) reasonable time devoted to activities in the non-profit community consistent, (iii) advisory or board of director roles set forth on Exhibit B or as otherwise approved by the Board in advance in writing, and (v) such other activities as may be specifically approved by the Board in writing. This restriction shall not, however, preclude Executive from owning less than five percent (5%) of the total outstanding shares of a publicly traded company, or employment or service in any capacity with any entity within the Company.

5.**NO CONFLICT WITH EXISTING OBLIGATIONS**. Executive represents that Executive's performance of all the terms of this Agreement and as an executive of the Company do not and will not breach or in any way conflict any agreement or obligation of any kind made prior to Executive's employment by the Company, including agreements or obligations Executive may have with prior employers or entities for which Executive has provided services, and Executive further warrants and represents that Executive is not subject to any agreement, covenant or other restriction that would prohibit, impede or otherwise limit Executive's ability to perform his duties and obligations hereunder, including without limitation any non-competition or non-solicitation obligations owing to a former employer. Executive has not entered into, and Executive agrees that Executive will not enter into, any agreement or obligation, either written or oral, in conflict herewith.

6.**TERMINATION OF EMPLOYMENT**. The Parties acknowledge that Executive's employment relationship with the Company is at-will. The provisions in this Section govern the compensation, if any, to be provided to Executive upon termination of employment and do not alter Executive's status as an at-will employee.

6.1 Termination by the Company Without Cause.

(a)The Company shall have the right to terminate Executive's employment with the Company pursuant to this Section 6.1 at any time without "Cause" (as defined in Section 6.2(b) below) by giving notice as described in Section 7.1 of this Agreement. A termination pursuant to Sections 6.3 and 6.5 below is not a termination without "Cause" for purposes of receiving the benefits described in this Section 6.1.

(b)If the Company terminates Executive's employment at any time after the expiration of the Probationary Period without Cause and provided that such termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1 .409A- 1(h) a "*Separation from Service*"), then Executive shall be entitled to receive the Accrued Obligations (defined below) and, subject to Executive's compliance with the obligations in Section 6.1(c) below, then Executive shall also be entitled to receive (collectively, the "*Severance Benefits*"):

(i)an amount equal to Executive's then current Base Salary for twelve (12) months (the "*Severance Period*"), less all applicable withholdings and deductions, paid in equal installments beginning on the Company's first regularly scheduled payroll date following the Release Effective Date (as defined in Section 6.1(c) below), with the remaining installments occurring on the Company's regularly scheduled payroll dates thereafter;



(ii)payment of that portion of the premiums required to continue Executive's group health care coverage under the applicable provisions of Title X of the Consolidated Omnibus Budget Reconciliation Act of 1985 ("*COBRA*") that exceeds the active employee rate, provided that Executive timely elects to continue coverage under COBRA, until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes

eligible for substantially equivalent health insurance coverage in connection with new employment (such period from the termination date through the earliest of (A), (B) or (C), the "*COBRA Payment Period*"). Notwithstanding the foregoing, if at any time the Company determines in its sole discretion that the payment of the COBRA premiums would result in a violation of the nondiscrimination rules of Section 105(h)(2) of the Code, or any statute or regulation of similar effect (including but not limited to the 2010 Patient Protection and Affordable Care Act, as amended by the 2010 Health Care and Education Reconciliation Act), then in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the COBRA Payment Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings for the remainder of the COBRA Payment Period, regardless of whether Executive elects COBRA coverage (the "*Special Severance Payment*"). Executive may, but is not obligated to, use such Special Severance Payment toward the cost of COBRA premiums. If Executive becomes eligible for coverage under another employer's group health plan or otherwise ceases to be eligible for COBRA during the COBRA Payment Period, Executive must immediately notify the Company of such event, and all payments and obligations under this clause will cease.

(c)Executive will be paid all of the Accrued Obligations on the Company's first payroll date after Executive's date of termination from employment or earlier if required by law. Executive shall receive the Severance Benefits pursuant to Section 6.1(b) of this Agreement only if: (i) Executive signs and delivers to the Company an effective, general release of claims in favor of the Company and representatives, in a form acceptable to the Company (the "*Release*"), by the 60th day following the termination date or such earlier date as set forth in the Release, which cannot be revoked in whole or part (if applicable) by such date or such earlier date as set forth in the Release (the date that the Release can no longer be revoked is referred to as the "*Release Effective Date*"); (ii) if Executive holds any other ~~positions~~ with the Company, Executive resigns such position(s) to be effective no later than the date of Executive's termination date (or such other date as requested by the Board); (iii) Executive returns all Company property in accordance with the terms and conditions of the Proprietary Information Agreement; (iv) Executive complies and continues to comply with all post-termination obligations under this Agreement and the Proprietary Information Agreement; and (v) Executive complies with the terms of the Release, including without limitation any non-disparagement and confidentiality provisions contained in the Release. To the extent that any Severance Benefits are deferred compensation under Section 409A of the Code, and are not otherwise exempt from the application of Section 409A, then, if the period during which Executive may consider and sign the Release spans two calendar years, the payment of Severance Benefits will not be made or begin until the later calendar year.

(d)For purposes of this Agreement, "*Accrued Obligations*" are (i) Executive's accrued but unpaid salary through the date of termination, (ii) any unreimbursed business expenses incurred by Executive payable in accordance with the Company's standard expense reimbursement policies, and (iii) benefits owed to Executive under any qualified retirement plan or health and welfare benefit plan in which Executive was a participant in accordance with applicable law and the provisions of such plan.

(e)The Severance Benefits provided to Executive pursuant to this Section 6.1 are in lieu of, and not in addition to, any benefits to which Executive may otherwise be entitled under any Company severance plan, policy or program, and Executive acknowledges and agrees that Executive shall have no rights or entitlements to any benefits or payments under any such plan, policy or program.

(f)Any damages caused by the termination of Executive's employment without Cause would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.



6.2 Termination by the Company for Cause.

(a)Subject to Section 6.2(c) below, the Company shall have the right to terminate Executive's employment with the Company at any time for Cause by giving notice as described in Section 7.1 of this Agreement.

(b)"*Cause*" shall mean (i) Executive's failure, neglect, or refusal to perform Executive's duties and responsibilities under this Agreement (in each case, except where due to a Disability, sickness or illness); (ii) any act of Executive that has, or could reasonably be expected to have, the effect of injuring the business or reputation of the Company; (iii) Executive's conviction of, or plea of guilty or no contest to: (x) a felony or (y) any other criminal charge that has, or could be reasonably expected to have, an adverse impact on the performance of Executive's duties to the Company or otherwise result in injury to the reputation or business of the Company or any of its subsidiaries; (iv) Executive's commission of an act of fraud, embezzlement or breach of any fiduciary duty as against the Company; (v) any material violation by Executive of the policies of the Company, including but not limited to those relating to sexual harassment or business conduct, and those otherwise set forth in the manuals or statements of policy of the Company, as may be amended from time to time; (vi) Executive's violation of federal or state securities laws; or (vii) Executive's material breach of this Agreement or breach of the Proprietary Information Agreement.

(c)In the event Executive's employment is terminated at any time for Cause, Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.3 Resignation by Executive.

(a)Executive may resign from Executive's employment with the Company at any time by giving notice as described in Section 7.1, and subject to the advance notice requirement set forth in Section 1.1 above.

(b)In the event Executive resigns from Executive's employment with the Company for any reason (other than a resignation for Good Reason as described in Section 6.4 below), Executive will not receive Severance Benefits or any other severance compensation or benefits, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.4 Resignation by Executive for Good Reason.

(a)Provided Executive has not previously been notified of the Company's intention to terminate Executive's employment, Executive may resign from employment with the Company for Good Reason (as defined in Section 6.4(b) below).

(b)"*Good Reason*" shall mean, without Executive's written consent, (i) a material diminution in Executive's title, duties, or responsibilities as set forth in Section 3 hereof; (ii) any material breach of this Agreement by the Company (other than a provision that is covered by clause (i)); or (iii) any relocation of Executive's principal place of employment of more than fifty (50) miles (unless Executive currently is working, or is provided the opportunity to work, remotely or otherwise not required to relocate their principal place of employment, in which case this subpart (iii) shall not apply); provided, however, that Executive must provide notice of Good Reason within thirty (30) days of the occurrence of the event giving rise to the purported Good Reason, after which the Company shall have not less than thirty (30) days to cure the alleged Good Reason and, if such remains uncured, Executive must resign from such employment within thirty (30) days of the expiration of the cure period. In the event that the Company reasonably believes that Executive may have engaged in conduct constituting Cause, the Company may, in its sole and absolute discretion, suspend Executive's duties or employment which shall not constitute a basis for Good Reason hereunder or otherwise constitute a breach of this Agreement by the Company; provided, that no such suspension shall alter the Company's obligations under this Agreement during such period of suspension.



(c)In the event Executive resigns from Executive's employment for Good Reason at any time after the expiration of the Probationary Period, and provided that such termination constitutes a Separation from Service, then subject to Executive's compliance with the obligations in Section 6.1(c) above, Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1 and on the same terms and conditions set forth in Section 6.1(c) and Section 6.1(e) as if Executive had been terminated by the Company without Cause.

(d)Any damages caused by the termination of Executive's employment for Good Reason would be difficult to ascertain; therefore, the Severance Benefits for which Executive is eligible pursuant to Section 6.1(b) above in exchange for the Release is agreed to by the Parties as liquidated damages, to serve as full compensation, and not a penalty.

6.5 Termination by Virtue of Death or Disability of Executive.

(a)In the event of Executive's death while employed pursuant to this Agreement, all obligations of the Parties hereunder shall terminate immediately, and the Company shall, pursuant to the Company's standard payroll policies, pay to Executive's legal representatives all Accrued Obligations.

(b)Subject to applicable state and federal law, the Company shall at all times have the right, upon written notice to Executive, to terminate this Agreement based on Executive's Disability. Termination by the Company of Executive's employment based on "*Disability*" shall mean termination because a qualified medical doctor mutually acceptable to the Company and Executive or Executive's personal representative has certified in writing that: (A) Executive is unable, because of a medically determinable physical or mental disability, to perform the essential functions of Executive's job, with or without a reasonable accommodation, for more than one hundred and eighty (180) calendar days measured from the last full day of work; or (B) by reason of mental or physical disability, it is unlikely that Executive will be able, within one hundred and eighty (180) calendar days, to resume the essential functions of Executive's job, with or without a reasonable accommodation, and to otherwise discharge Executive's duties under this Agreement. This definition shall be interpreted and applied consistent with the Americans with Disabilities Act, the Family and Medical Leave Act, and other applicable law. In the event Executive's employment is terminated based on Executive's Disability, Executive will not receive Severance Benefits or any other severance compensation or benefit, except that, pursuant to the Company's standard payroll policies, the Company shall pay to Executive the Accrued Obligations.

6.6 Change in Control Benefits. In the event the Company (or any surviving or acquiring corporation) terminates Executive's employment without Cause or Executive resigns for Good Reason within ninety (90) days before and twenty-four (24) months following the effective date of a Change in Control (as defined in the PDS Corporation 2014 Second Amended and Restated Equity Incentive Plan, as amended by the Company from time to time), then Executive shall be entitled to the Accrued Obligations and, provided that Executive complies with the obligations in Section 6.1(c) of this Agreement (including the requirement to provide an effective Release), Executive shall be eligible to receive the same Severance Benefits as described in Section 6.1(b) and on the same conditions as if Executive had been terminated by the Company without Cause; *provided, however,* that (a) the Executive shall receive a bonus equal to the Target Amount; and (b) in the event that Executive's outstanding equity as of the closing of such Change in Control is assumed or continued (in accordance with its terms) by the surviving entity in such Change in Control, then 100% of the unvested portion of such equity shall become vested.

6.7 Cooperation with Company after Termination of Employment. Following termination of Executive's employment for any reason, Executive agrees to cooperate (a) with the Company in (i) the defense of any legal matter involving any matter that arose during or otherwise related in any way to Executive's employment with the Company, and (ii) all matters relating to the winding up of Executive's pending work and the orderly transfer of any such pending work to such other employees as may be designated by the Company; (b) with all government authorities on matters pertaining to any investigation, litigation or administrative proceeding pertaining to the Company; and (c) such other matters as the Company may reasonably request. Following termination of Executive's employment for any reason, and in the event of a failure by Executive (following reasonable efforts by the Company to secure his voluntary cooperation) to resign from any position as officer or director of the Company, with such resignation to be effective no later than the date of Executive's termination date (or such other date as requested by the Board), the Company is hereby irrevocably authorized to appoint its then-current Chief Executive Officer to act in Executive's name and on his behalf to execute any documents and to do all things reasonably necessary to effect such resignation. Further, Executive shall not, at any time after termination of Executive's employment for any reason, represent himself as being an agent or representative of the Company, unless expressly authorized in a written agreement executed by an authorized officer of the Company.

6.8 Application of Section 409A.

(a)It is intended that all of the severance payments payable under this Agreement satisfy, to the greatest extent possible, the exemptions from the application of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively, "*Section 409A*") provided under Treasury Regulations Sections 1.409A- 1 (b)(4) and 1.409A-1(b)(9), and this Agreement will be construed in a manner that complies with Section 409A. If not so exempt, this Agreement (and any definitions hereunder) will be construed in a manner that complies with Section 409A, and incorporates by reference all required definitions and payment terms.

(b)The preceding provisions shall not be construed as a guarantee by the Company of any particular tax effect to Executive under this Agreement. The Company shall not be liable to Executive for any payment made under this Agreement which is determined to result in an additional tax, penalty or interest under Section 409A, nor for reporting in good faith any payment as an amount includible in gross income under Section 409A.

(c)No severance payments will be made under this Agreement unless Executive's termination of employment constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

(d)For purposes of Section 409A (including, without limitation, for purposes of Treasury Regulations Section 1.409A-2(b)(2)(iii)), Executive's right to receive any installment payments under this Agreement (whether severance payments or otherwise) shall be treated as a right to receive a series of separate payments and, accordingly, each installment payment hereunder shall at all times be considered a separate and distinct payment.

(e)If the Company determines that the severance benefits provided under this Agreement constitutes "deferred compensation" under Section 409A and if Executive is a "specified employee" of the Company, as such term is defined in Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation from Service, then, solely to the extent necessary to avoid the incurrence of the adverse personal tax consequences under Section 409A, the timing of the Severance Benefits will be delayed as follows: on the earlier to occur of (i) the date that is six months and one day after Executive's Separation from Service, and (ii) the date of Executive's death (such earlier date, the "*Delayed Initial Payment Date*"), the Company will (1) pay to Executive a lump sum amount equal to the sum of the Severance Benefits that Executive would otherwise have received through the Delayed Initial Payment Date if the commencement of the payment of the Severance Benefits had not been delayed pursuant to this Section 6.8, and (2) commence paying the balance of the Severance Benefits in accordance with the applicable payment schedule set forth in Section 6.1. No interest shall be due on any amounts deferred pursuant to this Section 6.8.

6.9 Parachute Payments.

(a)Notwithstanding any other provisions of this Agreement to the contrary, in the event that it shall be determined that any payment or distribution to or for the benefit of Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "*Payment*") would be nondeductible by the Company for Federal income tax purposes because of Section 280G of the Code, the Company shall reduce the aggregate present value of the Payments under this Agreement to the Reduced Amount (as defined below) if, and only if, reducing the Payments under this Agreement will provide Executive with a greater net after-tax amount than would be the case if no such reduction was made, taking into account the applicable federal, state, local and foreign income, employment and other taxes, including the excise tax imposed by Section 4999 of the Code. If a reduction in the Payments is necessary, such reduction shall occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive. Within any such category of payments and benefits (that is, clauses (1), (2), (3) or (4) of this Section 6.9(a)), a reduction shall occur first with respect to amounts that are not "deferred compensation" within the meaning of Section 409A of the Code and then with respect to amounts that are. The "*Reduced Amount*" shall be an amount expressed in present value that maximizes the aggregate present value of Payments under this Agreement without causing any Payment to be nondeductible by the Company because of Section 280G of the Code.



(b)All determinations to be made under this Section 6.9 shall be made at the Company's expense by a firm of certified public accountants of national standing selected by the Company (the "*Accounting Firm*") which may be the firm regularly auditing the financial statements of the Company. The Company and Executive shall furnish to the Accounting Firm such information and documents as the Accounting Firm may reasonably require in order to make a determination under this Section. To the extent requested by Executive, the Company shall cooperate with Executive in good faith in valuing, and the Accounting Firm shall value, services to be provided by Executive (including refraining from performing services pursuant to a covenant not to compete) before, on or after the date of the transaction which cause the application of Section 280G of the Code such that payments in respect of such services may be considered to be "reasonable compensation" within the meaning of the regulations under Section 280G of the Code. In making its determinations hereunder, the Accounting Firm shall apply reasonable, good faith interpretations regarding the applicability of Section 280G and Section 4999, along with any other applicable portions of the Code or other tax laws. The Accounting Firm shall make all determinations required to be made under this Section and shall provide detailed supporting calculations to the Company and Executive within 30 days after the Termination Date or such earlier time as is requested by the Company, and provide an opinion to Executive that he or she has substantial authority not to report any excise tax on his or her Federal income tax return with respect to any Payments. Any such determination by the Accounting Firm shall be binding upon the Company and Executive. Subject to Sections 6.1(c) and 6.9, within five business days thereafter, the Company shall pay to or distribute to or for the benefit of Executive such amounts as are then due to Executive under this Agreement.

(c)As a result of the uncertainty in the application of Section 280G of the Code at the time of the initial determination by the Accounting Firm or the Company hereunder, it is possible that Payments, as the case may be, will have been made by the Company which should not have been made ("*Overpayment*") or that additional Payments, as the case may be, which will not have been made by the Company could have been made ("*Underpayment*"), in each case, consistent with the calculations required to be made hereunder. In the event that the Accounting Firm, based upon the assertion of a deficiency by the Internal Revenue Service against Executive which the Accounting Firm believes has a high probability of success determines that an Overpayment has been made, promptly on notice and demand Executive shall repay to the Company any such Overpayment paid or distributed by the Company to or for the benefit of Executive together with interest at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Code; provided, however, that no such amount shall be payable by Executive to the Company if and to the extent such payment would not either reduce the amount on which Executive is subject

to tax under Section 1 and Section 4999 of the Code or generate a refund of such taxes. In the event that the Accounting Firm, based upon controlling precedent or other substantial authority, determines that an Underpayment has occurred, any such Underpayment shall be promptly paid by the Company to or for the benefit of Executive together with interest at the applicable federal rate provided for in Section 7872(f)(2)(A) of the Code.

7.**GENERAL PROVISIONS.**

7.1 Notices. Any notices required hereunder to be in writing shall be deemed effectively given: (a) upon personal delivery to the Party to be notified, (b) when sent by electronic mail or confirmed facsimile if sent during normal business hours of the recipient, and if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at its primary office location and to Executive at Executive's address as listed on the Company payroll, or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other.

7.2 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provisions had never been contained herein.

7.3 Survival. Provisions of this Agreement which by their terms must survive the termination of this Agreement in order to effectuate the intent of the Parties will survive any such termination, whether by expiration of the term, termination of Executive's employment, or otherwise, for such period as may be appropriate under the circumstances.

7.4 Waiver. If either Party should waive any breach of any provisions of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision of this Agreement.



7.5 Complete Agreement. This Agreement constitutes the entire agreement between Executive and the Company with regard to the subject matter hereof. This Agreement is the complete, final, and exclusive embodiment of their agreement with regard to this subject matter and supersedes any prior oral discussions or written communications and agreements. This Agreement is entered into without reliance on any promise or representation other than those expressly contained herein, and it cannot be modified or amended except in writing signed by Executive and an authorized officer of the Company. The Parties have entered into a separate Proprietary Information Agreement and have entered or may enter into separate agreements related to equity. These separate agreements govern other aspects of the relationship between the Parties, have or may have provisions that survive termination of Executive's employment under this Agreement, may be amended or superseded by the Parties without regard to this Agreement and are enforceable according to their terms without regard to the enforcement provision of this Agreement.

7.6 Headings. The headings of the sections hereof are inserted for convenience only and shall not be deemed to constitute a part hereof nor to affect the meaning thereof.

7.7 Successors and Assigns. The Company shall assign this Agreement and its rights and obligations hereunder in whole, but not in part, to any company or other entity with or into which the Company may hereafter merge or consolidate or to which the Company may transfer all or substantially all of its assets, if in any such case said Company or other entity shall by operation of law or expressly in writing assume all obligations of the Company hereunder as fully as if it had been originally made a Party, but may not otherwise assign this Agreement or its rights and obligations hereunder. Executive may not assign or transfer this Agreement or any rights or obligations hereunder, other than to Executive's estate upon death.

7.8 Withholding. All amounts payable hereunder shall be subject to applicable tax withholding.

7.9 Governing Law. This Agreement shall be governed by the Federal Arbitration Act with respect to the arbitration provisions and related matters in Sections 7.10 and 7.11, and for all other matters shall be governed by the laws of the State of Delaware, without giving effect to any principles thereof relating to conflicts of law.

7.10 Dispute Resolution. To the fullest extent permitted by applicable law, any dispute or controversy between the Parties relating to or arising out of this Agreement or any amendment or modification hereof, or any other claims between the Parties relating to or arising out of Executive's employment or affiliation with the Company or termination thereof (including but not limited to any claims for harassment, discrimination, violation of wage and hour laws, whistleblowing, retaliation, leave rights, employee benefits, tort claims and any claims under federal, state or local statutes, regulations or ordinances relating to employment matters) shall, except as expressly set forth below, be exclusively determined by confidential individual arbitration in Princeton, New Jersey, or such other location as the Parties may agree in writing, under the auspices of the American Arbitration Association ("*AAA*") and pursuant to the Federal Arbitration Act and the Employment Arbitration Rules of the AAA. These rules may be accessed at the American Arbitration Association website, www.adr.org/employment, and a printed copy will be provided upon request. Notwithstanding the foregoing, claims for injunctive or other equitable relief by the Company under Section 3 of this Agreement may be brought in a court of competent jurisdiction (as described below). Likewise, this arbitration requirement shall not apply to any criminal matters, matters for which arbitration is prohibited by law, or claims for unemployment or workers compensation, and shall not prevent Executive from filing a charge with the EEOC or any other government agency; provided that, unless prohibited by applicable law, any subsequent legal action shall be subject to individual arbitration as provided herein. For the avoidance of doubt, any disputes or controversies arising out of or relating to the interpretation or application of this arbitration provision, including but not limited to any question regarding the scope, enforceability, revocability or validity of the arbitration provision or any portion of the arbitration provision, the arbitrability of any claim or dispute, and the jurisdiction of the arbitrator, including jurisdiction over non-signatories to this Agreement, shall be subject to arbitration pursuant to this arbitration provision. The arbitration award shall be final and binding upon the parties and judgment may be entered thereon by any court of competent jurisdiction. The parties hereby agree that any federal or state court sitting in the State of Delaware is a court of competent jurisdiction. The service of any notice, process, motion or other document in connection with any arbitration under this Agreement, the enforcement of any arbitration award hereunder, or an action for injunctive or other equitable relief as provided for in this Section may be effectuated either by personal service upon a party or by certified mail duly addressed to her, him or it or her, his or its executors, administrators, personal representatives, next of kin, successors or assigns, at the last known address or addresses of such party or parties. Each party hereto submits to the jurisdiction and venue of the state and federal courts located in the State of Delaware, for any action to compel or stay arbitration, or an action by the Company seeking injunctive or other equitable relief under Section 4 of this Agreement (jurisdictional, venue and inconvenient forum objections to which are hereby waived by the Parties). Pursuant to Delaware Code Section 2708(a), the Parties agree that they are subject to the

jurisdiction of the courts located in the State of Delaware and may be served with legal process within the State of Delaware or in any other manner provided by law. THE PARTIES ACKNOWLEDGE AND AGREE THAT THEY ARE WAIVING THEIR RIGHT TO A TRIAL BY JURY IN CONNECTION WITH ANY DISPUTE ARISING OUT OF THIS AGREEMENT OR RELATED TO EXECUTIVE'S EMPLOYMENT OR THE TERMINATION THEREOF.



7.11Class Action Waiver. EXCEPT AS EXPRESSLY PROVIDED OTHERWISE IN THIS SECTION 7.11, ANY ARBITRATION OR COURT ACTION HEREUNDER SHALL PROCEED SOLELY ON AN INDIVIDUAL BASIS WITHOUT THE RIGHT FOR ANY CLAIMS TO BE ARBITRATED OR LITIGATED ON A CLASS OR COLLECTIVE ACTION BASIS OR ON A BASIS INVOLVING CLAIMS BROUGHT IN A PURPORTED REPRESENTATIVE CAPACITY ON BEHALF OF OTHERS OR ANY GOVERNMENTAL BODY OR THE PUBLIC. CLASS AND COLLECTIVE ACTIONS UNDER THIS DISPUTE RESOLUTION PROVISION ARE PROHIBITED, WHETHER IN COURT OR ARBITRATION, AND THE ARBITRATOR OR COURT, AS APPLICABLE, SHALL HAVE NO AUTHORITY TO PROCEED ON SUCH BASIS. NO DISPUTE, CONTROVERSY, CLAIM OR ACTION BROUGHT IN COURT OR ARBITRATION BY EXECUTIVE ARISING UNDER OR RELATING TO THIS AGREEMENT OR OTHERWISE ARISING IN CONNECTION WITH OR RELATING TO EXECUTIVE'S EMPLOYMENT MAY BE JOINED WITH A DISPUTE, CONTROVERSY, CLAIM OR ACTION OF ANOTHER EXECUTIVE OR OTHER PERSON OR ENTITY, ANY SUCH JOINT CLAIMS BEING WAIVED BY EXECUTIVE HEREUNDER, EXCEPT THAT THE COMPANY MAY BRING CLAIMS IN ARBITRATION OR COURT TO ENFORCE THIS AGREEMENT AND RELATED TORT, STATUTORY AND OTHER CLAIMS AGAINST EXECUTIVE AND OTHERS WHO ARE ACTING IN CONCERT OR PARTICIPATION WITH EXECUTIVE, AND IN ANY SUCH PROCEEDING EXECUTIVE MAY JOIN ANY CLAIMS OF SUCH OTHER PARTIES (BUT NO OTHERS). ANY DISPUTES REGARDING THE VALIDITY AND ENFORCEABILITY OF THIS SECTION 7.11 AND THE WAIVER HEREIN SHALL BE RESOLVED EXCLUSIVELY BY THE DULY-APPOINTED ARBITRATOR, AND NOT BY A COURT OR OTHER GOVERNMENTAL OR ADMINISTRATIVE BODY. IN ANY CASE IN WHICH (1) THE DISPUTE IS FILED AS A CLASS, COLLECTIVE, REPRESENTATIVE OR JOINT ACTION AND (2) THE ARBITRATOR FINDS ALL OR PART OF THE CLASS ACTION WAIVER TO BE INVALID OR UNENFORCEABLE, THE CLASS, COLLECTIVE, REPRESENTATIVE OR JOINT ACTION TO THAT EXTENT MUST BE LITIGATED IN A COURT WITH JURISDICTION AND VENUE AS PROVIDED IN SECTION 7.10, AND NOT IN ARBITRATION, BUT THE PORTION OF THE CLASS ACTION WAIVER THAT IS ENFORCEABLE SHALL BE ENFORCED IN ARBITRATION, AND CLAIMS FALLING THEREUNDER SHALL BE ADJUDICATED IN ARBITRATION.

7.12 Counterparts. This Agreement may be executed in separate counterparts, any one of which need not contain signatures of more than one Party, but all of which taken together will constitute one and the same Agreement. Facsimile signatures and signatures transmitted by PDF shall be equivalent to original signatures.

[SIGNATURES TO FOLLOW ON NEXT PAGE]



**IN WITNESS WHEREOF**, the Parties have executed this Agreement on the day and year first written above.

**PDS BIOTECHNOLOGY CORPORATION**

By: _____

Name: _____

Title: _____

**EXECUTIVE**:

By: _____

Name: Stephan F. Toutain, MS, MBA



**EXHIBIT A**

**PROPRIETARY INFORMATION & RESTRICTIVE COVENANT AGREEMENT**

| | |
|---|---|
| Name: | Stephan F. Toutain, MS, MBA ("Executive") |
| Address: | 131Garfield Road, West Hartford, CT 06107 |
| Telephone: | (860) 951-1925 |
| Employment Start Date: | May 1, 2024 |
| Employer: | PDS Biotechnology Corporation, a Delaware corporation, and any of its affiliates, together with any of their respective successors or assigns (collectively, the "Company"). |

In consideration of my new or continued employment with the Company and the compensation now and later paid to me for said Employment, and other good and valuable consideration, the receipt and sufficiency of which I acknowledge, I agree to this Proprietary Information & Restrictive Covenant Agreement (this "Agreement"), as follows:

This Agreement sometimes refers to my "Employment." I understand that my "Employment" means the entire period during which I am employed by the Company, including, all times during and after work hours, whether I am actively employed or on any kind of leave of absence, and whether I am employed full-time or part-time, regardless of whether such precedes or follows the date of this Agreement.

1. Company Confidential Information. All Confidential Information is the sole property of the Company or its designee. I hereby assign to the Company all rights, title, and interest I may have or acquire in the Confidential Information. At all times, both during and after my Employment, I agree to hold in the strictest confidence, not to use (except for the benefit of the Company) and not to disclose to any person or entity (directly or indirectly), except as may be necessary in the ordinary course of performing my duties as an employee of the Company or as expressly authorized by this Agreement, any Confidential Information that I obtain or create during my Employment, unless the Company grants me written authorization to do otherwise.

   I understand that "Confidential Information" means all business, technical and other proprietary information belonging to the Company, as well as any Company information not generally known by actual or potential competitors of the Company or by the public generally. Such information is Confidential Information no matter how I learned of it -- whether disclosed to me, directly or indirectly, in writing, orally, by drawings or inspection of documents or other tangible property or in any other manner or form, tangible or intangible. I understand specifically that Confidential Information includes, but is not limited to, the following types of information:

- information belonging to others who have entrusted such information to the Company, as further described in Section 3 below;
- information that would not have been known to competitors of the Company or the public generally if I had not breached my obligations of confidentiality under this Agreement;
- information concerning research, inventions, discoveries, developments, techniques, processes, formulae, technology, designs, drawings, engineering, specifications, algorithms, finances, sales or profit figures, financial plans, customer lists, customers, prospective customers, potential investors, business plans, contracts, markets, investing plans, product plans, marketing, distribution or sales methods or systems, products, services, production plans, system implementation plans, business concepts, supplier or vendor information, business procedures or business operations related thereto;
- all computer software (in source, object or other code forms and including all programs, modules, routines, interfaces and controls), data, databases, Internet designs and strategies, files and any documentation protocols and/or specifications related to the foregoing;
- all know-how and/or trade secrets;



- all unpublished copyrightable material;
- any use, model, variation, application, reduction to practice, discussion and any other communication or information in, regarding or relating to, or usable in or with any of the goods or services made, used or sold by the Company; and all reproductions and copies of such things.

Notwithstanding the foregoing, it is understood that, at all such times, I am free (a) to use information which was known to me prior to employment with the Company or which is generally known in the trade or industry through no breach of this Agreement or other act or omission by me, or due to any breach of any confidentiality obligation or improper act or omission by any third party, (b) to discuss the terms of my employment, wages and working conditions to the extent expressly protected by applicable law, (c) to report possible violations of federal securities laws to the appropriate government enforcing agency and make such other disclosures that are expressly protected under applicable law, and (d) to respond to inquiries from, or otherwise cooperate with, any governmental or regulatory investigation (the activities set forth in clauses (b) through (d) are, collectively, referred to as the "Protected Activities"). Prior to disclosure when compelled by a court subpoena or order, I will provide prior written notice to the Chief Executive Officer of the Company, except that the Company in no way requires me to seek authorization from Company or inform Company about any Protected Activities.

Pursuant to the Defend Trade Secrets Act of 2016, I acknowledge that I will not have criminal or civil liability under any Federal or State trade secret law for the disclosure of a trade secret that (a) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. In addition, if I file a lawsuit for retaliation by Company for reporting a suspected violation of law, I may disclose the trade secret to my attorney and may use the trade secret information in the court proceeding, if I (x) file any document containing the trade secret under seal and (y) do not disclose the trade secret, except pursuant to court order.

2. Third Party Information Held by Executive. I recognize that I may have access to confidential or proprietary information of former employers or other persons or entities with whom I have an agreement or duty to keep such information confidential. I will not use any such information in my Employment, I will not disclose any such information to the Company or any of its directors, officers, agents or other employees, or induce any of them to use any such information, and I will not bring onto the premises of the Company any such information in any form, unless such person or entity has granted me written authorization to do so. I further warrant that my performance of all the terms of this Agreement and my Employment does not and will not breach any agreement to keep in confidence proprietary information, knowledge or data acquired by me prior to my employment with Company.

3. Third Party Information Held by the Company. I recognize that the Company has received, and in the future shall receive, from other persons or entities information that is confidential or proprietary to such person or entity; and, therefore, such persons or entities require the Company to maintain the confidentiality of such information and to use it only for certain limited purposes. Consistent with the Company's agreement with such persons or entities, I agree to treat such information as Confidential Information pursuant to this Agreement.

4. Company Property; Return. I will not remove (either physically or electronically) any property belonging to the Company from the Company's premises, except as required in the ordinary course of my Employment, unless the Company grants me written authorization to do so. Promptly upon the termination of my Employment, and earlier if the Company so requests at any time, I shall deliver to the Company (and shall not keep copies in my possession or deliver to anyone else) all of the following items:

- Documents, communications (including emails) and other materials containing or comprising Confidential Information, including in particular, but not limited to, all software, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches and laboratory notebooks, whether hard copies or soft copies (electronic or digital, including as stored on any personal storage device or email or cloud account); and tangible property and equipment belonging to the Company (whether or not containing or comprising Confidential Information), including in particular, but not limited to, laptop computers, devices, storage media, keys, pass cards, identification cards, solutions, samples, models, marketing materials, brochures, purchase order forms and letterhead, and all reproductions and copies of such things.



I further agree that should I discover any Company property or Confidential Information in my possession after my termination and departure from the Company, I agree to return it promptly to the Company without retaining copies or excerpts of any kind. To the extent that any such information is maintained in any digital or non-tangible format, I agree that following my return of a copy of such information to the Company, I shall irrevocably delete all such information such that it is no longer within my possession, custody or control (other than any such information existing on any of the Company's systems).

5. Assignment of Inventions; Disclosure and License of Prior Inventions; Work Product Ownership.

I shall promptly make full written disclosure to the Company, through my immediate supervisor or superior, of all Inventions. I understand that "Inventions" means any and all inventions, original works of authorship (including designs, trademarks, service marks and drawings, whether manual or electronic), findings, conclusions, data, discoveries, developments, concepts, designs, improvements, trade secrets, techniques, formulae, processes and know-how, whether or not patentable or registrable under patent, copyright or similar laws, that I may solely or jointly conceive, develop or reduce to practice, or cause to be conceived, developed or reduced to practice, during my Employment. I acknowledge that Inventions do not include any innovations that I developed entirely on my own time without using the Company's equipment, supplies, facilities, or trade secrets, or Confidential Information, except to the extent such innovations either: (a) relate, at the time of conception, reduction to practice, creation, derivation, development, or making of such innovation, to the Company's business or actual or demonstrably anticipated research or development; (b) result from or are connected with any work that I performed for the Company; or (c) apply to any patent or invention covered by a contract between the Company and the United States or any of its agencies requiring full title to such patent or invention to be in the United States. I shall hold all Inventions in trust for the Company and I will treat all Inventions as Confidential Information.

I hereby do and will irrevocably assign to the Company or its designee my entire right, title, and interest in and to any and all Inventions, which assignment operates automatically upon the conception of the Invention. To the extent any of the rights, title and interest in and to the Inventions cannot be assigned by me to Company, I hereby grant to Company an exclusive, royalty-free, transferable, irrevocable, worldwide, fully paid-up license (with rights to sublicense through multiple tiers of sublicensees) to fully use, practice and exploit those non-assignable rights, title and interest, including, but not limited to, the right to make, use, sell, offer for sale, import, have made, and have sold, the Inventions. To the extent any of the rights, title and interest in and to the Inventions can neither be assigned nor licensed by me to the Company, I hereby irrevocably waive and agree never to assert the non-assignable and non-licensable rights, title and interest against the Company, any of the Company's successors in interest, or any of the Company's customers.

This Agreement does not apply to any Inventions made by me prior to my Employment (the "Prior Inventions"), all of which are identified in Attachment A hereto. If nothing is identified in Attachment A hereto, I represent that I have not created any Prior Inventions. I hereby grant to the Company and the Company's designees a royalty-free, transferable, irrevocable, worldwide, fully paid-up license (with rights to sublicense through multiple tiers of sublicensees) to fully use, practice and exploit all patent, copyright, moral right, mask work, trade secret and other intellectual property rights relating to any Prior Innovations that I incorporate, or permit to be incorporated, in any Inventions. Notwithstanding the foregoing, I will not incorporate, or permit to be incorporated, any Prior Innovations in any Inventions without the Company's prior written consent.

I further recognize and agree that all original works of authorship that are made by me (solely or jointly with others) during my Employment and which are protectable by copyright (including, but not limited to, all original hard copy and electronic drawings and any manuals, instructions or other written product) are "works made for hire," as that term is defined in the United States Copyright Act. However, to the extent that any such work may not, by operation of any law, be a work made for hire, I hereby, without additional payment or consideration, assign, transfer and convey to the Company all of my worldwide right, title and interest in and to such work (a "Work") and all intellectual property rights relating to it.



6. Further Assurances. During and after my Employment, upon the request and at the expense of the Company, I shall execute and deliver any and all documents and instruments, and do such other acts that may be necessary or desirable to evidence the assignment and transfer described in Section 5. I shall do the same to enable the Company to secure its sole and exclusive rights in the Inventions, Works and related intellectual property rights, or to apply for, prosecute and enforce intellectual property rights with respect to any Inventions or Works, or to obtain any extension, validation, re-issue, continuance or renewal of any such Intellectual Property Right, in each case in any and all jurisdictions. I agree to disclose to the Company all pertinent information and data with respect to Inventions, Works and related intellectual property rights. In the event my Employment is terminated, I shall do all the things described in this paragraph without charge to the Company other than a reasonable payment for my time involved.

If the Company is unable for any other reason to secure my signature on any document described above, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent or trademark, copyright or other registrations thereon with the same legal force and effect as if executed by me. The foregoing is deemed a power coupled with an interest and is irrevocable.

7. Non-Competition.

During the Restricted Period (as defined below), to the extent permitted by the laws of the State of Delaware or other applicable laws, I will not, in any capacity, directly or indirectly, with or without compensation, own, manage, operate, join, control, advise or participate in, as a shareholder (other than as a shareholder with less than 1% of the

outstanding common stock of a public company), director, officer, manager, principal partner, employee, consultant, independent contractor, technical or business advisor or otherwise (or any foreign equivalents of the foregoing), any person or entity that provides Competing Services. I understand that "Competing Services" means any product, service, or process or the research or development thereof, of any person or entity other than the Company that directly competes, in whole or part, with a product, service, or process, including the research and development thereof, of the Company with which I worked directly or indirectly during my Employment or about which I acquired Confidential Information during my Employment. " "Restricted Period" means the period of Employment and for a period of one (1) year after my Employment ends; provided, however, the Restricted Period will be tolled during any period of non-compliance by me.

8. Non-Solicitation.

During after the Restricted Period, I will not, directly or indirectly, on my own behalf or on behalf of others, either:

- solicit, hire, recruit or attempt to persuade any person to terminate or materially diminish such person's employment with or engagement by the Company, regardless of whether or not such person is an employee or contractor, whether such person is full-time or part-time, whether or not such employment is pursuant to a written agreement or is at-will, and whether I initiated the discussion or sought out the contact; or solicit, contact or attempt to persuade any current or prospective customer of the Company to terminate or materially alter such customer's or prospective customer's relationship with the Company; or solicit or assist in the solicitation of any current or prospective customer to induce or attempt to induce any such customer or prospective customer to purchase or contract for any Competing Services. I understand that "prospective customer" means any prospective customer of the Company with whom I had contact at any time during the twelve (12) months preceding the termination of my Employment.

9. Non-Disparagement. At all times, both during and after my Employment, I agree to refrain from taking any action, or making any statement (oral or written) that disparages or criticizes the Company or its officers, directors, or employees, in any manner that causes, or is reasonably likely to cause, harm to the Company's relationship with its existing or potential suppliers, vendors, customers, investors, employees, contractors, or any other persons or entities with whom Company engages in business. I understand that this provision does not apply to Protected Activities.



10. Duration; Nature. This Agreement is binding during my Employment and shall survive any termination of my Employment. This Agreement does not bind the Company or me to any specific period of employment and shall not be construed in any manner as an employment agreement or to make my employment other than terminable at will at any time by the Company in its sole discretion.

11. No Conflicts. I am not a party to any existing agreement that would prevent me from entering into and performing this Agreement in accordance with its terms, including, without limitation, to an obligation to assign my Inventions, Works or any related intellectual property rights to a third party or any agreement subjecting me to a non-compete, except as identified in Attachment A hereto; and I will not enter into any other agreement that is in conflict with my obligations under this Agreement.

12. Disclosure of Obligations. I consent to the Company's notification to any third party of the existence and content of this Agreement.

13. Equitable Relief. I agree that the provisions of this Agreement are reasonably necessary to protect the Company's legitimate business interests. I agree that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in this Agreement, and that a breach of such covenants could cause serious and irreparable injury to the Company. Accordingly, the Company shall have available, in addition to any other right or remedy available to it, the right to seek an injunction from a court of competent jurisdiction restraining such a breach (or threatened breach) and to specific performance of this Agreement. I further agree that no bond or other security shall be required in obtaining such equitable relief and I hereby consent to the issuance of such injunction and to the ordering of specific performance.

14. No License. Nothing in this Agreement shall be deemed to constitute the grant of any license or other right to me in respect of any Confidential Information, Invention, Work, related intellectual property right or other data or intellectual property of the Company.

15. Amendment and Assignment. No modification to any provision of this Agreement will be binding unless it is in writing and signed by both an authorized representative of the Company and me. No waiver of any rights under this Agreement will be effective unless in writing signed by an authorized representative of the Company. I recognize and agree that my obligations under this Agreement are of a personal nature and are not assignable or delegable in whole or in part by me. The Company may assign this Agreement to any affiliate or to any successor-in-interest (whether by sale of assets, sale of stock, merger or other business combination). All of the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective heirs, executors, administrators, legal representatives, successors and permitted assigns of the Company and me.

16. Severability. If any provision of this Agreement or its application is adjudicated to be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability (a) shall not affect any other provision or application of this Agreement that can be given effect without the invalid or unenforceable provision or application and shall not invalidate or render unenforceable such provision or application in any other jurisdiction and (b) shall be limited or excluded from this Agreement to the minimum extent required so that this Agreement shall otherwise remain in full force and effect and enforceable in accordance with its terms. For the avoidance of doubt, if this Agreement is or becomes subject to any state or federal law affecting the Company's rights with respect to any of my obligations under this Agreement, this Agreement shall be deemed amended to the extent necessary to comply with such law.

17. Headings; Construction. The headings used in this Agreement have been inserted for convenience of reference only and do not define or limit the provisions hereof. The Attachments to this Agreement are incorporated herein by reference and shall be deemed a part of this Agreement.

18. Governing Law; Jurisdiction. This Agreement shall be governed by and interpreted in accordance with laws of the of the State of Delaware without giving effect to any conflict of laws provisions, except matters of intellectual property law which shall be determined in accordance with the intellectual property laws relevant to the intellectual property in question. **I consent to personal jurisdiction of the state and federal courts located in the State of Delaware for any lawsuit filed there against me by the Company arising from or related to this Agreement, to the exclusion of all other courts, and I accept service of process by registered or certified mail to the address set forth above (or to such other address that I provide to the Company) as if I were personally served within the State of Delaware.**

*[Signature Page Follows]*



**I HAVE READ THIS AGREEMENT CAREFULLY AND I UNDERSTAND AND ACCEPT THE OBLIGATIONS THAT IT IMPOSES UPON ME WITHOUT RESERVATION, AND HEREBY ACKNOWLEDGE RECEIPT OF A COPY OF SUCH AGREEMENT. NO PROMISES OR REPRESENTATIONS HAVE BEEN MADE TO ME TO INDUCE ME TO SIGN THIS AGREEMENT. I SIGN THIS AGREEMENT VOLUNTARILY AND FREELY AND INTENDING TO BE LEGALLY BOUND.**

**March 1, 2024**

**Signature:** _____

**Printed Name:** **Stephan F. Toutain, MS, MBA**

**RECEIPT ACKNOWLEDGED**
**AND ACCEPTED:**

**PDS BIOTECHNOLOGY CORPORATION**

**By:** _____

**Name:** **Frank Bedu-Addo, PhD**

**Title:** **President & CEO**



**EXHIBIT B**

**LIST OF ANY ADVISORY OR BOARD OF DIRECTOR ROLES**



**Exhibit 31.1**

**CERTIFICATION OF PRINCIPAL EXECUTIVE AND FINANCIAL OFFICER**
**PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)**
**AS ADOPTED PURSUANT TO SECTION 302**
**OF THE SARBANES-OXLEY ACT OF 2002**

I, Frank Bedu-Addo, Ph.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of PDS Biotechnology Corporation for the period ended September 30, 2023 March 31, 2024;

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;

3 Based on my knowledge, the condensed consolidated 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;

4. The registrant's other certifying officer 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:

   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;

   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 condensed consolidated financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant'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

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's registrant's auditors and the audit committee of the registrant's registrant's board of directors (or persons performing the equivalent functions):

   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 registrant's registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's registrant's internal control over financial reporting.

Dated: November 14, 2023 May 15, 2024

/s/ Frank Bedu-Addo

Frank Bedu-Addo, Ph.D.
President and Chief Executive Officer
(Principal Executive Officer)

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**Exhibit 31.2**

**CERTIFICATION OF PRINCIPAL ACCOUNTING OFFICER**
**PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)**
**AS ADOPTED PURSUANT TO SECTION 302**
**OF THE SARBANES-OXLEY ACT OF 2002**

I, Matthew Hill, Lars Boesgaard, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of PDS Biotechnology Corporation for the period ended September 30, 2023 March 31, 2024;

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;

3 Based on my knowledge, the condensed consolidated 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;

4. The registrant's other certifying officer 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:

   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;

   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 condensed consolidated financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant'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

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's registrant's auditors and the audit committee of the registrant's registrant's board of directors (or persons performing the equivalent functions):

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 registrant's registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's registrant's internal control over financial reporting.

Dated: November 14, 2023 May 15, 2024

/s/ Matthew Hill Lars Boesgaard

Matthew Hill Lars Boesgaard
Chief Financial Officer
(Principal Financial and Accounting Officer)

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**Exhibit 32.1**

**CERTIFICATION**
**PURSUANT TO 18 U.S.C. SECTION 1350**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the accompanying Quarterly Report of PDS Biotechnology Corporation (the "Company"), on Form 10-Q for the quarter ended September 30, 2023March 31, 2024 (the "Report"), I, Frank Bedu-Addo, Ph.D., President and Chief Executive Officer of the Company, hereby certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002 that:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 14, 2023 May 15, 2024

/s/ Frank Bedu-Addo

Frank Bedu-Addo, Ph.D.
President and Chief Executive Officer
(Principal Executive Officer)

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**Exhibit 32.2**

**CERTIFICATION**
**PURSUANT TO 18 U.S.C. SECTION 1350**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the accompanying Quarterly Report of PDS Biotechnology Corporation (the "Company"), on Form 10-Q for the quarter ended September 30, 2023 March 31, 2024 (the "Report"), I, Matthew Hill, Lars Boesgaard, Chief Financial Officer of the Company, hereby certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002 that:

(1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 14, 2023
May 15, 2024

/s/ Matthew Hill Lars Boesgaard

Matthew Hill Lars Boesgaard
Chief Financial Officer
(Principal Financial and Accounting Officer)

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