REFINITIV

DELTA REPORT

10-Q

PTIX - PROTAGENIC THERAPEUTICS,

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

The following comparison report has been automatically generated

TOTAL DELTAS	589
CHANGES	5
DELETIONS	584
ADDITIONS	0

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

or

☐ 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: 001-12555

PROTAGENIC THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**06-1390025**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

149 Fifth Avenue, Suite 500, New York, New York10010
(Address of Principal Executive Office) (Zip Code)

(212)994-8200
Registrant's Telephone Number Including Area Code

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

Title of each class	Ticker symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001	PTIX	Nasdaq Capital Market
Common Stock Purchase Warrant	PTIXW	Nasdaq Capital Market

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 (§ 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, smaller reporting company or 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	☒
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 126-2 of the Exchange Act).

☐ Yes ☒ No

As of November 14, 2023 there were 4,435,132 shares of common stock, $0.0001 par value per share, outstanding.

PROTAGENIC THERAPEUTICS, INC.
Form 10-Q Report
For the Fiscal Quarter Ended September 30, 2023
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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

PROTAGENIC THERAPEUTICS, INC., AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS
(Unaudited)

	September 30, 2023	December 31, 2022
ASSETS		
CURRENT ASSETS		
Cash	$ 153,332	$ 215,189
Marketable securities	5,119,252	7,763,517
Prepaid expenses	104,076	56,939
TOTAL CURRENT ASSETS	5,376,660	8,035,645
Equipment - net	55,982	1,775

TOTAL ASSETS	$ 5,432,642	$ 8,037,420
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 524,006	$ 669,704
Accounts payable and accrued expenses - related party	336,337	105,928
PIK convertible notes payable, net of debt discount	220,522	150,591
PIK convertible notes payable, net of debt discount - related parties	199,241	193,639
TOTAL CURRENT LIABILITIES	1,280,106	1,119,862
TOTAL LIABILITIES	$ 1,280,106	$ 1,119,862
STOCKHOLDERS' EQUITY		
Preferred stock, $0.000001 par value; 20,000,000 shares authorized; none shares issued and outstanding in the following classes:		
Preferred stock; par value $0.000001; 2,000,000 shares authorized; none issued and outstanding	-	-
Series B convertible preferred stock, $0.000001 par value; 18,000,000 shares authorized; 0 shares issued and outstanding at September 30, 2023, and December 31, 2022	-	-
Common stock, $.0001 par value, 100,000,000 shares authorized, 4,330,959 and 4,321,315 shares issued and outstanding at September 30, 2023, and December 31, 2022	434	434
Additional paid-in-capital	33,871,527	33,371,406
Accumulated deficit	(29,101,688)	(25,777,375)
Accumulated other comprehensive loss	(617,737)	(676,907)
TOTAL STOCKHOLDERS' EQUITY	4,152,536	6,917,558
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 5,432,642	$ 8,037,420

See accompanying notes to the unaudited consolidated financial statements

PROTAGENIC THERAPEUTICS, INC., AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited)

	For the three months ended September 30,		For the nine months ended September 30,	
	2023	2022	2023	2022
OPERATING AND ADMINISTRATIVE EXPENSES				
Research and development	$ 1,124,030	$ 501,366	$ 2,308,440	$ 1,331,719
General and administrative	307,682	422,694	1,006,308	1,570,291
TOTAL OPERATING AND ADMINISTRATIVE EXPENSES	1,431,712	924,060	3,314,748	2,902,010
LOSS FROM OPERATIONS	(1,431,712)	(924,060)	(3,314,748)	(2,902,010)
OTHER (EXPENSE) INCOME				
Interest income	69,218	42,496	210,819	93,363
Interest expense	(31,957)	(31,957)	(94,830)	(105,498)
Realized loss on marketable securities	(23,175)	(11,784)	(146,554)	(39,986)
Gain on settlement of liabilities	21,000	-	21,000	-
TOTAL OTHER INCOME (EXPENSES)	35,086	(1,245)	(9,565)	(52,121)
LOSS BEFORE TAX	(1,396,626)	(925,305)	(3,324,313)	(2,954,131)
INCOME TAX EXPENSE	-	-	-	-
NET LOSS	$ (1,396,626)	$ (925,305)	$ (3,324,313)	$ (2,954,131)
COMPREHENSIVE LOSS				
Other Comprehensive Loss - net of tax				
Net unrealized gain (loss) on marketable securities	(34,463)	(165,913)	55,503	(360,500)
Foreign exchange translation income (loss)	3,187	481	3,667	(6,262)
TOTAL COMPREHENSIVE LOSS	$ (1,427,902)	$ (1,090,737)	$ (3,265,143)	$ (3,320,893)
Net loss per common share - Basic and Diluted	$ (0.32)	$ (0.21)	$ (0.77)	$ (0.68)
Weighted average common shares - Basic and Diluted	4,330,959	4,321,315	4,328,123	4,316,659

See accompanying notes to the unaudited consolidated financial statements

PROTAGENIC THERAPEUTICS, INC., AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
For the Three and Nine Months Ended September 30, 2023 and 2022
(Unaudited)

	Series B Convertible Preferred Stock		Common Stock		Additional Paid-in-	Accumulated	Accumulated Other Comprehensive	Stockholders'
	Shares	Amount	Shares	Amount	Capital	(Deficit)	Loss	Equity
BALANCE - December 31, 2021	-	$ -	4,302,403	$ 432	$ 32,411,742	$ (22,221,870)	$ (248,349)	$ 9,941,955
Foreign currency translation gain	-	-	-	-	-	-	160	160
Unrealized loss on marketable securities	-	-	-	-	-	-	(151,170)	(151,170)
Stock compensation - stock options	-	-	-	-	215,346	-	-	215,346
Stock compensation - warrants	-	-	-	-	20,433	-	-	20,433
Conversion of notes and interest	-	-	10,917	1	54,967	-	-	54,968
Net loss	-	-	-	-	-	(1,362,109)	-	(1,362,109)
BALANCE - March 31, 2022	-	$ -	4,313,320	$ 433	$ 32,702,488	$ (23,583,979)	$ (399,359)	$ 8,719,583
Foreign currency translation loss	-	-	-	-	-	-	(6,903)	(6,903)
Unrealized loss on marketable securities	-	-	-	-	-	-	(43,417)	(43,417)

Stock compensation - stock options	-	-	-	-	215,535	-	-	215,535
Conversion of notes and interest	-	-	7,995	1	40,016	-	-	40,017
Net loss	-	-	-	-	-	(666,717)	-	(666,717)
BALANCE - June 30, 2022	-	$ -	4,321,315	$ 434	$ 32,958,039	$ (24,250,696)	$ (449,679)	$ 8,258,098
Foreign currency translation gain	-	-	-	-	-	-	481	481
Unrealized loss on marketable securities	-	-	-	-	-	-	(165,913)	(165,913)
Stock compensation - stock options	-	-	-	-	214,679	-	-	214,679
Net loss	-	-	-	-	-	(925,305)	-	(925,305)
BALANCE - September 30, 2022	-	-	4,321,315	$ 434	$ 33,172,718	$ (25,176,001)	$ (615,111)	$ 7,382,040
BALANCE - December 31, 2022	-	$ -	4,321,315	$ 434	$ 33,371,406	$ (25,777,375)	$ (676,907)	$ 6,917,558
Foreign currency translation gain	-	-	-	-	-	-	467	467
Unrealized gain on marketable securities	-	-	-	-	-	-	47,677	47,677
Stock compensation - stock options	-	-	-	-	166,707	-	-	166,707

Rounding from reverse split	-	-	9,644	-	-	-	-	-
Net loss	-	-	-	-	-	(718,096)	-	(718,096)
BALANCE - March 31, 2023	-	$ -	4,330,959	$ 434	$ 33,538,113	$ (26,495,471)	$ (628,763)	$ 6,414,313
Foreign currency translation gain	-	-	-	-	-	-	13	13
Unrealized gain on marketable securities	-	-	-	-	-	-	42,289	42,289
Stock compensation - stock options	-	-	-	-	166,707	-	-	166,707
Net loss	-	-	-	-	-	(1,209,591)	-	(1,209,591)
BALANCE - June 30, 2023	-	$ -	4,330,959	$ 434	$ 33,704,820	$ (27,705,062)	$ (586,461)	$ 5,413,731
Foreign currency translation gain	-	-	-	-	-	-	3,187	3,187
Unrealized loss on marketable securities	-	-	-	-	-	-	(34,463)	(34,463)
Stock compensation - stock options	-	-	-	-	166,707	-	-	166,707
Net loss	-	-	-	-	-	(1,396,626)	-	(1,396,626)
BALANCE – September 30, 2023	-	$ -	4,330,959	$ 434	$ 33,871,527	$ (29,101,688)	$ (617,737)	$ 4,152,536

See accompanying notes to the unaudited consolidated financial statements

PROTAGENIC THERAPEUTICS, INC., AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	For the nine months ended September 30,	
	2023	2022
CASH FLOWS FROM OPERATING ACTIVITIES		
Net Loss	$ (3,324,313)	$ (2,954,131)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation expense	1,600	-
Stock-based compensation	500,121	665,993
Realized loss on sale of marketable securities	146,554	39,986
Amortization of debt discount	75,533	85,343
Gain on settlement of liabilities	(21,000)	-
Changes in operating assets and liabilities		
Prepaid expenses	(47,137)	587,084
Accounts payable and accrued expenses	109,300	(237,153)
NET CASH USED IN OPERATING ACTIVITIES	(2,559,342)	(1,812,878)
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sale of marketable securities	2,566,192	1,538,567
Purchase of marketable securities	(12,979)	(103,359)
Purchase of fixed assets	(55,806)	-
NET CASH PROVIDED BY INVESTING ACTIVITIES	2,497,407	1,435,208
Effect of exchange rate changes on cash	78	(5,178)
NET CHANGE IN CASH	(61,857)	(382,848)
CASH, BEGINNING OF THE PERIOD	215,189	541,171
CASH, END OF THE PERIOD	$ 153,322	$ 158,323
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION		
Cash paid for interest expense	$ -	$ -
Cash paid for income taxes	$ -	$ -
NONCASH FINANCING AND INVESTING TRANSACTIONS		
Shares issued for conversion of notes and interest	$ -	$ 94,985
Unrealized gain or loss on marketable securities	$ 55,503	$ 360,500

See accompanying notes to the unaudited consolidated financial statements

PROTAGENIC THERAPEUTICS, INC. & SUBSIDIARY
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)
September 30, 2023

NOTE 1 – ORGANIZATION AND NATURE OF BUSINESS

Company Background

Protagenic Therapeutics, Inc. ("we," "our," "Protagenic" or "the Company"), formerly known as Atrinsic, Inc., is a Delaware corporation with one subsidiary named Protagenic Therapeutics Canada (2006) Inc. ("PTI Canada"), a corporation formed in 2006 under the laws of the Province of Ontario, Canada.

We are a biopharmaceutical company specializing in the discovery and development of therapeutics to treat stress-related neuropsychiatric and mood disorders.

Reverse Stock Split

On March 22, 2023, the Company effectuated a 1 for 4 reverse stock split (the "Reverse Split"). The Company's stock began trading on a split-adjusted basis effective on the Nasdaq Stock Market on March 22, 2023. There was no change to the number of authorized shares of the Company's common stock. All share and per share information in these financial statements are adjusted to reflect the Reverse Split.

NOTE 2 – LIQUIDITY AND GOING CONCERN

As shown in the accompanying consolidated financial statements, the Company has incurred significant recurring losses resulting in an accumulated deficit. The Company anticipates further losses in the development of its business. The Company also had negative cash flows used in operations. These factors raise substantial doubt about the Company's ability to continue as a going concern.

Based on its cash resources and positive working capital as of September 30, 2023, the Company does not have sufficient resources to fund its operations past end of the third quarter of 2024. The positive working capital as of September 30, 2023 was due to funds raised by the Company from its equity offering during the year ended December 31, 2021. Absent generation of sufficient revenue from the execution of the Company's business plan, the Company will need to obtain debt or equity financing by the third quarter of 2024. Because the Company has insufficient resources on hand to fund operations through the next twelve months from the date these consolidated financial statements are available to be issued, the Company believes that there is substantial doubt in its ability to continue as a going concern. These financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of consolidation

The consolidated financial statements include the accounts of Protagenic Therapeutics, Inc., and its wholly owned Canadian subsidiary, PTI Canada. All significant intercompany balances and transactions have been eliminated.

Use of estimates

The preparation of the 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 disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expense during the reporting period. Actual results could differ from those estimates. Significant estimates underlying the consolidated financial statements include valuation of stock options and warrants and assessment of deferred tax asset valuation allowance.

Concentrations of Credit Risk

The Company maintains its cash accounts at financial institutions which are insured by the Federal Deposit Insurance Corporation. At times, the Company may have deposits in excess of federally insured limits. As of September 30, 2023, the Company does not have bank balances that exceed the federally insured limits. The Company has not experienced losses on these accounts and management believes, based upon the quality of the financial institutions, that the credit risk with regard to these deposits is not significant.

Funds held in the Company's marketable securities are not insured.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. As of September 30, 2023 and December 31, 2022 the Company did not have any cash equivalents.

Marketable Securities

The Company accounts for marketable debt securities, the only type of securities it owns, in accordance with the FASB Accounting Standards Codification 320, Investments – Debt and Equity Securities ("ASC 320").

Pursuant to ASC 320-10-35-1, investments in debt securities that are classified as available for sale shall be measured subsequently at fair value in the consolidated balance sheets at each balance sheet date. Unrealized holding gains and losses for available-for-sale securities (including those classified as current assets) shall be excluded from earnings and reported in other comprehensive income until realized.

During the nine months ended September 30, 2023 the Company purchased $12,979 and sold $2,566,192 in marketable securities with a realized loss of $146,554 and an unrealized gain of $55,503. As of September 30, 2023 and December 31, 2022, the Company owned marketable securities with a total value of $5,119,252 and $7,763,517, respectively.

Equipment

Equipment is stated at cost less accumulated depreciation. Cost includes expenditures for computer equipment. Maintenance and repairs are charged to expense as incurred. When assets are sold, retired, or otherwise disposed of, the cost and accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected in operations. The cost of equipment is depreciated using the straight-line method over the estimated useful lives of the related assets which is three years. Depreciation expense was $1,600 and zero for the nine months ended September 30, 2023 and 2022.

Fair Value Measurements

ASC 820, "Fair Value Measurements and Disclosure," defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, not adjusted for transaction costs. ASC 820 also establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels giving the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3).

The three levels are described below:

Level 1 Inputs – Unadjusted quoted prices in active markets for identical assets or liabilities that is accessible by the Company;

Level 2 Inputs – Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly;

Level 3 Inputs – Unobservable inputs for the asset or liability including significant assumptions of the Company and other market participants.

The carrying amount of the Company's financial assets and liabilities, such as cash, accounts payable and accrued expenses approximate their fair value because of the short term maturity of those instruments.

Transactions involving related parties cannot be presumed to be carried out on an arm's-length basis, as the requisite conditions of competitive, free-market dealings may not exist. Representations about transactions with related parties, if made, shall not imply that the related party transactions were consummated on terms equivalent to those that prevail in arm's-length transactions unless such representations can be substantiated.

The assets or liability's fair value measurement within the fair value hierarchy is based upon the lowest level of any input that is significant to the fair value measurement. The following table provides a summary of financial instruments that are measured at fair value on a recurring basis as of September 30, 2023.

	Carrying Value	Fair Value Measurement Using			
		Level 1	Level 2	Level 3	Total
Marketable securities	$ 5,119,252	$ 5,119,252	$ —	$ —	$ 5,119,252

The following table provides a summary of financial instruments that are measured at fair value on a recurring basis as of December 31, 2022.

	Carrying Value	Fair Value Measurement Using			
		Level 1	Level 2	Level 3	Total
Marketable securities	$ 7,763,517	$ 7,763,517	$ —	$ —	$ 7,763,517

Stock-Based Compensation

The Company accounts for stock-based compensation costs under the provisions of ASC 718, "Compensation—Stock Compensation", which requires the measurement and recognition of compensation expense related to the fair value of stock-based compensation awards that are ultimately expected to vest. Stock based compensation expense recognized includes the compensation cost for all stock-based payments granted to employees, officers, non-employees, and directors based on the grant date fair value estimated in accordance with the provisions of ASC 718. ASC 718 is also applied to awards modified, repurchased, or cancelled during the periods reported.

If any award granted under the Company's 2016 Equity Compensation Plan (the "2016 Plan") payable in shares of common stock is forfeited, cancelled, or returned for failure to satisfy vesting requirements, otherwise terminates without payment being made, or if shares of common stock are withheld to cover withholding taxes on options or other awards, the number of shares of common stock as to which such option or award was forfeited, or which were withheld, will be available for future grants under the 2016 Plan. The Company recognizes the impact of forfeitures when they occur.

Basic and Diluted Net (Loss) per Common Share

Basic (loss) per common share is computed by dividing the net (loss) by the weighted average number of shares of common stock outstanding for each period. Diluted (loss) per share is computed by dividing the net (loss) by the weighted average number of shares of common stock outstanding plus the dilutive effect of shares issuable through the common stock equivalents. The effect of dilution on net loss becomes anti-dilutive and therefore is not reflected on the consolidated statements of operations and comprehensive loss.

	Potentially Outstanding Dilutive Common Shares	
	For the Nine Months Ended September 30, 2023	For the Nine Months Ended September 30, 2022
Conversion Feature Shares		
Stock Options	1,357,466	1,376,215
Warrants	1,055,066	1,537,158
Convertible Notes	86,000	86,000
Total potentially outstanding dilutive common shares	2,498,532	2,999,373

Research and Development

Research and development expenses are charged to operations as incurred.

Foreign Currency Translation

The Company follows ASC 830, *Foreign Currency Matters* (“ASC 830”) for foreign currency translation to translate the financial statements of the foreign subsidiary from the functional currency, generally the local currency, into U.S. Dollars. ASC 830-10-45 sets out the guidance relating to how a reporting entity determines the functional currency of a foreign entity (including of a foreign entity in a highly inflationary economy), re-measures the books of record (if necessary), and characterizes transaction gains and losses. Pursuant to ASC 830-10-45, the assets, liabilities, and operations of a foreign entity shall be measured using the functional currency of that entity. An entity’s functional currency is the currency of the primary economic environment in which the entity operates; normally, that is the currency of the environment, or local currency, in which an entity primarily generates and expends cash.

The functional currency of each foreign subsidiary is determined based on management’s judgment and involves consideration of all relevant economic facts and circumstances affecting the subsidiary. Generally, the currency in which the subsidiary transacts a majority of its transactions, including billings, financing, payroll and other expenditures, would be considered the functional currency, but any dependency upon the parent and the nature of the subsidiary’s operations must also be considered. If a subsidiary’s functional currency is deemed to be the local currency, then any gain or loss associated with the translation of that subsidiary’s financial statements is included in accumulated other comprehensive income. However, if the functional currency is deemed to be the U.S. Dollar, then any gain or loss associated with the re-measurement of these financial statements from the local currency to the functional currency would be included in the condensed consolidated statements of operations and comprehensive income (loss). If the Company disposes of foreign subsidiaries, then any cumulative translation gains or losses would be recorded into the condensed consolidated statements of operations and comprehensive income (loss). If the Company determines that there has been a change in the functional currency of a subsidiary to the U.S. Dollar, any translation gains or losses arising after the date of change would be included within the condensed consolidated statements of operations and comprehensive loss.

Based on an assessment of the factors discussed above, the management of the Company determined its subsidiary’s local currency (i.e. the Canadian dollar) to be the functional currency for its foreign subsidiary.

Recent Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments* (ASU 2016-13), which requires an entity to utilize a new impairment model known as the current expected credit loss (CECL) model to estimate its lifetime “expected credit loss” and record an allowance that, when deducted from the amortized cost basis of the financial assets and certain other instruments. ASU 2016-13

requires a cumulative effect adjustment to the balance sheet as of the beginning of the first reporting period in which the guidance is effective. In November 2019, the FASB issued ASU 2019-10, *Financial Instruments—Credit Losses (Topic 326), Derivatives and Hedging (Topic 815) and Leases (Topic 842): Effective Dates*, which defers the effective date of ASU 2016-13 to fiscal years beginning after December 15, 2022 for all entities except SEC reporting companies that are not smaller reporting companies. ASU 2016-13 became effective for the Company beginning January 1, 2023. The adoption of this ASU did not have a material effect on the Company's financial statements.

In August 2020, the FASB issued ASU 2020-06, which simplifies the guidance on the issuer's accounting for convertible debt instruments by removing the separation models for convertible debt with a cash conversion feature and convertible instruments with a beneficial conversion feature. As a result, entities will not separately present in equity an embedded conversion feature in such debt and will account for a convertible debt instrument wholly as debt, unless certain other conditions are met. The elimination of these models will reduce reported interest expense and increase reported net income for entities that have issued a convertible instrument that is within the scope of ASU 2020-06. Also, ASU 2020-06 requires the application of the if-converted method for calculating diluted earnings per share and treasury stock method will be no longer available. ASU 2020-06 is applicable for fiscal years beginning after December 15, 2022, with early adoption permitted no earlier than fiscal years beginning after December 15, 2020. The Company does not intend to early adopt, and continues to evaluate the impact of the provisions of ASU 2020-06 on its consolidated financial statements.

NOTE 4 - ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses consist of the following at:

	September 30, 2023	December 31, 2022
Accounting	$ 36,750	$ 36,750
Research and development	580,069	557,934
Legal	-	25,462
Other	243,524	155,486
Total	$ 860,343	$ 775,632

NOTE 5 – NOTE PAYABLE AND CONVERTIBLE NOTE PAYABLE (PIK NOTES)

Convertible Notes Payable

During the nine months ended September 30, 2023 and 2022, the Company amortized $69,931 and $79,741 of the debt discount, respectively. At September 30, 2023 and December 31, 2022, the Company had an unamortized debt discount of $9,478 and $79,409, respectively.

As of September 30, 2023 and December 31, 2022, the Company owes $230,000 and $230,000 on the outstanding Convertible Notes, respectively. These convertible notes have a maturity date of November 6, 2023.

Convertible Notes Payable – Related Parties

During the nine months ended September 30, 2023 and 2022, the Company amortized $5,602 and $5,602 of the debt discount, respectively. At September 30, 2023 and December 31, 2022, the Company had an unamortized debt discount of $759 and $6,361, respectively.

As of September 30, 2023 and December 31, 2022, the Company owes $200,000 and $200,000 on the outstanding Convertible Notes, respectively. These convertible notes have a maturity date of November 6, 2023.

NOTE 6 - STOCKHOLDERS' DEFICIT

Common Stock

During the nine months ended September 30, 2023, the Company issued 9,644 shares of common stock for rounding of shares related to the Reverse Split.

Stock-Based Compensation

The Company adopted an Employee, Director and Consultant Stock Plan on June 17, 2016 (the "2016 Plan"). Pursuant to the 2016 Plan, the Company's Compensation Committee may grant awards to any employee, officer, director, consultant, advisor or other individual service provider of the Company or any subsidiary. Due to an annual "evergreen" provision in the 2016 Plan, the number of shares reserved for future grants was increased by 184,260 and 142,457 in 2022 and 2021, respectively. As a result of these increases, as of September 30, 2023 and December 31, 2022, the aggregate number of shares of common stock available for awards under the 2016 Plan was 1,543,872 shares and 1,543,872 shares, respectively. Options issued under the 2016 Plan are exercisable for up to ten years from the date of issuance.

There were 1,357,466 options outstanding as of September 30, 2023. During the three and nine months ended September 30, 2023, the Company issued no options.

The following is an analysis of the stock option grant activity under the Plan:

	Number	Weighted Average Exercise Price	Weighted Average Remaining Life
Stock Options			
Outstanding December 31, 2022	1,357,466	$ 7.39	5.41
Granted	-	$ -	-
Expired	-	$ -	-
Exercised	-	$ -	-
Outstanding September 30, 2023	1,357,466	$ 7.39	4.74

A summary of the status of the Company's nonvested options as of September 30, 2023, and changes during the nine months ended September 30, 2023, is presented below:

Nonvested Options	Options	Weighted-Average Exercise Price
Nonvested at December 31, 2022	118,187	$ 13.07
Granted	-	$ -
Vested	55,073	$ 11.51
Forfeited	-	$ -
Nonvested at September 30, 2023	63,114	$ 14.43

As of September 30, 2023, the Company had 1,357,466 shares issuable under options outstanding at a weighted average exercise price of $7.39 and an intrinsic value of $0.

The total number of options granted during the nine months ended September 30, 2023 and 2022 was 0 and 50,000, respectively. The exercise price for these options was $4.84 per share.

The Company recognized compensation expense related to options issued of $166,707 and $214,679 for the three months ended September 30, 2023 and 2022, respectively, in which $51,526 and $195,624 is included in general and administrative expenses and $115,181 and $19,055 in research and development expenses, respectively. For the three months ended September 30, 2023 and 2022, $1,713 and $49,685 of the stock compensation was related to employees and $164,994 and $164,994 was related to non-employees, respectively.

The Company recognized compensation expense related to options issued of $500,121 and $645,560 for the nine months ended September 30, 2023 and 2022, respectively, in which $154,578 and $568,198 is included in general and administrative expenses and $345,543 and $77,362 in research and development expenses, respectively. For the nine months ended September 30, 2023 and 2022, $5,140 and $149,055 of the stock compensation was related to employees and $494,981 and $496,505 was related to non-employees, respectively.

As of September 30, 2023, the unamortized stock option expense was $842,837 with $3,712 being related to employees and $839,125 being related to non-employees. As of September 30, 2023, the weighted average period for the unamortized stock compensation to be recognized is 3.71 years.

Warrants:

A summary of warrant issuances are as follows:

Warrants	**Number**	**Weighted Average Exercise Price**	**Weighted Average Remaining Life**
Outstanding December 31, 2022	1,537,158	$ 13.49	2.15
Granted	-	-	-
Expired	(482,092)	4.00	-
Exercised	-	-	-
Outstanding September 30, 2023	1,055,066	$ 17.82	2.31

As of September 30, 2023, the Company had 1,055,066 shares issuable under warrants outstanding at a weighted average exercise price of $17.82 and an intrinsic value of $0.

The Company recognized compensation expense related to warrants issued of $0 and $20,433 during the three months ended September 30, 2023 and 2022, respectively.

The Company recognized compensation expense related to warrants issued of $0 and $20,433 during the nine months ended September 30, 2023 and 2022, respectively.

NOTE 7 - COLLABORATIVE AGREEMENTS

The Company and the University of Toronto (the “University”) entered into an agreement effective April 1, 2014 (the “New Research Agreement”) for the performance of a research project titled “Teneurin C-terminal Associated Peptide (“TCAP”) mediated stress attenuation in vertebrates: Establishing the role of organismal and intracellular energy and glucose regulation and metabolism” (the “New Project”). The New Project is to perform research related to work done by Dr. David A. Lovejoy, a professor at the University and stockholder of the Company, in regard to TCAP mediated stress attenuation in vertebrates: Establishing the role of organismal and intracellular energy and glucose regulation and metabolism. In addition to the New Research Agreement, Dr. Lovejoy entered into an agreement with the University in order to commercialize certain technologies. The New Research Agreement expired on March 30, 2016. In February 2017, the New Research Agreement was extended to December 31, 2017. The extension allowed for further development of the technologies and use of their applications. On April 10, 2018, the agreement was amended and the research agreement has been further extended to December 31, 2023.

Prior to January 1, 2016, the University has been granted 6,250 stock options which are fully vested at the exercise price of $4.00 exercisable over a ten year period which ended on April 1, 2022. As of September 30, 2023, Dr. David Lovejoy of the University has been granted 138,325 stock options, of which 106,346 are fully vested and 31,250 have expired. These have an exercise price of $4.00, $5.00 or $7.00 and are exercisable over a period ranging from 10 to 13 years.

The sponsorship research and development expenses pertaining to the Research Agreements were $0 and $27,216 for the three and nine months ended September 30, 2023 and 2022, respectively.

NOTE 8 - COMMITMENTS AND CONTINGENCIES

Licensing Agreements

On July 31, 2005, the Company had entered into a Technology License Agreement ("License Agreement") with the University pursuant to which the University agreed to license to the Company patent rights and other intellectual property, among other things (the "Technologies"). The Technology License Agreement was amended on February 18, 2015 and currently does not provide for an expiration date.

Pursuant to the License Agreement and its amendment, the Company obtained an exclusive worldwide license to make, have made, use, sell and import products based upon the Technologies, or to sublicense the Technologies in accordance with the terms of the License Agreement and amendment. In consideration, the Company agreed to pay to the University a royalty payment of 2.5% of net sales of any product based on the Technologies. If the Company elects to sublicense any rights under the License Agreement and amendment, the Company agrees to pay to the University 10% of any up-front sub-license fees for any sub-licenses that occurred on or after September 9, 2006, and, on behalf of the sub-licensee, 2.5% of net sales by the sub-licensee of all products based on the Technologies. The Company had no sales revenue for the three and nine months ended September 30, 2023 and 2022 and therefore was not subject to paying any royalties.

In the event the Company fails to provide the University with semi-annual reports on the progress or fails to continue to make reasonable commercial efforts towards obtaining regulatory approval for products based on the Technologies, the University may convert our exclusive license into a non-exclusive arrangement. Interest on any amounts owed under the License Agreement and amendment will be at 3% per annum. All intellectual property rights resulting from the Technologies or improvements thereon will remain the property of the other inventors and/or Dr. Lovejoy, and/or the University, as the case may be. The Company has agreed to pay all out-of-pocket filing, prosecution and maintenance expenses in connection with any patents relating to the Technologies. In the case of infringement upon any patents relating to the Technologies, the Company may elect, at its own expense, to bring a cause of action asserting such infringement. In such a case, after deducting any legal expenses the Company may incur, any settlement proceeds will be subject to the 2.5% royalty payment owed to the University under the License Agreement and amendment.

The patent applications were made in the name of Dr. Lovejoy and other inventors, but the Company's exclusive, worldwide rights to such patent applications are included in the License Agreement and its amendment with the University. The Company maintains exclusive licensing agreements and it currently controls the five intellectual patent properties.

Legal Proceedings

From time to time we may be named in claims arising in the ordinary course of business. Currently, no legal proceedings, government actions, administrative actions, investigations or claims are pending against us or involve us that, in the opinion of our management, could reasonably be expected to have a material adverse effect on our business and financial condition.

NOTE 9 – RELATED PARTY TRANSACTIONS

The Company is provided free office space consisting of a conference room by the Company Executive Chairman, Dr. Armen. The Company does not pay any rent for the use of this space. This space is used for quarterly board meetings and our annual shareholder meeting.

During the year ended December 31, 2021, the Company engaged Agenus Inc., a related party, to perform research and development services. Agenus Inc. is a related party due to the Company's Director and Chairman of the Board being the CEO and Chairman of the Board for Agenus Inc. The Company incurred $150,000 and $105,928 in expenses related to these services during the nine months ended September 30, 2023 and 2022, respectively. As of September 30, 2023 and December 31, 2022, the outstanding balance owed to Agenus Inc. is $255,928 and $105,928, respectively.

During the year ended December 31, 2022, the Company engaged CTC North, GmbH ("CTC") to perform research and development services. CTC is a related party due to the Company's Director and Chairman of the Board being the CEO and Chairman of the Board for Agenus Inc, CTC's parent company. The total commitment for this agreement is $1.3 million. The Company incurred $106,754 and $105,801 in expenses related to these services during the nine months ended September 30, 2023 and 2022, respectively. As of September 30, 2023 and December 31, 2022, there is $80,409 and $0 owed to CTC in connection with this agreement, respectively.

NOTE 10 – SUBSEQUENT EVENTS

On November 6, 2023, eight notes with a total principal of $430,000 and accrued interest of $90,866 was converted into 104,173 shares of common stock.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operation

Forward-Looking Statements

This quarterly report on Form 10-Q contains forward-looking statements within the meaning of the federal securities laws and the Private Securities Litigation Reform Act of 1995. These forward-looking statements can be identified by the use of forward-looking terminology such as "may," "will," "expect," "intend," "anticipate," "estimate," "believe," "continue," "identify" or other similar words or the negatives thereof. These may include our financial estimates and their underlying assumptions, statements about plans, objectives, intentions and expectations. Such forward-looking statements are subject to various risks and uncertainties. Accordingly, there are or will be important factors that could cause actual outcomes or results to differ materially from those indicated in such statements. We believe these factors include but are not limited to those described under the section entitled "Risk Factors" in our prospectus and our Annual Report on form 10-K for the year ended December 31, 2022, and any such updated factors included in our periodic filings with the SEC, which are accessible on the SEC's website at www.sec.gov. These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included in this document (or our prospectus and other filings). Except as otherwise required by federal securities laws, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future developments or otherwise.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q and other written and oral statements we make from time to time contain certain "forward-looking" statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act"). You can identify these forward-looking statements by the fact they use words such as "could," "expect," "anticipate," "estimate," "target," "may," "project," "guidance," "intend," "plan," "believe," "will," "potential," "opportunity," "future" and other words and terms of similar meaning and expression in connection with any discussion of future operating or financial performance. You can also identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. Such forward-looking statements are based on current expectations and involve inherent risks and uncertainties, including factors that could delay, divert or change any of them, and could cause actual outcomes to differ materially from current expectations. These statements relate to, among other things, our business strategy, our research and development, our product development efforts, our ability to commercialize our product candidates, the activities of our licensees, our prospects for initiating partnerships or collaborations, the timing of the introduction of products, the effect of new accounting pronouncements, uncertainty regarding our future operating results and our profitability, anticipated sources of funds as well as our plans, objectives, expectations, and intentions.

We have included more detailed descriptions of these risks and uncertainties and other risks and uncertainties applicable to our business that we believe could cause actual results to differ materially from any forward-looking statements in Part II-Item 1A "Risk Factors" of this Quarterly Report on Form 10-Q. We encourage you to read those descriptions carefully. Although we believe we have been prudent in our plans and assumptions, no assurance can be given that any goal or plan set forth in forward-looking statements can be achieved. We caution investors not to place significant reliance on forward-looking statements contained in this document; such statements need to be evaluated in light of all the information contained in this document. Furthermore, the statements speak only as of the date of this document, and we undertake no obligation to update or revise these statements.

The discussion and analysis of our financial condition and results of operations are based on our financial statements, which we have prepared in accordance with U.S. generally accepted accounting principles. 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 revenues and expenses during the reporting periods. On an ongoing basis, we evaluate such estimates and judgments, including those described in greater detail below. We base these estimates on 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. Actual results may differ from these estimates under different assumptions or conditions.

We expect to continue to incur significant expenses and minimal positive net cash flows from operations or negative net cash flows from operations for the foreseeable future, and those expenses and losses may fluctuate significantly from quarter-to-quarter and year-to-year. We anticipate that our expenses will fluctuate substantially as we:

- continue our ongoing preclinical studies, clinical trials and our product development activities for our pipeline of product candidates;
- seek regulatory approvals for any product candidates that successfully complete clinical trials;
- continue research and preclinical development and initiate clinical trials of our other product candidates;
- seek to discover and develop additional product candidates either internally or in partnership with other pharmaceutical companies;
- adapt our regulatory compliance efforts to incorporate requirements applicable to marketed products;

- maintain, expand and protect our intellectual property portfolio; and
- incur additional legal, accounting and other expenses in operating as a public company.

Overview

Our proprietary, patent-protected, first-in-class lead compound, PT00114, is a synthetic form of Teneurin Carboxy-terminal Associated Peptide ("TCAP"), an endogenous brain signaling peptide that can dampen overactive stress responses. Our preclinical models have demonstrated efficacy of PT00114 in animal models of depression, anxiety, substance abuse & addiction, and PTSD.

PT00114 leverages a completely novel mechanism of action. Protagenic owns exclusive, worldwide rights to PT00114 through its license agreement with the University of Toronto and has an exclusive right to license additional intellectual property generated by Dr. David Lovejoy's lab at University of Toronto. Additionally, the company is engaged in the research & development of follow-on compounds in the TCAP family. Extensive publications in peer-reviewed scientific journals underline the central role stress plays in the onset and proliferation of neuropsychiatric disorders like depression, anxiety, substance abuse & addiction, and PTSD. The mechanism of action of TCAP suggests that it counterbalances stress overdrive at the cellular level within the brain's stress response cascade. TCAP works to alleviate the harmful behavioral, biochemical, and physiological effects of these disorders, while simultaneously restoring brain health. This mechanism has been corroborated in preclinical animal models of the psychiatric disorders listed above. Preclinical experiments required for IND filing have been completed. The Company is in the process of answering regulatory questions in the US and Germany.

On September 26, 2023, we announced the commencement of the Phase I/IIa clinical trial for PT00114. The trial aims to evaluate the therapeutic potential of PT00114 in treating an array of neuro-psychiatric conditions, including depression, anxiety, and PTSD. Phase I will recruit 56 subjects, randomized to undergo subcutaneous injections of either PT00114 or a placebo. The Phase I/IIa study will assess both healthy volunteers and patients diagnosed with Treatment-Resistant Depression, PTSD, and Generalized Anxiety Disorder. Besides monitoring disease status, the trial will gauge disease response by measuring biomarkers, such as circulating cortisol levels before and after treatment.

Results of Operations

We are a development stage company currently performing clinical trials to obtain Food and Drug Administration ("FDA") approval and commercialization of our product.

During the three months ended September 30, 2023, we incurred a loss from operations of $1,431,712 as compared to $924,060 for the three months ended September 30, 2022. The increase in the loss is from an increase in research and development expense of $622,664 from $501,366 for the three months ended September 30, 2022 to $1,124,030 for the three months ended September 30, 2023 offset by a decrease in general and administrative expenses of $115,012 from $422,694 for the three months ended September 30, 2022 to $307,682 for the three months ended September 30, 2023.

During the nine months ended September 30, 2023, we incurred a loss from operations of $3,314,748 as compared to $2,902,010 for the nine months ended September 30, 2022. The increase in the loss is from an increase in research and development expense of $976,721 from $1,331,719 for the nine months ended September 30, 2022 to $2,308,440 for the nine months ended September 30, 2023 offset by a decrease in general and administrative expenses of $563,983 from $1,570,291 for the nine months ended September 30, 2022 to $1,006,308 for the nine months ended September 30, 2023.

Liquidity and Going Concern

We continually project anticipated cash requirements, predominantly from the ongoing funding requirements of our neuropeptide drug development program. The majority of these costs relate to paying external vendors such as Contract Research Organizations, peptide synthesizer companies, and new drug development. As of September 30, 2023, we had cash of $153,332 and working capital of $4,096,554. We anticipate further losses from the development of our business. Based on its cash resources as of September 30, 2023, the Company does not have sufficient resources to fund its operations past the end of the third quarter of 2024. Absent generation of sufficient revenue from the execution of the Company's business plan, the Company will need to obtain debt or equity financing by the third quarter of 2024. Because of these factors, the Company believes that there is substantial doubt in the Company's ability to continue as a going concern. These financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

Operating activities used $2,559,342 and $1,812,878 in cash for the nine months ended September 30, 2023 and 2022, respectively. The use of cash in operating activities during the nine months ended September 30, 2023, primarily comprised of $3,324,313 net loss, $500,121 in stock compensation expense, a decrease in prepaid expenses of $47,137, and a $109,300 increase of accounts payable and accrued expenses, which included payments to legal and accounting professionals, payments to consultants, and other administrative expenses.

Investing activities provided $2,497,407 and $1,435,208 in cash during the nine months ended September 30, 2023 and 2022, respectively. The cash provided by investing activities was from $2,566,192 sale of marketable securities, offset by $12,979 used in the purchase of marketable securities and $55,806 in the purchase of fixed assets during the nine months ended September 30, 2023.

There was no cash used in or provided by financing activities for the nine months ended September 30, 2023 and 2022.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

Not applicable.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Evaluation of disclosure controls and procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Securities Exchange Act of 1934 (the "Exchange Act), as of September 30, 2023. Based on this evaluation, we have identified material weaknesses in our internal control over financial reporting. Due to material weaknesses, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are not effective to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act, including this Quarterly Report on Form 10-Q, is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that our disclosure and controls are not designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Material Weakness in Internal Control Over Financial Reporting

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

The material weaknesses we identified are described below:

1) We do not have sufficient segregation of duties within accounting functions, which is a basic internal control. Due to our size and nature, segregation of all conflicting duties may not always be possible and may not be economically feasible. However, to the extent possible, the initiation of transactions, the custody of assets and the recording of transactions should be performed by separate individuals. Management evaluated the impact of our failure to have segregation of duties on our assessment of our disclosure controls and procedures and has concluded that the control deficiency that resulted represented a material weakness.
2) Limited level of multiple reviews among those tasked with preparing the financial statements.

These material weaknesses could result in a material misstatement to the annual or interim condensed consolidated financial statements that would not be prevented or detected.

Remediation Plan

To address the material weakness described above the Company has engaged an independent third party to enhance our segregation of duties.

Since we remain a small Company, with limited segregation of duties, the third party has identified certain areas where we can layer in added controls and procedures. Management intends to implement such controls and procedures in the future.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute assurance that the objectives of the control system are met. The design of any system of controls is also based in part on certain assumptions regarding the likelihood of certain events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Given these and other inherent limitations of control systems, these are only reasonable assurances that our controls will succeed in achieving their stated goals under all potential future conditions.

Changes in Internal Control over Financial Reporting

Other than as discussed above, there were no changes in our internal controls over financial reporting that occurred during the quarter covered by this Report 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

From time to time we may be named in claims arising in the ordinary course of business. Currently, no legal proceedings, government actions, administrative actions, investigations or claims are pending against us or involve us that, in the opinion of our management, could reasonably be expected to have a material adverse effect on our business and financial condition.

Item 1A. Risk Factors

Our business is subject to substantial risks and uncertainties. Investing in our securities involves a high degree of risk. You should carefully consider the risk factors in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 31, 2023, together with the information contained elsewhere in this report, including Part I, Item 1 "Financial Statements" and Part I, Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in our other SEC filings in evaluating our business. These risks and uncertainties could materially and adversely affect our business, financial condition, results of operations, prospects for growth, and the value of an investment in our securities.

There were no material changes to the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 31, 2023.

Item 2. Unregistered Sale of Equity Securities and Use of Proceeds

None.

Item 3. Defaults upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

The following is a complete list of exhibits filed as part of this Form 10-Q. Exhibit numbers correspond to the numbers in the Exhibit Table of Item 601 of Regulation S-K.

Exhibit	Description
31.1	Chief Executive Officer Certification as required under section 302 of the Sarbanes Oxley Act (€)
31.2	Chief Financial Officer Certification as required under section 302 of the Sarbanes Oxley Act (€)
32.1	Chief Executive Officer and Chief Financial Officer Certification pursuant to 18 U.S.C. section 1350 as adopted pursuant to section 906 of the Sarbanes Oxley Act *
101.INS	Inline XBRL Instance Document (€)
101.CAL	Inline XBRL Taxonomy Extension Schema Document (€)
101.SCH	Inline XBRL Taxonomy Extension Calculation Linkbase Document (€)
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document (€)
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document (€)
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document (€)
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

(€) - Filed herewith.

(*) -Furnished, not filed, in accordance with item 601(32)(ii) of Regulation S-K.

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

November 14, 2023

Protagenic Therapeutics, Inc.

By: */s/ Alexander K. Arrow*

Chief Financial Officer

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934

I, Garo H. Armen, PhD, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Protagenic Therapeutics, Inc.;

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 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 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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The 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 auditors and the audit committee of the 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 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 internal control over financial reporting.

November 14, 2023 May 15, 2024

/s/ Garo H. Armen

Name: Garo H. Armen, Ph.D.
Title: Executive Chairman

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934

I, Alexander K. Arrow, MD, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Protagenic Therapeutics, Inc.;

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 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 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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The 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 auditors and the audit committee of the 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 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 internal control over financial reporting.

November 14, 2023 May 15, 2024

/s/ Alexander K. Arrow

Name: Alexander K. Arrow, MD
Title: Chief Financial Officer

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 Quarterly Report of Protagenic Therapeutics, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2023 March 31, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Garo H. Armen, Executive Chairman, and Alexander K. Arrow, Chief Financial Officer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 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, as amended; and

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

A signed original of this certification has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

November 14, 2023 May 15, 2024

By: */s/ Garo H. Armen*

Garo H. Armen, PhD
Executive Chairman
(Principal Executive Officer)

November 14, 2023 May 15, 2024

By: */s/ Alexander K. Arrow*

Alexander K. Arrow, MD, CFA
Chief Financial Officer

(Principal Financial Officer)

DISCLAIMER

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