

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2021

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: 001-36304

Phio Pharmaceuticals Corp.
(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation)

45-3215903
(I.R.S. Employer
Identification No.)

257 Simarano Drive, Suite 101, Marlborough, MA 01752
(Address of principal executive office) (Zip code)

Registrant's telephone number: (508) 767-3861

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value, \$0.0001 per share	PHIO	The 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 time 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
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 checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of November 5, 2021, Phio Pharmaceuticals Corp. had 13,534,692 shares of common stock, \$0.0001 par value, outstanding.

PHIO PHARMACEUTICALS CORP.
FORM 10-Q — QUARTER ENDED SEPTEMBER 30, 2021

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PART I — FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

PHIO PHARMACEUTICALS CORP.
 CONDENSED CONSOLIDATED BALANCE SHEETS
 (Amounts in thousands, except share and per share data)
 (Unaudited)

	September 30, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash	\$ 26,529	\$ 14,244
Restricted cash	50	50
Prepaid expenses and other current assets	871	870
Total current assets	27,450	15,164
Right of use asset, net	313	400
Property and equipment, net	153	157
Other assets	27	18
Total assets	<u>\$ 27,943</u>	<u>\$ 15,739</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 322	\$ 728
Accrued expenses and other current liabilities	2,061	1,352
Lease liability	112	116
Total current liabilities	2,495	2,196
Lease liability, net of current portion	202	295
Long-term debt	–	231
Total liabilities	<u>2,697</u>	<u>2,722</u>
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.0001 par value, 10,000,000 shares authorized	–	–
Common stock, \$0.0001 par value, 100,000,000 shares authorized; 13,534,692 and 5,780,973 shares issued and outstanding at September 30, 2021 and December 31, 2020, respectively	1	1
Additional paid-in capital	138,694	116,629
Accumulated deficit	(113,449)	(103,613)
Total stockholders' equity	<u>25,246</u>	<u>13,017</u>
Total liabilities and stockholders' equity	<u>\$ 27,943</u>	<u>\$ 15,739</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

PHIO PHARMACEUTICALS CORP.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Amounts in thousands, except share and per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Operating expenses:				
Research and development	\$ 2,807	\$ 1,256	\$ 7,091	\$ 3,253
General and administrative	932	1,050	2,970	3,078
Total operating expenses	<u>3,739</u>	<u>2,306</u>	<u>10,061</u>	<u>6,331</u>
Operating loss	(3,739)	(2,306)	(10,061)	(6,331)
Other (expense) income				
Gain on extinguishment of debt	-	-	233	-
Interest (expense) income, net	(3)	(3)	(8)	(1)
Total other (expense) income	<u>(3)</u>	<u>(3)</u>	<u>225</u>	<u>(1)</u>
Net loss	<u>\$ (3,742)</u>	<u>\$ (2,309)</u>	<u>\$ (9,836)</u>	<u>\$ (6,332)</u>
Net loss per share:				
Basic and diluted	<u>\$ (0.28)</u>	<u>\$ (0.40)</u>	<u>\$ (0.78)</u>	<u>\$ (1.51)</u>
Weighted average number of common shares outstanding				
Basic and diluted	<u>13,534,560</u>	<u>5,780,386</u>	<u>12,593,569</u>	<u>4,181,862</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

PHIO PHARMACEUTICALS CORP.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Amounts in thousands, except share data)
(Unaudited)

For the Three and Nine Months Ended
September 30, 2021

	Common Stock			Additional Paid-in Capital	Accumulated Deficit	Total
	Shares	Amount				
Balance at December 31, 2020	5,780,973	\$ 1	\$	116,629	\$ (103,613)	\$ 13,017
Issuance of common stock, pre-funded warrants and warrants in connection with private placement, net of offering costs	4,420,863	–		12,669	–	12,669
Issuance of common stock in registered direct offering, net of offering costs	2,246,784	–		6,908	–	6,908
Issuance of common stock upon the exercise of warrants	1,083,321	–		2,146	–	2,146
Issuance of common stock upon vesting of restricted stock units	2,448	–		–	–	–
Stock-based compensation expense	–	–		67	–	67
Net loss	–	–		–	(3,407)	(3,407)
Balance at March 31, 2021	13,534,389	1	\$	138,419	(107,020)	31,400
Stock-based compensation expense	–	–		132	–	132
Net loss	–	–		–	(2,687)	(2,687)
Balance at June 30, 2021	13,534,389	1	\$	138,551	(109,707)	28,845
Issuance of common stock upon vesting of restricted stock units	303	–		–	–	–
Stock-based compensation expense	–	–		143	–	143
Net loss	–	–		–	(3,742)	(3,742)
Balance at September 30, 2021	<u>13,534,692</u>	<u>\$ 1</u>	<u>\$</u>	<u>138,694</u>	<u>\$ (113,449)</u>	<u>\$ 25,246</u>

For the Three and Nine Months Ended
September 30, 2020

	Common Stock			Additional Paid-in Capital	Accumulated Deficit	Total
	Shares	Amount				
Balance at December 31, 2019	669,433	\$ 1	\$	100,566	\$ (94,819)	\$ 5,748
Issuance of common stock under employee stock purchase plan	153	–		1	–	1
Cash in lieu of fractional shares for 1:55 reverse stock split	(1,364)	–		(15)	–	(15)
Issuance of common stock and warrants in connection with registered direct and private placement offerings, net of offering costs	197,056	–		1,467	–	1,467
Issuance of common stock, pre-funded warrants and warrants in connection with underwritten public offering, net of offering costs	993,633	–		7,093	–	7,093
Issuance of common stock upon the exercise of warrants	1,006,367	–		1	–	1
Issuance of common stock upon vesting of restricted stock units	2,573	–		(2)	–	(2)
Stock-based compensation expense	–	–		43	–	43
Net loss	–	–		–	(2,351)	(2,351)
Balance at March 31, 2020	2,867,851	1	\$	109,154	(97,170)	11,985
Issuance of common stock and warrants in connection with registered direct and private placement offerings, net of offering costs	1,713,064	–		3,527	–	3,527
Issuance of common stock upon the exercise of warrants	1,199,296	–		3,863	–	3,863
Issuance of common stock upon vesting of restricted stock units	15	–		–	–	–
Stock-based compensation expense	–	–		30	–	30
Net loss	–	–		–	(1,672)	(1,672)
Balance at June 30, 2020	5,780,226	1	\$	116,574	(98,842)	17,733
Offering costs related to the exercise of warrants	–	–		(8)	–	(8)
Issuance of common stock upon vesting of restricted stock units	307	–		–	–	–
Stock-based compensation expense	–	–		37	–	37
Net loss	–	–		–	(2,309)	(2,309)
Balance at September 30, 2020	<u>5,780,533</u>	<u>\$ 1</u>	<u>\$</u>	<u>116,603</u>	<u>\$ (101,151)</u>	<u>\$ 15,453</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

PHIO PHARMACEUTICALS CORP.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2021	2020
Cash flows from operating activities:		
Net loss	\$ (9,836)	\$ (6,332)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	55	55
Non-cash lease expense	87	83
Non-cash stock-based compensation	342	110
Forgiveness of debt	(233)	–
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(10)	(386)
Accounts payable	(406)	(67)
Accrued expenses and other liabilities	711	438
Lease liability	(97)	(80)
Net cash used in operating activities	(9,387)	(6,179)
Cash flows from investing activities:		
Cash paid for purchase of property and equipment	(51)	(18)
Net cash used in investing activities	(51)	(18)
Cash flows from financing activities:		
Net proceeds from the issuance of common stock and warrants	19,577	12,088
Net proceeds from the exercise of warrants	2,146	3,856
Proceeds from debt	–	231
Cash paid in lieu of fractional shares for 1:55 reverse stock split	–	(15)
Payments of taxes for net share settled restricted stock unit issuances	–	(2)
Payments of capital lease obligations less than one year	–	(27)
Net cash provided by financing activities	21,723	16,131
Net increase in cash and restricted cash	12,285	9,934
Cash and restricted cash at the beginning of period	14,294	6,984
Cash and restricted cash at the end of period	\$ 26,579	\$ 16,918

The accompanying notes are an integral part of these condensed consolidated financial statements.

PHIO PHARMACEUTICALS CORP.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Nature of Operations

Phio Pharmaceuticals Corp. (“**Phio**,” “**we**,” “**our**” or the “**Company**”) is a biotechnology company developing the next generation of immunology therapeutics based on its self-delivering RNAi (“**INTASYL™**”) therapeutic platform. The Company’s efforts are focused on silencing tumor-induced suppression of the immune system through its proprietary INTASYL platform with utility in immune cells and the tumor microenvironment. The Company’s goal is to develop powerful INTASYL therapeutic compounds that can weaponize immune effector cells to overcome tumor immune escape, thereby potentially providing patients with a powerful new treatment option that goes beyond current treatment modalities.

In December 2019, a novel strain of coronavirus that causes COVID-19 was reported to have surfaced in Wuhan, China and has since spread to other parts of the world, including the United States. In March 2020, the World Health Organization (the “**WHO**”) declared the outbreak a pandemic. Our operations are being conducted in accordance with federal, state, WHO and the Center for Disease Control’s guidelines, including the implementation of safety measures such as working remotely and flexible scheduling.

As a result of the coronavirus pandemic, certain of our third-party suppliers and service providers on which we rely have seen impacts to their operations. The Company has undertaken efforts to mitigate potential future impacts by identifying and engaging alternative third-party service providers and suppliers, and because of that, the Company had been able to limit the impact of delays from our third-party service providers to our program’s anticipated timelines. However, the continued impacts to our third-party service providers, including, for example, limited availability of certain services and supplies, began to significantly affect our operations in the second quarter of 2021, resulting in delays to certain of our clinical program timelines. If measures to overcome the pandemic are insufficient, it could further reduce or delay the availability of supplies and services that we purchase and rely on, which may in turn further slow or delay our preclinical and clinical activities.

We believe that the coronavirus pandemic has not had a significant impact on our financial condition to date; however a variety of factors such as those described above, may further impact our operations and slow or diminish our research and development activities, which in turn may impact our financial condition in the future. The extent to which the coronavirus pandemic impacts our results will depend on future developments, which are highly uncertain and cannot be predicted.

2. Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements are unaudited and have been prepared in accordance with accounting principles generally accepted in the United States of America (“**GAAP**”). Certain information and footnote disclosures included in the Company’s annual financial statements have been condensed or omitted. The year-end condensed balance sheet data was derived from audited financial statements, but does not include all disclosures required by GAAP. These statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission (the “**SEC**”). In the opinion of management, all adjustments (including normal recurring accruals) considered necessary for a fair presentation of the condensed consolidated financial statements have been included. Interim results are not necessarily indicative of results for a full year.

Principles of Consolidation

The condensed consolidated financial statements include the accounts of Phio and its wholly-owned subsidiary, MirImmune, LLC. All material intercompany accounts have been eliminated in consolidation.

Uses of Estimates in Preparation of Financial Statements

The preparation of financial statements in accordance with 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 financial statements and the reported amounts of revenues and expenses during the reporting period. The areas subject to significant estimates and judgement include, among others, those related to the fair value of equity awards, accruals for research and development expenses, useful lives of property and equipment, income taxes, and our valuation allowance on our deferred tax assets. On an ongoing basis we evaluate our estimates and base our estimates on historical experience and other relevant assumptions that we believe are reasonable under the circumstances, including as a result of new information that may emerge concerning the coronavirus pandemic. We have made estimates of the impact of the coronavirus pandemic within our financial statements and there may be changes to those estimates in future periods. Actual results could differ materially from these estimates.

Restricted Cash

Restricted cash consists of certificates of deposit held by financial institutions as collateral for the Company's corporate credit cards.

Fair Value of Financial Instruments

The carrying amounts reported in the balance sheet for restricted cash, accounts payable and accrued expenses approximate their fair values due to their short-term nature.

Leases

At the inception of a contract, the Company determines whether the contract is or contains a lease based on all relevant facts and circumstances. For contracts that contain a lease, the Company identifies the lease and non-lease components, determines the consideration in the contract and recognizes the classification of the lease as operating or financing. For leases with a term greater than one year, the Company recognizes a liability to make lease payments and an asset representing the right to use the underlying asset during the lease term at the commencement date of the lease.

Lease liabilities and the corresponding right of use assets are recorded based on the present value of lease payments to be made over the lease term. The discount rate used to calculate the present value is the rate implicit in the lease, or if not readily determinable, the Company's incremental borrowing rate. The Company's incremental borrowing rate is the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. Certain adjustments to the right of use asset may be required for items such as initial direct costs or incentives received. Lease payments on operating leases are recognized on a straight-line basis over the expected term of the lease. Lease payments on financing leases are recognized using the effective interest method.

Debt

On March 27, 2020, the United States enacted the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") in response to the coronavirus pandemic. The CARES Act is an emergency economic stimulus package passed in response to the coronavirus outbreak that includes, but is not limited to, provisions providing aid to small businesses in the form of loans and grants and numerous tax provisions including, certain payroll tax benefits, changes to the net operating loss rules and changes to the business interest expense deduction rules. On May 11, 2020, the Company received loan proceeds pursuant to the Paycheck Protection Program (the "PPP") offered under the CARES Act, and the loan was subsequently forgiven in February 2021. Outside of the PPP, the Company has not utilized the other CARES Act loan programs and tax provisions, such as certain payroll tax benefits.

The Company followed the guidance under the Financial Accounting Standards Board (the "FASB") Accounting Standards Codification ("ASC") Topic 470, "Debt" ("ASC 470") in assessing the accounting for the PPP loan proceeds. Per ASC 470, the Company recorded a liability on the balance sheet for the full amount of PPP loan proceeds received and accrued interest over the term of the loan. Upon loan forgiveness, the Company recognized the extinguishment of the liability in the condensed consolidated statement of operations as a gain on extinguishment of debt.

Derivative Financial Instruments

Financial instruments that meet the definition of a derivative are classified as an asset or liability and measured at fair value on the issuance date and are revalued on each subsequent balance sheet date. The changes in fair value are recognized as current period income or loss. Financial instruments that do not meet the definition of a derivative are classified as equity and measured at fair value and recorded as additional paid-in capital in stockholders' equity at the date of issuance. No further adjustments to their valuation are made.

Research and Development Expenses

Research and development expenses relate to compensation and benefits for research and development personnel, facility-related expenses, supplies, external services, costs to acquire technology licenses, expenses associated with preclinical and clinical development activities and other operating costs. Research and development expenses are charged to expense as incurred. Payments made by the Company in advance for research and development services not yet provided and/or for materials not yet received are recorded as prepaid expenses and expensed when the service has been performed or when the goods have been received.

Accrued liabilities are recorded related to those expenses for which vendors have not yet billed the Company with respect to services provided and/or materials that it has received. Accrued liabilities for the services provided by contract research organizations (“CROs”) are recorded during the period incurred based on such estimates and assumptions as expected cost, passage of time, the achievement of milestones and other information available to us and are assessed on a quarterly basis. Actual results may differ from these estimates and could have a material impact on the Company’s reported results. The Company’s historical accrual estimates have not been materially different from its actual costs.

Stock-based Compensation

The Company follows the provisions of the FASB ASC Topic 718, “*Compensation — Stock Compensation*” (“**ASC 718**”), which requires the measurement and recognition of compensation expense for all stock-based payment awards. The fair value of restricted stock units is based upon the Company’s closing stock price at the grant date. The Company uses the Black-Scholes option-pricing model to estimate the fair value of stock options at the grant date. The Black-Scholes valuation model requires the input of valuation assumptions to calculate the value of stock options, including expected volatility, expected term, risk-free interest rate and expected dividends. Stock-based compensation expense is recognized over the requisite service period, which generally represents the vesting period, and commences at the date of grant based on the fair value of the award.

Stock-based compensation expense recognized in the financial statements is based on awards that are ultimately expected to vest. Accordingly, we are also required to estimate forfeitures at the time of grant and to revise those estimates in subsequent periods if actual forfeitures differ from estimates. We use historical data to estimate pre-vesting award forfeitures and record stock-based compensation expense only for those awards that are expected to vest. Our forfeiture rate estimates are based on an analysis of our actual forfeiture experience, employee turnover behavior, and other factors. The impact of any adjustments to our forfeiture rates is recorded as a cumulative adjustment in the period of adjustment. To the extent that actual forfeitures differ from our estimates, the difference is recorded as a cumulative adjustment in the period the estimates are revised.

Comprehensive Loss

The Company’s comprehensive loss is equal to its net loss for all periods presented.

Net Loss per Share

Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding. Diluted net loss per share is computed by dividing the Company’s net loss by the weighted average number of common shares outstanding and the impact of all dilutive potential common shares outstanding, except where such dilutive potential common shares would be anti-dilutive. Dilutive potential common shares primarily consist of warrants, restricted stock units and stock options.

3. Liquidity and Going Concern

The Company has reported recurring losses from operations since its inception and expects to continue to have negative cash flows from operations for the foreseeable future. Historically, the Company’s primary source of funding has been from the sales of its securities. The Company’s ability to continue to fund its operations is dependent on obtaining funding from third parties, such as proceeds from the issuance of debt, sale of equity, or strategic opportunities, in order to maintain its operations. This is dependent on a number of factors, including the market demand or liquidity of the Company’s common stock. There is no guarantee that debt, additional equity or other funding will be available to us on acceptable terms, or at all. If we fail to obtain additional funding when needed, we would be forced to scale back or terminate our operations or seek to merge with or to be acquired by another company.

While we believe that the coronavirus pandemic has not had a significant impact on our financial condition and results of operations at this time, the potential economic impact brought by, and the duration of, the coronavirus pandemic is difficult to assess or predict. There may be developments outside of our control that require us to adjust our operating plans and given the nature of the situation, we cannot reasonably estimate the impact of the coronavirus pandemic on our financial conditions, results of operations or cash flows in the future.

The Company believes that its existing cash should be sufficient to fund operations for at least the next 12 months from the date of the release of these financial statements.

4. Recent Accounting Pronouncements

In December 2019, the FASB issued Accounting Standards Update (“ASU”) 2019-12, “*Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*” (“ASU 2019-12”). The amendments in the update simplify the accounting for income taxes by eliminating the exceptions related to the incremental approach for intraperiod tax allocation, the recognition of a deferred tax liability for equity method investments, not recognizing a deferred tax liability for a foreign subsidiary and the general methodology for calculating income taxes in an interim period. The amendments also clarify and simplify other aspects of the accounting for income taxes. The amendments in ASU 2019-12 are effective for public entities for fiscal years, and the interim periods within those fiscal years, beginning after December 20, 2020. The Company adopted ASU 2019-12 on January 1, 2021. The adoption of this standard did not have a material impact on the Company’s consolidated financial statements.

In August 2020, the FASB issued ASU 2020-06, “*Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity’s Own Equity (Subtopic 815 – 40)*” (“ASU 2020-06”), which simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts in an entity’s own equity. ASU 2020-06 is part of the FASB’s simplification initiative, which aims to reduce unnecessary complexity in U.S. GAAP. For convertible instruments, the accounting models for instruments issued with beneficial conversion features or cash conversion features are removed. For contracts in an entity’s own equity, ASU 2020-06 simplifies the settlement assessment by removing the requirements to (1) consider whether the contract would be settled in registered shares, (2) consider whether collateral is required to be posted, and (3) assess shareholder rights. ASU 2020-06 is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company early adopted ASU 2020-06 on January 1, 2021. The adoption of this standard did not have an impact on the Company’s consolidated financial statements.

In May 2021, the FASB issued ASU 2021-04, “*Earnings per Share (Topic 260), Debt – Modifications and Extinguishments (Subtopic 470-50), Compensation – Stock Compensation (Topic 718), and Derivatives and Hedging – Contracts in Entity’s Own Equity (Subtopic 815-40)*” (“ASU 2021-04”). The amendments in the updates are intended to clarify and reduce diversity in an issuer’s accounting for modifications or exchanges of freestanding equity-classified written call options that remain equity classified after modification or exchange. The amendments in ASU 2021-04 are effective for all entities for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. An entity should apply the amendments prospectively to modifications or exchanges occurring on or after the effective date of the amendments. Early adoption is permitted for all entities, including within an interim period. The Company is evaluating the potential impact of this guidance on its consolidated financial statements and related disclosures.

5. Leases

In January 2019, the Company amended the lease for its corporate headquarters and primary research facility in Marlborough, Massachusetts. The lease is for a total of 7,581 square feet of office and laboratory space and will expire on March 31, 2024. The lease contains an option to terminate after two or three years by providing advance written notice of termination pursuant to the terms of the agreement. The exercise of this option was not determined to be reasonably certain and thus was not included in the lease liability on the Company’s balance sheet. The Company did not exercise its option to terminate in either the second or third year of the lease, and the option to terminate has expired. Additionally, the lease agreement did not contain information to determine the borrowing rate implicit in the lease. As such, the Company calculated its incremental borrowing rate based on what the Company would have to pay to borrow on a collateralized basis over the lease term for an amount equal to the remaining lease payments, taking into consideration such assumptions as, but not limited to, the U.S. treasury yield rate and borrowing rates from a creditworthy financial institution using the above lease factors.

The lease for our corporate headquarters represents substantially all of our significant lease obligations. The amounts reported in the condensed consolidated balance sheets for operating leases in which the Company is the lessee and other supplemental balance sheet information is set forth as follows, in thousands, except the lease term (number of years) and discount rate:

	<u>September 30, 2021</u>	<u>December 31, 2020</u>
Assets		
Right of use asset	\$ 313	\$ 400
Liabilities		
Lease liability, current	\$ 112	\$ 116
Lease liability, non-current	202	295
Total lease liability	\$ 314	\$ 411
Lease Term and Discount Rate		
Weighted average remaining lease term	2.50	3.71
Weighted average discount rate	4.70%	4.70%

Operating lease costs included in operating expense were \$33,000 for the three months ended September 30, 2021 and 2020. Operating lease costs included in operating expense were \$99,000 for the nine months ended September 30, 2021 and 2020. Short-term lease costs were not material for the three and nine months ended September 30, 2021 and 2020.

Cash paid for the amounts included in the measurement of the operating lease liability on the Company's condensed consolidated balance sheets and included within changes in the lease liability in the operating activities of our condensed consolidated statements of cash flows was \$44,200 and \$32,200 for the three months ended September 30, 2021 and 2020, respectively. Cash paid for the nine months ended September 30, 2021 and 2020 was \$109,500 and \$95,600, respectively.

Future lease payments for our non-cancellable operating leases and a reconciliation to the carrying amount of the operating lease liability presented in the condensed consolidated balance sheet as of September 30, 2021 is as follows, in thousands:

2021 (remaining)	\$ 22
2022	135
2023	140
2024	35
Total lease payments	332
Less: Imputed interest	(18)
Total operating lease liability (includes current portion)	\$ 314

6. Debt

On May 11, 2020, the Company received loan proceeds in the amount of \$231,252 from Bank of America, N.A., as lender, pursuant to the PPP under the CARES Act. The PPP loan had a maturity date of May 11, 2022, interest at a rate of 1% per year and monthly principal and interest payments that were deferred to the date that the Small Business Administration (the "SBA") remitted the borrower's loan forgiveness amount to the lender. When applying for the PPP loan, the Company carefully assessed the requirements for application under the program and believed that the loan was necessary to support its operations. The loans under the PPP may be forgiven if used for eligible purposes, including payroll, benefits, rent and utilities.

The Company followed the guidance under ASC 470 in assessing the accounting for the PPP loan proceeds. Per ASC 470, the Company recorded a liability on the balance sheet for the full amount of PPP loan proceeds received and accrued interest over the term of the loan. The Company believed it used the loan proceeds for eligible purposes and applied for full loan forgiveness. On February 18, 2021, the SBA approved the Company's application for full loan forgiveness, and the full amount of the PPP loan was remitted to the lender for forgiveness. Upon loan forgiveness, the Company recognized a gain on the extinguishment of debt of \$233,000 for the loan proceeds received and interest accrued in the condensed consolidated statements of operations for the nine months ended September 30, 2021.

7. Stockholders' Equity

January 2021 Private Placement — On January 25, 2021, the Company completed a private placement of 4,420,863 shares of the Company's common stock at a purchase price per share of \$3.07, pre-funded warrants to purchase an aggregate of 140,065 shares of the Company's common stock (the "**January 2021 Pre-Funded Warrants**") at a purchase price per pre-funded warrant share of \$3.069 and warrants to purchase an aggregate of 3,420,696 shares of the Company's common stock with an exercise price of \$3.00 per warrant share (the "**January 2021 Warrants**") (the "**Private Placement**"). In connection with the Private Placement, the Company issued warrants to the placement agent, H.C. Wainwright & Co., LLC ("**HCW**"), to purchase a total of 342,070 shares of the Company's common stock at an exercise price of \$3.8375 (the "**January 2021 Placement Agent Warrants**"). Net proceeds to the Company from the Private Placement were \$12,669,000 after deducting placement agent fees and offering expenses.

February 2021 Registered Direct Offering — On February 17, 2021, the Company completed a registered direct offering of 2,246,784 shares of the Company's common stock at a purchase price of \$3.42 per share (the "**Offering**"). In connection with the Offering, the Company issued warrants to the placement agent, HCW, to purchase a total of 168,509 shares of the Company's common stock at an exercise price of \$4.275 (the "**February 2021 Placement Agent Warrants**"). Net proceeds to the Company from the Offering were \$6,908,000 after deducting placement agent fees and offering expenses.

February 2020 Registered Direct Offering and Private Placement — On February 6, 2020, the Company completed a registered direct offering (the "**February 2020 Registered Offering**") of 197,056 shares of the Company's common stock at a purchase price of \$8.705 per share and in a concurrent private placement, sold warrants to purchase an aggregate of 197,056 shares of the Company's common stock at a purchase price of \$0.125 per underlying warrant share and with an exercise price of \$8.71 per share (the "**February 2020 Registered Direct Warrants**"). In connection with the February 2020 Registered Offering, the Company also issued warrants to purchase a total of 14,779 shares of the Company's common stock with an exercise price of \$11.0375 per share (the "**February 2020 Placement Agent Warrants**") to the placement agent, HCW. Net proceeds to the Company from the February 2020 Registered Offering were \$1,467,000 after deducting placement agent fees and offering expenses paid by the Company.

February 2020 Underwritten Public Offering — On February 13, 2020, the Company completed an underwritten public offering of 993,633 shares of the Company's common stock at a purchase price per share of \$4.00, pre-funded warrants (the "**2020 Pre-Funded Warrants**") to purchase an aggregate of 1,006,367 shares of the Company's common stock at a purchase price per pre-funded warrant share of \$3.999 and warrants (the "**February 2020 Warrants**") to purchase an aggregate of 2,000,000 shares of the Company's common stock with an exercise price of \$4.00 per warrant share (the "**February 2020 Underwritten Offering**"). The 2020 Pre-Funded Warrants were immediately exercisable at an exercise price per share of \$0.001 and each share of Company common stock or 2020 Pre-Funded Warrant, as applicable, was sold with a February 2020 Warrant. In connection with the February 2020 Underwritten Offering, the Company issued warrants to purchase up to 150,000 shares of Company common stock, immediately exercisable at an exercise price of \$5.00 per share (the "**February 2020 Underwriter Warrants**") to HCW, as underwriter.

In connection with the February 2020 Underwritten Offering, the Company also granted to the underwriter, HCW, a 30-day option to purchase up to an additional 300,000 shares of the Company's common stock at a purchase price of \$3.999 per such share and/or warrants to purchase up to 300,000 shares of the Company's common stock at a purchase price of \$0.001 per such warrant. Such warrants have the same terms as the February 2020 Warrants. On February 12, 2020, HCW exercised its option to purchase warrants to purchase an aggregate of 300,000 shares of the Company's common stock.

Net proceeds from the February 2020 Underwritten Offering were \$7,093,000 after deducting underwriting discounts and commissions and offering expenses paid by the Company.

April 2020 Registered Direct Offering and Private Placement — On April 2, 2020, the Company completed a registered direct offering (the "**April 2020 Offering**") of 1,713,064 shares of the Company's common stock at a purchase price of \$2.21 per share and in a concurrent private placement, sold warrants to purchase an aggregate of 1,713,064 shares of the Company's common stock at a purchase price of \$0.125 per underlying warrant share and with an exercise price of \$2.21 per share (the "**April 2020 Warrants**"). In connection with the April 2020 Offering, the Company also issued warrants to purchase a total of 128,480 shares of the Company's common stock with an exercise price of \$2.9188 per share (the "**April 2020 Placement Agent Warrants**") to the placement agent, HCW. Net proceeds to the Company from the April 2020 Offering were \$3,527,000 after deducting placement agent fees and offering expenses paid by the Company.

Warrants

The Company first assesses the warrants it issues under the FASB ASC Topic 480, “*Distinguishing Liabilities from Equity*” (“**ASC 480**”) to determine whether they are within the scope of ASC 480. As there were no instances outside of the Company’s control that could require cash settlement of the warrants issued in the Private Placement and Offering, as well as warrants issued in the Company’s prior financing transactions, the warrants are outside the scope of ASC 480.

The Company then applies and follows the applicable accounting guidance in ASC 815. Financial instruments are accounted for as either derivative liabilities or as equity instruments depending on the specific terms of the agreement. The warrants issued in the Private Placement and the Offering do not meet the definition of a derivative instrument as they are indexed to the Company’s common stock and classified within stockholders’ equity, as are the warrants issued in the Company’s prior financing transactions. Based on this determination, the Company’s warrants are classified within stockholders’ equity.

The following table summarizes the Company’s outstanding equity-classified warrants at September 30, 2021:

Description	Exercise Price	Expiration Date	Balance December 31, 2020	Warrants Issued	Warrants Exercised	Warrants Expired	Balance September 30, 2021
December 2016 Warrants	\$ 495.00	12/21/2021	23,233	–	–	–	23,233
April 2018 Warrants	\$ 173.25	5/31/2023	20,599	–	–	–	20,599
April 2018 Placement Agent Warrants	\$ 223.00	4/9/2023	1,373	–	–	–	1,373
October 2018 Warrants	\$ 10.45	10/3/2025	389,610	–	–	–	389,610
October 2018 Underwriter Warrants	\$ 13.06	10/1/2023	29,220	–	–	–	29,220
November 2019 Placement Agent Warrants	\$ 6.875	11/18/2024	13,636	–	–	–	13,636
February 2020 Registered Direct Warrants	\$ 8.71	8/6/2025	197,056	–	–	–	197,056
February 2020 Placement Agent Warrants	\$ 11.0375	2/4/2025	14,779	–	–	–	14,779
February 2020 Warrants	\$ 4.00	2/13/2025	1,326,500	–	–	–	1,326,500
February 2020 Underwriter Warrants	\$ 5.00	2/11/2025	150,000	–	–	–	150,000
April 2020 Warrants	\$ 2.21	10/2/2025	1,284,798	–	(856,532)	–	428,266
April 2020 Placement Agent Warrants	\$ 2.9188	3/31/2025	128,480	–	(86,724)	–	41,756
January 2021 Pre-Funded Warrants	\$ 0.001	No expiration	–	140,065	(140,065)	–	–
January 2021 Warrants	\$ 3.00	7/27/2026	–	3,420,696	–	–	3,420,696
January 2021 Placement Agent Warrants	\$ 3.8375	7/27/2026	–	342,070	–	–	342,070
February 2021 Placement Agent Warrants	\$ 4.275	2/12/2026	–	168,509	–	–	168,509
			<u>3,579,284</u>	<u>4,071,340</u>	<u>(1,083,321)</u>	<u>–</u>	<u>6,567,303</u>

No warrants were exercised during the three months ended September 30, 2021 and 2020. The Company received net proceeds of \$2,146,000 and \$3,856,000 from the exercise of warrants during the nine months ended September 30, 2021 and 2020, respectively.

Of the warrants exercised during the nine months ended September 30, 2020, 428,266 of the Company’s April 2020 Warrants were exercised via a cashless exercise transaction and as a result a total of 225,796 shares of common stock were issued. There were no cashless exercises of warrants for the nine months ended September 30, 2021.

8. Net Loss per Share

The following table sets forth the potential common shares excluded from the calculation of net loss per share because their inclusion would be anti-dilutive:

	September 30,	
	2021	2020
Options to purchase common stock	2,499	2,637
Unvested restricted stock units	367,533	10,731
Warrants to purchase common stock	6,567,303	3,579,284
Total	<u>6,937,335</u>	<u>3,592,652</u>

9. Stock-based Compensation

Restricted Stock Units

Restricted stock units (“RSUs”) are issued under the Company’s 2020 Long-Term Incentive Plan (the “2020 Plan”) or as inducement grants issued outside of the plan to new employees. RSUs are generally subject to graded vesting and the satisfaction of service requirements. Upon vesting, each outstanding RSU will be exchanged for one share of the Company’s common stock. Employee RSU recipients may elect to net share settle upon vesting, in which case the Company pays the employee’s income taxes due upon vesting and withholds a number of shares of equal value. The fair value of the RSUs awarded are based upon the Company’s closing stock price at the grant date and are expensed over the requisite service period.

The following table summarizes the activity of the Company’s RSUs for the nine months ended September 30, 2021:

	Number of Shares	Weighted- Average Grant Date Fair Value
Unvested units at December 31, 2020	9,699	\$ 19.97
Granted	360,750	2.94
Vested	(2,916)	24.97
Forfeited	–	–
Unvested units at September 30, 2021	<u>367,533</u>	<u>\$ 3.22</u>

Stock-based compensation expense related to RSUs was \$132,000 and \$21,000 for the three months ended September 30, 2021 and 2020, respectively. Stock-based compensation expense related to RSUs was \$313,000 and \$69,000 for the nine months ended September 30, 2021 and 2020, respectively.

Stock Options

Stock options are issued under the 2020 Plan or as inducement grants issued outside of the plan to new employees. Stock options are generally subject to graded vesting and the satisfaction of service requirements. Upon the exercise of a stock option, the Company issues new shares and delivers them to the recipient. The Company does not expect to repurchase shares to satisfy stock option exercises.

The Company uses the Black-Scholes option-pricing model to determine the fair value of all its option grants. The risk-free interest rate used for each grant was based upon the yield on zero-coupon U.S. Treasury securities with a term similar to the expected life of the related option. The Company’s expected stock price volatility assumption is based upon the Company’s own implied volatility. As the Company has limited stock option exercise information, the expected life assumption used for option grants is based upon the simplified method provided for under ASC 718. The dividend yield assumption is based upon the fact that the Company has never paid cash dividends and presently has no intention of paying cash dividends.

The Company did not grant stock options during the three and nine months ended September 30, 2021 and 2020.

The following table summarizes the activity of the Company’s stock options for the nine months ended September 30, 2021:

	Number of Shares	Weighted- Average Exercise Price Per Share	Aggregate Intrinsic Value
Balance at December 31, 2020	2,570	\$ 3,334.06	
Granted	–	–	
Exercised	–	–	
Cancelled	(71)	946.27	
Balance at September 30, 2021	<u>2,499</u>	<u>\$ 3,401.90</u>	<u>\$ –</u>
Exercisable at September 30, 2021	<u>2,153</u>	<u>\$ 3,932.78</u>	<u>\$ –</u>

Stock-based compensation expense related to stock options for the three months ended September 30, 2021 and 2020 was \$11,000 and \$16,000, respectively. Stock-based compensation expense related to stock options for the nine months ended September 30, 2021 and 2020 was \$29,000 and \$41,000, respectively.

Compensation Expense Related to Equity Awards

The following table sets forth total stock-based compensation expense for the three and nine months ended September 30, 2021 and 2020, in thousands:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Research and development	\$ 36	\$ 6	\$ 80	\$ 17
General and administrative	107	31	262	93
Total stock-based compensation	<u>\$ 143</u>	<u>\$ 37</u>	<u>\$ 342</u>	<u>\$ 110</u>

10. Income Taxes

The Company has incurred net operating losses since inception and based on an assessment of all available evidence, has concluded that it is more likely than not that the net operating loss carryforwards generated as result will not be realized and a full deferred income tax valuation allowance has been recorded against these assets. If the Company has experienced a change of control, as defined by Section 382 of the Internal Revenue Code as transactions increasing the ownership of certain shareholders or public groups in the stock of a corporation by more than 50% over a three-year period, utilization of the net operating loss carryforwards would be subject to an annual limitation. The Company is in the process of conducting a study to assess the utilization of its net operating loss carryforwards and may be subject to substantial annual limitations.

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

In this document, "we," "our," "ours," "us," "Phio" and the "Company" refers to Phio Pharmaceuticals Corp. and our subsidiary, MirImmune, LLC and the ongoing business operations of Phio Pharmaceuticals Corp. and MirImmune, LLC, whether conducted through Phio Pharmaceuticals Corp. or MirImmune, LLC.

This management's discussion and analysis of financial condition as of September 30, 2021 and results of operations for the three and nine months ended September 30, 2021 and 2020 should be read in conjunction with the financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020, which was filed with the Securities and Exchange Commission (the "SEC") on March 25, 2021.

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as "intends," "believes," "anticipates," "indicates," "plans," "expects," "suggests," "may," "would," "should," "potential," "designed to," "will," "ongoing," "estimate," "forecast," "target," "predict," "could" and similar references, although not all forward-looking statements contain these words. Forward-looking statements are neither historical facts nor assurances of future performance. These statements are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Risks that could cause actual results to vary from expected results expressed in our forward-looking statements include, but are not limited to, the impact to our business and operations by the ongoing coronavirus outbreak, the development of our product candidates, our ability to execute on business strategies, our ability to develop our product candidates with collaboration partners, and the success of any such collaborations, the timeline and duration for advancing our product candidates into clinical development, results from our preclinical and clinical activities, the timing or likelihood of regulatory filings and approvals, the success of our efforts to commercialize our product candidates if approved, our ability to manufacture and supply our product candidates for clinical activities, and for commercial use if approved, the scope of protection we are able to establish and maintain for intellectual property rights covering our technology platform, and our ability to obtain future financing. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements as a result of a number of important factors, including those identified in our Annual Report on Form 10-K for the year ended December 31, 2020 under the heading "Risk Factors" and in other filings the Company periodically makes with the SEC. Therefore, you should not rely on any of these forward-looking statements. Forward-looking statements contained in this Quarterly Report on Form 10-Q speak as of the date hereof and the Company does not undertake to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this report.

Overview

Phio Pharmaceuticals Corp. is a biotechnology company developing the next generation of immuno-oncology therapeutics based on our self-delivering RNAi ("INTASYL™") therapeutic platform. Our efforts are focused on silencing tumor-induced suppression of the immune system through our proprietary INTASYL platform with utility in immune cells and the tumor microenvironment. Our goal is to develop powerful INTASYL therapeutic compounds that can weaponize immune effector cells to overcome tumor immune escape, thereby potentially providing patients a powerful new treatment option that goes beyond current treatment modalities. INTASYL compounds can be used as drugs to be administered directly to patients (direct therapeutic use), or as a modality to improve certain forms of cell-based immunotherapy (adoptive cell therapy).

Our development efforts are based on our broadly patented INTASYL technology platform. Our INTASYL compounds are designed to "silence" or down-regulate, the expression of a specific gene which is over-expressed in cancer. Our INTASYL technology does not require genetic modifications, and, unlike other RNA and DNA-based technologies, our INTASYL compounds do not require a delivery vehicle to penetrate into tissues and cells. We believe that our INTASYL platform uniquely positions the Company in the field of immuno-oncology for the following reasons:

- Can target multiple genes (i.e. multiple immunosuppression pathways) in a single therapeutic entity;
- Results in a sustained, or long-term, effect *in vivo*;
- Favorable clinical safety profile of INTASYL with local administration;
- Efficient uptake of INTASYL by target cells, obviating the need for facilitated delivery (mechanical or formulation); and
- Can be readily manufactured under current good manufacturing practices.

In contrast to other RNA technologies and platforms, the self-delivering nature of our INTASYL platform makes it ideally suited for use with adoptive cell therapy (“ACT”) treatments as well as for direct therapeutic use. ACT consists of the infusion of immune cells with antitumor properties, after growing them in a lab to large numbers. These cells can be derived from unmodified (i.e. naturally occurring) immune cells, immune cells isolated from resected tumors or genetically engineered immune cells that recognize tumor cells. Regardless of the source of immune cells (ACT or naturally occurring immune cells), in patients with solid tumors, these cells have several shortcomings that inhibit their full therapeutic potential. By using INTASYL technology during the manufacturing of such ACT cell products we can improve the phenotype and function of these cells, potentially leading to better therapeutic outcomes. Multiple inhibitory mechanisms restrain immune cells from effectively eradicating tumors, including immune checkpoints, reduced cell fitness and cell persistence. Furthermore, the immunosuppressive tumor microenvironment (the “TME”) can pose a formidable barrier to immune cell infiltration and function. By using INTASYL based drugs administered directly, we can also reprogram cells in the TME to help overcome these immunosuppressive mechanisms.

We have developed a product platform based on our INTASYL technology that allows easy, precise, rapid and selective non-genetically modified programming of ACT cells (*ex vivo*, during manufacturing) and of the TME (*in vivo*, by local application), resulting in reduced immune inhibition and in improved immunotherapy.

INTASYL Use To Improve Adoptive Cell Therapy Products

ACT is a form of immune therapy based on the use of immune cells, isolated from patients, donors or retrieved from allogeneic immune cell banks. They are grown in a lab to large numbers and subsequently administered to patients to fight cancer. Sometimes, immune cells that naturally recognize a tumor are used, while other times immune cells are modified or “genetically engineered” to make them recognize and kill the cancer cells. There are several types of ACT, including: a.) non-engineered cell therapy in which immune cells are grown from the patient’s tumor or blood, such as tumor infiltrating lymphocytes (“TILs”), or from donor blood or tissue such as natural killer (“NK”) cells, dendritic cells (“DC”) and macrophages, and b.) genetically engineered immune cells that are genetically modified to recognize specific tumor proteins and to remain in an activated state (such as T cell receptor technology (“TCRs”), chimeric antigen receptor (“CAR”) T cells, or CAR-NK cells).

Multiple inhibitory mechanisms restrain immune cells used in ACT from effectively eradicating tumors, including immune checkpoints, reduced cell fitness and cell persistence, and other barriers to immune cell infiltration and function mainly in solid tumors. We believe our INTASYL compounds are ideally suited to be used in ACT products. With INTASYL compounds, we can unlock the full potential of ACT, by improving immune cell function, differentiation and metabolism, in order to make these immune cells more effective without the need for additional complicated manufacturing steps and/or genetic engineering.

Our approach builds on well-established methodologies of ACT and involves the treatment of immune cells with our INTASYL compounds *ex vivo* while they are grown in the lab and before administering them to the patient. Because our INTASYL compounds do not require a delivery vehicle to penetrate into the cells, in contrast to other RNA technologies, we are able to enhance the function of these cells by merely adding our INTASYL compounds during the expansion process and without the need for genetic engineering, complex delivery vehicles or formulations, or additional complex manufacturing steps. By adding INTASYL to the cell culture media used during the cell expansion, we can reduce or eliminate the expression of genes that make the immune cells less effective. For example, with our INTASYL compounds, we can reduce the expression of immunosuppressive proteins by the therapeutic immune cells, potentially enabling them to overcome tumor resistance mechanisms and thus improving their ability to destroy the tumor cells. In various types of immune cells tested to date, INTASYL treatment results in potent silencing with close to 100% transfection efficiency and while maintaining cell viability and cell growth rate. After expanding these cells and enhancing them with INTASYL *ex vivo*, they are returned to the patient for treatment.

Our lead product candidate, and our most advanced program being developed by the Company in ACT, is PH-762. PH-762 is an INTASYL compound that activates immune cells to better recognize and kill cancer cells by reducing the expression of the checkpoint protein PD-1, a clinically validated target for immunotherapy. Checkpoint proteins, such as PD-1, normally act as a type of “off switch” that prevent T cells, immune cells that protect the body from cancer cells and infections, from attacking certain cells in the body, such as cancer cells. The expression of PD-1 enables the cancer cell to evade the T cell. Reducing the expression of PD-1 can thereby reduce the ability of cancer cells to avoid T cell detection.

Data has shown that PH-762 silences PD-1 checkpoint expression in T cells, thereby removing the “off switch” and enabling T cells to overcome tumor resistance mechanisms, and thus improving their ability to destroy tumor cells. Preclinical studies show that PH-762 can silence the expression of PD-1 in target human T cells in a potent and durable manner and can increase their tumor cell-killing ability. Patient derived T cells treated with PH-762, in comparison to untreated T cells, were shown to have increased tumor killing potency against tumor cells of the same patient. As a result, we believe that PH-762 in ACT is well-positioned to enhance therapeutic responses in cancer.

In March 2021, the Company announced that it entered into a clinical development collaboration with AgonOx, Inc. (“**AgonOx**”), a private company developing a pipeline of novel immunotherapy drugs targeting key regulators of the immune response to cancer, in which the companies will collaborate on the development of novel T cell-based therapies using PH-762 and AgonOx’s “double positive” TIL (“**DP TIL**”) technology. Per the terms of the clinical development agreement, AgonOx will receive financial support from Phio to conduct a clinical trial in ACT with their DP TIL technology and PH-762, and Phio will be entitled to certain future development milestones and sales-related royalty payments from AgonOx’s DP TIL technology. AgonOx has demonstrated that their DP TIL enriched cell populations have increased tumor killing activity when compared to TILs that were not enriched prior to expansion. Preclinical data from our research collaboration with AgonOx has shown that treating DP TILs with PH-762 increases the tumor killing activity of the DP TILs even further (a two-fold increase). As a result, the use of PH-762 treated DP TILs is expected to enhance therapeutic responses in cancer data. Based on this data, our clinical development collaboration will focus on conducting a clinical study for PH-762 treated DP TILs. As a result of impacts from the coronavirus pandemic, the availability of certain materials for the clinical trial are delayed. Based upon current information, the Company expects to start the clinical trial evaluating the use of PH-762 and DP TILs in ACT in the second quarter of 2022.

PH-762 use in ACT is not limited to TILs, but can also be used on other forms of T cell-based cell therapy. We recently presented *in vivo* data showing that PH-762 significantly enhanced the antitumor efficacy of HER2-targeted CAR-T cells (“**HER2CART**”) in solid tumors. Compared to untreated HER2CART cells, HER2CART cells treated with PH-762 showed a statistically significant and durable inhibition of tumor growth. Analysis of the PH-762 treated HER2CART cells isolated from the tumors suggest that PH-762 enhances CAR-T function through multiple mechanisms including enhanced efficiency, degranulation and promotion of memory/stem populations. We believe that this data provides proof of concept for the application of PD-1 checkpoint silencing with INTASYL in CAR-T cells prior to ACT to enhance the therapeutic efficacy of CAR-T cell therapy in solid tumors.

Our second product candidate in development for use in ACT is PH-894. PH-894 is an INTASYL compound that silences the epigenetic protein BRD4, which is an intracellular regulator of gene expression that impacts cell differentiation, and hence, cell function. Like other epigenetic targets, BRD4 is a protein that has been shown to be difficult to target with current drug modalities. Since BRD4 is an intracellular protein, antibody therapies cannot be used and small molecule inhibitors tested to date typically lack the required specificity. As our INTASYL compounds can target intracellular proteins, as well as extracellular proteins, with a high level of specificity, we believe that PH-894 has significant potential. In collaboration with the Karolinska Institutet in Sweden, PH-894 has been shown to improve T cell function and persistence by differentiating T cells into a more active state (stem-cell like memory phenotype). We have demonstrated that the application of PH-894 is shown to silence BRD4 in human T cells during expansion for ACT, which has the potential to confer superior anti-tumor activity.

Our INTASYL compound PH-804 is also being developed for use in ACT. PH-804 targets the suppressive immune receptor TIGIT, which is a checkpoint protein present on immune cells, such as T cells and NK cells. Similar to PD-1, cancer cells can suppress the activity of these immune cells by activating TIGIT. This triggers an “off switch,” resulting in tumor immune evasion, which can be prevented by blocking or silencing TIGIT. PH-804 provides powerful dose-dependent silencing of TIGIT that can be seen in both T cells and NK cells and we have shown that PH-804 can silence the expression of TIGIT in these cells, overcoming their “off switch” and thereby becoming “weaponized” to kill cancer cells.

Direct Therapeutic Use of INTASYL Towards the Tumor Microenvironment

Cancer cells have evolved natural defenses that can suppress the immune system surrounding the tumor, in an area called the tumor microenvironment, which decreases the effectiveness of many traditional immunotherapies. Reprogramming different cell types in the TME, such as cancer cells and immune cells, may overcome these natural tumor defenses and decrease resistance to immunotherapy. An optimal treatment therapy should have the ability to address targets both inside and on the surface of tumor and immune cells, creating multiple ways to prevent tumors from evading immune detection. Our INTASYL compounds can target both intracellular and extracellular targets, and are also being developed for use as direct therapeutics to reprogram the TME, for example, by *in situ* transfection and activation of immune cells in the TME. Therefore, INTASYL-based drug therapy is a novel way of fighting cancer by reprogramming the cells in the TME to make cancer more responsive to a patient’s immune system and to other anti-cancer drugs.

Our lead product candidate, and our most advanced program being developed by the Company in our direct to tumor therapy programs, is PH-762. We have shown that we can reprogram the TME with PH-762 and achieve local activation of immune cells. Preclinical studies conducted by the Company showed that local administration of PH-762 through intratumoral injection resulted in potent anti-tumoral effects. Treated animals showed a complete and statistically significant inhibition of tumor growth, whereas placebo treated animals displayed exponential tumor growth. Recently announced *in vivo* data showed that intratumoral treatment with PH-762 inhibits tumor growth in a dose dependent fashion in PD-1 responsive and refractory models. Furthermore, on target efficacy was supported by modulation of immune cell populations toward anti-tumor phenotypes. The Company believes this data further supports the potential for PH-762 to provide a strong local immune checkpoint blockade without the dose immune-related adverse effects seen with systemic antibody therapy.

The Company is preparing for a first-in-human clinical study with PH-762 as a directly administered drug for patients with advanced melanoma at the Gustave Roussy Institute, one of the largest cancer centers in Europe. The required preclinical studies and regulatory submission needed to initiate the clinical trial with PH-762 as a direct therapeutic are being finalized. However, these timelines have been impacted by the limited availability of certain services and supplies as a consequence of the coronavirus pandemic. The Company currently expects to start the clinical trial evaluating the use of PH-762 as a direct therapeutic in the first quarter of 2022.

Our second direct to tumor product candidate is PH-894. Data published with PH-894 in a hepatocellular carcinoma model showed potent and statistically significant anti-tumoral effects when administered locally. In a further study conducted in collaboration with the Karolinska Institutet, we demonstrated that PH-894 resulted in a strong, concentration dependent and durable silencing of BRD4 in T cells, which in an *in vivo* study translated to pronounced and dose-associated inhibition of tumor growth. These data show that our PH-894 compound can reprogram T cells and other cells in the TME to provide enhanced immunotherapeutic activity. PH-894 shows the power of our INTASYL compounds to modulate the expression of intracellular and/or commonly considered “undruggable” targets, a limitation for small molecule and antibody therapies. The Company currently expects to file a clinical trial application for PH-894 in the second half of 2022.

We are also investigating the use of dual-targeting INTASYL compounds in a single formulation to reprogram the TME and achieve local activation of immune cells. New study data showed that PH-3861, a dual-targeting INTASYL towards PD-1 and BRD4, elicited complete cure of tumors in an *in vivo* hepatoma model, and outperformed the efficacy of the small molecule and antibody control treatments toward the same targets. In addition, local INTASYL therapy was shown to induce a systemic anti-tumor response with clearance of untreated distal tumors. The animals which showed complete cure of their tumors were then rechallenged over two months after the original treatment of PH-3861 by re-implanting hepatoma cancer cells at a different location to the original tumor. All of the mice that were rechallenged with new tumors were cured again without requiring further treatment, while tumors grew steadily in the control group as expected. We believe that these data demonstrate that PH-3861 provides a durable and systemic anti-tumor immune response that can combat tumor growth.

Impact of COVID-19 on our Business

In December 2019, a novel strain of coronavirus that causes COVID-19 was reported to have surfaced in Wuhan, China and has since spread to other parts of the world, including the United States. In March 2020, the World Health Organization (the “WHO”) declared the outbreak a pandemic.

Health and Safety

From the first signs of the outbreak, we have taken proactive measures intended to protect the health and safety of our employees. We have implemented safety measures following the guidance provided by the WHO, the Centers for Disease Control (the “CDC”) and governmental authorities, such as working remotely and flexible scheduling. We expect to continue following these safety measures and may take further actions as we require, as government authorities require or recommend, or as we determine to be in the best interests of our employees.

Operations

Our operations are being conducted in accordance with federal and state government, WHO and CDC guidelines. While measures to contain and prevent the spread of coronavirus may be modified or extended, we expect that our activities, including our internal research and development functions, will continue to remain largely operational, though we have experienced and may continue to experience delays in our clinical activities. Current and future pandemic-related restrictions may further impact our operations and may slow or diminish our research and development activities.

Supply and Services

As a result of the coronavirus pandemic, certain of our third-party suppliers and service providers on which we rely have seen impacts to their operations. The Company has undertaken efforts to mitigate potential future impacts by identifying and engaging alternative third-party service providers and suppliers, and because of that, the Company had been able to limit the impact of delays from our third-party service providers to our program's anticipated timelines. However, the continued impacts to our third-party service providers, including, for example, limited availability of certain services and supplies, began to significantly affect our operations in the second quarter of 2021, resulting in delays to certain of our clinical program timelines. Further, while the steps required for us to initiate our clinical trials with PH-762 are continuing and ongoing, the commencement of new clinical trials and the enrollment and participation of patients in clinical trials were impacted as a result of the coronavirus pandemic, and the Company does not yet know the full extent of similar potential delays or impacts related to its planned clinical activities. If measures to overcome the pandemic are insufficient, the availability of supplies and services that we purchase and rely on could be further reduced or delayed, which may in turn further slow or delay our preclinical and clinical activities.

Liquidity and Capital Resources

While we believe that the coronavirus pandemic has not had a significant impact on our financial condition to date, the extent to which the coronavirus pandemic impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the actions to contain the coronavirus or treat its impact, among others.

Due to our uncertainty about our ability to access the capital markets to provide the necessary working capital to fund our long-term operations as a result of the coronavirus pandemic, the Company applied for and received a loan of \$231,252 in May 2020 under the Paycheck Protection Program (the "PPP") as part of the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"). The Company carefully assessed the requirements for application under the program and believed that the loan was necessary to support our operations. The Company believed it used the loan proceeds for eligible purposes and applied for full loan forgiveness. In February 2021, the Small Business Administration (the "SBA") approved the Company's application for full loan forgiveness, and the full amount of the PPP loan was remitted to the lender for forgiveness. In connection with and addition to the PPP, the Company took other proactive steps to control costs in response to the coronavirus pandemic, which included the reduction of senior management salaries by 10% from May to December 2020. We believe these savings helped to mitigate the financial impact to us of the coronavirus pandemic on our financial condition.

We do not yet know the full extent of potential delays or impacts on our business, financial condition or our preclinical and clinical trial activities, and there may be developments outside of our control that require us to adjust our operating plans and, therefore, given the nature of the situation, we cannot reasonably estimate the impact of the coronavirus on our financial condition, results of operations or cash flows in the future.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates and base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions and could have a material impact on our reported results.

There have been no material changes to our critical accounting policies and estimates as compared to those disclosed in the Company's most recent Annual Report on Form 10-K for the year ended December 31, 2020.

Results of Operations

The following data summarizes the results of our operations for the periods indicated, in thousands:

Description	Three Months Ended September 30,			Nine Months Ended September 30,		
	2021	2020	Dollar Change	2021	2020	Dollar Change
Operating expenses	\$ 3,739	\$ 2,306	\$ 1,433	\$ 10,061	\$ 6,331	\$ 3,730
Operating loss	(3,739)	(2,306)	(1,433)	(10,061)	(6,331)	(3,730)
Net loss	(3,742)	(2,309)	(1,433)	(9,836)	(6,332)	(3,504)

Comparison of the Three and Nine Months Ended September 30, 2021 and 2020

Operating Expenses

The following table summarizes our total operating expenses, for the periods indicated, in thousands:

Description	Three Months Ended September 30,			Nine Months Ended September 30,		
	2021	2020	Dollar Change	2021	2020	Dollar Change
Research and development	\$ 2,807	\$ 1,256	\$ 1,551	\$ 7,091	\$ 3,253	\$ 3,838
General and administrative	932	1,050	(118)	2,970	3,078	(108)
Total operating expenses	\$ 3,739	\$ 2,306	\$ 1,433	\$ 10,061	\$ 6,331	\$ 3,730

Research and Development Expenses

Research and development expenses relate to compensation and benefits for research and development personnel, facility-related expenses, supplies, external services, costs to acquire technology licenses, research activities under our research collaborations, expenses associated with preclinical and clinical development activities and other operating costs. Our research and development programs are focused on the development of immunology therapeutics based on our INTASYL therapeutic platform.

Research and development expenses for the three months ended September 30, 2021 increased 123% as compared with the three months ended September 30, 2020. The increase in research and development expenses was primarily due to manufacturing costs for the Company's PH-762 and PH-894 INTASYL compounds and fees for the required preclinical studies in support of the Company's clinical trials for PH-762 as compared to the same period in the prior year.

Research and development expenses for the nine months ended September 30, 2021 increased 118% as compared with the nine months ended September 30, 2020. The increase in research and development expenses was primarily due to manufacturing costs for the Company's PH-762 and PH-894 INTASYL compounds, fees for the required preclinical studies in support of the Company's clinical trials for PH-762 and CRO and consulting related costs to support the initiation of the Company's clinical trials as compared to the same period in the prior year.

The Company expects its research and development expenses to continue to increase in support of, and as the Company commences its clinical trial activities for PH-762.

General and Administrative Expenses

General and administrative expenses relate to compensation and benefits for general and administrative personnel, facility-related expenses, professional fees for legal, audit, tax and consulting services, as well as other general corporate expenses.

General and administrative expenses for the three months ended September 30, 2021 decreased 11% as compared with the three months ended September 30, 2020, primarily due to a decrease in legal fees partially offset by increased stock-based compensation expense as the Company did not grant equity awards in the same period in the prior year.

General and administrative expenses for the nine months ended September 30, 2021 decreased 4% as compared with the nine months ended September 30, 2020 primarily due to a decrease in legal fees partially offset by increased stock-based compensation expense as the Company did not grant equity awards in the same period in the prior year.

Other Income

Other income consists primarily of interest income and expense and various income or expense items of a non-recurring nature.

Other income for the nine months ended September 30, 2021 increased by \$226,000 as compared with the nine months ended September 30, 2020, primarily due to the full forgiveness of the Company's PPP loan by the SBA in the first quarter of 2021.

Liquidity and Capital Resources

Historically, the Company's primary source of funding has been through the sale of its securities. In the future, we will be dependent on obtaining funding from third parties, such as proceeds from the issuance of debt, sale of equity or strategic opportunities, in order to maintain our operations. We have reported recurring losses from operations since inception and expect that we will continue to have negative cash flows from our operations for the foreseeable future. At September 30, 2021, we had cash of \$26,529,000 as compared with cash of \$14,244,000 at December 31, 2020.

In August 2019, the Company entered into a purchase agreement (the "**Purchase Agreement**") with Lincoln Park Capital, LLC ("**LPC**"), pursuant to which the Company has the right to sell to LPC up to \$10,000,000 in shares of the Company's common stock, subject to certain limitations and conditions set forth in the agreement. The Company is initially limited to the issuance of 19.99% of the Company's shares outstanding on the date of the Purchase Agreement unless stockholder approval is obtained to issue more than such amount or the average price of all sales under the Purchase Agreement exceeds certain amounts set forth in the agreement. The Purchase Agreement expires in May 2022. To date, no shares of common stock have been sold to LPC under the Purchase Agreement.

We believe that our existing cash at September 30, 2021 should be sufficient to fund operations for at least the next 12 months from the date of the release of the associated financial statements.

The following table summarizes our cash flows for the periods indicated, in thousands:

	Nine Months Ended September 30,	
	2021	2020
Net cash used in operating activities	\$ (9,387)	\$ (6,179)
Net cash used in investing activities	(51)	(18)
Net cash provided by financing activities	21,723	16,131
Net increase in cash and restricted cash	<u>\$ 12,285</u>	<u>\$ 9,934</u>

Net Cash Flow from Operating Activities

Net cash used in operating activities was \$9,387,000 for the nine months ended September 30, 2021 as compared with \$6,179,000 for the nine months ended September 30, 2020. The increase in cash used in operating activities was primarily due to increases in net loss and changes in operating assets and liabilities as a result of increased spending primarily related to the Company's manufacturing activities and preclinical studies in support of the clinical trials for PH-762.

Net Cash Flow from Investing Activities

Net cash used in investing activities was \$51,000 for the nine months ended September 30, 2021 as compared with \$18,000 for the nine months ended September 30, 2020. The increase in cash used in investing activities was primarily related to laboratory and computer equipment purchases.

Net Cash Flow from Financing Activities

Net cash provided by financing activities was \$21,723,000 for the nine months ended September 30, 2021, as compared with \$16,131,000 for the nine months ended September 30, 2020. The increase in cash provided by financing activities was primarily due to the net proceeds received by the Company from capital raising activities and warrant exercises.

Off-Balance Sheet Arrangements

In connection with certain license agreements, we are required to indemnify the licensor for certain damages arising in connection with the intellectual property rights licensed under the agreement. In addition, we are a party to a number of agreements entered into in the ordinary course of business that contain typical provisions that obligate us to indemnify the other parties to such agreements upon the occurrence of certain events. These indemnification obligations are considered off-balance sheet arrangements in accordance with ASC Topic 460, “*Guarantor’s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others.*” To date, we have not encountered material costs as a result of such obligations and have not accrued any liabilities related to such obligations in our financial statements. See Note 8 to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2020, which was filed with the SEC on March 25, 2021, for further discussion of these indemnification agreements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As a smaller reporting company, we are not required to provide this information.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer (who is also acting as our principal financial officer) and our Principal Accounting Officer, evaluated the effectiveness of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report to ensure that information that we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms.

Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives. We believe that a control system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the control system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this report, management, with the participation of our Chief Executive Officer (who is also acting as our principal financial officer) and our Principal Accounting Officer, concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of such date.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the third quarter of the year ended December 31, 2021 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, the Company may become a party to various legal proceedings and complaints arising in the ordinary course of business. We are not currently a party to any material legal proceedings.

ITEM 1A. RISK FACTORS

Please carefully consider the information set forth in Part I, “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 25, 2021. There have been no material changes from these risk factors. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. This Quarterly Report on Form 10-Q also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including these risks. Additional risks not currently known or currently material to us may also harm our business.

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

No sales or issuances of unregistered securities occurred that have not previously been disclosed in a Current Report on Form 8-K.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

EXHIBIT INDEX

Exhibit Number	Description	Incorporated by Reference Herein	
		Form	Date
31.1	Sarbanes-Oxley Act Section 302 Certification of Principal Executive Officer and Principal Financial Officer. *		
32.1	Sarbanes-Oxley Act Section 906 Certification of Principal Executive Officer and Principal Financial Officer. **		
101.INS	Inline XBRL Instance Document.*		
101.SCH	Inline XBRL Taxonomy Extension Schema Document.*		
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.*		
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.*		
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.*		
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.*		
104	The cover page for this report, formatted in Inline XBRL (included in Exhibit 101).*		

* Filed herewith.

** Furnished herewith and not deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that Section or incorporated by reference into any filing under the Securities Act or the Exchange Act.

SIGNATURES

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

Phio Pharmaceuticals Corp.

By: /s/ Gerrit Dispersyn
Gerrit Dispersyn, Dr. Med. Sc.
President and Chief Executive Officer
(as Principal Executive and Financial Officer)

Date: November 10, 2021

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO
SECURITIES EXCHANGE ACT OF 1934 RULES 13a-14(a) AND 15d-14(a)
AS ADOPTED
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Gerrit Dispersyn, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Phio Pharmaceuticals Corp.;
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. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the registrant, is made known to me 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 my 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 my 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. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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 controls over financial reporting.

Dated: November 10, 2021

/s/ Gerrit Dispersyn
Gerrit Dispersyn, Dr. Med. Sc.
President and Chief Executive Officer
(as Principal Executive and Financial Officer)

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
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 on Form 10-Q of Phio Pharmaceuticals Corp. (the "Company") for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

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 Company's financial condition and result of operations.

Dated: November 10, 2021

/s/ Gerrit Dispersyn

Gerrit Dispersyn, Dr. Med. Sc.
President and Chief Executive Officer
(as Principal Executive and Financial Officer)