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 June 30, 2015

OR

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

Commission File Number: 333-193455

MATINAS BIOPHARMA HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**No. 46-3011414**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1545 Route 206 South, Suite 302
Bedminster, New Jersey 07921
(Address of principal executive offices) (Zip Code)

908-443-1860
(Registrant's telephone number, including area code)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☒

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

As of July 31, 2015, 56,967,690 shares of common stock, $0.0001 par value per share, were outstanding.

MATINAS BIOPHARMA HOLDINGS, INC.
FORM 10-Q
Quarter Ended June 30, 2015

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Matinas BioPharma Holdings Inc.
Balance Sheets

	June 30, 2015 (Unaudited)	December 31, 2014 (Audited)
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	$ 6,605,498	$ 2,590,713
Restricted Cash - current	100,000	100,000
Contract Research Receivables	59,857	-
Prepaid Expenses	114,996	114,425
Total Current Assets	6,880,351	2,805,138
Fixed Assets - net	363,197	339,995
In-process research and development	3,017,377	-
Goodwill	1,384,674	-
Security deposit and other	216,475	216,317
TOTAL ASSETS	$ 11,862,074	$ 3,361,450
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts Payable	$ 745,551	$ 271,155
Accrued Expenses	339,835	802,746
Deferred Rent Liability	7,239	-
Note Payable	10,000	-
Capital Lease Obligation - Current	33,580	44,362
Total Current Liabilities	1,136,205	1,118,263
LONG TERM LIABILITIES		
Deferred Tax Liability	1,253,327	-
Contingent Consideration	843,674	-
Capital Lease Obligation - Long Term	-	15,291
TOTAL LIABILITIES	$ 3,233,206	$ 1,133,554
STOCKHOLDERS' EQUITY		
Common Stock, Par Value $ 0.0001, 150,000,000 Authorized, 56,967,690 Issued and outstanding shares as of June 30, 2015; 32,292,650 Issued and outstanding shares as of December 31, 2014	5,698	3,230
Additional Paid in Capital	27,649,577	16,276,430
Accumulated Deficit	(19,026,407)	(14,051,764)
Total Stockholders' Equity	8,628,868	2,227,896
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 11,862,074	$ 3,361,450

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

MATINAS BIOPHARMA HOLDINGS, INC.
Unaudited Condensed Consolidated Statements of Operations

	Three Months Ended June 30 (Unaudited)	
	2015	2014
Contract Research Revenue	$ 77,000	$ -
OPERATING EXPENSES		
Research and development	1,354,728	1,118,251
General and administrative	1,124,066	1,302,236
Total Operating Expenses	2,478,794	2,420,487
Loss from Operations	(2,401,794)	(2,420,487)
Other expense, net	2,738	5,385
NET LOSS	$ (2,404,532)	$ (2,425,872)
BASIC AND DILUTED LOSS PER SHARE	$ (0.04)	$ (0.08)
WEIGHTED AVERAGE BASIC AND DILUTED NUMBER OF SHARES OUTSTANDING	55,942,013	32,000,000

	Six Months Ended June 30 (Unaudited)	
	2015	2014
Contract Research Revenue	$ 134,636	$ -
OPERATING EXPENSES		
Research and development	$ 2,803,141	2,192,031
General and administrative	2,301,907	2,357,483
Total Operating Expenses	5,105,048	4,549,514
Loss from Operations	(4,970,412)	(4,549,514)
Other expense, net	4,231	15,381
NET LOSS	$ (4,974,643)	$ (4,564,895)
BASIC AND DILUTED LOSS PER SHARE	$ (0.11)	$ (0.14)
WEIGHTED AVERAGE BASIC AND DILUTED NUMBER OF SHARES OUTSTANDING	45,815,657	32,000,000

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

MATINAS BIOPHARMA HOLDINGS, INC.
Unaudited Condensed Consolidated Statements of Cash Flow

	For the Six Months Ended June 30, Unaudited	
	2015	**2014**
Cash flows from operating activities:		
Net loss	**$ (4,974,643)**	**$ (4,564,895)**
Adjustments to reconcile net loss to net cash used by operating activities:		
Depreciation	**20,583**	**19,931**
Share based compensation	**733,761**	**547,589**
Changes in operating assets and liabilities, net of amounts assumed in the acquisition of Aquarius		
Other assets	**(158)**	**(4,471)**
Contract Research Receivable	**(14,213)**	**-**
Prepaid expenses	**5,213**	**19,827**
Accrued expenses	**(483,925)**	**162,520**
Accounts payable	**173,983**	**(115,678)**
Net cash used in operating activities	**(4,539,399)**	**(3,935,177)**
Cash flows used by investing activities		
Equipment purchases	**(38,734)**	**(257,772)**
Cash acquired in the business combination	**70,754**	-
Net cash provided by (used in) investing activities	**32,020**	**(257,772)**
Cash flows from financing activities:		
Proceeds from common stock issued for cash	**10,000,000**	**-**
Common stock issuance costs	**(1,477,836)**	**-**
Net cash provided by financing activities	**8,522,164**	**-**
Net increase (decrease) in cash equivalents	**4,014,785**	**(4,192,949)**
Cash and cash equivalents at beginning of period	**2,590,713**	**10,840,428**
Cash and cash equivalents at end of period	**$ 6,605,498**	**$ 6,647,479**
Supplemental non-cash financing activities		
Capital lease for equipment purchase	**-**	**111,095**
Stock consideration for Aquarius merger	**2,119,689**	**-**

The accompanying unaudited notes are an integral part of these financial statements

NOTE A - Company Information and History

[1] Corporate History

Matinas BioPharma Holdings Inc. ("Holdings") is a Delaware corporation formed in 2013. Holdings is the parent company of Matinas BioPharma, Inc., and Aquarius Biotechnologies, Inc., its operating subsidiaries ("BioPharma" or "the Company" or "we" or "our" or "us"). The Company is a development stage biopharmaceutical company with a focus on identifying and developing novel pharmaceutical products.

On July 11, 2013, and contemporaneously with the initial closing of a private placement in July and August 2013 described below, BioPharma entered into a Merger agreement whereby it become a wholly owned subsidiary of Holdings (the "Merger") to effect its recapitalization plan. In connection with the Merger, the stockholders of BioPharma become the stockholders of the Holdings and received an aggregate of 9,000,000 shares of Holdings common stock and warrants to purchase 1,000,000 shares of Holdings common stock. For financial reporting purposes the accounting acquirer is BioPharma and accordingly, the historical financial statements of BioPharma are the continuing financial statements of the entity. In July and August of 2013, the Company completed a private placement of common stock, under which the Company sold an aggregate of 15,000,000 shares of common stock and warrants to purchase an aggregate of 7,500,000 shares of common stock (the "2013 Private Placement"). On February 12, 2014, the Company's S-1 covering the resale of certain shares of our common stock was declared effective by the Securities and Exchange Commission (the "SEC").

On January 29, 2015, we completed the acquisition of Aquarius Biotechnologies Inc., (referred to as the "Aquarius Merger" throughout this document and which is discussed in more detail under (Note D), a New Jersey-based, early-stage pharmaceutical company focused on the development of differentiated and orally delivered therapeutics based on a proprietary, lipid-based, drug delivery platform called "cochleate delivery technology." Following the Aquarius Merger, we are a clinical-stage biopharmaceutical company focused on identifying and developing safe and effective broad spectrum antifungal and anti-bacterial therapeutics for the treatment of serious and life-threatening infections , using our innovative lipid-crystal nano-encapsulation drug delivery platform. See acquisition Note D for additional information on this transaction.

On April 10, 2015, we completed a private placement of common stock ("2015 Private Placement"), under which the Company sold an aggregate of 20,000,000 shares of common stock and warrants to purchase 20,000,000 shares of common stock (see Note E for additional details).

[2] Proprietary Products and Technology Portfolios

Our proprietary cochleate lipid-crystal nano-particle delivery technology platform, licensed from Rutgers University on an exclusive worldwide basis, is designed specifically for the targeted and safe delivery of orally bioavailable pharmaceuticals directly to the site of infection or inflammation. This license comprises a range of issued patents and patent applications, as well as the use of proprietary know-how with respect to the manufacturing and testing of products using this technology.

Our lead product candidate using the cochleate delivery technology is MAT2203, an oral formulation of the broad spectrum intravenous(IV)-delivered anti-fungal agent amphotericin B. MAT2203 is under development for serious fungal infections and a single-escalating-dose Phase 1 study with MAT2203 has been completed. The Company is developing MAT2203 in collaboration with the National Institute of Allergy and Infectious Diseases, or NIAID, of the National Institutes of Health, or NIH. We are developing a pipeline of targeted delivery formulations by applying our cochleate oral delivery technology to a potentially broad array of proven medications, including MAT2501. MAT2501 is an oral cochleate formulation of the broad spectrum intravenous (IV)-delivered aminoglycoside antibiotic called amikacin, which is most often used for treating severe, hospital-acquired infections, including Gram-negative bacterial infections. MAT2501 is currently in the formal toxicology testing stage.

We are also developing novel prescription-only pharmaceutical products with lipids as the active pharmaceutical ingredient. MAT9001 is under development for an initial indication for the treatment of highly elevated triglycerides, or severe hypertriglyceridemia. We submitted an IND to the Food and Drug Administration (FDA) for MAT9001 in October 2014 and a comparative PK/PD study with 42 enrolled patients was completed in June 2015. The study showed that MAT9001 demonstrated superiority versus Vascepa© (icosapent ethyl) in reducing lipids, triglycerides, apolipoproteins and PCSK9 levels. Finally, our MAT8800 discovery program is working to develop product candidates comprising omega-3 fatty acids for the treatment of non-alcoholic fatty liver disease, a condition for which there are currently no approved pharmacologic treatments available.

[3] Business Risks

The Company's operations are subject to a number of factors that can affect its operating results and financial condition. Such factors include, but are not limited to: the results of clinical testing and trial activities of the Company's products, the Company's ability to raise capital, any changes in the regulatory environment and FDA requirements for regulatory approval, the Company's ability to obtain regulatory approval to market its products, competition from products manufactured and sold or being developed by other companies, the price of, and demand for, Company products, the Company's ability to negotiate favorable licensing or other manufacturing and marketing agreements for its products, and other factors listed under the heading "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2014 and other reports that the Company files with the Securities and Exchange Commission.

NOTE B – Going Concern and Plan of Operations

The accompanying financial statements have been prepared in conformity with generally accepted accounting principles, which contemplate continuation of the Company as a going concern.

The Company has experienced net losses and negative cash flows from operations each period since its inception. Through June 30, 2015, the Company had an accumulated deficit of approximately $19.0 million. The Company's operations have been financed primarily through the sale of equity securities. The Company's net loss for the twelve months ended December 31, 2014 was approximately $10.2 million and $5.0 million for the six months ended June 30, 2015.

Assuming the Company obtains FDA approval for one or more of its product candidates, which the Company does not expect to receive until 2018 at the earliest, the Company expects that its expenses will increase if the Company reaches commercial launch. The Company also expects that its research and development expenses will continue to increase as it moves forward for other indications for its lead product candidates and diversifies its R&D portfolio. As a result, the Company expects to continue to incur substantial losses for the foreseeable future, and that these losses will be increasing.

The Company will need to secure additional capital in order to fund operations and to continue and complete its planned clinical and operational activities related to the product candidates and technologies that the Company recently acquired from Aquarius. The Company can provide no assurances that such additional financing will be available on favorable terms, or at all. Without such additional funding, the Company is anticipating that the existing cash balance on hand at June 30, 2015 would be sufficient to meet operating activities to March 2016. The Company's recurring losses from operations, and need for additional funding, raise substantial doubt about its ability to continue as a going concern, and as a result, the Company's independent registered public accounting firm included an explanatory paragraph in its report on the Company's financial statements as of and for the year ended December 31, 2014 with respect to this uncertainty.

NOTE C - Summary of Significant Accounting Policies

[1] Basis of Presentation

The accompanying unaudited consolidated financial statements include the consolidated accounts of Matinas BioPharma Holdings Inc. (Holdings) and its wholly owned subsidiaries, Matinas BioPharma, Inc. and Aquarius Biotechnologies, Inc. the operational subsidiaries of Holdings. The accompanying unaudited condensed consolidated financial statements have been prepared by the Company in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and reflect the operations of the Company and its wholly-owned subsidiary. All intercompany transactions have been eliminated in consolidation.

These interim unaudited financial statements do not include all the information and footnotes required by U.S. GAAP for annual financial statements and should be read in conjunction with the audited financial statements for the year ended December 31, 2014, which are included in the Form 10-K filed with the SEC on March 31, 2015. In the opinion of management, the interim unaudited financial statements reflect all normal recurring adjustments necessary to fairly state the Company's financial position and results of operations for the interim periods presented. The year-end consolidated balance sheet data presented for comparative purposes was derived from audited financial statements, but does not include all disclosures required by U.S. GAAP.

Operating results for the six months ended June 30, 2015 are not necessarily indicative of the results that may be expected for any future interim periods or for the year ending December 31, 2015. For further information, refer to the consolidated financial statements and notes thereto included in the Company's Form 10-K for the year ended December 31, 2014.

[2] Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

[3] Cash and Cash Equivalents

For purposes of financial statement presentation the Company considers all highly liquid instruments purchased with a maturity of three months or less to be cash equivalents to the extent the funds are not being held for investment purposes.

[4] Concentration of Credit Risk

The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents. Cash balances are maintained principally at one major U.S. financial institution and are insured by the Federal Deposit Insurance Corporation ("FDIC") up to regulatory limits. At various times throughout the period ended June 30, 2015, the Company's cash balances exceeded the FDIC insurance limit. The Company has not experienced any losses in such accounts.

[5] Fixed Assets

Fixed Assets are stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. The estimated useful lives of the Company's fixed assets range from three to ten years. Capitalized costs associated with leasehold improvements are depreciated over the lesser of the useful life of the asset or the remaining life of the lease.

[6] Income Taxes

Deferred taxes are provided on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carry forwards and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates.

The Company adopted the provisions of ASC 740-10 and has analyzed its filing positions in jurisdictions where it may be obligated to file returns. The Company believes that its income tax filing position and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position. Therefore, no reserves for uncertain income tax positions have been recorded. The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest or penalties as of June 30, 2015. In addition, future changes in unrecognized tax benefits will have no impact on the effective tax rate due to the existence of the valuation.

Since the Company incurred net operating losses in every tax year since inception.The 2012, 2013 and 2014 income tax returns are subject to examination and adjustments by the IRS for at least three years following the year in which the tax attributes are utilized.

[7] Stock-Based Compensation

The Company accounts for stock-based compensation to employees in conformity with the provisions of ASC Topic 718, " *Stock Based Compensation"*. Stock-based compensation to employees consist of stock options grants and restricted shares that are recognized in the statement of operations based on their fair values at the date of grant.

The Company accounts for equity instruments issued to non-employees in accordance with the provisions of ASC Topic 505, subtopic 50, *Equity-Based Payments to Non-Employees* based upon the fair-value of the underlying instrument. The equity instruments, consisting of stock options granted to consultants, are valued using the Black-Scholes valuation model. The measurement of stock-based compensation is subject to periodic adjustments as the underlying equity instruments vest and is recognized as an expense over the period which services are received.

The Company calculates the fair value of option grants utilizing the Black-Scholes pricing model, and estimates the fair value of the restricted stock based upon the estimated fair value or the common stock. The amount of stock-based compensation recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest. The authoritative guidance requires forfeitures to be estimated at the time stock options are granted and warrants are issued and revised. If necessary in subsequent periods, an adjustment will be booked if actual forfeitures differ from those estimated. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered stock option or warrant. The Company estimates forfeiture rates for all unvested awards when calculating the expense for the period. In estimating the forfeiture rate, the Company monitors both stock option and warrant exercises as well as employee and non-employee termination patterns.

The resulting stock-based compensation expense for both employee and non-employee awards is generally recognized on a straight-line basis over the requisite service period of the award.

[8] Fair Value Measurements

ASC 820 "Fair Value Measurements" defines fair value, establishes a framework for measuring fair value in GAAP and expands disclosures about fair value measurements. ASC 820 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. ASC 820 establishes a fair value hierarchy that distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy under ASC 820 are described below:

- Level 1 - Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

- Level 2 - Directly or indirectly observable inputs as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data from actively quoted markets for substantially the full term of the financial instrument.

- Level 3 - Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible as well as considers counterparty credit risk in its assessment of fair value.

The carrying amounts of cash and cash equivalents, other current assets, accounts payable, note payable and accrued expenses approximate fair value due to the short-term nature of these instruments.

[9] Basic Net Loss per Common Share

Basic net loss per common share is computed as net loss divided by the weighted average number of common shares outstanding for the period. Diluted net loss per common share is the same as basic net loss per common share because the Company incurred a net loss during each period presented, and the potentially dilutive securities from the assumed exercise of all outstanding stock options, warrants would have an antidilutive effect. As of June 30, 2015 and 2014 the number of shares issuable upon the exercise of stock options and warrants was 46,005,361 and 18,309,082, respectively.

[10] Revenue Recognition

The Company recognizes revenue from the NIH contracts when the specified performance milestone is achieved. The milestones are analyzed and approved on a monthly basis through progress reports submitted by the Company.

[11] Research and Development

Research and development costs are charged to operations as they are incurred. Legal fees and other direct costs incurred in obtaining and protecting patents are also expensed as incurred, due to the uncertainty with respect to future cash flows resulting from the patents and our included as part of General and Administrative expenses.

[12] Recent accounting pronouncements

In August 2014, the FASB issued ASU 2014-15, *"Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern."* This ASU describes how an entity should assess its ability to meet obligations and sets rules for how this information should be disclosed in the financial statements. The standard provides accounting guidance that will be used along with existing auditing standards. The ASU is effective for interim and annual periods beginning after December 15, 2016. Early application is permitted. The Corporation is in the process of evaluating the impact of this standard but does not expect this standard to have a material impact on the Corporation's consolidated financial position or results of operation.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"), which will supersede nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The Company is carefully evaluating its existing revenue recognition practices to determine whether any contracts in the scope of the guidance will be affected by the new requirements. The new standard was to be effective for the Company on January 1, 2017. Early adoption is not permitted. However, on April 1, 2015, the FASB proposed a deferral of the effective date of ASU 2014-09 by one year. This would make ASU 2014-09 effective for the Company on January 1, 2018 and would permit early adoption effective January 1, 2017. ASU 2014-09 allows for either "full retrospective" adoption, meaning the standard is applied to all of the periods presented, or "modified retrospective" adoption, meaning the standard is applied only to the most current period presented in the financial statements. On July 9, 2015, The FASB voted to approve the one-year deferral of the effective date and the early adoption provisions. The Company is currently evaluating the method of adoption and the potential impact the update may have on our financial position and results of operations.

[13] Business Combination

The Company accounts for acquisitions using the acquisition method of accounting which requires the recognition of tangible and identifiable intangible assets acquired and liabilities assumed at their estimated fair values as of the business combination date. The Company allocates any excess purchase price over the estimated fair value assigned to the net tangible and identifiable intangible assets acquired and liabilities assumed to goodwill. Transaction costs are expensed as incurred in general and administrative expenses. Results of operations and cash flows of acquired companies are included in the Company's operating results from the date of acquisition.

The Company's intangible assets are comprised of acquired in-process research and development, or IPR&D. The fair value of IPR&D acquired through a business combination is capitalized as an indefinite-lived intangible asset until the completion or abandonment of the related research and development activities. IPR&D is tested for impairment annually or when events or circumstances indicate that the fair value may be below the carrying value of the asset. There was no impairment for the six months ended June 30, 2015. If and when research and development is complete, the associated assets would then be amortized over their estimated useful lives.

[14] Goodwill

Goodwill, derived from the Company's acquisition of Aquarius, is reviewed for impairment on an annual basis or more frequently if events or circumstances indicate that it may be impaired. The Company's goodwill evaluation is based on both qualitative and quantitative assessments regarding the fair value of goodwill relative to its carrying value. In the event the Company determines that it is more likely than not the carrying value of the reporting unit is higher than its fair value, quantitative testing is performed comparing recorded values to estimated fair values. If impairment is present, the impairment loss is measured as the excess of the recorded goodwill over its implied fair value. The Company performs its annual evaluation of goodwill during the fourth quarter of each fiscal year. There was no impairment for the six months ended June 30, 2015.

[15] Contingent Consideration

Contingent consideration arising from the acquisition of Aquarius is included as part of the purchase price and is recognized at fair value as of the acquisition date. Subsequent to the acquisition date, the Company measures contingent consideration arrangements at fair value for each period until the contingency is resolved. These changes in fair value are recognized in our consolidated statements of operations. Changes in fair values reflect new information about the likelihood of the payment of the contingent consideration and the passage of time. There was no change in the estimated fair value of the contingent consideration during the six-month period ended, June 30, 2015.

[16] Subsequent Events:

As of the date of this filing, no subsequent events have occurred after June 30, 2015 that would have a material impact on the June 30, 2015 Financial Statements.

NOTE D – Acquisition of Aquarius Biotechnologies, Inc.

On January 29, 2015, we entered into the Merger Agreement with Aquarius, Saffron Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of ours (“Merger Sub”) and J. Carl Craft, as the stockholder representative. The merger contemplated by the Merger Agreement (the “Aquarius Merger”) became effective on January 29, 2015, following the satisfaction or waiver of the conditions described in the Merger Agreement, including approval of the transaction by 100% of Aquarius’ stockholders. Pursuant to the Aquarius Merger, the Merger Sub merged with and into Aquarius, with Aquarius surviving the merger as a wholly-owned subsidiary of ours.

Pursuant to the terms of the Merger Agreement, we were obligated to issue an aggregate of up to 5,000,000 shares of our Common Stock at closing, subject to adjustment as set forth in the Merger Agreement. At closing, we issued 4,608,020 shares (the “Closing Shares”) of our Common Stock as closing consideration. In addition, subject to our right of setoff for indemnification claims, we may issue up to an additional 3,000,000 shares (the “Additional Shares”) of our Common Stock upon the achievement of certain milestones. The milestone consideration consists of (i) 1,500,000 shares issuable upon the dosing of the first patient in a phase III trial sponsored by us for a product utilizing Aquarius’ proprietary cochleate delivery technology and (ii) 1,500,000 shares issuable upon FDA approval of the first NDA submitted by us for a product utilizing Aquarius’ proprietary cochleate delivery technology.

The transaction was accounted for as a business combination, and accordingly the Company has included the results of operations of Aquarius subsequent to the January 29, 2015 closing date. The transaction resulted in a significant amount of in-process research and development, goodwill and deferred tax liability on the balance sheet, as detailed below.

The acquisition-date fair value of the consideration transferred totaled $2,873,035 as of January 29, 2015 and consisted of the following items:

Fair value of 4,608,020 of common stock issued at a price per share of $0.46 as of January 29, 2015 the closing date of the merger.	$ 2,119,689
Fair value of potential Matinas common stock as contingent consideration that will be issued upon achieving certain future clinical milestone-(a)	422,609
Fair value of potential Matinas common stock as contingent consideration that will be issued upon achieving certain future regulatory milestone-(a)	330,737
Total consideration	$ 2,873,035

(a)-Reflects recognition of the estimated fair value of the contingent consideration payable with issuance of Matinas common stock upon achievement of certain future clinical and regulatory milestones, the achievement of which is uncertain. The fair value of the additional shares were established by assigning probabilities and projected dates of positive outcome for the milestones and valuing the future issuance of the shares by using the Black-Scholes options pricing model to account for the uncertainty in the future value of the shares. The value of the shares as derived using the options pricing model were then weighted based on the probability of achieving the milestones to determine the fair market value of the additional shares.

The preliminary allocation of the total purchase price is described below based on the estimated fair value of the assets acquired and liabilities assumed on the date of the acquisition. Management is in the process of refining this allocation.

Cash	$ 70,754
Contract/ Account receivable	45,644
Prepaid expenses and other current assets	5,084
Property and equipment, net	5,051
Other assets	700
In-process research and development-(b)	3,017,377
Total identifiable assets	3,144,610
Accounts payable	300,413
Notes payable-(d)	10,000
Accrued expenses	92,509
Total liabilities assumed	402,922
Net identifiable assets acquired	2,741,688
Goodwill-(c)	1,384,674
Deferred income taxes arising from basis differences of tax aspects of in-process research and development	(1,253,327)
Net assets acquired	$ 2,873,035

(b)-The fair value of the in-process research and development asset was estimated on the basis of its replacement cost as determined by a buildup of the costs incurred to develop the technology as it existed as of the acquisition date resulting in a fair value of $3,017,377. The fair value of other assets and liabilities approximate their book value.

(c)-The Company allocated the purchase price to the net tangible and intangible assets based upon their estimated fair values at the Merger date. The excess of the purchase price over the estimated fair values of the net tangible and intangible assets acquired has been recorded as goodwill including deferred tax liabilities resulting from the tax attributes of the in-process research and development (see Note C [14]).

(d)- Aquarius issued a note for a loan that was made to a related party. Interest on note is calculated using the applicable federal rate for midterm loans. Since the note has no specified repayment terms, it is considered a current liability.

NOTE E – 2015 Private Placement Funding

The Company had two closings for a private placement, on March 31, 2015 and April 10, 2015, respectively.

This private placement offered to accredited investors (the "Offering") of the Company's units (the "Units") at a price of $0.50 per Unit, with each Unit consisting of: (i) one share of the Company's common stock, par value $0.0001 per share ("Common Stock"), and (ii) a five-year warrant to purchase one share of Common Stock at an exercise price of $0.75 per share ("Warrants"). The Warrants are callable by the Company following the effectiveness of the registration statement covering the resale of the shares of Common Stock underlying the Warrants (which occurred on July 23, 2015) if the closing bid price for the Company's Common Stock is at or above $3.00 per share for the twenty (20) consecutive trading days immediately prior to such a call and provided that the registration statement is current at the time.

In connection with the Offering, the Company also entered into definitive subscription agreements (the "Subscription Agreements") with accredited investors (the "Investors") and issued an aggregate of 20,000,000 Units in the Offering, consisting of an aggregate of 20,000,000 shares of Common Stock and Warrants to purchase an aggregate 20,000,000 shares of Common Stock for aggregate gross proceeds to the Company of $10 million and net proceeds of approximately $8.5 million after paying expenses after deducting the placement agent fees described below and other estimated Offering expenses.

In addition, the Company entered into a Registration Rights Agreement with the Investors pursuant to which the Company has granted the Investors certain registration rights requiring the Company, within sixty (60) days following the final closing of the Offering, to file a registration statement with the Securities and Exchange Commission covering the resale by the Investors of the shares of Common Stock and shares of Common Stock underlying the Warrants issued in the Offering. The Subscription Agreements also contain customary representations, warranties and agreements.

The Company entered into a Placement Agency Agreement with Aegis Capital Corp. ("Aegis") pursuant to which Aegis acted as the Company's exclusive placement agent (the "Placement Agent") for the Offering. Immediately prior to the Offering, the Placement Agent and its affiliates beneficially owned an aggregate of more than 10% of our outstanding equity securities. In addition, Adam Stern, Head of Private Equity Banking at Aegis, is a member of the Company's board of directors. Pursuant to the terms of the Placement Agency Agreement, in connection with the Offering, the Company paid the Placement Agent an aggregate cash fee of $1,000,000 and non-accountable expense allowance of $300,000 through April 2015 and issued to the Placement Agent and its designees warrants (substantially similar to the Warrants) to purchase 2,000,000 shares of Common Stock at $0.50 per share and additional warrants to purchase 2,000,000 shares of Common Stock at $0.75 per share. In addition, the Company has agreed to engage the Placement Agent as our warrant solicitation agent in the event the Warrants are called for redemption and shall pay a warrant solicitation fee to the Placement Agent equal to five (5%) percent of the amount of funds solicited by the Placement Agent upon the exercise of the Warrants following such redemption.

Registration Rights Agreement

In connection with the 2015 Private Placement, the Company entered into a registration rights agreement with the investors in the 2015 Private Placement. Pursuant to the terms of the registration rights agreement, the Company was required to file with the SEC, no later than June 9, 2015 (the "Filing Deadline"), a registration statement covering the resale of the shares of common stock and the shares of common stock underlying the warrants sold in the 2015 Private Placement. The Company was also required to use commercially reasonable efforts to have the registration statement declared effective within one hundred and twenty (120) days after the registration statement is filed with the SEC (the "Effectiveness Deadline").The Registration Statement was filed on June 9, 2015 and declared effective on July 23, 2015. The Company is required to keep the registration statement continuously effective under the Securities Act of 1933, as amended (the "Securities Act"), for a period of one year from the date it is declared effective by the SEC or for such shorter period ending on the earlier of the date when all the registerable securities covered by the registration statement have been sold or such time as all of the registerable securities covered by the registration statement can be sold under Rule 144 without any volume limitations (the "Effectiveness Period"). If the Company does not maintain the effectiveness of the registration statement during the Effectiveness Period, subject to certain limitations and the right of the Company to suspend the use of the prospectus for certain periods, the Company shall pay to each holder of registrable securities purchased in 2015 Private Placement an amount in cash equal to half of one percent (0.5%) of such holder's investment amount, subject to a maximum penalty equal to six percent (6%) of such holder's investment amount, on every thirty (30) day anniversary of such failure to maintain the registration statement until such failure was cured; provided however that such liquidated damages shall be paid only with respect to registrable securities that cannot then be immediately resold in reliance on Rule 144.

NOTE F - Stock Holders Equity

Warrants

As of June 30, 2015, the Company had outstanding warrants to purchase an aggregate of 39,250,000 shares of common stock at exercise prices ranging from $0.50 to $2.00 per share.

The Warrants are exercisable immediately upon issuance and have a five-year term. The Warrants may be exercised at any time in whole or in part upon payment of the applicable exercise price until expiration of the Warrants. No fractional shares will be issued upon the exercise of the Warrants. All of the Warrants may be exercised on a "cashless" basis in certain circumstances. However, since all such cashless exercises are settled on a net share basis, the exercise price and the number of warrant shares purchasable upon the exercise of the Investor Warrants are subject to adjustment upon the occurrence of certain events, which include stock dividends, stock splits, combinations and reclassifications of the Company capital stock or similar "organic changes" to the equity structure of the Company. Accordingly, pursuant to ASC 815, the warrants are classified as equity in the accompanying statement of stockholder's Equity.

The Company may call the Warrants issued prior to March 31, 2015, other than the Placement Agent Warrants, at any time the common stock trades above $5.00 for twenty (20) consecutive days following the effectiveness of the registration statement covering the resale of the shares of common stock underlying the Warrants, provided that the Warrants can only be called if such registration statement is current and remains effective at the time of the call and provided further that the Company can only call the 2013 Investor Warrants for redemption, if it also calls all other warrants issued prior to March 31, 2015 for redemption on the terms described above. The Company may call the Warrants issued in the 2015 Private Placement, other than the Placement Agent Warrants, at any time the common stock trades above $3.00 for twenty (20) consecutive days following the effectiveness of the registration statement covering the resale of the shares of common stock underlying the Warrants, provided that the Warrants can only be called if such registration statement is current and remains effective at the time of the call.

The Placement Agent Warrants do not have a redemption feature. Such term is an embedded contingent feature and within the control of the Company, and does not require bifurcation.

A summary of equity warrants outstanding as of June 30, 2015 is presented below, all of which are fully vested.

	Shares
July 11, 2013 formation of Holdings, 4,000,000 warrants issued, terms 5 years, exercisable at $2.00, including 250,000 warrants sold to Mr. Adam Stern	4,000,000
July 11, 2013 recapitalization of Matinas BioPharma Inc. 1,000,000 warrants issued, terms 5 years, exercisable at $2.00	1,000,000
July and August 2013 completion of Private Placement, 7,500,000 warrants issued, terms 5 years, exercisable at $2.00	7,500,000
July 30, 2013 Placement Agent warrants issued as part of compensation for Private Placement. Terms 5 years, exercisable at $2.00	750,000
July 30, 2013 Placement Agent warrant issued as part of compensation for Private Placement. Terms 5 years exercisable at $1.00	1,500,000
July 30, 2013 500,000 warrants sold to Chairman of Board Mr. Herb Conrad for $20,000. Terms 5 years, exercisable at $2.00 per share	500,000
March 31, 2015 Warrants:	
March 31, 2015 first close of Private Placement, 9,875,0000 warrants issued, terms 5 years, exercisable at $0.75	9,875,000
March 31, 2015, Placement Agent Warrants, 987,500 issued, terms 5 years, exercisable at $0.75	987,500
March 31, 2015, Placement Agent Warrants, 987,500 issued, terms 5 years, exercisable at $ 0.50	987,500
April 10, 2015 Warrants:	
April 10, 2015 first close of Private Placement, 10,125,000 warrants issued, terms 5 years, exercisable at $0.75	10,125,000
April 10, 2015, Placement Agent Warrants, 1,012,500 issued, terms 5 years, exercisable at $0.75	1,012,500
April 10, 2015, Placement Agent Warrants, 1,012,500 issued, terms 5 years, exercisable at $0.50	1,012,500
Total Warrants Outstanding at June 30, 2015	39,250,000

NOTE G - Stock Based Compensation

In August 2013, the Company adopted the 2013 Equity Compensation Plan (the "Plan"), which provides for the granting of incentive stock options, nonqualified stock options, restricted stock units, performance units, and stock purchase rights. Options under the Plan may be granted at prices not less than 100% of the fair value of the shares on the date of grant as determined by the Board Committee. The Board Committee determines the period over which the options become exercisable subject to certain restrictions as defined in the Plan, with the current outstanding options generally vesting over three years. The term of the options is no longer than ten years. The Company currently has reserved 9,541,706 shares of common stock for issuance under the plan.

With the approval of the Board of Directors and majority Shareholders, effective May 8, 2014, the Plan was amended and restated. The amendment provides for an automatic increase in the number of shares of Common Stock available for issuance under the Plan each January (with Board approval), commencing January 1, 2015 in an amount up to four percent (4%) of the total number of shares of Common Stock outstanding on the preceding December 31st.

The Company recognized stock-based compensation expense in its consolidated statements of operations as follows ($ in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Research and Development	$ 86	$ 55	$ 288	$ 108
General and Administrative	315	219	446	440
Total	$ 401	$ 274	$ 734	$ 548

Stock Incentive Plans:
The following table contains information about the Company's stock plan at June 30, 2015:

	Awards Reserved for Issuance	Awards Issued	Awards Available for Grant
2013 Equity Compensation Plan	9,541,706	7,115,031*	2,426,675

* includes both stock grants and option grants

The following table summarizes the Company's stock option activity and related information for the period from December 31, 2014 to June 30, 2015:

	Number of Options	Weighted average Exercise Price
Outstanding at December 31, 2014	5,353,417	$ 1.05
Granted	1,630,000	-
Exercised	-	-
Forfeited	(113,195)	-
Canceled	(114,861)	$
Outstanding at June 30, 2015	6,755,361	$ 0.93

As of June 30, 2015, the number of vested shares underlying outstanding options was 3,353,520 at a weighted average exercise price of $1.02. The aggregate intrinsic value of in the-money options outstanding as of June 30, 2015 was $1.1 million. The aggregate intrinsic value is calculated as the difference between the Company's closing stock price of $1.00 on June 30, 2015, and the exercise price of options, multiplied by the number of options. As of June 30, 2015, there was $1.7 million of total unrecognized share-based compensation. Such costs are expected to be recognized over a weighted average period of approximately 1.2 years.

NOTE H - Commitments

Lease Space

On November 1, 2013, the Company entered into 7 year lease for office space in Bedminster, New Jersey which started June, 2014 at a monthly rent of $12,723, increasing to approximately $14,200 per month toward the end of the term. The Company records rent expense on a straight-line basis.

In December of 2014, the Company entered into an agreement to lease laboratory space for one year starting January 1, 2015 in Monmouth Junction, New Jersey at a monthly rent of $2,175.

Listed below is a summary of future lease rental payments as of June 30, 2015:

	Lease Commitments
2015	90,854
2016	157,321
2017	160,257
2018	163,193
2019 and beyond	406,147
Total future minimum lease payments	$ 977,772

Security Deposit

The Company was obligated to provide a security deposit of $300,000 to obtain lease space. Starting June 1, 2015, this deposit can be reduced by $100,000 on an annual basis, down to $50,000, as long as the Company makes timely rental payments. The Company has applied to reduce this deposit and expects the reduction to occur in the third quarter of 2015.

Item 2. Management's Discussion And Analysis Of Financial Condition And Results Of Operations

The following discussion and analysis of our financial condition and results of operations should be read together with our financial statements and the related notes and the other financial information included elsewhere in this Quarterly Report. This discussion 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 various factors, including those discussed below and elsewhere in this Quarterly Report, in our Annual Report on Form 10-K for the year ended December 31, 2014 and in other reports we file with the Securities and Exchange Commission, particularly those under "Risk Factors." Dollars in tabular format are presented in thousands, except per share data, or otherwise indicated.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report on Form 10-Q contains forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 under Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as "may," "can," "anticipate," "assume," "should," "indicate," "would," "believe," "contemplate," "expect," "seek," "estimate," "continue," "plan," "point to," "project," "predict," "could," "intend," "target," "potential" and other similar words and expressions of the future.

There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our ability to raise additional capital to fund our operations and to develop our product candidates;
- our limited operating history;
- our history of operating losses in each year since inception and the expectation that we will continue to incur operating losses for the foreseeable future;
- our dependence on product candidates, which are still in an early development stage;
- our ability to integrate our recent acquisition of Aquarius Biotechnologies, Inc.;
- our reliance on proprietary cochleate drug delivery technology, which is licensed to us by Rutgers University;
- our ability to manufacture GMP batches of our product candidates which are required for pre-clinical and clinical trials and, subsequently, our ability to manufacture commercial quantities;
- our ability to complete required clinical trials for our lead product candidate and other product candidates and obtain approval from the FDA or other regulatory agents in different jurisdictions;
- our lack of a sales and marketing organization and our ability to commercialize products, if we obtain regulatory approval;
- our dependence on third-parties, including third-parties to manufacture and third-party CROs to conduct our clinical trials;
- our ability to maintain or protect the validity of our patents and other intellectual property;
- our ability to retain key executive members;
- our ability to internally develop new inventions and intellectual property;
- interpretations of current laws and the passages of future laws;
- acceptance of our business model by investors;

- the accuracy of our estimates regarding expenses and capital requirements;

- our ability to adequately support growth; and

- the factors listed under the headings "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2014, elsewhere in this report and other reports that we file with the Securities and Exchange Commission.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this report or the date of the document incorporated by reference into this report. We have no obligation, and expressly disclaim any obligation, to update, revise or correct any of the forward-looking statements, whether as a result of new information, future events or otherwise. We have expressed our expectations, beliefs and projections in good faith and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs or projections will result or be achieved or accomplished.

Overview

On January 29, 2015, we completed the acquisition of Aquarius Biotechnologies, Inc., (referred to as the "Aquarius Merger" throughout this document and which is discussed in more detail under Footnote D of the Financial Statements), a privately held, New Jersey-based, early-stage pharmaceutical company focused on the development of differentiated and orally delivered therapeutics based on a proprietary, lipid-based, drug delivery platform called "cochleate delivery technology." Following the Aquarius Merger, we are a clinical-stage biopharmaceutical company focused on identifying and developing safe and effective broad spectrum antifungal and anti-bacterial therapeutics for the treatment of serious and life-threatening infections, using our innovative lipid-crystal nano-encapsulation drug delivery cochleate platform.

Our proprietary cochleate lipid-crystal nano-particle delivery technology platform, licensed from Rutgers University on an exclusive worldwide basis, is designed specifically for the targeted and safe delivery of orally bioavailable pharmaceuticals directly to the site of infection or inflammation. We believe this platform represents a significant innovation that may result in meaningful improvements to currently available therapies to treat numerous life-threatening diseases, including serious fungal infections and multi-drug resistant, or MDR, gram-negative bacterial infections.

Our lead product candidate using the cochleate delivery technology is MAT2203, an oral formulation of the broad spectrum intravenous(IV)-delivered anti-fungal agent amphotericin B. MAT2203 is under development for serious fungal infections and a single-escalating-dose Phase 1 study with MAT2203 has been completed. We expect to commence a Phase 2a study of MAT2203 in collaboration with the National Institute of Allergy and Infectious Diseases, or NIAID, of the National Institutes of Health, or NIH, in 2015, with initial results expected in the first quarter of 2016 or earlier under certain circumstances. We are developing a pipeline of targeted delivery formulations by applying our cochleate oral delivery technology to a potentially broad array of proven medications, including MAT2501. MAT2501 is an oral cochleate formulation of the broad spectrum intravenous (IV)-delivered aminoglycoside antibiotic called amikacin, which is most often used for treating severe, hospital-acquired infections, including Gram-negative bacterial infections. MAT2501 is currently in the formal toxicology testing stage, expected to lead to an IND filing in late 2015.

We are also developing the lipid-based product MAT9001 with an initial indication for the treatment of highly elevated triglycerides, or severe hypertriglyceridemia. Finally, our MAT8800 discovery program is seeking to identify and develop product candidates comprising omega-3 fatty acids for the treatment of non-alcoholic fatty liver disease for which there are currently no approved pharmacologic treatments available.

We are a development stage company and did not generate any revenues prior to the acquisition of Aquarius. We have never been profitable. Our net loss was approximately $5.0 million and $4.6 million for the six months ended June 30, 2015 and 2014, respectively. As of June 30, 2015, we had an accumulated deficit of approximately $19.0 million. We expect to incur significant expenses and increasing operating losses for the foreseeable future. We expect our expenses to increase significantly in connection with our ongoing activities to develop, seek regulatory approval and commercialization of our product candidates. Furthermore, we expect to incur additional costs associated with operating as a public company, including compliance with the requirements of Section 404 of the Sarbanes-Oxley Act. Accordingly, we will need additional financing to support our continuing operations. We will seek to fund our operations through public or private equity or debt financings or other sources, which may include collaborations with third parties. Adequate additional financing may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed would impact our going concern and would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenues to achieve profitability, and we may never do so.

Acquisition of Aquarius Biotechnologies

On January 29, 2015, we entered into the Merger Agreement with Aquarius, Saffron Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of ours ("Merger Sub") and J. Carl Craft, as the stockholder representative. The merger contemplated by the Merger Agreement (the "Aquarius Merger") became effective on January 29, 2015, following the satisfaction or waiver of the conditions described in the Merger Agreement, including approval of the transaction by 100% of Aquarius' stockholders. Pursuant to the Aquarius Merger, the Merger Sub merged with and into Aquarius, with Aquarius surviving the merger as a wholly-owned subsidiary of ours.

Pursuant to the terms of the Merger Agreement, we were obligated to issue an aggregate of up to 5,000,000 shares of our Common Stock at closing, subject to adjustment as set forth in the Merger Agreement. At closing, we issued 4,608,020 shares (the "Closing Shares") of our Common Stock as closing consideration. In addition, subject to our right of setoff for indemnification claims, we may issue up to an additional 3,000,000 shares (the "Additional Shares") of our Common Stock upon the achievement of certain milestones. The milestone consideration consists of (i) 1,500,000 shares issuable upon the dosing of the first patient in a phase III trial sponsored by us for a product utilizing Aquarius' proprietary cochleate delivery technology and (ii) 1,500,000 shares issuable upon FDA approval of the first NDA submitted by us for a product utilizing Aquarius' proprietary cochleate delivery technology.

Additional expenses of approximately $400,000 were incurred to complete the transaction and we expect that for the remainder of 2015 that the transaction will have a minimal impact on our liquidity.

The transaction was accounted for as a business combination, and accordingly the Company has included the results of operations of Aquarius subsequent to the January 29, 2015. The transaction resulted in a significant amount of in-process research and development, goodwill and deferred tax liability on the balance sheet. The deferred taxes recognize the difference in tax and book basis thereof. In addition, a contingent consideration liability was recorded at its estimated fair value based upon expectations of future payout and no change was recognized in the current quarter.

Financial Operations Overview

Revenue

In the six months ended June 30, 2015, we generated Contract Research Revenue in the amount of $135,000 versus zero in the same period of 2014. This revenue is directly related to grants which our subsidiary Aquarius has with the NIH. These grants are related to work being done on MAT2203 and MAT2501. We expect that this contract revenue will be approximately level throughout 2015.

Research and Development Expenses

Research and development expenses consist of costs incurred for the development of MAT9001, the acquired Aquarius products in development and identification of product candidates under our MAT8800 discovery program, which include:

· the cost of conducting pre-clinical work;

· the cost of acquiring, developing and manufacturing pre-clinical trial materials;

· costs for consultants and contractors associated with Chemistry and Manufacturing Controls (CMC), pre-clinical activities and regulatory operations;

· expenses incurred under agreements with contract research organizations, or CROs, that conduct our pre-clinical trials; and

· employee-related expenses, including salaries and stock-based compensation expense for those employees involved in the research and development process.

The table below summarizes our direct research and development expenses for six months ended June 30, 2015 and 2014. Our direct research and development expenses consist principally of external costs, such as fees paid to contractors, consultants, analytical laboratories and CROs, in connection with our development work. We typically use our employee and infrastructure resources for management of our outside vendors, oversight of product quality and development of new processes and products.

	Six Months Ended June 30,	
	2015	2014
	($ in thousands)	
Direct research and development expenses:		
Manufacturing process development	$ 249	$ 740
Preclinical trails	157	142
Clinical Development	1,108	73
Regulatory	107	218
Internal staffing, Overhead and Other	1,182	1,019
Total research and development	$ 2,803	$ 2,192

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage human trials.

We filed our IND for MAT9001 with the FDA on October 20, 2014. We started the first human study of MAT9001 during the fourth quarter of 2014. As noted above, on January 29, 2015 we acquired Aquarius. With this acquisition, we will be moving forward on developing the product candidates and technology we acquired from Aquarius, including MAT2203 and MAT2501. During the six months ended June 30, 2015, the increase in Clinical Development expenses is directly related to the human trials for MAT9001 and cost associated with MAT2203 and MAT2501. We expect our R&D expenses will increase as we continue to develop our product candidates.

General and Administrative Expenses

General and administrative expenses consist principally of salaries and related costs for personnel in executive and finance functions. Other general and administrative expenses include facility costs, communication expenses, and professional fees for legal, patent review, consulting and accounting services.

We anticipate that our general and administrative expenses will increase in 2015 due to many factors, the most significant of which include:

· increased staff personnel as we expand our operations to prepare for and execute upon our research and development programs; and

- increased expenses related to becoming a publicly-traded company, including expenses in support of compliance with the requirements of Section 404 of the Sarbanes-Oxley Act.

Other (Income)/Expense, net

Other income/expense, net is largely comprised of interest income/ (expense) and franchise taxes.

Application of Critical Accounting Policies

Our critical accounting policies are more fully described in Note C to our financial statements included in our annual report on Form 10-K for the year ended December 31, 2014 and except for the addition of the revenue recognition policy set forth below, there have been no material changes to our critical accounting policies.

The Company recognizes revenue from the NIH contracts when the specified performance milestone is achieved. The milestones are analyzed and approved on a monthly basis through progress reports submitted by the Company.

Stock-Based Compensation

Option Grants

We account for all share-based compensation payments issued to employees, directors, and non-employees using an option pricing model for estimating fair value. Accordingly, share-based compensation expense is measured based on the estimated fair value of the awards on the date of grant, net of forfeitures. We recognize compensation expense for the portion of the award that is ultimately expected to vest over the period during which the recipient renders the required services to us using the straight-line single option method. In accordance with authoritative guidance, we re-measure the fair value of non-employee share-based awards as the awards vest, and recognize the resulting value, if any, as expense during the period the related services are rendered.

Significant Factors, Assumptions and Methodologies Used in Determining Fair Value

We apply the fair value recognition provisions of ASC Topic 718, Compensation-Stock Compensation, which we refer to as ASC 718. Determining the amount of share-based compensation to be recorded required us to develop estimates of the fair value of stock options as of their grant date before operating as a public company. We recognize share-based compensation expense ratably over the requisite service period, which in most cases is the vesting period of the award. Calculating the fair value of share-based awards requires that we make highly subjective assumptions.

We use the Black-Scholes option pricing model to value our stock option awards. Use of this valuation methodology requires that we make assumptions as to the volatility of our common stock, the expected term of our stock options, and the risk free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield. As a publicly-held company with a limited operating history, we utilized data from a representative group of companies to estimate expected stock price volatility. We selected companies from the biopharmaceutical industry with similar characteristics to us, including those in the early stage of product development and with a therapeutic focus.

We use the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term of stock option grants to employees as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term of stock options granted to employees.

We recognize compensation expense for stock option awards on a straight-line basis over the applicable service period of the award. The service period is generally the vesting period, with the exception of options granted subject to a consulting agreement, whereby the option vesting period and the service period defined pursuant to the terms of the consulting agreement may be different. Stock options issued to consultants are revalued quarterly until fully vested, with any change in fair value expensed. For awards subject to performance conditions, the Company recognizes stock-based compensation expense using the accelerated attribution recognition method when it is probable that the performance condition will be achieved. The following range of assumptions were used to value options granted for the six months ended June 30, 2015 and 2014 and to re-measure stock options issued to consultants.

	For the six months ended June 30,	
	2015	**2014**
Volatility	91.1%	71.4%
Risk-free interest rate	1.34% - 1.85%	1.87%1.92%
Dividend yield	0.0%	0.0%
Expected life	4.29 – 6.0 years	5.29 - 6.0 years

The expected term of stock options represents the weighted average period the stock options are expected to remain outstanding and is based on the options vesting term, contractual terms, and industry peers as we did not have sufficient historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior.

The expected stock price volatility assumption was determined by examining the historical volatilities for industry peers, as we did not have any trading history for our common stock. We will continue to analyze the historical stock price volatility and expected term assumptions as more historical data for our common stock becomes available. The risk-free interest rate assumption is based on the U.S. Treasury instruments whose term was consistent with the expected term of our stock options. The expected dividend assumption is based on our history and expectation of dividend payouts.

We have never paid dividends on our common stock and do not anticipate paying dividends on our common stock in the foreseeable future. Accordingly, we have assumed no dividend yield for purposes of estimating the fair value of our share-based compensation.

We are also required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from our estimates. We use historical data to estimate pre-vesting option forfeitures and record share-based compensation expense only for those awards that are expected to vest. To the extent that actual forfeitures differ from our estimates, the difference is recorded as a cumulative adjustment in the period the estimates were revised.

The closing price of our stock (on the date of a grant) is used as an input in the measurement of stock-based compensation.

Share-based compensation expense associated with stock options and restricted stock granted to employees and non-employees for the first half was $734 thousand for 2015 and $548 thousand for 2014. As of June 30, 2015, we had $1.7 million of total unrecognized share-based compensation expense, which we expect to recognize over a weighted-average remaining vesting period of approximately 1.7 years. In future periods, our share-based compensation expense is expected to increase as a result of recognizing our existing unrecognized share-based compensation for awards that will vest and as we issue additional share-based awards to attract and retain our employees.

We have included stock based compensation as part of our operating expenses in our statement of operation for the six months ended June 30, 2015 and 2014 ($ in thousands) as follows:

	Six months ended June 30,	
	2015	2014
General and administrative	$ 446	$ 440
Research and development	288	108
Total	$ 734	$ 548

The 2013 Equity Compensation Plan, or the Plan, is the only active plan pursuant to which options to acquire common stock or restricted stock awards can be granted and are currently outstanding. As of June 30, 2015, there were 2,426,675 shares of our common stock available for issuance under the Plan.

As of June 30, 2015, we had outstanding options to purchase an aggregate of 6,755,361 shares of our common stock with a weighted average exercise price of $0.93. The computation of the aggregate intrinsic value is based upon the difference between the original exercise price of the options and our estimate of the deemed fair value of our common stock at June 30, 2015. The total intrinsic value of options outstanding and vested at June 30, 2015 was $1.1 million for outstanding and $ 0.3 million for vested.

Emerging Growth Company Status

Under Section 107(b) of the Jumpstart Our Business Startups Act of 2012, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Results of Operations

Comparison of Three Months Ended June 30, 2015 and 2014.

	Three Months Ended June 30, 2015	2014	Increase (Decrease)
	(In thousands)		
Revenues	$ 77	-	77
Expenses:			
Research and development	$ 1,355	$ 1,118	$ 237
General and administrative	1,124	1,302	(178)
Operating Expenses	$ 2,479	$ 2,420	$ 59

Revenues. Revenue for the three months ended June 30, 2015 was $77 thousand, compared to $0 for the three months ended June 30, 2014. Revenue consists of revenue earned under the National Institute of Health grants for MAT2203 and MAT2501.

Research and Development expenses. Research and Development expense for the three months ended June 30, 2015 increased $237 thousand versus the prior year period. This increase is primarily due to an increase in clinical studies conducted for MAT9001, increases in lab supplies and stock based compensation.

General and Administrative expenses. General and Administrative expenses for the three month period ending June 30, 2015 were $1.1 million, a decrease of approximately $0.2 million from the prior year period. This decrease is primarily due to decrease in costs related to acquisition of marketing data and decreases in the professional (legal and accounting) fees and consulting costs, offset by an increase in insurance premiums.

Comparison of Six Months Ended June 30, 2015 and 2014.

	Six Months Ended June 30, 2015	2014	Increase (Decrease)
	(In thousands)		
Revenues	$ 135	-	135
Expenses:			
Research and development	$ 2,803	$ 2,192	$ 611
General and administrative	2,302	2,357	(55)
Operating Expenses	$ 5,105	$ 4,549	$ 556

Revenues. Revenue for the six months ended June 30, 2015 was $135 thousand, compared to $0 for the six months ended June 30, 2014. Revenue consists of revenue earned under the National Institute of Health grants for MAT2203 and MAT2501.

Research and Development expenses. Research and Development expense for the six months ended June 30, 2015 increased $611 thousand versus the prior year period. This increase is primarily due to an increase in clinical studies conducted for MAT9001, increases in lab supplies and stock based compensation.

General and Administrative expenses. General and Administrative expenses for the six month period ending June 30, 2015 were $ 2.3 million, a decrease of approximately $0.1 million from the prior year period. This decrease is primarily due to decrease in costs related to acquisition of marketing data, stock compensation and decreases in the professional (legal and accounting) fees, offset by increases in insurance premiums.

Sources of Liquidity

We have funded our operations since inception through private placements of our equity instruments, most recently through unit offerings of our common stock and common stock warrants. As of June 30, 2015, we have raised approximately $22 million in net proceeds from sales of our equity securities.

As of June 30, 2015, we had cash totaling $6.6 million.

2013 Private Placement

In July and August 2013, we completed the 2013 Private Placement, under which we sold an aggregate of 15,000,000 shares of our common stock and warrants to purchase an aggregate of 7,500,000 shares of our common stock with an exercise price of $2.00 per share, which warrants are exercisable for a period of five years from the initial closing date. Aegis Capital Corp. acted as the Placement Agent for the 2013 Private Placement (the “Placement Agent”). The gross proceeds to us from the 2013 Private Placement were $15.0 million.

Warrant Private Placement

Contemporaneously with the initial closing of the 2013 Private Placement, we sold 500,000 Private Placement Warrants to Herbert Conrad, our chairman of the board, for a purchase price of $0.04 per warrant. The Private Placement Warrants have an exercise price of $2.00 per share. The Private Placement Warrants were offered to all preferred stockholders of Matinas BioPharma prior to the 2013 Merger, and only Mr. Conrad exercised the offer.

2015 Private Placement

In March and April 2015, we completed the 2015 Private Placement, under which we sold an aggregate of 20,000,000 shares of our common stock and warrants to purchase an aggregate of 20,000,000 shares of our common stock at an exercise price of $0.75 per share. The gross proceeds to us from the 2015 Private Placement were $ 10.0 million (see Financial Statement Footnote E, for additional information).

Cash Flows

The following table sets forth the primary sources and uses of cash for each of the period set forth below:

	Six Months Ended June 30,	
	2015	**2014**
Cash used by operating activities	$ (4,539)	$ (3,935)
Cash provided by (used in) investing activities	32	(258)
Cash provided by financing activities	8,522	0
Net increase/(decrease) in cash and cash equivalents	$ 4,015	$ (4,193)

Operating Activities

We have incurred significant costs in the area of research and development, including manufacturing, analytical, regulatory and clinical development costs. Net cash used in operating activities was approximately $4.5 million for the six months ended June 30, 2015 and $3.9 million for the six months ended June 30, 2014. We expect that our monthly burn rate will be lower for the remainder of 2015 due to the completion of our MAT9001 human trial.

Investing Activities

Net cash provided by investing activities was $32,000 for the six months ended June 30, 2015 and $258,000 used for the six months ended June 30, 2014. The cash provided by investing activities for the six months ended June 30, 2015 was primarily the result of cash acquired in the acquisition of Aquarius. The cash used in investing activities was primarily for the purchase of lab equipment.

Financing Activities

Net cash provided by financing activities was $8.5 million for the six months ended June 30, 2015. The cash provided by financing activities for the six months ended June 30, 2015 was due to net proceeds received from the closing of our 2015 Private Placement.

Funding Requirements and Other Liquidity Matters

All of our product candidates are still in the development or discovery stage. We expect to continue to incur significant expenses in order to advance the development of our pipeline, resulting in significant operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- initiate the planned Phase 2a clinical study of MAT2203, our lead product candidate, as well as additional studies needed for regulatory approval;
- continue development of MAT2501 and potentially initiate the development of additional cochleate lipid-crystal nano-particle products;
- interact with regulatory authorities and seek enhanced regulatory status, such as “QIDP”, “Orphan Drug” and “Break-through” status;
- further advance the MAT9001 and MAT8800 programs;
- require the manufacture of larger quantities of our product candidates for clinical development and potentially commercialization;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, quality control and scientific personnel;
- may seek regulatory approvals for any product candidates that successfully complete clinical trials;
- potentially establish a sales, marketing and distribution infrastructure in the future to commercialize any products for which we may obtain regulatory approval, and;
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts and personnel and infrastructure necessary to help us comply with our obligations as a public company.

We expect that our existing cash and cash equivalents will only be sufficient to fund our operating expenses and capital expenditures requirements to March 2016. We will need additional financing to fund our operating expenses and to conduct our intended clinical development programs, file additional patent applications and enhance our intellectual property position for lead compounds, validate the manufacturing processes at our various suppliers and prepare for submission of an NDA for our product candidates, and conduct additional preclinical work in order to identify product candidates under our MAT8800 discovery program. We have based this estimate on assumptions that may prove to be wrong in the future, and we may use our available capital resources sooner than we currently expect.

Until the time we can generate substantial product revenue from commercializing any of our product candidates, if ever, we expect to finance our cash needs through a combination of private and public equity offerings, debt financings, collaborations, strategic alliances and/or licensing arrangements. We do not have any committed external source of funds other than the NIH grants. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and could increase our expenses and require that our assets secure such debt. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with pharmaceutical partners, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market any product candidates under our development that we would otherwise prefer to develop and market ourselves.

Contractual Obligations and Commitments

On November 1, 2013, we entered into a seven year lease for office space in Bedminster, New Jersey. The commencement date and first obligation to pay rent was June 2014, with annual rent beginning at approximately $152,000 per year, increasing to $174,000 in the final year.

In December 2014, the Company entered into an agreement to lease laboratory space for one year commencing January 1, 2015 in Monmouth Junction, New Jersey. Base rent for the year ended December 31, 2015 will be approximately $26,000.

We may enter into contracts in the normal course of business with clinical research organizations for clinical trials and clinical supply manufacturing and with vendors for preclinical research studies, research supplies and other services and products for operating purposes. These contracts generally provide for termination on notice, and therefore we believe that our non-cancelable obligations under these agreements are not material.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred to as structured finance or special purpose entities, established for the purpose of facilitating financing transactions that are not required to be reflected on our balance sheets.

RECENT ACCOUNTING PRONOUNCEMENTS

Refer to Note (c)(12), "Significant Accounting Policies," in the accompanying notes to the condensed consolidated financial statements for a discussion of recent accounting pronouncements.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

Item 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures.

As of June 30, 2015, we evaluated, with the participation of our principal executive officer and principal financial officer, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective at the reasonable assurance level as of June 30, 2015. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within time periods specified by the SEC's rules and forms, and that such information is accumulated and communicated to our management, including principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, but not absolute, assurance that the objectives of the disclosure controls and procedures are met. The design of any disclosure control and procedure also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Changes in internal control over financial reporting.

There were no changes in our internal control over financial reporting during the three months ended June 30, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 1. **LEGAL PROCEEDINGS**

None.

Item 1A. **Risk Factors**

Except as set forth below, during the six months ended June 30, 2015, there were no material changes from the risk factors set forth under Part I, Item 1A., "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014. You should carefully consider these factors in addition to the other information set forth in this report which could materially affect our business, financial condition or future results. The risks and uncertainties described in this report and in our Annual Report on Form 10-K for the year ended December 31, 2014, as well as other reports and statements that we file with the SEC, are not the only risks and uncertainties facing us. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also have a material adverse effect on our financial position, results of operations or cash flows.

We will need to raise significant additional capital to support our development and commercialization efforts.

We believe that our cash and cash equivalents, will be sufficient to fund our operations and capital expenditure requirements approximately into March, 2016. We need to seek additional equity or debt financing to complete our intended clinical programs for MAT2203 and MAT2501, file additional patent applications and enhance our intellectual property position, validate the manufacturing processes at our various suppliers and prepare for submission of NDA's.

We do not currently have any arrangements or credit facilities in place as a source of funds, and there can be no assurance that we will be able to raise sufficient additional capital on acceptable terms, or at all. We may seek additional capital through a combination of private and public equity offerings, debt financings, strategic collaborations and/or licensing arrangements. Debt financing, if obtained, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends, could increase our expenses and require that our assets secure such debt. Moreover, any debt we incur must be repaid regardless of our operating results. Equity financing, if obtained, could result in dilution to our then existing stockholders and/or require such stockholders to waive certain rights and preferences or otherwise adversely affect their rights. If such financing is not available on satisfactory terms, or is not available at all, we may be required to delay, scale back or eliminate the development of business opportunities and our operations and financial condition may be materially adversely affected. In addition, if we are unable to secure sufficient capital to fund our operations, we might have to enter into strategic collaborations that could require us to share commercial rights with third parties in ways that we currently do not intend or on terms that may not be favorable to us.

Item 2. **UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF**

Not applicable.

Item 3. **DEFAULTS UNDER SENIOR SECURITIES**

None.

Item 4. **MINE SAFETY DISCLOSURES**

Not applicable.

Item 5. **OTHER INFORMATION**

None.

Item 6. **EXHIBITS**

See the Exhibit Index following the signature page to this Quarterly Report on Form 10-Q for a list of exhibits filed or furnished with this report, which Exhibit Index is incorporated herein by reference.

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.

MATINAS BIOPHARMA HOLDINGS, INC.

BY:

/s/ Roelof Rongen

Dated: August 13, 2015

Roelof Rongen
President and Chief Executive Officer
(Principal Executive Officer)

/s/ Gary Gaglione

Dated: August 13, 2015

Gary Gaglione
Interim Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

2.1	Agreement and Plan of Merger (the "Merger Agreement") with Aquarius Biotechnologies, Inc., a Delaware corporation ("Aquarius"), Saffron Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of the Company ("Merger Sub") and J. Carl Craft, as the stockholder representative (incorporated herein by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed with the SEC on January 30, 2015).
3.1	Certificate of Incorporation of the Company, incorporated by reference to Exhibit 3.1 of the Company's Registration Statement on Form S-1 (Reg. No. 333-193455), filed February 7, 2014 with the Securities and Exchange Commission.
3.2	Bylaws of the Company, incorporated by reference to Exhibit 3.2 of the Company's Registration Statement on Form S-1 (Reg. No. 333-193455), filed February 7, 2014 with the Securities and Exchange Commission.
4.1	Form of 2015 Investor Warrant. (incorporated herein by reference to Exhibit 4.4 of the Company's Registration Statement on Form S-1 (Reg. No. 333-193455), filed with the SEC on April 17, 2015).
4.2	Form of 2015 Placement Agent Warrant. (incorporated herein by reference to Exhibit 4.5 of the Company's Registration Statement on Form S-1 (Reg. No. 333-193455), filed with the SEC on April 17, 2015).
10.4	Form of Subscription Agreement for the Company's 2015 private placement. (incorporated herein by reference to Exhibit 10.21 of the Company's Registration Statement on Form S-1 (Reg. No. 333-193455), filed with the SEC on April 17, 2015).
*31.1	Certification of President and Chief Executive Officer
*31.2	Certification of Interim Chief Financial Officer
**32.1	Section 1350 Certifications
*101.1	XBRL Instance Document.
*101.2	XBRL Taxonomy Extension Schema Document.
*101.3	XBRL Taxonomy Extension Calculation Linkbase Document.
*101.4	XBRL Taxonomy Extension Definition Linkbase Document.
*101.5	XBRL Taxonomy Extension Label Linkbase Document.
*101.6	XBRL Taxonomy Extension Presentation Linkbase Document.

* Filed herewith.
** Furnished herewith.

Exhibit 31.1

CERTIFICATION

I, Roelof Rongen, certify that:

1. I have reviewed this report on Form 10-Q of Matinas BioPharma Holdings, 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)) 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) [omitted]

   (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.

Date: August 13, 2015

By /s/ Roelof Rongen
Name: Roelof Rongen
Title: President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Gary Gaglione, certify that:

1. I have reviewed this report on Form 10-Q of Matinas BioPharma Holdings, 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)) 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) [omitted]

   (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.

Date: August 13, 2015

By: /s/ Gary Gaglione
Name: Gary Gaglione
Title: Interim Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

SECTION 1350 CERTIFICATIONS

Pursuant to 18 U.S.C. §1350 as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, the undersigned officers of Matinas BioPharma Holdings, Inc. (the "Company") hereby certify that to their knowledge and in their respective capacities that the Company's quarterly report on Form 10-Q to which this certification is attached (the "Report"), fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 13, 2015

By: /s/ Roelof Rongen
Name: Roelof Rongen
Title: President and Chief Executive Officer

Date: August 13, 2015

By: /s/ Gary Gaglione
Name: Gary Gaglione
Title: Interim Chief Financial Officer
(Principal Financial and Accounting Officer)

This certification shall not be deemed "filed" for any purpose, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act. A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Matinas BioPharma Holdings, Inc. and will be retained by Matinas BioPharma Holdings, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.