

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

(Mark One)

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

For the quarterly period ended **March 31, 2016**

or

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

For the transition period from _____ to _____

Commission File Number: **001-37758**

MOLECULIN BIOTECH, INC.
(Exact name of registrant as specified in its charter)

Delaware

(State or Other Jurisdiction of
Incorporation or Organization)

47-4671997

(I.R.S. Employer
Identification No.)

2575 West Belfort, Suite 333, Houston, TX

(Address of Principal Executive Offices)

77054

(Zip Code)

(713) 300-5160

(Registrant's Telephone Number, Including Area Code)

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

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.

Large accelerated filer Accelerated filer
Non-accelerated filer Smaller reporting company
(Do not check if a 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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of June 13, 2016: 11,228,403

Moleculin Biotech, Inc.
FORM 10-Q
For period ended March 31, 2016

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Moleculin Biotech, Inc.
Balance Sheets
(Unaudited)

	<u>March 31,</u> <u>2016</u>	<u>December 31,</u> <u>2015</u>
Assets		
Current Assets:		
Cash and cash equivalents	\$ 259,663	\$ 28,091
Note receivable - Moleculin, LLC	30,000	-
Total Assets	<u>\$ 289,663</u>	<u>\$ 28,091</u>
Liabilities and Stockholders' Deficit		
Current Liabilities:		
Accounts payable and accrued expenses	\$ 363,003	\$ 322,790
Convertible notes payable	615,000	450,000
Total Liabilities	<u>978,003</u>	<u>772,790</u>
Commitments and contingencies		
Stockholders' Deficit:		
Common stock, \$0.001 par value; 20,000,000 authorized, 6,789,833 and 6,661,000 shares issued and outstanding, respectively	6,790	6,661
Subscription receivable	(3,000)	(3,000)
Additional paid-in capital	388,471	-
Accumulated deficit	(1,080,601)	(748,360)
Total Stockholders' Deficit	<u>(688,340)</u>	<u>(744,699)</u>
Total Liabilities and Stockholders' Deficit	<u>\$ 289,663</u>	<u>\$ 28,091</u>

See accompanying notes to the unaudited financial statements.

Moleculin Biotech, Inc.
Statement of Operations
(Unaudited)

**For the Three
Months Ended
March 31,
2016**

Revenue	\$ —
Operating expenses:	
Research and development	15,000
General and administrative	<u>305,571</u>
Total operating expenses	<u>320,571</u>
Loss from operations	(320,571)
Other expense:	
Interest expense	<u>(11,670)</u>
Net loss	<u>\$ (332,241)</u>
Net loss per common share - basic and diluted	<u>\$ (0.05)</u>
Weighted average common shares outstanding - basic and diluted	<u>6,717,767</u>

See accompanying notes to the unaudited financial statements.

Moleculin Biotech, Inc.
Statements of Cash Flows
(Unaudited)

	For the Three Months Ended March 31, 2016
Cash Flows From Operating Activities:	
Net loss	\$ (332,241)
Adjustments to reconcile net loss to net cash used in operating activities:	
Stock-based compensation	2,101
Changes in operating assets and liabilities:	
Accounts payable and accrued liabilities	40,213
Net Cash Used In Operating Activities	<u>(289,927)</u>
Cash Flows From Investing Activities:	
Investment in note receivable - Moleculin, LLC	(30,000)
Net Cash Used In Investing Activities	<u>(30,000)</u>
Cash Flows From Financing Activities:	
Proceeds from stock issuance	386,499
Proceeds from convertible notes payable	165,000
Net Cash Provided By Financing Activities	<u>551,499</u>
Net change in cash and cash equivalents	231,572
Cash and cash equivalents, at beginning of period	28,091
Cash and cash equivalents, at end of period	<u><u>\$ 259,663</u></u>
Supplemental disclosures of cash flow information:	
Cash paid for interest	\$ —
Cash paid for income taxes	\$ —

See accompanying notes to the unaudited financial statements.

Moleculin Biotech, Inc.
Notes to Financial Statements
(Unaudited)

Note 1 - Description of Business and Summary of Significant Accounting Policies

Nature of Business – Moleculin Biotech, Inc. (“MBI” or the “Company”) is a preclinical and clinical-stage pharmaceutical company organized as a Delaware corporation in July 2015 to focus on the development of anti-cancer drug candidates, some of which are based on license agreements with The University of Texas System on behalf of the M.D. Anderson Cancer Center, which we refer to as MD Anderson.

Our lead drug candidate is liposomal Annamycin, which we refer to as Annamycin, an anthracycline intended for the treatment of relapsed or refractory acute myeloid leukemia, or AML. In August 2015, the Company entered into a rights transfer agreement with AnnaMed, Inc. (“AnnaMed”), a company affiliated with certain members of the Company’s management and board of directors, pursuant to which, in exchange for 1,431,000 shares of the Company’s common stock, AnnaMed agreed to transfer any and all data it had regarding the development of Annamycin and the Annamycin IND, including all trade secrets, know-how, confidential information and other intellectual property rights held by AnnaMed. Annamycin has been in clinical trials pursuant to an investigational new drug application, or IND, that had been filed with the U.S. Food and Drug Administration, or FDA. This IND was terminated due to a lack of activity by a prior drug developer who was developing the drug for a different indication. The Company intends to apply for a new IND based on the same data that supported the original IND, updated for subsequent clinical data, and to commence a Phase II clinical trial for Annamycin funded with the proceeds from our Initial Public Offering which was completed on May 31, 2016.

The Annamycin drug substance is no longer covered by any existing patent protection. We intend to submit patent applications for formulation, synthetic process and reconstitution related to our Annamycin drug product candidate, although there is no assurance that we will be successful in obtaining such patent protection. Independently from potential patent protection, we believe Annamycin will qualify for Orphan Drug status, which could entitle us to market exclusivity of up to 7 and 10 years from the date of approval of a New Drug Application (NDA) and Marketing Authorization (MA), in the US and the European Union (EU), respectively. However, there can be no assurance that such status will be granted. Separately, the FDA may also grant market exclusivity of up to five years for newly approved new chemical entities (of which Annamycin would be one), but there can be no assurance that such exclusivity will be granted or, if granted, for how long.

We have two other drug development projects in progress, one involving a portfolio of small molecules, which we refer to as the WP1066 Portfolio, focused on the modulation of key oncogenic transcription factors involved in the progression of cancer, and the WP1122 Portfolio, a suite of molecules targeting the metabolic processes involved in cancer in general, and glioblastoma (the most common form of brain tumor) in particular. We have been granted royalty-bearing, worldwide, exclusive licenses for the patent and technology rights related to our WP1066 Portfolio and WP1122 Portfolio drug technologies, as these patent rights are owned by MD Anderson.

On August 11, 2015, the Company entered into a rights transfer agreement for WP1122 with IntertechBio Corporation (“IntertechBio”), a company affiliated with certain members of our management and board of directors, whereby IntertechBio agreed to assign its license or sublicense its license to certain metabolic inhibitor technology owned by MD Anderson. In consideration, the Company issued 630,000 common shares to IntertechBio. IntertechBio agreed to make payments to MD Anderson including an up-front payment, license documentation fee, annual maintenance fee, milestone payments and minimum annual royalty payments for sales of products developed under the license agreement. The Company has assumed the rights and obligations of IntertechBio under the license agreement with MD Anderson. All out-of-pocket expenses incurred by MD Anderson in filing, prosecuting and maintaining the licensed patents have been and shall continue to be assumed by the Company.

The Company filed a registration statement on Form S-1 (which was declared effective on May 2, 2016) with respect to the Company’s initial public offering of shares of its common stock (“IPO”) to fund the development of its technologies. Immediately prior to the declaration of effectiveness of the registration statement on Form S-1, Moleculin, LLC was merged with and into MBI, which survived the merger. Moleculin, LLC was the holder of a license agreement with MD Anderson covering technology referred to as WP1066 Portfolio, which is focused on the modulation of key oncogenic transcription factors.

Basis of Presentation - Unaudited Interim Financial Information – The accompanying unaudited interim financial statements and related notes have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information, and in accordance with the rules and regulations of the United States Securities and Exchange Commission (the “SEC”) with respect to Form 10-Q and Article 8 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. The unaudited interim financial statements furnished reflect all adjustments (consisting of normal recurring adjustments) which are, in the opinion of management, necessary for a fair statement of the results for the interim periods presented. Interim results are not necessarily indicative of the results for the full year. These interim unaudited financial statements should be read in conjunction with the financial statements of the Company as of December 31, 2015 and for the period from July 28, 2015 (inception) to December 31, 2015 and notes thereto contained in the Registration Statement on Form S-1 filed with the SEC on April 27, 2016.

Use of Estimates in Financial Statement Presentation - The preparation of these financial statements in conformity with accounting principles generally accepted in the United States of America 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 revenues and expenses during the reporting period. Actual results could differ from those estimates.

Going Concern - These financial statements have been prepared on a going concern basis, which assumes the Company will continue to realize its assets and discharge its liabilities in the normal course of business. The continuation of the Company as a going concern is dependent upon the continued financial support from its stockholders, the ability of the Company to obtain necessary equity financing to continue operations, and the attainment of profitable operations. As of March 31, 2016, the Company has incurred an accumulated loss of \$1,080,601 since inception, had a working capital deficit of \$688,340, and had not yet generated any revenue from operations. These factors raise substantial doubt regarding the Company's ability to continue as a going concern. These financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern. The Company intends to fund its future operations through equity offerings.

Cash and Cash Equivalents - The Company considers all highly liquid accounts with original maturities of three months or less to be cash equivalents. At March 31, 2016 all of the Company's cash was deposited in two banks and at December 31, 2015, all of the Company's cash was deposited in one bank.

Beneficial Conversion Feature - From time to time, the Company may issue convertible notes that have conversion prices that create an embedded beneficial conversion feature on the issuance date. A beneficial conversion feature exists on the date a convertible note is issued when the fair value of the underlying common stock to which the note is convertible into is in excess of the remaining unallocated proceeds of the note after first considering the allocation of a portion of the note proceeds to the fair value of any attached equity instruments, if any related equity instruments were granted with the debt. The Company estimates the fair value of its common stock using the most recent selling price available. The intrinsic value of the beneficial conversion feature is recorded as a debt discount with a corresponding amount to additional paid-in capital. The debt discount is amortized to interest expense over the life of the note using the effective interest method.

Income Taxes - The Company uses the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial reporting and the tax bases of reported assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company must then assess the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized.

Stock-based Compensation - Stock-based compensation expense includes the estimated fair value of equity awards vested during the reporting period. The expense for equity awards vested during the reporting period is determined based upon the grant date fair value of the award and is recognized as expense over the applicable vesting period of the stock award using the straight-line method.

Earnings (Loss) Per Common Share - Basic net earnings (loss) per common share are computed by dividing net earnings (loss) available to common shareholders by the weighted-average number of common shares outstanding during the period. Diluted net earnings (loss) per common share is determined using the weighted-average number of common shares outstanding during the period, adjusted for the dilutive effect of common stock equivalents. In periods when losses are reported, the weighted-average number of common shares outstanding excludes common stock equivalents, because their inclusion would have been anti-dilutive. As of March 31, 2016, the Company's potentially dilutive shares included notes convertible to 3,749,557 common shares.

Research and Development Costs - Research and development costs are expensed as incurred. Research and development reimbursements are recorded by the Company as a reduction of research and development costs.

Subsequent Events - The Company's management reviewed all material events through the date these financial statements were issued for subsequent event disclosure consideration.

Recent Accounting Pronouncements - The Company does not believe that any recently issued effective pronouncements, or pronouncements issued but not yet effective, if adopted, would have a material effect on the accompanying financial statements.

Note 2 – Note Receivable - Moleculin LLC

On January 8, 2016, Moleculin, LLC issued a revolving line of credit promissory note to the Company where the Company agreed to loan up to \$50,000 to Moleculin, LLC. The note bears annual interest rate at 8% and has a late charge of 5% for amount overdue. Interest is payable monthly to the Company commencing on July 8, 2016 and any outstanding balance is payable on January 8, 2017. As of March 31, 2016, the Company has funded \$30,000 to Moleculin, LLC.

On April 5, 2016 the \$50,000 revolving line of credit promissory note was increased to \$60,000. During the month of April 2016, the Company provided Moleculin, LLC an additional \$27,822 for an aggregate amount of \$57,822. On May 2, 2016, the Company's merger of Moleculin, LLC was completed and the aggregate loan amount of \$57,822 will be considered part of the consideration for the purchase of Moleculin, LLC.

Note 3 – Convertible Notes Payable

On various dates from August 31, 2015 through January 19, 2016, each as amended on March 10, 2016, the Company entered into seven unsecured promissory notes with three separate third party investors. Each note bears interest at 8.0% per annum and matures on the earlier of June 30, 2016 or the completion of an IPO of the Company's securities. However, if the completion of the IPO occurs prior to June 30, 2016, each note shall be automatically converted according to its terms into shares of the Company's common stock at a conversion rate applied to the note's principal and accrued interest at conversion date.

The notes convert into shares upon the Company's IPO, provided that no holder of these notes will be permitted to convert such notes to the extent that the holder or any of its affiliates would beneficially own in excess of 4.99% of our common stock after such conversion. Due to this 4.99% limitation, the remaining principal and accrued interest amounts of the effected note will remain outstanding and will be converted into shares of our common stock at such time as the 4.99% limitation continues to be met. Until such time as the note is converted into shares of common stock, the maturity date of the note will automatically be extended and we will not be required to repay the note or the accrued interest relating to the note in cash.

The IPO was completed on May 31, 2016. Pursuant to the conversion feature of the foregoing notes and based on the principal only of the notes and without restriction of the 4.99% beneficially owned condition, the Company will issue 3,749,557 common shares. Had the Company converted the shares on May 31, 2016, the number of shares converted attributable to accrued interest would have resulted in an additional 198,625 common shares issued.

The convertible notes were analyzed for a beneficial conversion feature at which time it was concluded that a beneficial conversion feature did not exist.

The table below represents the shares that are convertible relating to the principle amounts of these convertible notes payable and excludes any shares that are convertible relating to the associated accrued interest:

Issuance Date	March 31, 2016	December 31, 2015	Conversion Rate	Shares Convertible
August 31, 2015	\$ 125,000	\$ 125,000	\$ 0.1299	962,279
September 3, 2015	125,000	125,000	0.1299	962,279
October 4, 2015	147,000	147,000	0.20	735,000
October 4, 2015	3,000	3,000	0.20	15,000
October 28, 2015	50,000	50,000	0.20	250,000
January 14, 2016	82,500	-	0.20	412,500
January 19, 2016	82,500	-	0.20	412,500
Total	<u>\$ 615,000</u>	<u>\$ 450,000</u>		<u>3,749,557</u>

The common shares relating to the above mentioned Convertible Notes Payable contain the following trading restrictions: (a) begin 90 days after the initial closing of our IPO and until the one-year anniversary of the initial closing of the IPO, (a) the holder of the note will be able to sell 1% of the number of shares of common stock underlying the note on a monthly basis, subject to a maximum sale on any trading day of 4% of the daily volume; (b) if the common stock price is over \$7.00 per share for five consecutive trading days then the holder of the note can sell up to 3% of the number of shares of common stock underlying the note on a monthly basis, subject to a maximum sale on any trading day of 4% of the daily volume; (c) if the common stock price is over \$10.00 per share for five consecutive trading days then the holder of the note can sell up to an additional 5% of the number of shares of common stock underlying the note on a monthly basis, subject to a maximum sale on any trading day of 7% of the daily volume; and (d) if the common stock price is over \$14.00 per share then the holder of the note is not restricted from making any sales until such time as the common stock price falls back below \$14.00 per share; and (b) thereafter, until the two-year anniversary of the initial closing of IPO, the holder of the note can sell on any trading day 10% of the daily volume; provided that if the common stock price is over \$10.00 per share then the holder of the note is not restricted from making any sales until such time as the common stock falls back below \$10.00 per share.

Note 4 - Equity

Common Stock

In August 2015, the Company entered into an agreement to issue 4,600,000 shares of common stock to its director and officers for subscriptions of \$4,600 cash to be received. As of March 31, 2016, the Company had not collected the proceeds for \$3,000 of the subscriptions.

During the three months ended March 31, 2016, the Company sold 128,833 common shares for \$386,499. These shares are subject to the following lock-up agreement, from and after the later of six months after issuance or 90 days from the effective date of our IPO registration statement until the one-year anniversary thereof, (a) the shareholder can sell up to 10% of the purchased shares per month, subject to a maximum sale on any trading day of 8% of the daily volume of the common stock; (b) if the common stock price is over \$7.00 per share for five consecutive trading days then the shareholder can sell up to 20% of the purchased shares per month, subject to a maximum sale on any trading day of 10% of the daily volume of the common stock; and (c) if the common stock price is over \$12.00 per share then the shareholder is not restricted from making any sales until such time as the common stock price falls back below \$12.00 per share.

Adoption of 2015 Stock Plan

On December 5, 2015, the Board of Directors of the Company approved the Company's 2015 Stock Plan, which was amended on April 22, 2016. The expiration date of the plan is December 5, 2025 and the total number of underlying shares of the Company's common stock available for grant to employees, directors and consultants under the plan is 2,500,000 shares. The awards under the 2015 Stock Plan can be in the form of stock options, stock awards or stock unit awards.

As of March 31, 2016, the Company has options to purchase 200,000 common shares outstanding. All of the options outstanding were issued in 2015. These options are exercisable at \$0.20 per share and had a remaining contractual term of 9.7 years and an intrinsic value of \$560,000 on March 31, 2016. During the three months ended March 31, 2016, the Company recorded stock option expense of \$2,101. As of March 31, 2016, none of the options were exercisable and unamortized expense related to these options was \$25,289.

Note 5 - Income Taxes

As of March 31, 2016, the Company has an operating loss carry forward of approximately \$1 million which expires commencing in 2035.

Note 6 – Commitments and contingencies

MD Anderson – IntertechBio Agreement

On August 11, 2015, the Company acquired the rights and obligations under the Patent and Technology License Agreement entered into between IntertechBio and MD Anderson dated April 2, 2012. Pursuant to the agreement, IntertechBio obtained a royalty-bearing, worldwide, exclusive license to intellectual property including patent rights related to the Company's drug product candidate, WP1122. Under the agreement, IntertechBio agreed to pay annual maintenance fee in the amount of \$10,000 on the first anniversary of the effective date of the agreement, \$20,000 on the second anniversary of the effective date of the agreement, \$40,000 on the third anniversary of the effective date of the agreement, \$60,000 on the fourth anniversary of the effective date of the agreement (this payment was not made at that time and the parties entered into an amendment to defer this payment until the earlier of May 31, 2016 or four days after the IPO), \$80,000 on the fifth anniversary of the effective date of the agreement and \$100,000 on the sixth anniversary of the effective date of the agreement, except that such payments will no longer be due upon the first sale of a licensed product. Under the agreement, IntertechBio also agreed to make a minimum annual royalty in the amount of \$200,000 for the first anniversary following the first sale of a licensed product, \$400,000 for the second anniversary following the first sale of a licensed product, and \$600,000 for the third year following the first sale of a licensed product. IntertechBio also agreed to make certain milestone payments. On October 19, 2015, pursuant to an amendment, the Company will pay milestone payments as follows:

Phase	Amount
Commencement of Phase II Study for a licensed product	\$ 200,000
Commencement of Phase III Study for a licensed product	\$ 250,000
Filing of a New Drug Application for a licensed product	\$ 400,000
Receipt of market approval for a licensed product	\$ 500,000

MD Anderson has the right to terminate the agreement upon advanced notice in the event of a default by IntertechBio. The agreement will also be terminated immediately upon IntertechBio's insolvency. Additionally, per the October 2015 amendment to the agreement, MD Anderson has the right to terminate the license agreement if (i) a preclinical toxicology program for a licensed product is not initiated within one year of the effective date of the amendment, (ii) an investigational new drug application is not filed with the Food and Drug Administration for a Phase I study for a licensed product within three years of the effective date of the amendment, or (iii) a Phase I study for a licensed product is not commenced within five years of the effective date of the amendment. The agreement will expire upon the expiration of the licensed intellectual property. The rights obtained by the Company pursuant to the agreement are made subject to the rights of the U.S. government to the extent that the technology covered by the licensed intellectual property was developed under a funding agreement between MD Anderson and the U.S. government. All out-of-pocket expenses incurred by MD Anderson in filing, prosecuting and maintaining the licensed patents have been and shall continue to be assumed by the Company.

On October 8, 2015, IntertechBio Corporation entered into a letter agreement with MD Anderson where MD Anderson agreed to receive past due maintenance fees and patent expenses of \$98,108 owed by IntertechBio Corporation in four installments. The past due amount is related to certain metabolic inhibitor technology license that was assigned to the Company by IntertechBio Corporation and was owed by IntertechBio Corporation prior to the Company's acquisition of the license. Pursuant to the letter, IntertechBio Corporation also agreed to pay \$65,504 in patent fees to a law firm. In order to have the license in good standing, the Company agreed to pay MD Anderson the \$98,108 and the \$65,504 in patent fees to a patent law firm on behalf of IntertechBio Corporation. As of December 31, 2015, \$45,000 of the past due amount to MD Anderson and \$42,504 in patent fees to a patent law firm were still outstanding and were included in accounts payable and accrued liabilities. On April 15, 2016, the Company entered into a letter agreement with MD Anderson where MD Anderson agreed to receive the remaining outstanding amount on or before the earlier of a) May 31, 2016 or b) four days after the Company's completion of the IPO. These amounts were paid prior to or on May 31, 2016.

Bonwick Capital Partners LLC

On January 22, 2016, as amended on February 15, 2016, the Company entered into a letter agreement with Bonwick Capital Partners LLC. ("Bonwick") to engage Bonwick as an exclusive financial advisor of the Company. Pursuant to the agreement, the Company agreed to: a) pay success fees equal to 7% of the gross proceeds from any form of financing; b) issue warrants to purchase 7% of the Company's equity securities sold with a cashless exercise provision, exercisable at 125% of the price per share of the Company's common stock paid by investors in the transaction. The warrants should have a term of 5 years. In addition, the Company agreed to reimburse Bonwick for all of its out-of-pocket expenses incurred in connection with the offering, not to exceed \$25,000, and fees and expenses of their counsel not to exceed \$100,000. Upon completion of the Company's IPO, the Company paid Bonwick a \$50,000 advisory fee. Bonwick shall be entitled to a success fee as set forth above if the Company completes a financing with parties introduced by Bonwick prior to the termination agreement or during the 6 months period following the termination of the agreement.

Note 7 - Subsequent Events

Issuance of Common Shares

Subsequent to March 31, 2016 and through May 2, 2016, the Company sold 105,463 common shares for \$316,389. These shares are subject to the following lock-up agreement, from and after the later of six months after issuance or 90 days from the effective date of our IPO registration statement until the one-year anniversary thereof, (a) the shareholder can sell up to 10% of the purchased shares per month, subject to a maximum sale on any trading day of 8% of the daily volume of the common stock; (b) if the common stock price is over \$7.00 per share for five consecutive trading days then the shareholder can sell up to 20% of the purchased shares per month, subject to a maximum sale on any trading day of 10% of the daily volume of the common stock; and (c) if the common stock price is over \$12.00 per share then the shareholder is not restricted from making any sales until such time as the common stock price falls back below \$12.00 per share.

Acquisition of Moleculin, LLC

Immediately before the effectiveness of the Company's registration statement on Form S-1 on May 2, 2016, Moleculin, LLC, a Texas limited liability company ("Moleculin"), was merged with and into the Company. As a result of the merger, the Company issued to the holders of Moleculin equity interests an aggregate of approximately 706,000 shares of the Company's common stock. The Company also issued approximately 294,000 shares to Moleculin's convertible notes holders for conversion of all outstanding principal and accrued interest. These shares contain certain trading restrictions. Prior to the Company's acquisition of Moleculin, the Company had loaned \$57,822 to Moleculin which was treated as part of the consideration paid to acquire Moleculin. In addition to the Company's approximate 1,000,000 shares of common stock paid to Moleculin and the loan of \$57,822, the Company also took responsibility for Moleculin's liabilities which included contractually amended past due payments to MD Anderson in the amount of \$306,176. The Company made the MD Anderson payment of \$306,176 on May 31, 2016. The Company is currently determining the allocation of the purchase price of approximately \$6 million.

The following tables present the unaudited condensed pro forma balance sheet and results of operations that reflect the acquisition of Moleculin as if the acquisition had occurred as of March 31, 2016 for the balance sheet and January 1, 2016 for the results of operations, adjusted for items that are directly attributable to the acquisition with the exception of the amortization for intangible assets acquired. This information has been compiled from historical financial statements and is not necessarily indicative of the results that actually would have been achieved had the transaction already occurred or that may be achieved in the future.

	As of March 31, 2016
Current assets	\$ 204,737
Non-current assets	7,267,620
Total assets	<u>\$ 7,472,357</u>
Current liabilities	\$ 1,545,697
Total shareholders' equity	5,926,660
Total liabilities and shareholders' equity	<u>\$ 7,472,357</u>

For the three
months ended
March 31,
2016

Total operating expenses	\$ 427,815
Net loss	(446,406)
Net loss per common share – basic and diluted	(0.06)
Weighted average outstanding common shares – basic and diluted	7,717,767

Initial Public Offering

On May 31, 2016, the Company completed its IPO and sold 1,540,026 shares of the Company's common stock. The IPO price per share was \$6.00. We received net proceeds of \$8,459,493 after deducting underwriting discounts and commissions and offering expenses payable by us. Pursuant to our agreement with our underwriters, as additional compensation, we issued the underwriters warrants to purchase 107,802 shares of common stock exercisable for a period of 5 years from date of issuance at an exercise price of \$7.50 per share.

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

FORWARD-LOOKING STATEMENT NOTICE

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") contains certain forward-looking statements. Historical results may not indicate future performance. Our forward-looking statements reflect our current views about future events, are based on assumptions and are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those contemplated by these statements. Factors that may cause differences between actual results and those contemplated by forward-looking statements include, but are not limited to:

- our ability to obtain additional funding to develop our product candidates;
- the need to obtain regulatory approval of our product candidates;
- the success of our clinical trials through all phases of clinical development;
- compliance with obligations under intellectual property licenses with third parties;
- any delays in regulatory review and approval of product candidates in clinical development;
- our ability to commercialize our product candidates;
- market acceptance of our product candidates;
- competition from existing products or new products that may emerge;
- potential product liability claims;
- our dependency on third-party manufacturers to supply or manufacture our products;
- our ability to establish or maintain collaborations, licensing or other arrangements;
- our ability and third parties' abilities to protect intellectual property rights;
- our ability to adequately support future growth; and
- our ability to attract and retain key personnel to manage our business effectively.

We undertake no obligation to publicly update or revise any forward-looking statements, including any changes that might result from any facts, events, or circumstances after the date hereof that may bear upon forward-looking statements. Furthermore, we cannot guarantee future results, events, levels of activity, performance, or achievements.

Highlights

We are a preclinical and clinical-stage pharmaceutical development company organized as a Delaware corporation in July 2015 to focus on the development of anti-cancer drug candidates. We have three active drug development projects. Our lead drug candidate is liposomal Annamycin, which is referred to as Annamycin, an anthracycline intended for the treatment of relapsed or refractory acute myeloid leukemia, or AML. Annamycin has been in clinical trials pursuant to an investigational new drug application, or IND, that had been filed with the U.S. Food and Drug Administration, or FDA. Due to a lack of development activity by a prior drug developer, this IND was terminated, however we intend to apply for a new IND based on the same data that supported the original IND, updated for subsequent clinical data, and to commence a Phase II clinical trial for Annamycin.

We have two other active drug development projects in progress. One of them involves a collection of small molecules we refer to as the WP1066 Portfolio that was obtained via our merger with Moleculin, LLC ("Moleculin") and is focused on the modulation of key regulatory transcription factors involved in the progression of cancer. The other, which we call the WP1122 Portfolio, is a suite of molecules targeting the metabolic processes involved in cancer in general, and glioblastoma in particular that we acquired from IntertechBio Corporation. Both of these technologies are licensed on a worldwide exclusive basis from The University of Texas M.D. Anderson Cancer Center, or MD Anderson.

Overview

MBI was founded in 2015 in order to combine and consolidate the development efforts involving several MD Anderson anti-cancer technologies. This effort began with the acquisition of the Annamycin development project from AnnaMed, Inc., or AnnaMed, followed by the acquisition of the license rights to the WP1122 Portfolio from IntertechBio Corporation, or IntertechBio. Further, we created a co-development agreement with Houston Pharmaceuticals, Inc., or HPI, which culminated with the merger of Moleculin and MBI coincident with our initial public offering allowing us to gain control of the WP1066 Portfolio.

AnnaMed was formed in 2012 to take over the development of Annamycin from a prior drug development company, Callisto Pharmaceuticals, Inc., or Callisto. Callisto ceased development work on Annamycin leading to the termination of its IND by the FDA. In order to satisfy unmet license obligations, Callisto agreed to transfer all available Annamycin data to AnnaMed, which data we will now use to apply for a new IND.

IntertechBio was formed in 2009 to license and begin development on the WP1122 Portfolio. In August 2015, IntertechBio agreed to assign all license rights to us in exchange for our common stock.

Moleculin was formed in 2006 and has been working to develop the WP1066 Portfolio it licensed from MD Anderson. On May 2, 2016, Moleculin was merged with and into MBI. As a result of the merger, we issued the holders of Moleculin equity interests and convertible notes an aggregate of approximately 1,000,000 shares of our common stock.

Since Moleculin commenced operations in 2006, substantially all of its efforts have been focused on research, development and the advancement of the WP1066 Portfolio. Moleculin has not generated any revenue from product sales and, as a result, has incurred significant losses.

Neither Moleculin nor MBI has manufacturing facilities and all manufacturing activities are contracted out to third parties. Additionally, Moleculin currently utilizes third-party clinical research organizations to carry out clinical trials. Neither Moleculin nor MBI have a sales organization.

Critical Accounting Policies and Significant Judgments and Estimates

The financial statements have been prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe that the following accounting policies are the most critical to aid in fully understanding and evaluating our reported financial results, and they require our most difficult, subjective or complex judgments, resulting from the need to make estimates about the effect of matters that are inherently uncertain.

Beneficial Conversion Feature

From time to time, we may issue convertible notes that have conversion prices that create an embedded beneficial conversion feature on the issuance date. A beneficial conversion feature exists on the date a convertible note is issued when the fair value of the underlying common stock to which the note is convertible into is in excess of the remaining unallocated proceeds of the note after first considering the allocation of a portion of the note proceeds to the fair value of any attached equity instruments, if any related equity instruments were granted with the debt. We estimate the fair value of our common stock using the most recent selling price available. The intrinsic value of the beneficial conversion feature is recorded as a debt discount with a corresponding amount to additional paid-in capital. The debt discount is amortized to interest expense over the life of the note using the effective interest method.

Research and Development Costs

We record accrued expenses for estimated costs of our research and development activities conducted by third-party service providers, which include the conduct of pre-clinical studies and clinical trials and contract manufacturing activities. We record the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and we include these costs in accrued liabilities in the balance sheets and within research and development expense in the statement of operations. These costs are a significant component of our research and development expenses. We record accrued expenses for these costs based on the estimated amount of work completed and in accordance with agreements established with these third parties.

We estimate the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services and the agreed-upon fee to be paid for such services. We make significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, we adjust our accrued estimates. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed, the number of patients enrolled and the rate of patient enrollment may vary from our estimates and could result in us reporting amounts that are too high or too low in any particular period. Our accrued expenses are dependent, in part, upon the receipt of timely and accurate reporting from clinical research organizations and other third-party service providers. To date, there have been no material differences from our accrued expenses to actual expenses.

Results of Operations – Three Months Ended March 31, 2016

The Company was formed in July 2015; therefore there is no comparative financial information that can be compared to the financial results of the quarter ended March 31, 2016. The following table sets forth, for the period indicated, data derived from our statement of operations:

	For the Three Months Ended March 31, 2016 <u>(Unaudited)</u>
Operating expenses:	
Research and development	\$ 15,000
General and administrative	<u>305,571</u>
Total operating expenses	320,571
Interest expense	<u>11,670</u>
Net loss	<u>\$ (332,241)</u>

Research and Development Expense. Research and development expense was \$15,000 for the three months ended March 31, 2016 and represents accrued license fees.

General and Administrative Expense. General and administrative expense was \$305,571 for the three months ended March 31, 2016. The expense mainly included professional fees to our consultants, attorneys and accountants for services related to our initial public offering and related filing fees and the compensation related to our chief financial officer.

Interest expense. Interest expense included expense accrued on our convertible promissory notes issued in 2015 and 2016 bearing interest at the rate of 8% per annum.

Liquidity and Capital Resources

As of March 31, 2016, we had approximately \$260,000 in cash. Subsequent to March 31, 2016 and through May 2, 2016, we sold 105,463 common shares for \$316,389. On May 31, 2016, we completed our initial public offering, pursuant to which we sold 1,540,026 shares of our common stock at \$6.00 per share for net proceeds of \$8,459,493 after deducting underwriting discounts and commissions and offering expenses payable by us.

We believe that our existing cash and cash equivalents as of March 31, 2016, the cash proceeds received from common stock shares sold from April 1, 2016 through May 2, 2016 and the net proceeds from our Initial Public Offering completed on May 31, 2016, will be sufficient to fund our planned operations for at least 12 months starting June 1, 2016, which includes the commencement of our planned Phase II registration trial for Annamycin.

We do not expect to generate revenue from product sales unless and until we successfully complete development of, obtain regulatory approval for and begin to commercialize one or more of our product candidates, which we expect will take a number of years and is subject to significant uncertainty. Accordingly, we anticipate that we will need to raise additional capital to fund our future operations. Until such time that we can generate substantial revenue from product sales, if ever, we expect to finance our operating activities through a combination of equity offerings and debt financings and we may seek to raise additional capital through strategic collaborations. However, we may be unable to raise additional funds or enter into such arrangements when needed on favorable terms, or at all, which would have a negative impact on our financial condition and could force us to delay, limit, reduce or terminate our development programs or commercialization efforts or grant to others rights to develop or market product candidates that we would otherwise prefer to develop and market ourselves. Failure to receive additional funding could cause us to cease operations, in part or in full. Furthermore, even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital due to favorable market conditions or strategic considerations.

The following table sets forth the primary sources and uses of cash for the period indicated:

	For the three months ended March 31, 2016 <u>(Unaudited)</u>
Net cash used in operating activities	\$ (289,927)
Net cash used in investing activities	(30,000)
Net cash provided by financing activities	<u>551,499</u>
Net increase in cash and cash equivalents	<u>\$ 231,572</u>

Cash used in operating activities

Net cash used in operating activities was \$289,927 for the three months ended March 31, 2016 and mainly included payments made to our consultants, attorneys and accountants for services related to our initial public offering and related filing fees and for the compensation of our chief financial officer.

Cash provided by investing activities

Net cash used in investing activities was \$30,000 for the three months ended March 31, 2016 and represents amount loaned to Moleculin, LLC.

Cash provided by financing activities

Net cash provided by financing activities was \$551,499 for the three months ended March 31, 2016. We received \$165,000 from issuance of convertible notes and \$386,499 from issuance of common shares at \$3 per share.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Not required by smaller reporting companies.

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures. Under the supervision and with the participation of our management, including our chief executive officer and principal financial and accounting officer, we conducted an evaluation of the effectiveness, as of March 31, 2016, 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, or the Exchange Act. Based upon such evaluation, our chief executive officer and principal financial and accounting officer have concluded that, as of March 31, 2016, our disclosure controls and procedures were not effective to provide reasonable assurance that the information we are required to disclose in our filings with the Securities and Exchange Commission, or SEC, under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our chief executive officer and principal financial and accounting officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting. There were no changes in our system of internal control over financial reporting during the period covered by this report that has materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

In addition to the other information set forth in this report, you should carefully consider the factors discussed in the section entitled "Risk Factors" in our prospectus filed pursuant to Rule 424(b)(4) on May 3, 2016 with the SEC, which are incorporated herein by reference. The risks described in the prospectus are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results. There have been no material changes to our risk factors from those set forth in the prospectus.

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

(a) During the three months ended March 31, 2016, the Company sold 128,833 common shares for \$386,499. Subsequent to March 31, 2016 and through May 2, 2016, the Company sold 105,463 common shares for \$316,389. These transactions did not involve any public offering. These shares are subject to the following lock-up agreement, from and after the later of six months after issuance or 90 days from the effective date of our IPO registration until the one-year anniversary thereof, (a) the shareholder can sell up to 10% of the purchased shares per month, subject to a maximum sale on any trading day of 8% of the daily volume of the common stock; (b) if the common stock price is over \$7.00 per share for five consecutive trading days then the shareholder can sell up to 20% of the purchased shares per month, subject to a maximum sale on any trading day of 10% of the daily volume of the common stock; and (c) if the common stock price is over \$12.00 per share then the shareholder is not restricted from making any sales until such time as the common stock price falls back below \$12.00 per share.

We believe that the issuances were exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act regarding transactions not involving a public offering.

(b) On May 31, 2016, we completed our initial public offering, which commenced on May 2, 2016, pursuant to which we sold 1,540,026 shares of our common stock at \$6.00 per share with gross proceeds of \$9,240,156 and net proceeds of \$8,317,594 after deducting underwriting discounts and commissions and offering expenses payable by us. The offer and sale of all of the shares in the offering were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-209323), which was declared effective by the SEC on May 2, 2016. Bonwick Capital Partners LLC and Network 1 Financial Securities, Inc. acted as underwriters for the offering.

There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on May 3, 2016 pursuant to Rule 424(b). No direct or indirect payments were made by us to any of our directors or officers or their associates, to persons owning ten percent or more of our common stock or to their associates, or to our affiliates, other than payments in the ordinary course of business to officers for salaries. Pending the uses described, we intend to invest the net proceeds in short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Title of Document
3.1	Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 of the Form S-1 (File No. 333-209323) filed March 22, 2016)
3.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.2 of the Form S-1 (File No. 333-209323) filed March 22, 2016)
31.1*	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
31.2*	Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934.
32.1*(1)	Certification of the Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*(1)	Certification of the Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

(1) The certifications on Exhibit 32 hereto are deemed not “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that Section. Such certifications will not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

SIGNATURES

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

MOLECULIN BIOTECH, INC.

Date: June 16, 2016

By: /s/ Walter Klemp
Walter Klemp
President and Chief Executive Officer

Date: June 16, 2016

By: /s/ Louis Ploth, Jr.
Louis Ploth, Jr.
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 31.1

**OFFICER'S CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Walter Klemp, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Moleculin Biotech, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

June 16, 2016

By: /s/ Walter Klemp

Walter Klemp

Acting Chief Executive Officer

Exhibit 31.2

**OFFICER'S CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Louis Ploth, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Moleculin Biotech, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

June 16, 2016

By: /s/ Louis Ploth

Louis Ploth

Chief Financial Officer

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2016 of Moleculin Biotech, Inc. (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Walter Klemp, Acting Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C 78m or 78o(d)); and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: June 16, 2016

By: /s/ Walter Klemp

Walter Klemp

Acting Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to Moleculin Biotech, Inc. and will be retained by Moleculin Biotech, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

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

In connection with the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2016 of Moleculin Biotech, Inc. (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Louis Ploth, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C 78m or 78o(d)); and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: June 16, 2016

By: /s/ Louis Ploth

Louis Ploth

Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Moleculin Biotech, Inc. and will be retained by Moleculin Biotech, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.
