

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

FORM S-8  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**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 Number)

**5300 Memorial Drive, Suite 950**

**Houston, Texas**

(Address of Principal Executive Offices)

**77007**

(Zip Code)

**Moleculin Biotech, Inc. 2015 Stock Plan (as amended)**

(Full title of the plans)

**Walter V. Klemp, Chief Executive Officer**

**5300 Memorial Drive, Suite 950**

**Houston, Texas 77007**

(Name and address of agent for service)

Copies to:

**Cavas S. Pavri, Esq.**

**Schiff Hardin LLP**

**100 N. 18th, Suite 300**

**Philadelphia, PA 19103**

**(202) 724-6847**

**Facsimile: (202) 778-6460**

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

Large accelerated filer

Accelerated filer

Smaller reporting company

Non-accelerated filer

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act.

**Calculation of Registration Fee**

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, \$0.001 par value	6,000,000	\$0.97	\$5,820,000.00	\$755.44

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, this registration statement also covers any additional shares of Moleculin Biotech, Inc. common stock that may be granted under the Moleculin Biotech, Inc. 2015 Stock Plan, as amended, to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) The proposed maximum offering price for these shares has been estimated solely for the purpose of calculating the registration fee based in accordance with Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, upon the price of \$0.97 per share, the average of the high and low prices of the registrant's common stock of as reported on the Nasdaq Stock Market on August 19, 2020.

**INFORMATION REQUIRED PURSUANT  
TO GENERAL INSTRUCTION E TO FORM S-8**

This Registration Statement is being filed for the purpose of increasing the number of securities of the same class as other securities for which a Registration Statement of Moleculin Biotech, Inc. (the "Company") on Form S-8 relating to the same employee benefit plan is effective. This Registration Statement registers an additional 6,000,000 shares of common stock of the Company to be issued pursuant to the Company's 2015 Stock Plan, as amended (the "Equity Plan"). The contents of the previous Registration Statements on Form S-8 filed by us with the SEC for the Equity Plan on July 21, 2016 (file no. 333-212619) and June 25, 2018 (file no. 333-225867), including any amendments thereto, are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

**PART II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The Company hereby incorporates by reference in this Registration Statement the following documents and information previously filed with the Securities and Exchange Commission:

- (a) The Company's Annual Report on Form 10-K for the year ended December 31, 2019 (filed on March 19, 2020);
- (b) The Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2020 (filed on May 11, 2020) and June 30, 2020 (filed on August 12, 2020);
- (c) The Company's Current Reports on Form 8-K filed on February 3, 2020; February 5, 2020; February 6, 2020; February 18, 2020; February 20, 2020; March 10, 2020; March 17, 2020; March 26, 2020; April 2, 2020; April 8, 2020; April 14, 2020; April 17, 2020; April 23, 2020; May 18, 2020; May 27, 2020; May 28, 2020; June 16, 2020; June 17, 2020; and August 4, 2020;
- (d) The Company's Definitive Proxy Statement on Schedule 14A filed on April 7, 2020
- (e) The description of our common stock, par value \$0.001 per share contained in our Registration Statement on Form 8-A, dated and filed with the SEC on April 28, 2016, and any amendment or report filed with the SEC for the purpose of updating the description.

Except to the extent that information is deemed furnished and not filed pursuant to securities laws and regulations, all documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act and all reports on Form 8-K subsequent to the date hereof and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall also be deemed to be incorporated by reference herein and to be a part hereof from the dates of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

**Item 8. Exhibits.**

The following exhibits are filed as a part of or incorporated by reference into this Registration Statement:

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Exhibit No.	Description of Exhibit
<a href="#">4.1</a>	<a href="#">Amended and Restated Certificate of Incorporation of Moleculin Biotech, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Form S-1/A filed March 22, 2016)</a>
<a href="#">4.2</a>	<a href="#">Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Moleculin Biotech, Inc. (incorporated by reference to Exhibit 3.1 of the Form 8-K filed May 24, 2019)</a>
<a href="#">4.3</a>	<a href="#">Amended and Restated Bylaws of Moleculin Biotech, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Form S-1/A filed March 22, 2016)</a>
<a href="#">4.4#</a>	<a href="#">2015 Stock Plan of Moleculin Biotech, Inc., as amended, and forms of award agreements thereunder</a>
<a href="#">5#</a>	<a href="#">Opinion of Schiff Hardin LLP</a>
<a href="#">23.1#</a>	<a href="#">Consent of Grant Thornton, LLP</a>
23.2#	Consent of Schiff Hardin LLP (included in Exhibit 5)
24	Power of Attorney (included in the signature pages of this Registration Statement)

# Filed herewith.

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## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Houston, Texas, on August 21, 2020.

**MOLECULIN BIOTECH, INC.**

By: /s/ Walter V. Klemp

Name: Walter V. Klemp  
Title: Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Walter V. Klemp and Jonathan P. Foster, or any one of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Commission, granting unto such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and ratifying and confirming all that such attorney-in-fact and agent or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons in the capacities and on the dates indicated:

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ Walter V. Klemp</u> Walter V. Klemp	Chief Executive Officer, President and Director (Principal Executive Officer)	August 21, 2020
<u>/s/ Jonathan P. Foster</u> Jonathan P. Foster	Chief Financial Officer and Executive Vice President (Principal Financial Officer and Principal Accounting Officer)	August 21, 2020
<u>/s/ Robert George</u> Robert George	Director	August 21, 2020
<u>/s/ Michael Cannon</u> Michael Cannon	Director	August 21, 2020
<u>/s/ John Climaco</u> John Climaco	Director	August 21, 2020

**MOLECULIN BIOTECH, INC.**  
**2015 STOCK PLAN**  
**(Amended and Restated)**

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**Section 1. Establishment and Purpose.**

1.1 The Board of Directors of Moleculin Biotech, Inc. (the “Company”) established the Moleculin Biotech, Inc. 2015 Stock Plan (the “Plan”) effective as of December 1, 2015. The Plan was amended effective as of April 19, 2016, was further amended and restated effective as of April 6, 2018, and was further amended and restated as of March 26, 2020, subject to approval by the Company’s stockholders at the Company’s annual meeting on May 12, 2020. Awards granted prior to the effective date of the Plan’s amendment and restatement shall be governed by the terms of the Plan as in effect on the grant date of the Award.

1.2 The purpose of the Plan is to attract and retain outstanding individuals as Key Employees, Directors and Consultants of the Company and its Subsidiaries, to recognize the contributions made to the Company and its Subsidiaries by Key Employees, Directors and Consultants, and to provide such Key Employees, Directors and Consultants with additional incentive to expand and improve the profits and achieve the objectives of the Company and its Subsidiaries, by providing such Key Employees, Directors and Consultants with the opportunity to acquire or increase their proprietary interest in the Company through receipt of Awards.

**Section Definitions.**

**2.**

As used in the Plan, the following terms shall have the meanings set forth below:

2.1 “Award” means any award or benefit granted under the Plan, which shall be a Stock Option, a Stock Award, a Stock Unit Award or an SAR.

2.2 “Award Agreement” means, as applicable, a Stock Option Agreement, Stock Award Agreement, Stock Unit Award Agreement or SAR Agreement evidencing an Award granted under the Plan.

2.3 “Board” means the Board of Directors of the Company.

2.4 “Change in Control” has the meaning set forth in Section 8.2 of the Plan.

2.5 “Code” means the Internal Revenue Code of 1986, as amended from time to time.

2.6 “Committee” means the Compensation Committee of the Board or such other committee as may be designated by the Board from time to time to administer the Plan, or, if no such committee has been designated at the time of any grants, it shall mean the Board.

2.7 “Common Stock” means the Common Stock, par value \$0.001 per share, of the Company.

2.8 “Company” means Moleculin Biotech, Inc., a Delaware corporation.

2.9 “Consultant” means any person, including an advisor, who is engaged by the Company or an affiliate to render consulting or advisory services and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a “Consultant” for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

2.10 “Director” means a director of the Company who is not an employee of the Company or a Subsidiary.

2.11 “Exchange Act” means the Securities Exchange Act of 1934, as amended from time to time.

2.12 “Fair Market Value” means as of any date, the closing price of a share of Common Stock on the national securities exchange on which the Common Stock is listed, or, if the Common Stock is not listed on a national securities exchange, the over-the-counter market on which the Common Stock trades, or, if the Common Stock is not listed on a national securities exchange or an over-the-counter market, as determined by the Board as of such date, or, if no trading occurred on such date, as of the trading day immediately preceding such date.

2.13 “Incentive Stock Option” or “ISO” means a Stock Option granted under Section 5 of the Plan that meets the requirements of Section 422(b) of the Code or any successor provision.

2.14 “Key Employee” means an employee of the Company or any Subsidiary selected to participate in the Plan in accordance with Section 3. A Key Employee may also include a person who is granted an Award (other than an Incentive Stock Option) in connection with the hiring of the person prior to the date the person becomes an employee of the Company or any Subsidiary, provided that such Award shall not vest prior to the commencement of employment.

2.15 “Non-Qualified Stock Option” or “NSO” means a Stock Option granted under Section 5 of the Plan that is not an Incentive Stock Option.

2.16 “Participant” means a Key Employee, Director or Consultant selected to receive an Award under the Plan.

2.17 “Plan” means the Moleculin Biotech, Inc. 2015 Stock Plan.

2.18 “Stock Appreciation Right” or “SAR” means a grant of a right to receive shares of Common Stock or cash under Section 8 of the Plan.

2.19 “Stock Award” means a grant of shares of Common Stock under Section 6 of the Plan.

2.20 “Stock Option” means an Incentive Stock Option or a Non-Qualified Stock Option granted under Section 5 of the Plan.

2.21 “Stock Unit Award” means a grant of a right to receive shares of Common Stock or cash under Section 7 of the Plan.

2.22 “Subsidiary” means an entity of which the Company is the direct or indirect beneficial owner of not less than 50% of all issued and outstanding equity interest of such entity.

## Section Administration.

### 3.

#### 3.1 The Board.

The Plan shall be administered by the Committee, which shall be comprised of at least two members of the Board who satisfy the “non-employee director” definition set forth in Rule 16b-3 under the Exchange Act, unless the Board otherwise determines.

#### 3.2 Authority of the Committee.

(a) The Committee, in its sole discretion, shall determine the Key Employees and Directors to whom, and the time or times at which Awards will be granted, the form and amount of each Award, the expiration date of each Award, the time or times within which the Awards may be exercised, the cancellation of the Awards and the other limitations, restrictions, terms and conditions applicable to the grant of the Awards. The terms and conditions of the Awards need not be the same with respect to each Participant or with respect to each Award.

(b) To the extent permitted by applicable law, regulation, and rules of a stock exchange on which the Common Stock is listed or traded, the Committee may delegate its authority to grant Awards to Key Employees and to determine the terms and conditions thereof to such officer of the Company as it may determine in its discretion, on such terms and conditions as it may impose, except with respect to Awards to officers subject to Section 16 of the Exchange Act.

(c) The Committee may, subject to the provisions of the Plan, establish such rules and regulations as it deems necessary or advisable for the proper administration of the Plan, and may make determinations and may take such other action in connection with or in relation to the Plan as it deems necessary or advisable. Each determination or other action made or taken pursuant to the Plan, including interpretation of the Plan and the specific terms and conditions of the Awards granted hereunder, shall be final and conclusive for all purposes and upon all persons.

(d) No member of the Board or the Committee shall be liable for any action taken or determination made hereunder in good faith. Service on the Committee shall constitute service as a Director so that the members of the Committee shall be entitled to indemnification and reimbursement as Directors of the Company pursuant to the Company’s Certificate of Incorporation and By-Laws.

#### 3.3 Award Agreements.

(a) Each Award shall be evidenced by a written Award Agreement specifying the terms and conditions of the Award. In the sole discretion of the Committee, the Award Agreement may condition the grant of an Award upon the Participant’s entering into one or more of the following agreements with the Company: (i) an agreement not to compete with the Company and its Subsidiaries which shall become effective as of the date of the grant of the Award and remain in effect for a specified period of time following termination of the Participant’s employment with the Company; (ii) an agreement to cancel any employment agreement, fringe benefit or compensation arrangement in effect between the Company and the Participant; and (iii) an agreement to retain the confidentiality of certain information. Such agreements may contain such other terms and conditions as the Committee shall determine. If the Participant shall fail to enter into any such agreement at the request of the Committee, then the Award granted or to be granted to such Participant shall be forfeited and cancelled.

## Section Shares of Common Stock Subject to Plan.

### 4.

#### 4.1 Total Number of Shares.

(a) The total number of shares of Common Stock that may be issued under the Plan shall be 10,500,000 (which reflects the 4,500,000 shares previously authorized under the Plan and 6,000,000 shares to be issued under the Plan pursuant to this amendment and restatement). Such shares may be either authorized but unissued shares or treasury shares, and shall be adjusted in accordance with the provisions of Section 4.3 of the Plan.

(b) The number of shares of Common Stock delivered by a Participant or withheld by the Company on behalf of any such Participant as full or partial payment of an Award, including the exercise price of a Stock Option or of any required withholding taxes, shall not again be available for issuance pursuant to subsequent Awards, and shall count towards the aggregate number of shares of Common Stock that may be issued under the Plan. Any shares of Common Stock purchased by the Company with proceeds from a Stock Option exercise shall not again be available for issuance pursuant to subsequent Awards, shall count against the aggregate number of shares that may be issued under the Plan and shall not increase the number of shares available under the Plan.

(c) If there is a lapse, forfeiture, expiration, termination or cancellation of any Award for any reason (including for reasons described in Section 3.3), or if shares of Common Stock are issued under such Award and thereafter are reacquired by the Company pursuant to rights reserved by the Company upon issuance thereof, the shares of Common Stock subject to such Award or reacquired by the Company shall again be available for issuance pursuant to subsequent Awards, and shall not count towards the aggregate number of shares of Common Stock that may be issued under the Plan.

#### 4.2 Shares Under Awards.

Of the shares of Common Stock authorized for issuance under the Plan pursuant to Section 4.1:

(a) The maximum number of shares of Common Stock as to which a Key Employee may receive Stock Options or SARs in any calendar year is 500,000, except that the maximum number of shares of Common Stock as to which a Key Employee may receive Stock Options or SARs in the calendar year in which such Key Employee begins employment with the Company or its Subsidiaries is 500,000.

(b) The maximum number of shares of Common Stock that may be subject to Stock Options (ISOs and/or NSOs) is 10,500,000.

(c) The maximum number of shares of Common Stock that may be used for Stock Awards and/or Stock Unit Awards that may be granted to any Key Employee in any calendar year is 500,000, or, in the event the Award is settled in cash, an amount equal to the Fair Market Value of such number of shares on the date on which the Award is settled.

(d) The maximum number of shares of Common Stock subject to Awards granted under the Plan or otherwise during any one calendar year to any Director, taken together with any cash fees paid by the Company to such Director during such calendar year for service on the Board, will not exceed \$300,000 in total value (calculating the value of any such Awards based on the grant date fair value of such Awards for financial reporting purposes).



The numbers of shares described herein shall be as adjusted in accordance with Section 4.3 of the Plan.

#### 4.3 Adjustment.

In the event of any reorganization, recapitalization, stock split, stock distribution, merger, consolidation, split-up, spin-off, combination, subdivision, consolidation or exchange of shares, any change in the capital structure of the Company or any similar corporate transaction, the Committee shall make such adjustments as it deems appropriate, in its sole discretion, to preserve the benefits or intended benefits of the Plan and Awards granted under the Plan. Such adjustments may include: (a) adjustment in the number and kind of shares reserved for issuance under the Plan; (b) adjustment in the number and kind of shares covered by outstanding Awards; (c) adjustment in the exercise price of outstanding Stock Options or SARs or the price of Stock Awards or Stock Unit Awards under the Plan; (d) adjustments to any of the shares limitations set forth in Section 4.1 or 4.2 of the Plan; and (e) any other changes that the Committee determines to be equitable under the circumstances.

### **Section Grants of Stock Options.**

#### **5.**

##### 5.1 Grant.

Subject to the terms of the Plan, the Committee may from time to time grant Stock Options to Participants. Unless otherwise expressly provided at the time of the grant, Stock Options granted under the Plan to Key Employees will be NSOs. Stock Options granted under the Plan to Directors who are not employees of the Company or any Subsidiary will be NSOs.

##### 5.2 Stock Option Agreement.

The grant of each Stock Option shall be evidenced by a written Stock Option Agreement specifying the type of Stock Option granted, the exercise period, the exercise price, the terms for payment of the exercise price, the expiration date of the Stock Option, the number of shares of Common Stock to be subject to each Stock Option and such other terms and conditions established by the Committee, in its sole discretion, not inconsistent with the Plan.

##### 5.3 Exercise Price and Exercise Period.

With respect to each Stock Option granted to a Participant:

- (a) The per share exercise price of each Stock Option shall be the Fair Market Value of the Common Stock subject to the Stock Option on the date on which the Stock Option is granted.
- (b) Each Stock Option shall become exercisable as provided in the Stock Option Agreement; provided that the Committee shall have the discretion to accelerate the date as of which any Stock Option shall become exercisable in the event of the Participant's termination of employment with the Company, or service on the Board, without cause (as determined by the Board in its sole discretion).
- (c) No dividends or dividend equivalents shall be paid with respect to any shares subject to a Stock Option prior to the exercise of the Stock Option.
- (d) Each Stock Option shall expire, and all rights to purchase shares of Common Stock thereunder shall expire, on the date ten years after the date of grant.

#### 5.4 Required Terms and Conditions of ISOs.

In addition to the foregoing, each ISO granted to a Key Employee shall be subject to the following specific rules:

(a) The aggregate Fair Market Value (determined with respect to each ISO at the time such Option is granted) of the shares of Common Stock with respect to which ISOs are exercisable for the first time by a Key Employee during any calendar year (under all incentive stock option plans of the Company and its Subsidiaries) shall not exceed \$100,000. If the aggregate Fair Market Value (determined at the time of grant) of the Common Stock subject to an ISO which first becomes exercisable in any calendar year exceeds the limitation of this Section 5.4(a), so much of the ISO that does not exceed the applicable dollar limit shall be an ISO and the remainder shall be a NSO; but in all other respects, the original Stock Option Agreement shall remain in full force and effect.

(b) Notwithstanding anything herein to the contrary, if an ISO is granted to a Key Employee who owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company (or its parent or subsidiaries within the meaning of Section 422(b)(6) of the Code): (i) the purchase price of each share of Common Stock subject to the ISO shall be not less than 110% of the Fair Market Value of the Common Stock on the date the ISO is granted; and (ii) the ISO shall expire, and all rights to purchase shares of Common Stock thereunder shall expire, no later than the fifth anniversary of the date the ISO was granted.

(c) No ISOs shall be granted under the Plan after ten years from the earlier of the date the Plan is adopted or approved by shareholders of the Company.

#### 5.5 Exercise of Stock Options.

(a) A Participant entitled to exercise a Stock Option may do so by delivering written notice to that effect specifying the number of shares of Common Stock with respect to which the Stock Option is being exercised and any other information the Committee may prescribe. All notices or requests provided for herein shall be delivered to the Chief Financial Officer of the Company.

(b) The Committee in its sole discretion may make available one or more of the following alternatives for the payment of the Stock Option exercise price: (i) in cash; (ii) in cash received from a broker-dealer to whom the Participant has submitted an exercise notice together with irrevocable instructions to deliver promptly to the Company the amount of sales proceeds from the sale of the shares subject to the Stock Option to pay the exercise price; (iii) by directing the Company to withhold such number of shares of Common Stock otherwise issuable in connection with the exercise of the Stock Option having an aggregate Fair Market Value equal to the exercise price; (iv) by delivering previously acquired shares of Common Stock that are acceptable to the Committee and that have an aggregate Fair Market Value on the date of exercise equal to the Stock Option exercise price; or (v) by certifying to ownership by attestation of such previously acquired shares of Common Stock.

The Committee shall have the sole discretion to establish the terms and conditions applicable to any alternative made available for payment of the Stock Option exercise price.

## **Section Stock Awards.**

### **6.**

#### **6.1 Grant.**

The Committee may, in its discretion, (a) grant shares of Common Stock under the Plan to any Participant without consideration from such Participant or (b) sell shares of Common Stock under the Plan to any Participant for such amount of cash, Common Stock or other consideration as the Committee deems appropriate.

#### **6.2 Stock Award Agreement.**

Each share of Common Stock granted or sold hereunder shall be subject to such restrictions, conditions and other terms as the Board may determine at the time of grant or sale, the general provisions of the Plan, the restrictions, terms and conditions of the related Stock Award Agreement, and the following specific rules:

(a) The Award Agreement shall specify whether the shares of Common Stock are granted or sold to the Participant and such other provisions, not inconsistent with the terms and conditions of the Plan, as the Committee shall determine.

(b) The restrictions to which the shares of Common Stock awarded hereunder are subject shall lapse as provided in Stock Award Agreement; provided that the Committee shall have the discretion to accelerate the date as of which the restrictions lapse with respect to any Award held by a Participant in the event of the Participant's termination of employment with the Company, or service on the Board, without cause (as determined by the Committee in its sole discretion).

(c) Except as provided in this subsection (c) and unless otherwise set forth in the related Stock Award Agreement, the Participant receiving a grant of or purchasing Common Stock shall thereupon be a stockholder with respect to such shares and shall have the rights of a stockholder with respect to such shares, including the right to vote such shares and to receive dividends and other distributions paid with respect to such shares; provided that any dividends or other distributions payable with respect to the Stock Award shall be accumulated and held by the Company and paid to the Participant only upon, and to the extent, the restrictions lapse in accordance with the terms of the applicable Stock Award Agreement. Any such dividends or other distributions held by the Company attributable to the portion of a Stock Award that is forfeited shall also be forfeited.

## **Section Stock Unit Awards.**

### **7.**

#### **7.1 Grant.**

The Committee may, in its discretion, grant Stock Unit Awards to any Participant. Each Stock Unit subject to the Award shall entitle the Participant to receive, on the date or the occurrence of an event (including the attainment of performance goals) as described in the Stock Unit Award Agreement, a share of Common Stock or cash equal to the Fair Market Value of a share of Common Stock on the date of such event as provided in the Stock Unit Award Agreement.

## 7.2 Stock Unit Agreement.

Each Stock Unit Award shall be subject to such restrictions, conditions and other terms as the Committee may determine at the time of grant, the general provisions of the Plan, the restrictions, terms and conditions of the related Stock Unit Award Agreement and the following specific rules:

(a) The Stock Unit Agreement shall specify such provisions, not inconsistent with the terms and conditions of the Plan, as the Committee shall determine.

(b) The restrictions to which the shares of Stock Units awarded hereunder are subject shall lapse as provided in Stock Unit Agreement; provided that the Committee shall have the discretion to accelerate the date as of which the restrictions lapse with respect to any Award held by a Participant in the event of the Participant's termination of employment with the Company, or service on the Board, without cause (as determined by the Board in its sole discretion).

(c) Except as provided in this subsection (c) and unless otherwise set forth in the Stock Unit Agreement, the Participant receiving a Stock Unit Award shall have no rights of a stockholder, including voting or dividends or other distributions rights, with respect to any Stock Units prior to the date they are settled in shares of Common Stock; provided that a Stock Unit Award Agreement may provide that until the Stock Units are settled in shares or cash, the Participant shall be entitled to receive on each dividend or distribution payment date applicable to the Common Stock an amount equal to the dividends or other distributions that the Participant would have received had the Stock Units held by the Participant as of the related record date been actual shares of Common Stock. Such amounts shall be accumulated and held by the Company and paid to the Participant only upon, and to the extent, the restrictions lapse in accordance with the terms of the applicable Stock Unit Award Agreement. Such amounts held by the Company attributable to the portion of the Stock Unit Award that is forfeited shall also be forfeited.

## **Section SARs.**

### **8.**

#### 8.1 Grant.

The Committee may grant SARs to Participants. Upon exercise, an SAR entitles the Participant to receive from the Company the number of shares of Common Stock having an aggregate Fair Market Value equal to the excess of the Fair Market Value of one share as of the date on which the SAR is exercised over the exercise price, multiplied by the number of shares with respect to which the SAR is being exercised. The Committee, in its discretion, shall be entitled to cause the Company to elect to settle any part or all of its obligations arising out of the exercise of an SAR by the payment of cash in lieu of all or part of the shares it would otherwise be obligated to deliver in an amount equal to the Fair Market Value of such shares on the date of exercise. Cash shall be delivered in lieu of any fractional shares. The terms and conditions of any such Award shall be determined at the time of grant.

#### 8.2 SAR Agreement.

(a) Each SAR shall be evidenced by a written SAR Agreement specifying the terms and conditions of the SAR as the Committee may determine, including the SAR exercise price, expiration date of the SAR, the number of shares of Common Stock to which the SAR pertains, the form of settlement and such other terms and conditions established by the Committee, in its sole discretion, not inconsistent with the Plan.

(b) The per Share exercise price of each SAR shall not be less than 100% of the Fair Market Value of a Share on the date the SAR is granted.

(c) Each SAR shall expire and all rights thereunder shall cease on the date fixed by the Committee in the related SAR Agreement, which shall not be later than the ten years after the date of grant; provided however, if a Participant is unable to exercise an SAR because trading in the Common Stock is prohibited by law or the Company's insider-trading policy, the SAR exercise date shall be extended to the date that is 30 days after the expiration of the trading prohibition.

(d) Each SAR shall become exercisable as provided in the related SAR Agreement; provided that notwithstanding any other Plan provision, the Committee shall have the discretion to accelerate the date as of which any SAR shall become exercisable in the event of the Participant's termination of employment, or service on the Board, without cause (as determined by the Committee in its sole discretion).

(e) No dividends or dividend equivalents shall be paid with respect to any SAR prior to the exercise of the SAR.

(f) A person entitled to exercise an SAR may do so by delivery of a written notice in accordance with procedures established by the Committee specifying the number of shares of Common Stock with respect to which the SAR is being exercised and any other information the Committee may prescribe. As soon as reasonably practicable after the exercise of an SAR, the Company shall (i) issue the total number of full shares of Common Stock to which the Participant is entitled and cash in an amount equal to the Fair Market Value, as of the date of exercise, of any resulting fractional share, and (ii) if the Committee causes the Company to elect to settle all or part of its obligations arising out of the exercise of the SAR in cash, deliver to the Participant an amount in cash equal to the Fair Market Value, as of the date of exercise, of the shares it would otherwise be obligated to deliver.

## **Section Change in Control.**

### **9.**

#### **9.1 Effect of a Change in Control.**

(a) Notwithstanding any of the provisions of the Plan or any outstanding Award Agreement, upon a Change in Control of the Company (as defined in Section 9.2), the Board is authorized and has sole discretion to provide that (i) all outstanding Awards shall become fully exercisable, (ii) all restrictions applicable to all Awards shall terminate or lapse and (iii) performance goals applicable to any Awards shall be deemed satisfied at the highest level, as applicable, in order that Participants may realize the benefits thereunder.

(b) In addition to the Board's authority set forth in Section 3, upon such Change in Control of the Company, the Board is authorized and has sole discretion as to any Award, either at the time such Award is granted hereunder or any time thereafter, to take any one or more of the following actions: (i) provide for the purchase of any outstanding Stock Option, for an amount of cash equal to the difference between the exercise price and the then Fair Market Value of the Common Stock covered thereby had such Stock Option been currently exercisable; (ii) make such adjustment to any such Award then outstanding as the Board deems appropriate to reflect such Change in Control; and (iii) cause any such Award then outstanding to be assumed by the acquiring or surviving corporation after such Change in Control.

## 9.2 Definition of Change in Control.

“Change in Control” of the Company shall be deemed to have occurred if at any time during the term of an Award granted under the Plan any of the following events occurs:

(a) any Person (other than the Company, a trustee or other fiduciary holding securities under an employee benefit plan of the Company, or a corporation owned directly or indirectly by the shareholders of the Company in substantially the same proportions as their ownership of shares of Common Stock of the Company) is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing 30% or more of the combined voting power of the Company’s then outstanding securities entitled to vote generally in the election of directors (“Person” and “Beneficial Owner” being defined in Rule 13d-3 of the General Rules and Regulations of the Exchange Act);

(b) the Company is party to a merger, consolidation, reorganization or other similar transaction with another corporation or other Person unless, following such transaction, more than 50% of the combined voting power of the outstanding securities of the surviving, resulting or acquiring corporation or Person or its parent entity entitled to vote generally in the election of directors (or Persons performing similar functions) is then beneficially owned, directly or indirectly, by all or substantially all of the individuals and entities who were the beneficial owners of the Company’s outstanding securities entitled to vote generally in the election of directors immediately prior to such transaction, in substantially the same proportions as their ownership, immediately prior to such transaction, of the Company’s outstanding securities entitled to vote generally in the election of directors;

(c) the election to the Board, without the recommendation or approval of two-thirds of the incumbent Board, of the lesser of: (i) three Directors; or (ii) Directors constituting a majority of the number of Directors of the Company then in office; provided, however, that Directors whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of Directors of the Company will not be considered as incumbent members of the Board for purposes of this Section; or

(d) there is a complete liquidation or dissolution of the Company, or the Company sells all or substantially all of its business and/or assets to another corporation or other Person unless, following such sale, more than 50% of the combined voting power of the outstanding securities of the acquiring corporation or Person or its parent entity entitled to vote generally in the election of directors (or Persons performing similar functions) is then beneficially owned, directly or indirectly, by all or substantially all of the individuals and entities who were the beneficial owners of the Company’s outstanding securities entitled to vote generally in the election of directors immediately prior to such sale, in substantially the same proportions as their ownership, immediately prior to such sale, of the Company’s outstanding securities entitled to vote generally in the election of directors.

In no event, however, shall a Change in Control be deemed to have occurred, with respect to a Participant, if that Participant is part of a purchasing group which consummates the Change in Control transaction. A Participant shall be deemed “part of a purchasing group” for purposes of the preceding sentence if the Participant is an equity participant or has agreed to become an equity participant in the purchasing company or group (except for (a) passive ownership of less than 3% of the shares of the purchasing company; or (b) ownership of equity participation in the purchasing company or group which is otherwise not deemed to be significant, as determined prior to the Change in Control by a majority of the disinterested Directors).

**Section Payment of Taxes.**

**10.**

(a) In connection with any Award, and as a condition to the issuance or delivery of any shares of Common Stock to the Participant in connection therewith, the Company shall require the Participant to pay the Company the minimum amount of federal, state, local or foreign taxes required to be withheld, and in the Company's sole discretion, the Company may permit the Participant to pay the Company up to the maximum individual statutory rate of applicable withholding.

(b) The Company in its sole discretion may make available one or more of the following alternatives for the payment of such taxes: (i) in cash; (ii) in cash received from a broker-dealer to whom the Participant has submitted notice together with irrevocable instructions to deliver promptly to the Company the amount of sales proceeds from the sale of the shares subject to the Award to pay the withholding taxes; (iii) by directing the Company to withhold such number of shares of Common Stock otherwise issuable in connection with the Award having an aggregate Fair Market Value equal to the minimum amount of tax required to be withheld; (iv) by delivering previously acquired shares of Common Stock of the Company that are acceptable to the Board that have an aggregate Fair Market Value equal to the amount required to be withheld; or (v) by certifying to ownership by attestation of such previously acquired shares of Common Stock.

The Committee shall have the sole discretion to establish the terms and conditions applicable to any alternative made available for payment of the required withholding taxes.

**Section Postponement.**

**11.**

The Committee may postpone any grant or settlement of an Award or exercise of a Stock Option or SAR for such time as the Board in its sole discretion may deem necessary in order to permit the Company:

(a) to effect, amend or maintain any necessary registration of the Plan or the shares of Common Stock issuable pursuant to an Award, including upon the exercise of a Stock Option or SAR, under the Securities Act of 1933, as amended, or the securities laws of any applicable jurisdiction;

(b) to permit any action to be taken in order to (i) list such shares of Common Stock on a stock exchange if shares of Common Stock are then listed on such exchange or (ii) comply with restrictions or regulations incident to the maintenance of a public market for its shares of Common Stock, including any rules or regulations of any stock exchange on which the shares of Common Stock are listed; or

(c) to determine that such shares of Common Stock and the Plan are exempt from such registration or that no action of the kind referred to in (b)(ii) above needs to be taken; and the Company shall not be obligated by virtue of any terms and conditions of any Award or any provision of the Plan to sell or issue shares of Common Stock in violation of the Securities Act of 1933 or the law of any government having jurisdiction thereof.

Any such postponement shall not extend the term of an Award and neither the Company nor its Directors or officers shall have any obligation or liability to a Participant, the Participant's successor or any other person with respect to any shares of Common Stock as to which the Award shall lapse because of such postponement.

**Section Nontransferability.**

**12.**

Awards granted under the Plan, and any rights and privileges pertaining thereto, may not be transferred, assigned, pledged or hypothecated in any manner, or be subject to execution, attachment or similar process, by operation of law or otherwise, other than by will or by the laws of descent and distribution.

#### **Section Delivery of Shares.**

##### **13.**

Shares of Common Stock issued pursuant to a Stock Award, the exercise of a Stock or SAR or the settlement of a Stock Unit Award shall be represented by stock certificates or on a non-certificated basis, with the ownership of such shares by the Participant evidenced solely by book entry in the records of the Company's transfer agent; provided, however, that upon the written request of the Participant, the Company shall issue, in the name of the Participant, stock certificates representing such shares of Common Stock. Notwithstanding the foregoing, shares granted pursuant to a Stock Award shall be held by the Secretary of the Company until such time as the shares are forfeited or settled.

#### **Section Termination or Amendment of Plan and Award Agreements.**

##### **14.**

###### 14.1 Termination or Amendment of Plan.

(a) Except as described in Section 14.3 below, the Board may terminate, suspend, or amend the Plan, in whole or in part, from time to time, without the approval of the stockholders of the Company, unless such approval is required by applicable law, regulation or rule of any stock exchange on which the shares of Common Stock are listed. No amendment or termination of the Plan shall adversely affect the right of any Participant under any outstanding Award in any material way without the written consent of the Participant, unless such amendment or termination is required by applicable law, regulation or rule of any stock exchange on which the shares of Common Stock are listed. Subject to the foregoing, the Committee may correct any defect or supply an omission or reconcile any inconsistency in the Plan or in any Award granted hereunder in the manner and to the extent it shall deem desirable, in its sole discretion, to effectuate the Plan.

(b) The Board shall have the authority to amend the Plan to the extent necessary or appropriate to comply with applicable law, regulation or accounting rules in order to permit Participants who are located outside of the United States to participate in the Plan.

###### 14.2 Amendment of Award Agreements.

The Committee shall have the authority to amend any Award Agreement at any time; provided however, that no such amendment shall adversely affect the right of any Participant under any outstanding Award Agreement in any material way without the written consent of the Participant, unless such amendment is required by applicable law, regulation or rule of any stock exchange on which the shares of Common Stock are listed.

###### 14.3 No Repricing of Stock Options.

Notwithstanding the foregoing, and except as described in Section 4.3, there shall be no amendment to the Plan or any outstanding Stock Option Agreement or SAR Agreement that results in the repricing of Stock Options or SARs without stockholder approval. For this purpose, repricing includes (i) a reduction in the exercise price of the Stock Option or SARs or (ii) the cancellation of a Stock Option in exchange for cash, Stock Options or SARs with an exercise price less than the exercise price of the cancelled Options or SARs, other Awards or any other consideration provided by the Company, but does not include any adjustment described in Section 4.3.



**Section No Contract of Employment.**

**15.**

Neither the adoption of the Plan nor the grant of any Award under the Plan shall be deemed to obligate the Company or any Subsidiary to continue the employment of any Participant for any particular period, nor shall the granting of an Award constitute a request or consent to postpone the retirement date of any Participant.

**Section Applicable Law.**

**16.**

All questions pertaining to the validity, construction and administration of the Plan and all Awards granted under the Plan shall be determined in conformity with the laws of the State of Delaware, without regard to the conflict of law provisions of any state, and, in the case of Incentive Stock Options, Section 422 of the Code and regulations issued thereunder.

**Section Effective Date and Term of Plan.**

**17.**

17.1 Effective Date.

(a) The Plan as amended and restated has been adopted by the Board, and is effective, as of March 26, 2020, subject to the approval of the Plan by the stockholders of the Company.

(b) In the event the Plan is not approved by stockholders of the Company within 12 months of the date hereof, the Plan as amended and restated shall have no effect, and the Plan as in effect prior to March 26, 2020 shall continue.

17.2 Term of Plan.

Notwithstanding anything to the contrary contained herein, no Awards shall be granted on or after December 1, 2025.

THIS DOCUMENT CONSTITUTES PART OF THE SECTION 10(a) PROSPECTUS COVERING SECURITIES THAT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933.

**Moleculin Biotech, Inc. 2015 Incentive Plan  
Incentive Stock Option Agreement**

The employee identified below has been selected to be a Participant in the Moleculin Biotech, Inc. 2015 Incentive Plan, as amended (the "Plan") and has been granted an Incentive Stock Option as outlined below:

**Participant:**

**Date of Grant:**

**Shares Covered by the Option:**

**Option Exercise Price:**     \$

**Expiration Date:**

**Vesting Schedule:** The Option shall vest in \_\_\_\_\_ equal installments (or \_\_\_\_\_ shares each installment) on each of the succeeding \_\_\_\_\_ anniversary dates of the Date of Grant (i.e. the first such installment shall vest on the first anniversary of the Date of Grant), provided Participant is providing services to the Company on such vesting date(s).

This Agreement, effective as of the Date of Grant set forth above, is between Moleculin Biotech, Inc., a Delaware corporation (the "Company"), and the Participant named above. The parties hereto agree as follows:

The Plan provides a complete description of the terms and conditions governing the Option. If there is any inconsistency between the terms of this Agreement and the terms of the Plan, the Plan's terms shall govern. All capitalized terms shall have the meanings ascribed to them in the Plan, unless otherwise set forth herein. A copy of the Plan is attached hereto and the terms of the Plan are hereby incorporated by reference.

**1. Stock Option Grant.** Subject to the provisions set forth herein and the terms and conditions of the Plan, and in consideration of the agreements of the Participant herein provided, the Company hereby grants to the Participant an Option to purchase from the Company the number of shares of Common Stock, at the exercise price per share, and on the schedule, set forth above. The grant is intended to be an incentive stock option as that term is described in Section 422(b) of the Internal Revenue Code of 1986, as amended (the "Code").

**2. Acceptance by Participant.** The exercise of the Option is conditioned upon the acceptance of this Agreement by the Participant.

**3. Exercise of Option.** Subject to Section 4 below, the Participant may exercise the vested portion of the Option at any time prior to the Expiration Date. Written notice of an election to exercise any portion of the Option shall be given by the Participant, or his or her personal representative in the event of the Participant's death, to the Company's Chief Financial Officer (or Chief Executive Officer if the Participant is the Chief Financial Officer), in accordance with procedures established by the Compensation Committee of the Board of Directors of the Company (the "Committee") as in effect at the time of such exercise.

At the time of exercise of the Option, payment of the purchase price for the shares of Common Stock with respect to which the Option is exercised, must be made by one or more of the following methods: (a) in cash, (b) in cash received from a broker-dealer to whom the Participant has submitted an exercise notice and irrevocable instructions to deliver the purchase price to the Company from the proceeds of the sale of shares subject to the Option, (c) by directing the Company to withhold such number of shares of Common Stock otherwise issuable upon exercise of the Option with a fair market value equal to the amount of the purchase price and/or (d) by delivery to the Company of other Common Stock owned by the Participant that is acceptable to the Company, valued at its then fair market value.

No shares shall be issued upon exercise of the Option until full payment of the exercise price has been made.

If the Fair Market Value of shares subject to the portion of an Option (determined with respect to each Option at the time of grant) that vests during a calendar year exceeds \$100,000, the portion of such Option that exceeds this limitation

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shall be a Non-Qualified Stock Option. Thus, vesting or accelerated vesting of the Option may result in all or any part of the Option being treated as a Non-Qualified Stock Option.

**4. Exercise Upon Termination of Employment.** If the Participant's employment with the Company and all subsidiaries terminates without cause (as determined by the Committee in its sole discretion) and for any reason other than death, disability or retirement, the then vested portion of the Option shall continue to be exercisable until the earlier of the 90th day after the date of the Participant's termination or the date the Option expires by its terms. The portion of the Option not vested as of the date of such termination of employment shall expire as of such date and shall not be exercisable.

If the Participant's employment with the Company and all subsidiaries terminates due to death, disability or retirement, the then vested portion of the Option shall continue to be exercisable until the earlier of one year after the date of the Participant's termination or the date the Option expires by its terms. The portion of the Option not vested as of the date of such termination of employment shall expire as of such date and shall not be exercisable.

If the Participant's employment with the Company and all subsidiaries is terminated by the Company for cause (as determined by the Committee in its sole discretion), the Option shall expire on the date of such termination, and no portion shall be exercisable after the date of such termination.

For purposes of this Section 4, (A) "disability" has the meaning, and will be determined, as set forth in the Company's long term disability program in which the Participant participates, and (B) "retirement" means the Participant's termination from employment with the Company and all subsidiaries without cause (as determined by the Committee in its sole discretion) when the Participant is 65 or older or 55 or older with 10 years of service with the Company and its subsidiaries.

The foregoing provisions of this Section 4 shall be subject to the provisions of any written employment or severance agreement that has been or may be executed by the Participant and the Company, and the provisions in such employment or severance agreement concerning exercise of the Option shall supersede any inconsistent or contrary provision of this Section 4.

**5. Confidentiality and Non-Compete Agreement.** Notwithstanding any other provision of this Agreement, in the event the Committee determines that the Participant has breached any provision of any confidentiality and/or non-compete agreement in effect between the Participant and the Company, (a) the then outstanding and unexercised portion of the Option (whether vested or unvested) shall be cancelled and forfeited back to the Company and (b) the Participant shall remit to the Company within 30 days of written notice from the Committee a cash payment equal to the number of shares of Common Stock subject to the portion of the Option that was previously exercised, multiplied by the excess of the fair market value of the Common Stock on the date of exercise over the Option Exercise Price. The Company shall be entitled, as permitted by applicable law, to deduct the amount of such payment from any amounts the Company may owe to the Participant.

**6. Nontransferability of Options.** The Option may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution.

**7. Beneficiary Designation.** The Participant may, from time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom any benefit under the Option is to be paid in the event of his or her death. Each designation will revoke all prior designations by the same Participant, shall be in a form prescribed by the Board, and will be effective only when filed by the Participant in writing with the Board during his or her lifetime. In the absence of any such designation, or if all beneficiaries predecease the Participant, benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate.

**8. Rights as a Stockholder.** The Participant shall have no rights as a stockholder of the Company with respect to the shares of Common Stock subject to the Option and this Agreement until such time as the exercise price has been paid and the shares have been issued and delivered to him or her.

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**9. Surrender of or Changes to Agreement.** In the event the Option shall be exercised in whole, this Agreement shall be surrendered to the Company for cancellation. In the event the Option shall be exercised in part or a change in the number of designation of the shares of Common Stock shall be made, this Agreement shall be delivered by the Participant to the Company for the purpose of making appropriate notation thereon, or of otherwise reflecting, in such manner as the Company shall determine, the change in the number or designation of such shares.

**10. Administration.** The Option shall be exercised in accordance with such administrative regulations as the Committee shall from time to time adopt. It is expressly understood that the Committee is authorized to administer, construe, and make all determinations necessary or appropriate to the administration of, the Plan and this Agreement, all of which shall be binding upon the Participant.

**11. Governing Law.** This Agreement, and the Option, shall be construed, administered and governed in all respects under and by the laws of the State of Delaware.

\* \* \*

By accepting this Agreement, the Participant agrees to be bound by the terms hereof.

**Moleculin Biotech, Inc.**

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Participant**

**By:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

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THIS DOCUMENT CONSTITUTES PART OF THE SECTION 10(a) PROSPECTUS COVERING SECURITIES THAT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933.

**Moleculin Biotech, Inc. 2015 Incentive Plan  
Non-Qualified Stock Option Agreement (for individuals other than independent directors)**

The employee identified below has been selected to be a Participant in the Moleculin Biotech, Inc. 2015 Incentive Plan (the "Plan") and has been granted a Non-Qualified Option as outlined below:

**Participant:**

**Date of Grant:**

**Shares Covered by the Option:**

**Option Exercise Price:**     \$

**Expiration Date:**

**Vesting Schedule: The Option shall vest in \_\_\_\_\_ equal installments (or \_\_\_\_\_ shares each installment) on each of the succeeding \_\_\_\_\_ anniversary dates of the Date of Grant (i.e. the first such installment shall vest on the first anniversary of the Date of Grant), provided Participant is providing services to the Company on such vesting date(s).**

This Agreement, effective as of the Date of Grant set forth above, is between Moleculin Biotech, Inc., a Delaware corporation (the "Company"), and the Participant named above. The parties hereto agree as follows:

The Plan provides a complete description of the terms and conditions governing the Option. If there is any inconsistency between the terms of this Agreement and the terms of the Plan, the Plan's terms shall govern. All capitalized terms shall have the meanings ascribed to them in the Plan, unless otherwise set forth herein. A copy of the Plan is attached hereto and the terms of the Plan are hereby incorporated by reference.

**1. Stock Option Grant.** Subject to the provisions set forth herein and the terms and conditions of the Plan, and in consideration of the agreements of the Participant herein provided, the Company hereby grants to the Participant an Option to purchase from the Company the number of shares of Common Stock, at the exercise price per share, and on the schedule, set forth above.

**2. Acceptance by Participant.** The exercise of the Option is conditioned upon the acceptance of this Agreement by the Participant.

**3. Exercise of Option.** Subject to Section 4 below, the Participant may exercise the vested portion of the Option at any time prior to the Expiration Date. Written notice of an election to exercise any portion of the Option shall be given by the Participant, or his personal representative in the event of the Participant's death, to the Company's Chief Financial Officer (or Chief Executive Officer if the Participant is the Chief Financial Officer), in accordance with procedures established by the Compensation Committee of the Board of Directors of the Company (the "Committee") as in effect at the time of such exercise.

At the time of exercise of the Option, payment of the purchase price for the shares of Common Stock with respect to which the Option is exercised, and of an amount sufficient to satisfy all minimum Federal, state and local withholding tax requirements, must be made by one or more of the following methods: (a) in cash, (b) in cash received from a broker-dealer to whom the Participant has submitted an exercise notice and irrevocable instructions to deliver the purchase price or withholding tax to the Company from the proceeds of the sale of shares subject to the Option, (c) by directing the Company to withhold such number of shares of Common Stock otherwise issuable upon exercise of the Option with a fair market value equal to the amount of the purchase price or the tax to be withheld and/or (d) by delivery to the Company of other Common Stock owned by the Participant that is acceptable to the Company, valued at its then fair market value.

No shares shall be issued upon exercise of the Option until full payment of the exercise price and tax withholding obligation has been made.

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**4. Exercise Upon Termination of Employment.** If the Participant's employment with the Company and all subsidiaries terminates without cause (as determined by the Committee in its sole discretion) and for any reason other than death, disability or retirement, the then vested portion of the Option shall continue to be exercisable until the earlier of the 90th day after the date of the Participant's termination or the date the Option expires by its terms. The portion of the Option not vested as of the date of such termination of employment shall expire as of such date and shall not be exercisable.

If the Participant's employment with the Company and all subsidiaries terminates due to death, disability or retirement, the then vested portion of the Option shall continue to be exercisable until the earlier of one year after the date of the Participant's termination or the date the Option expires by its terms. The portion of the Option not vested as of the date of such termination of employment shall expire as of such date and shall not be exercisable.

If the Participant's employment with the Company and all subsidiaries is terminated by the Company for cause (as determined by the Committee in its sole discretion), the Option shall expire on the date of such termination, and no portion shall be exercisable after the date of such termination.

For purposes of this Section 4, (A) "disability" has the meaning, and will be determined, as set forth in the Company's long term disability program in which the Participant participates, and (B) "retirement" means the Participant's termination from employment with the Company and all subsidiaries without cause (as determined by the Committee in its sole discretion) when the Participant is 65 or older or 55 or older with 10 years of service with the Company and its subsidiaries.

The foregoing provisions of this Section 4 shall be subject to the provisions of any written employment or severance agreement that has been or may be executed by the Participant and the Company, and the provisions in such employment or severance agreement concerning exercise of the Option shall supersede any inconsistent or contrary provision of this Section 4.

**5. Confidentiality and Non-Compete Agreement.** Notwithstanding any other provision of this Agreement, in the event the Committee determines that the Participant has breached any provision of any confidentiality and/or non-compete agreement in effect between the Participant and the Company, (a) the then outstanding and unexercised portion of the Option (whether vested or unvested) shall be cancelled and forfeited back to the Company and (b) the Participant shall remit to the Company within 30 days of written notice from the Committee a cash payment equal to the number of shares of Common Stock subject to the portion of the Option that was previously exercised, multiplied by the excess of the fair market value of the Common Stock on the date of exercise over the Option Exercise Price. The Company shall be entitled, as permitted by applicable law, to deduct the amount of such payment from any amounts the Company may owe to the Participant.

**6. Nontransferability of Options.** The Option may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution.

**7. Beneficiary Designation.** The Participant may, from time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom any benefit under the Option is to be paid in the event of his or her death. Each designation will revoke all prior designations by the same Participant, shall be in a form prescribed by the Board, and will be effective only when filed by the Participant in writing with the Board during his or her lifetime. In the absence of any such designation, or if all beneficiaries predecease the Participant, benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate.

**8. Rights as a Stockholder.** The Participant shall have no rights as a stockholder of the Company with respect to the shares of Common Stock subject to the Option and this Agreement until such time as the exercise price has been paid and the shares have been issued and delivered to him or her.

**9. Surrender of or Changes to Agreement.** In the event the Option shall be exercised in whole, this Agreement shall be surrendered to the Company for cancellation. In the event the Option shall be exercised in part or a change in the number of designation of the shares of Common Stock shall be made, this Agreement shall be delivered

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by the Participant to the Company for the purpose of making appropriate notation thereon, or of otherwise reflecting, in such manner as the Company shall determine, the change in the number or designation of such shares.

**10. Administration.** The Option shall be exercised in accordance with such administrative regulations as the Committee shall from time to time adopt. It is expressly understood that the Committee is authorized to administer, construe, and make all determinations necessary or appropriate to the administration of, the Plan and this Agreement, all of which shall be binding upon the Participant.

**11. Governing Law.** This Agreement, and the Option, shall be construed, administered and governed in all respects under and by the laws of the State of Delaware.

\* \* \*

By accepting this Agreement, the Participant agrees to be bound by the terms hereof.

**Moleculin Biotech, Inc.**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

**Participant**

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

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THIS DOCUMENT CONSTITUTES PART OF THE SECTION 10(a) PROSPECTUS COVERING SECURITIES THAT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933.

**Moleculin Biotech, Inc. 2015 Incentive Plan  
Non-Qualified Stock Option Agreement (for non-employee Directors)**

The director identified below has been selected to be a Participant in the Moleculin Biotech, Inc. 2015 Incentive Plan, as amended (the "Plan") and has been granted a Non-Qualified Option as outlined below:

**Participant:**

**Date of Grant:**

**Shares Covered by the Option:**

**Option Exercise Price:**     \$

**Expiration Date:**

**Vesting Schedule: The Option shall vest in four (4) equal quarterly installments (or \_\_\_\_\_ shares per installment) on each of the succeeding four quarters after the Date of Grant, provided Participant is serving as a member of the Company's Board of Directors on such vesting dates.**

This Agreement, effective as of the Date of Grant set forth above, is between Moleculin Biotech, Inc., a Delaware corporation (the "Company"), and the Participant named above. The parties hereto agree as follows:

The Plan provides a complete description of the terms and conditions governing the Option. If there is any inconsistency between the terms of this Agreement and the terms of the Plan, the Plan's terms shall govern. All capitalized terms shall have the meanings ascribed to them in the Plan, unless otherwise set forth herein. A copy of the Plan is attached hereto and the terms of the Plan are hereby incorporated by reference.

**12. Stock Option Grant.** Subject to the provisions set forth herein and the terms and conditions of the Plan, and in consideration of the agreements of the Participant herein provided, the Company hereby grants to the Participant an Option to purchase from the Company the number of shares of Common Stock, at the exercise price per share, and on the schedule, set forth above.

**13. Acceptance by Participant.** The exercise of the Option is conditioned upon the acceptance of this Agreement by the Participant.

**14. Exercise of Option.** Subject to Section 4 below, the Participant may exercise the vested portion of the Option at any time prior to the Expiration Date. Written notice of an election to exercise any portion of the Option shall be given by the Participant, or his personal representative in the event of the Participant's death, to the Company's Chief Financial Officer (or Chief Executive Officer if the Participant is the Chief Financial Officer), in accordance with procedures established by the Compensation Committee of the Board of Directors of the Company (the "Committee") as in effect at the time of such exercise.

At the time of exercise of the Option, payment of the purchase price for the shares of Common Stock with respect to which the Option is exercised, and of an amount sufficient to satisfy all minimum Federal, state and local withholding tax requirements, must be made by one or more of the following methods: (a) in cash, (b) in cash received from a broker-dealer to whom the Participant has submitted an exercise notice and irrevocable instructions to deliver the purchase price or withholding tax to the Company from the proceeds of the sale of shares subject to the Option, (c) by directing the Company to withhold such number of shares of Common Stock otherwise issuable upon exercise of the Option with a fair market value equal to the amount of the purchase price or the tax to be withheld and/or (d) by delivery to the Company of other Common Stock owned by the Participant that is acceptable to the Company, valued at its then fair market value.

No shares shall be issued upon exercise of the Option until full payment of the exercise price and tax withholding obligation has been made.

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**15. Exercise Upon Termination of Service.** If the Participant's service as a member of the Company's Board of Directors terminates for any reason other than death, disability or retirement, the then vested portion of the Option shall continue to be exercisable until the earlier of the 90th day after the date of the Participant's termination or the date the Option expires by its terms. The portion of the Option not vested as of the date of such termination of service shall expire as of such date and shall not be exercisable.

If the Participant's service as a member of the Company's Board of Directors terminates due to death, disability or retirement, the then vested portion of the Option shall continue to be exercisable until the earlier of one year after the date of the Participant's termination or the date the Option expires by its terms. The portion of the Option not vested as of the date of such termination of service shall expire as of such date and shall not be exercisable.

For purposes of this Section 4, (A) "disability" has the meaning, and will be determined, as set forth in the Company's long term disability program in which the Participant participates, and (B) "retirement" means the Participant's termination from service as a member of the Company's Board of Directors when the Participant is 65 or older or 55 or older with 10 years of service with the Company and its subsidiaries.

The foregoing provisions of this Section 4 shall be subject to the provisions of any written employment or severance agreement that has been or may be executed by the Participant and the Company, and the provisions in such employment or severance agreement concerning exercise of the Option shall supersede any inconsistent or contrary provision of this Section 4.

**16. Confidentiality and Non-Compete Agreement.** Notwithstanding any other provision of this Agreement, in the event the Committee determines that the Participant has breached any provision of any confidentiality and/or non-compete agreement in effect between the Participant and the Company, (a) the then outstanding and unexercised portion of the Option (whether vested or unvested) shall be cancelled and forfeited back to the Company and (b) the Participant shall remit to the Company within 30 days of written notice from the Committee a cash payment equal to the number of shares of Common Stock subject to the portion of the Option that was previously exercised, multiplied by the excess of the fair market value of the Common Stock on the date of exercise over the Option Exercise Price. The Company shall be entitled, as permitted by applicable law, to deduct the amount of such payment from any amounts the Company may owe to the Participant.

**17. Nontransferability of Options.** The Option may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution.

**18. Beneficiary Designation.** The Participant may, from time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom any benefit under the Option is to be paid in the event of his or her death. Each designation will revoke all prior designations by the same Participant, shall be in a form prescribed by the Board, and will be effective only when filed by the Participant in writing with the Board during his or her lifetime. In the absence of any such designation, or if all beneficiaries predecease the Participant, benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate.

**19. Rights as a Stockholder.** The Participant shall have no rights as a stockholder of the Company with respect to the shares of Common Stock subject to the Option and this Agreement until such time as the exercise price has been paid and the shares have been issued and delivered to him or her.

**20. Surrender of or Changes to Agreement.** In the event the Option shall be exercised in whole, this Agreement shall be surrendered to the Company for cancellation. In the event the Option shall be exercised in part or a change in the number of designation of the shares of Common Stock shall be made, this Agreement shall be delivered by the Participant to the Company for the purpose of making appropriate notation thereon, or of otherwise reflecting, in such manner as the Company shall determine, the change in the number or designation of such shares.

**21. Administration.** The Option shall be exercised in accordance with such administrative regulations as the Committee shall from time to time adopt. It is expressly understood that the Committee is authorized to administer,

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construe, and make all determinations necessary or appropriate to the administration of, the Plan and this Agreement, all of which shall be binding upon the Participant.

**22. Governing Law.** This Agreement, and the Option, shall be construed, administered and governed in all respects under and by the laws of the State of Delaware.

\* \* \*

By accepting this Agreement, the Participant agrees to be bound by the terms hereof.

**Moleculin Biotech, Inc.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**Participant**

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

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**MOLECULIN BIOTECH, INC.  
2015 STOCK PLAN  
(AMENDED AND RESTATED)**

**RESTRICTED STOCK UNIT AWARD AGREEMENT  
FOR KEY EMPLOYEES**

A Restricted Stock Unit ("RSU") Award (the "Award") is hereby granted by Moleculin Biotech, Inc., a Delaware corporation (the "Company"), to the Key Employee named below (the "Grantee"), relating to the Common Stock of the Company:

Key Employee :  
Date of Award:  
Number of RSUs Subject to Award:  
End of Vesting Period:

The Award shall be subject to the following terms and conditions and the provisions of the Moleculin Biotech, Inc. 2015 Stock Plan, as amended and restated (the "Plan"), a copy of which is attached hereto and the terms of which are hereby incorporated by reference:

1. Grant of Award. The Company hereby grants to the Grantee the Award of RSUs. An RSU is the right, subject to the terms and conditions of the Plan and this Agreement, to receive a distribution of one share of Common Stock.

2. Acceptance by Grantee. The receipt of the Award is conditioned upon its acceptance by the Grantee in the space provided therefor at the end of this Agreement and the return of an executed copy of this Agreement to the Secretary of the Company. If the Grantee shall fail to return this executed Agreement, the Grantee's Award shall be forfeited to the Company.

3. RSU Account. The Company shall maintain an account (the "RSU Account") on its books in the name of the Grantee which shall reflect the number of RSUs awarded to the Grantee and any dividend equivalents paid to the Grantee as described in Section 4.

4. Dividend Equivalents. Upon the payment of any dividends on Common Stock occurring during the period beginning on the date of the Award and ending on the date the RSUs are settled in Common Stock (or the date the RSUs are forfeited), the Company shall credit the Grantee's RSU Account with an amount equal in value to the dividends that the Grantee would have received had the Grantee been the actual owner of the number of shares of Common Stock represented by the RSUs in the Grantee's RSU Account on that date. Such amounts shall be paid to the Grantee in cash at the time and to the extent the RSU Account is distributed to the Grantee. Any dividend equivalents relating to RSUs that are forfeited shall also be forfeited.

5. Nontransferability. Except as set forth in Section 12 of the Plan, neither the Award nor any of the RSUs subject to the Award may be sold, assigned, pledged, encumbered or otherwise transferred, voluntarily or involuntarily. Any attempted sale, assignment, pledge, encumbrance or transfer of the Award, other than in accordance with its terms, shall be void and of no effect.

6. Vesting.

(a) Except as set forth in (b) and (c) below, the Grantee shall become vested in the Award as follows: \_\_\_\_\_

(b) If the Grantee's employment with the Company and all Subsidiaries terminates for any reason, unvested RSUs subject to the Award shall be forfeited to the Company, and the Grantee's rights, title and interest with respect to such forfeited RSUs shall automatically lapse and be of no further force or effect. The Grantee hereby

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irrevocably designates and appoints the Secretary of the Company as the Grantee's agent and attorney in fact, to act for or on behalf of the Grantee and in his name and stead, for the limited purpose of executing any documents and instruments to further evidence the forfeiture of the unvested RSUs.

(c) The foregoing provisions of this Section 6 shall be subject to the provisions of any written employment or severance agreement that has been or may be executed by the Grantee and the Company, and the provisions in such employment or severance agreement concerning the vesting of an Award shall supersede any inconsistent or contrary provision of this Section 6.

7. Settlement of Award. If the Grantee becomes vested in the Award in accordance with Section 6, within 30 days following the date of vesting, the Company shall distribute to the Grantee, or his or her personal representative, beneficiary or estate, as applicable, (a) a number of shares of Common Stock equal to the number of vested RSUs subject to the Award and (b) a cash payment equal to the dividend equivalents that are payable pursuant to Section 4.

8. Withholding Taxes. The Grantee shall pay to the Company an amount sufficient to satisfy all minimum Federal, state and local withholding tax requirements prior to the delivery of any shares of Common Stock upon settlement of any vested RSUs covered by the Award. The Company in its sole discretion may permit the payment of additional withholding taxes up to the maximum statutory rate. Payment of such taxes may be made by one or more of the following methods: (a) in cash, (b) in cash received from a broker-dealer to whom the Grantee has submitted a notice and irrevocable instructions to deliver to the Company proceeds from the sale of a portion of the shares deliverable upon settlement of the Award, (c) by delivery to the Company of other Common Stock owned by the Grantee that is acceptable to the Company, valued at its then Fair Market Value, and/or (d) by directing the Company to withhold such number of shares of Common Stock otherwise deliverable upon settlement of the Award with a Fair Market Value equal to the amount of tax to be withheld.

9. Share Delivery. Delivery of shares of Common Stock upon settlement of the Award will be by book-entry credit to an account in the Grantee's name established by the Company with the Company's transfer agent; provided that the Company shall, upon written request from the Grantee (or his estate or personal representative, as the case may be), issue certificates in the name of the Grantee (or his estate or personal representative) representing such Award shares.

10. Rights as Stockholder. The Grantee shall not be entitled to any of the rights of a stockholder of the Company with respect to the Award, including the right to vote and to receive dividends and other distributions, until and to the extent the Award is settled in shares of Common Stock.

11. Insider Trading Policy. The sale or transfer of any shares of Common Stock delivered upon settlement of the Award is subject to the provisions of the Company's Insider Trading Policy, as in effect from time to time.

12. Recoupment. Notwithstanding any other provision of this Agreement, to the extent required by applicable law, including the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Company shall have the right to seek recoupment of all or any portion of an Award (including by forfeiture of any outstanding Award or by the Grantee's remittance to the Company of vested Award shares or of a cash payment equal to the vested Award shares). The value with respect to which such recoupment is sought shall be determined by the Committee. The Committee shall be entitled, as permitted by applicable law, to deduct the amount of such payment from any amounts the Company may owe to the Grantee.

13. Employment Status. This Agreement does not give the Grantee the right to be retained as an employee of the Company.

14. Administration. The Award shall be administered in accordance with such regulations as the Committee shall from time to time adopt.

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15. Plan Governs. If there is any inconsistency between the terms of this Agreement and the terms of the Plan, the Plan's terms shall govern. All capitalized terms shall have the meanings ascribed to them in the Plan, unless specifically set forth otherwise herein.

16. Governing Law. This Agreement, and the Award, shall be construed, administered and governed in all respects under and by the laws of the State of Delaware.

IN WITNESS WHEREOF, this Agreement is executed effective as of the \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

MOLECULIN BIOTECH, INC.

By: \_\_\_\_\_

AGREED AND ACCEPTED:

I acknowledge receipt of the Moleculin Biotech, Inc. 2015 Stock Plan, as amended and restated, and hereby accept this Restricted Stock Unit Award subject to all the terms and conditions thereof. I agree to accept as binding, conclusive and final all decisions and interpretations of the Committee regarding any questions arising under the Plan or this Award Agreement.

GRANTEE

Print Name:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Exhibit 5**

August 21, 2020

Moleculin Biotech, Inc.  
5300 Memorial Drive, Suite 950  
Houston, TX 77007

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Moleculin Biotech, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933 (the "Act"), registering a total of 6,000,000 shares of the Company's common stock, par value \$0.001 per share (the "Shares"), issuable pursuant to the Moleculin Biotech, Inc. 2015 Stock Plan, as amended (the "Plan").

In rendering this opinion, we have examined: (i) the Certificate of Incorporation and By-laws of the Company, as amended to date and as filed in the Registration Statement; (ii) the Registration Statement; and (iii) such statutory provisions, certificates and other documents as we have deemed appropriate or necessary as a basis for the opinions hereinafter expressed. We have also examined such other documents and considered such legal matters as we have deemed necessary and relevant as the basis for the opinion set forth below. With respect to such examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as reproduced or certified copies, and the authenticity of the originals of those latter documents.

Based upon the foregoing and in reliance thereon, it is our opinion that, as of the date hereof, the Shares to be issued under the Plan have been duly authorized by all necessary corporate action of the Company, and, upon the issuance and delivery of, and payment for, the Shares in the manner contemplated by the Plan and assuming the Company completes all actions and proceedings required on its part to be taken prior to the issuance and delivery of the Shares pursuant to the terms of the Plan, including, without limitation, collection of required payment for the Shares, if applicable, the Shares will be validly issued, fully paid and non-assessable.

This opinion is limited to the Federal law of the United States and the General Corporation Law of the State of Delaware, and we express no opinion as to the laws of any other jurisdiction. This opinion is rendered pursuant to Item 601(b)(5)(i) of Regulation S-K under the Act. The opinions expressed in this opinion letter are as of the date of this opinion letter only and as to laws covered hereby only as they are in effect on that date, and we assume no obligation to update or supplement such opinions to reflect any facts or circumstances that may come to our attention after that date or any changes in law that may occur or become effective after that date. The opinions herein are limited to the matters expressly set forth in this opinion letter, and no opinion or representation is given or may be inferred beyond the opinions expressly set forth in this opinion letter.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference made to this firm in the Registration Statement under the heading "Interests of Named Experts and Counsel" in the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Schiff Hardin LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our report dated March 19, 2020 with respect to the consolidated financial statements of Moleculin Biotech, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2019, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement.

/s/ Grant Thornton LLP

Houston, Texas

August 21, 2020