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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 8-K**

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**CURRENT REPORT  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **May 30, 2018**

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**ASSEMBLY BIOSCIENCES, INC.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-35005**  
(Commission  
File Number)

**20-8729264**  
(I.R.S. Employer  
Identification No.)

**11711 N. Meridian St., Suite 310  
Carmel, Indiana 46032**  
(Address of principal executive offices, including zip code)

**(317) 210-9311**  
(Registrant's telephone number, including area code)

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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**Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.**

**(e)**

*2018 Stock Incentive Plan*

At the Assembly Biosciences, Inc. Annual Meeting of Stockholders held on May 30, 2018 (the “Annual Meeting”), the stockholders of Assembly Biosciences, Inc. (the “Company”) approved the Assembly Biosciences, Inc. 2018 Stock Incentive Plan (the “2018 Plan”). The number of shares of common stock reserved for issuance under the 2018 Plan is 1,900,000.

A summary of the material terms of the 2018 Plan is set forth in the Company’s definitive proxy statement on Schedule 14A filed with the Securities and Exchange Commission on April 19, 2018 (the “Proxy Statement”) and is incorporated herein by reference. That summary is qualified in its entirety by reference to the full text of the 2018 Plan, which is attached hereto as Exhibit 10.1 and is incorporated herein by reference.

*2018 ESPP*

At the Annual Meeting, the Company’s stockholders approved the Assembly Biosciences, Inc. 2018 Employee Stock Purchase Plan (the “2018 ESPP”). The 2018 ESPP provides for the purchase by employees of up to an aggregate of 400,000 shares of the Company’s common stock.

A summary of the material terms and conditions of the 2018 ESPP is set forth in the Proxy Statement and is incorporated herein by reference. That summary is qualified in its entirety by reference to the full text of the 2018 ESPP, which is attached hereto as Exhibit 10.4 and is incorporated herein by reference.

**(b)**

*Departure of David J. Barrett*

On March 8, 2018, the Company reported that Graham Cooper had been appointed to serve as the Company’s Chief Financial Officer and Chief Operating Officer and also to serve as the Company’s principal financial officer and principal accounting officer. Mr. Cooper replaced David Barrett in these positions as of March 8, 2018. The Company also reported that Mr. Barrett would continue as an employee in a strategic advisor role and that he would transition to a consulting role later in 2018.

In connection with Mr. Barrett’s transition to a consulting role, on May 31, 2018 (the “Separation Date”), the Company and Mr. Barrett entered into (1) a Separation Agreement and (2) a Consulting Agreement.

Under the terms of the Separation Agreement, Mr. Barrett is entitled to receive the following benefits: (1) continued payment of his final base salary, which is an annualized rate of \$460,000, for 12 months following his separation of service; (2) immediate acceleration of vesting, as of the Separation Date, of all equity awards held by Mr. Barrett that would have become vested during the 12 months following the Separation Date; (3) extension of the exercise period for all vested stock options held by Mr. Barrett to the end of their term (generally ten years from their grant date); and (4) if Mr. Barrett properly elects COBRA, reimbursement of COBRA premiums for 18 months following the Separation Date or until Mr. Barrett becomes eligible to receive benefits under another employer’s health insurance.

The Consulting Agreement provides that Mr. Barrett will provide consulting services to the Company as a strategic advisor until November 30, 2019, unless earlier terminated by either party in accordance with the Consulting Agreement. As a consultant to the Company, Mr. Barrett will receive (a) a cash fee of approximately \$38,333 per month for the first six months and (b) an award of 100,000 restricted stock units (“RSUs”) granted on June 1, 2018 under the Assembly Biosciences, Inc. Amended and Restated 2014 Stock Incentive Plan.

Subject to Mr. Barrett's continuous service to the Company under the Consulting Agreement, the RSUs will vest in six equal quarterly installments beginning on August 31, 2018, with the RSUs becoming fully vested on November 30, 2019. Vested RSUs will be settled in three approximately equal installments on January 15, 2019, July 15, 2019 and January 15, 2020. If a change in control of the Company occurs prior to the last settlement date, all RSUs that have not settled as of such date shall be settled.

The descriptions of the Separation Agreement and Consulting Agreement contained herein do not purport to be complete and are qualified in their entirety by reference to the complete text of the Separation Agreement and Consulting Agreement, which will be filed as exhibits to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2018.

**Item 5.03 Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.**

At the Annual Meeting, the Company's stockholders approved a proposal to adopt the Fourth Amended and Restated Certificate of Incorporation, which amends and restates the Company's Third Amended and Restated Certificate of Incorporation, as amended, to increase the authorized number of shares of common stock, par value \$0.001 per share, from 50,000,000 shares to 100,000,000 shares and to make various other changes that do not affect the substantive rights of the Company's stockholders, including removing language that is no longer relevant and conforming certain provisions of the Certificate of Incorporation more closely to their corresponding sections of the Delaware General Corporation Law. The Fourth Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on May 31, 2018. A copy of the Fourth Amended and Restated Certificate of Incorporation is attached hereto as Exhibit 3.1 and is incorporated herein by reference.

**Item 5.07 Submission of Matters to a Vote of Security Holders.**

On May 30, 2018, the matters listed below were submitted to a vote of the Company's stockholders at the Annual Meeting through the solicitation of proxies, and the proposals are described in more detail in the Proxy Statement. The results of the stockholders' votes are as follows:

1. Anthony E. Altig, Mark Auerbach, Richard D. DiMarchi, Ph.D., Myron Z. Holubiak, Helen S. Kim, Alan J. Lewis, Ph.D., Susan Mahony, Ph.D., William R. Ringo, Jr. and Derek A. Small were each elected to serve on the Company's Board of Directors (the "Board") until the Company's 2019 annual meeting of stockholders and until their successors are duly elected and qualified.

<b>Director Nominee</b>	<b>Votes For</b>	<b>Votes Withheld</b>	<b>Broker Non-Votes</b>
Anthony E. Altig	17,877,801	126,345	1,416,678
Mark Auerbach	17,133,413	870,733	1,416,678
Richard DiMarchi, Ph.D.	17,952,283	51,863	1,416,678
Myron Z. Holubiak	17,058,931	945,215	1,416,678
Helen S. Kim	17,995,269	8,877	1,416,678
Alan J. Lewis, Ph.D.	17,342,923	661,223	1,416,678
Susan Mahony, Ph.D.	17,976,769	27,377	1,416,678
William R. Ringo, Jr.	15,667,817	2,336,329	1,416,678
Derek A. Small	17,994,215	9,931	1,416,678

2. The stockholders approved, on a non-binding advisory basis, the Company's named executive officers' compensation disclosed in the Proxy Statement.

<b>Votes For</b>	<b>Votes Against</b>	<b>Abstain</b>	<b>Broker Non-Votes</b>
16,702,153	1,300,256	1,737	1,416,678

3. The stockholders voted, on a non-binding advisory basis, on the frequency of future advisory votes to approve the Company's named executive officers' compensation. Consistent with a majority of the votes cast with respect to this proposal and the recommendation of the Board, the Company will hold a stockholder advisory vote on the compensation of the Company's named executive officers annually until the next required vote on the frequency of stockholder votes on the compensation of the Company's named executive officers as required pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and Section 14A of the Securities Exchange Act of 1934, as amended.

<b>One Year</b>	<b>Two Years</b>	<b>Three Years</b>	<b>Abstentions</b>	<b>Broker Non-Votes</b>
17,091,558	282,816	628,055	1,717	1,416,678

4. The stockholders ratified the selection by the Audit Committee of the Board of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2018.

<b>Votes For</b>	<b>Votes Against</b>	<b>Abstentions</b>
19,411,525	7,714	1,585

There were no broker non-votes regarding this proposal.

5. The stockholders approved the amendment and restatement of the Company's Third Amended and Restated Certificate of Incorporation, as amended, to increase the authorized number of shares of common stock from 50,000,000 shares to 100,000,000 shares.

<b>Votes For</b>	<b>Votes Against</b>	<b>Abstentions</b>
16,340,495	2,661,226	419,103

There were no broker non-votes regarding this proposal.

6. The stockholders approved the Assembly Biosciences, Inc. 2018 Stock Incentive Plan.

<b>Votes For</b>	<b>Votes Against</b>	<b>Abstentions</b>	<b>Broker Non-Votes</b>
14,337,006	3,262,078	405,062	1,416,678

7. The stockholders approved the Assembly Biosciences, Inc. 2018 Employee Stock Purchase Plan.

<b>Votes For</b>	<b>Votes Against</b>	<b>Abstentions</b>	<b>Broker Non-Votes</b>
17,976,463	26,581	1,102	1,416,678

#### Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

<b>Exhibit No.</b>	<b>Description</b>
<a href="#">3.1</a>	<a href="#">Fourth Amended and Restated Certificate of Incorporation, dated May 31, 2018.</a>
<a href="#">10.1</a>	<a href="#">Assembly Biosciences, Inc. 2018 Stock Incentive Plan.</a>
<a href="#">10.2</a>	<a href="#">Form of Notice of Stock Option Grant and Stock Option Agreement under the 2018 Stock Incentive Plan.</a>
<a href="#">10.3</a>	<a href="#">Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the 2018 Stock Incentive Plan.</a>
<a href="#">10.4</a>	<a href="#">Assembly Biosciences, Inc. 2018 Employee Stock Purchase Plan.</a>

## EXHIBIT INDEX

<b>Exhibit No.</b>	<b>Description</b>
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<a href="#">10.4</a>	<a href="#">Assembly Biosciences, Inc. 2018 Employee Stock Purchase Plan.</a>

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**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 hereunto duly authorized.

Date: June 1, 2018

Assembly Biosciences, Inc.

By: /s/ Derek A. Small

Derek A. Small

President and Chief Executive Officer

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**FOURTH AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION  
OF  
ASSEMBLY BIOSCIENCES, INC.**

(Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware)

Assembly Biosciences, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "DGCL"), certifies that:

A. The name of the corporation is "Assembly Biosciences, Inc." (the "Corporation").

B. The Corporation's original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on October 7, 2005, under the name South Island Biosciences, Inc., an Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on October 24, 2005, a second Amended and Restated Certificate of Incorporation, which included a provision to change the Corporation's name to Ventrus Biosciences, Inc., was filed with the Secretary of State of the State of Delaware on April 5, 2007 (the "Second Amended and Restated Certificate of Incorporation"), a third Amended and Restated Certificate of Incorporation was filed with the Secretary of the State of Delaware on November 10, 2010 (the "Third Amended and Restated Certificate of Incorporation") and a Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation was filed with the Secretary of State of Delaware on July 10, 2014, which included a provision to change the Corporation's name to Assembly Biosciences, Inc.

C. This Fourth Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") was duly adopted in accordance with Sections 242 and 245 of the DGCL, and hereby amends and restates in its entirety the Third Amended and Restated Certificate of Incorporation, as amended, as follows.

**ARTICLE I**

The name of the corporation is "Assembly Biosciences, Inc." (the "Corporation").

**ARTICLE II**

The registered office of the Corporation in the State of Delaware is 251 Little Falls Drive, in the City of Wilmington, County of New Castle 19808. The name of the registered agent of the Corporation at such address is Corporation Service Company.

**ARTICLE III**

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

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#### ARTICLE IV

The total number of shares that the Corporation shall have authority to issue, is 105,000,000 (one hundred five million), consisting of (i) 100,000,000 (one hundred million) shares of common stock, \$0.001 par value per share, and (ii) 5,000,000 (five million) shares of preferred stock, \$0.001 par value per share.

The board of directors is authorized to issue the preferred stock, subject to limitations prescribed by law and the provisions of this Certificate of Incorporation, as shares of preferred stock in one or more series, and is authorized, by filing a certificate of designation pursuant to the applicable law of the State of Delaware, to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers, preferences and rights of the shares of each such series and qualifications, limitations or restrictions thereof. The authority of the board of directors with respect to each series shall include, but not be limited to, determination of the following:

(i) the number of shares constituting that series and the distinctive designation of that series;

(ii) the dividend rate, if any, on the shares of that series, whether dividends shall be cumulative, and, if so, from which date or dates, and the relative rights of priority, if any, of payment of dividends on shares of that series;

(iii) whether that series shall have voting rights or powers, in addition to the voting rights and powers provided by law, and, if so, the terms of such rights;

(iv) whether that series shall have conversion rights, and, if so, the terms and conditions of such conversion, including provisions for adjustment of the conversion rate in such events as the board of directors shall determine;

(v) whether or not the shares of that series shall be redeemable, and, if so, the terms and conditions of such redemption, including the dates or dates upon or after which they shall be redeemable, and the amount per share payable in case of redemption, which amount may vary under different conditions and at different redemption dates;

(vi) whether that series shall have a sinking fund for the redemption or purchase of shares of that series, and, if so, the terms and amounts of such sinking fund;

(vii) the rights of the shares of that series in the event of voluntary or involuntary liquidation, dissolution or winding up of the Corporation, and the relative rights of priority, if any, of payment of shares of that series; and

(viii) any other rights, preferences and limitations of that series.



The board of directors, within the limits and restrictions stated in any resolution or resolutions of the board of directors originally fixing the number of shares constituting any series, may increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series subsequent to the issue of shares of that series.

#### **ARTICLE V**

Subject to all the rights, powers and preferences of the preferred stock and except as otherwise required by law or provided in this Certificate of Incorporation (including in any certificate of designations of any series of preferred stock):

(a) the holders of the common stock shall have the exclusive right to vote for the election of directors of the Corporation and on all other matters requiring stockholder action, each outstanding share entitling the holder thereof to one vote on each matter properly submitted to the stockholders of the Corporation for their vote;

(b) dividends may be declared and paid or set apart for payment upon the common stock out of any assets or funds of the Corporation legally available for the payment of dividends, but only when and as declared by the board of directors or any authorized committee thereof; and

(c) upon the voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the net assets of the Corporation shall be distributed pro rata to the holders of the common stock.

#### **ARTICLE VI**

Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of the stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

#### **ARTICLE VII**

Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of preferred stock, special meetings of the stockholders may be called, at any time for any purpose or purposes, by the board of directors, or by such person or persons duly designated by the board of directors whose powers and authority, as expressly provided in a resolution of the board of directors, include the power to call such meetings, but such special meetings may not be called by any other person or persons.

#### **ARTICLE VIII**

8.1 General. The business and affairs of the Corporation shall be managed by or under the direction of the board of directors except as otherwise provided herein or required by law.

8.2 Election of directors. Unless and except that the bylaws of the Corporation shall so require, the election of directors need not be by written ballot.

8.3 Vacancies. Any director may resign at any time upon notice given in writing or electronic transmission to the Corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this paragraph in the filling of other vacancies.

Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of this Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

Any director appointed in accordance with this Section 8.3 shall hold office for the remainder of the full term of the director in which the new directorship was created or the vacancy occurred and until such director's successor shall have been duly elected and qualified or until his or her earlier resignation, death or removal.

#### **ARTICLE IX**

To the fullest extent permitted by the DGCL as the same exists or as may hereafter be amended, no present or former director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director except for liability (a) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) unlawful payments of dividends or unlawful stock repurchases or redemptions under Section 174 of the DGCL or (d) for any transaction from which the director derived an improper personal benefit. If the DGCL is amended after the effective date of this Certificate of Incorporation to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended. Neither any amendment nor repeal of this Article, nor the adoption of any provision of this Certificate of Incorporation inconsistent with this Article, shall eliminate or reduce the effect of this Article in respect of any matter occurring, or any cause of action, suit or claim that, but for this Article, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

#### **ARTICLE X**

The Corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to, or testifies in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative in nature, by reason of the fact such person is or was a director, officer or employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding to the full extent permitted by law, and the Corporation may adopt bylaws or enter into agreements with any such person for the purpose of providing for such indemnification.

**ARTICLE XI**

The Corporation reserves the right at any time, and from time to time, to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted, in the manner now or hereafter prescribed by law; and all rights, preferences, powers and privileges of whatsoever nature conferred upon stockholders, directors or any other persons whomsoever by and pursuant to this Certificate of Incorporation in its present form or as hereafter amended are granted subject to the rights reserved in this article.

**ARTICLE XII**

In furtherance and not in limitation of the powers conferred by the laws of the State of Delaware, the board of directors of the Corporation is expressly authorized to make, alter and repeal the bylaws of the Corporation.

**IN WITNESS WHEREOF**, the undersigned has signed this Fourth Amended and Restated Certificate of Incorporation this 31st day of May 2018.

By: /s/ Derek A. Small  
Derek A. Small  
Chief Executive Officer

## ASSEMBLY BIOSCIENCES, INC.

## 2018 STOCK INCENTIVE PLAN

1. **Purposes of the Plan.** The purposes of this Plan are to attract and retain the best available personnel, to provide additional incentives to Employees, Directors and Consultants and to promote the success of the Company's business.
  2. **Definitions.** The following definitions shall apply as used herein and in the individual Award Agreements except as defined otherwise in an individual Award Agreement. In the event a term is separately defined in an individual Award Agreement, such definition shall supersede the definition contained in this Section 2.
    - (a) **"Administrator"** means the Board or any of the Committees appointed to administer the Plan.
    - (b) **"Affiliate"** and **"Associate"** shall have the respective meanings ascribed to such terms in Rule 12b-2 promulgated under the Exchange Act.
    - (c) **"Applicable Laws"** means the legal requirements relating to the Plan and the Awards under applicable provisions of federal and state securities laws, the corporate laws of California and, to the extent other than California, the corporate law of the state of the Company's incorporation, the Code, the rules of any applicable stock exchange or national market system, and the rules of any non-U.S. jurisdiction applicable to Awards granted to residents therein.
    - (d) **"Assumed"** means that pursuant to a Corporate Transaction either (i) the Award is expressly affirmed by the Company or (ii) the contractual obligations represented by the Award are expressly assumed (and not simply by operation of law) by the successor entity or its Parent in connection with the Corporate Transaction with appropriate adjustments to the number and type of securities of the successor entity or its Parent subject to the Award and the exercise or purchase price thereof which at least preserves the compensation element of the Award existing at the time of the Corporate Transaction as determined in accordance with the instruments evidencing the agreement to assume the Award.
    - (e) **"Award"** means the grant of an Option, SAR, Dividend Equivalent Right, Restricted Stock, Restricted Stock Unit, Unrestricted Stock or other right or benefit under the Plan.
    - (f) **"Award Agreement"** means the written agreement evidencing the grant of an Award executed by the Company and the Grantee, including any amendments thereto.
    - (g) **"Board"** means the Board of Directors of the Company.
    - (h) **"Cause"** means, with respect to the termination by the Company or a Related Entity of the Grantee's Continuous Service, that such termination is for "Cause" as such term (or word of like import) is expressly defined in a then-effective written agreement between the Grantee and the Company or such Related Entity, or in the absence of such then-effective written agreement and definition, is based on, in the determination of the Administrator, the Grantee's: (i) performance of any act or failure to perform any act in bad faith and to the detriment of the Company or a Related Entity; (ii) dishonesty, intentional misconduct or material breach of any agreement with the Company or a Related Entity; or (iii) commission of a crime involving dishonesty, breach of trust, or physical or emotional harm to any person; provided, however, that with regard to any agreement that defines "Cause" on the occurrence of or in connection with a Corporate Transaction, such definition of "Cause" shall not apply until a Corporate Transaction actually occurs.
    - (i) **"Code"** means the Internal Revenue Code of 1986, as amended, or any successor statute.
    - (j) **"Committee"** means any committee composed of members of the Board appointed by the Board to administer the Plan.
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(k) “**Common Stock**” means the Company’s Common Stock, par value \$0.001 per share.

(l) “**Company**” means Assembly Biosciences, Inc., a Delaware corporation, formerly known as Ventrus Biosciences, Inc., or any successor entity that adopts the Plan in connection with a Corporate Transaction.

(m) “**Consultant**” means any natural person (other than an Employee or a Director, solely with respect to rendering services in such person’s capacity as a Director) who provides bona fide services to the Company or any Related Entity, within the meaning of Form S-8 promulgated under the Securities Act of 1933, as amended, and provided, further, that a Consultant will include only those persons to whom the issuance of Shares may be registered under Form S-8 promulgated under the Securities Act of 1933, as amended.

(n) “**Continuous Service**” means that the provision of services to the Company or a Related Entity in any capacity of Employee, Director or Consultant is not interrupted or terminated. In jurisdictions requiring notice in advance of an effective termination as an Employee, Director or Consultant, Continuous Service shall be deemed terminated upon the actual cessation of providing services to the Company or a Related Entity notwithstanding any required notice period that must be fulfilled before a termination as an Employee, Director or Consultant can be effective under Applicable Laws. A Grantee’s Continuous Service shall be deemed to have terminated either upon an actual termination of Continuous Service or upon the entity for which the Grantee provides services ceasing to be a Related Entity. Continuous Service shall not be considered interrupted in the case of (i) any approved leave of absence, (ii) transfers among the Company, any Related Entity, or any successor in any capacity of Employee, Director or Consultant, or (iii) any change in status as long as the individual remains in the service of the Company or a Related Entity in any capacity of Employee, Director or Consultant (except as otherwise provided in the Award Agreement). An approved leave of absence shall include sick leave, military leave, or any other authorized personal leave. For purposes of each Incentive Stock Option granted under the Plan, if such leave exceeds three (3) months, and reemployment upon expiration of such leave is not guaranteed by statute or contract, then the Incentive Stock Option shall be treated as a Non-Qualified Stock Option on the day three (3) months and one (1) day following the expiration of such three (3) month period.

(o) “**Corporate Transaction**” means any of the following transactions, provided, however, that the Administrator shall determine under parts (iv) and (v) whether multiple transactions are related, and its determination shall be final, binding and conclusive:

(i) a merger or consolidation in which the Company is not the surviving entity, except for a transaction the principal purpose of which is to change the state in which the Company is incorporated;

(ii) the sale, transfer or other disposition of all or substantially all of the assets of the Company;

(iii) the complete liquidation or dissolution of the Company;

(iv) any reverse merger or series of related transactions culminating in a reverse merger (including, but not limited to, a tender offer followed by a reverse merger) in which the Company is the surviving entity but (A) the shares of Common Stock outstanding immediately prior to such merger are converted or exchanged by virtue of the merger into other property, whether in the form of securities, cash or otherwise, or (B) in which securities possessing more than fifty percent (50%) of the total combined voting power of the Company’s outstanding securities are transferred to a person or persons different from those who held such securities immediately prior to such merger or the initial transaction culminating in such merger; or

(v) acquisition in a single or series of related transactions by any person or related group of persons (other than the Company or by a Company-sponsored employee benefit plan) of beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company’s outstanding securities.

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(q) **“Director”** means a member of the Board or the board of directors of any Related Entity.

(r) **“Disability”** shall have the meaning set forth in the long-term disability policy of the Company or the Related Entity to which the Grantee provides services regardless of whether the Grantee is covered by such policy. If the Company or the Related Entity to which the Grantee provides service does not have a long-term disability plan in place, “Disability” means that a Grantee is unable to carry out the responsibilities and functions of the position held by the Grantee by reason of any medically determinable physical or mental impairment for a period of not less than ninety (90) consecutive days. A Grantee will not be considered to have incurred a Disability unless he or she furnishes proof of such impairment sufficient to satisfy the Administrator in its discretion.

(s) **“Disqualifying Disposition”** means any disposition (including any sale) of Common Stock received upon exercise of an Incentive Stock Option before either (i) two (2) years after the date the Employee was granted the Incentive Stock Option, or (ii) one (1) year after the date the Employee acquired Common Stock by exercising the Incentive Stock Option. If the Employee has died before such stock is sold, these holding period requirements do not apply and no Disqualifying Disposition can occur thereafter.

(t) **“Dividend Equivalent Right”** means a right entitling the Grantee to compensation measured by dividends paid with respect to Common Stock.

(u) **“Employee”** means any person, including an Officer or Director, who is in the employ of the Company or any Related Entity, subject to the control and direction of the Company or any Related Entity as to both the work to be performed and the manner and method of performance. The payment of a director’s fee by the Company or a Related Entity shall not be sufficient to constitute “employment” by the Company.

(v) **“Exchange Act”** means the Securities Exchange Act of 1934, as amended.

(w) **“Fair Market Value”** means, as of any date, the value of Common Stock determined as follows.

(i) If the Common Stock is listed on one or more established stock exchanges or national market systems, including without limitation The NASDAQ Global Select Market, The NASDAQ Global Market or The NASDAQ Capital Market of The NASDAQ Stock Market LLC, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on the principal exchange or system on which the Common Stock is listed (as determined by the Administrator) on the date of determination (or, if no closing sales price or closing bid was reported on that date, as applicable, on the last trading date such closing sales price or closing bid was reported), as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted on an automated quotation system (including the OTC Bulletin Board) or by a recognized securities dealer, its Fair Market Value shall be the closing sales price for such stock as quoted on such system or by such securities dealer on the date of determination, but if selling prices are not reported, the Fair Market Value of a share of Common Stock shall be the mean between the high bid and low asked prices for the Common Stock on the date of determination (or, if no such prices were reported on that date, on the last date such prices were reported), as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock of the type described in (i) and (ii), above, the Fair Market Value thereof shall be determined by the Administrator in a manner in compliance with Section 409A of the Code, and in the case of an Incentive Stock Option, in a manner in compliance with Section 422 of the Code.

(x) **“Grantee”** means an Employee, Director or Consultant who receives an Award under the Plan.

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(y) **“Incentive Stock Option”** means an Option designated and qualified as an incentive stock option within the meaning of Section 422 of the Code.

(z) **“Non-Qualified Stock Option”** means an Option that is not an Incentive Stock Option.

(aa) **“Officer”** means a person who is an officer of the Company or a Related Entity within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(bb) **“Option”** means an option to purchase Shares pursuant to an Award Agreement granted under the Plan.

(cc) **“Parent”** means a “parent corporation,” whether now or hereafter existing, as defined in Section 424(e) of the Code.

(dd) **“Plan”** means this Assembly Biosciences, Inc. 2018 Stock Incentive Plan.

(ee) **“Post-Termination Exercise Period”** means the period specified in the Award Agreement of not less than thirty (30) days commencing on the date of termination (other than termination by the Company or any Related Entity for Cause) of the Grantee’s Continuous Service, or such longer period as may be applicable upon death or Disability.

(ff) **“Related Entity”** means any Parent or Subsidiary of the Company.

(gg) **“Replaced”** means that pursuant to a Corporate Transaction the Award is replaced with a comparable stock award or a cash incentive program of the Company, the successor entity (if applicable) or Parent of either of them which preserves the compensation element of such Award existing at the time of the Corporate Transaction and provides for subsequent payout in accordance with the same (or a more favorable) vesting schedule applicable to such Award. The determination of Award comparability shall be made by the Administrator and its determination shall be final, binding and conclusive.

(hh) **“Restricted Stock”** means Shares issued under the Plan to the Grantee for such consideration, if any, and subject to such restrictions on transfer, rights of first refusal, repurchase provisions, forfeiture provisions, and other terms and conditions as established by the Administrator.

(ii) **“Restricted Stock Units”** means an Award which may be earned in whole or in part upon the passage of time or the attainment of performance criteria established by the Administrator and which may be settled for cash, Shares or other securities or a combination of cash, Shares or other securities as established by the Administrator.

(jj) **“Rule 16b-3”** means Rule 16b-3 promulgated under the Exchange Act or any successor thereto.

(kk) **“SAR”** means a stock appreciation right entitling the Grantee to Shares or cash compensation, as established by the Administrator, measured by appreciation in the value of Common Stock.

(ll) **“Share”** means a share of the Common Stock.

(mm) **“Subsidiary”** means a “subsidiary corporation,” whether now or hereafter existing, as defined in Section 424(f) of the Code.

(nn) **“Unrestricted Stock”** means an award of Shares free from any risks of forfeiture.

### 3. Stock Subject to the Plan.

(a) Subject to the provisions of Sections 3(b) and 12 below, the maximum aggregate number of Shares which may be issued pursuant to all Awards (including Incentive Stock Options) is One Million Nine Hundred Thousand (1,900,000) Shares. The Shares granted under the Plan may be authorized, but unissued, or reacquired Common Stock.

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(b) Any Shares covered by an Award (or portion of an Award) which is forfeited, canceled or expires (whether voluntarily or involuntarily) shall be deemed not to have been issued for purposes of determining the maximum aggregate number of Shares which may be issued under the Plan, except that the maximum aggregate number of Shares which may be issued pursuant to the exercise of Incentive Stock Options shall not exceed the number specified in Section 3(a). Shares that actually have been issued under the Plan pursuant to an Award shall not be returned to the Plan and shall not become available for future issuance under the Plan, except that if Options or other Awards granted under this Plan or the Company's Amended and Restated 2014 Stock Incentive Plan (the "**2014 Plan**") are forfeited or repurchased by the Company, such Shares shall become available for future grant under the Plan. In the event any Option or other Award granted under the Plan or the 2014 Plan is exercised through the tendering of shares of Common Stock (either actually or through attestation) or withholding shares of Common Stock, or in the event tax withholding obligations are satisfied by tendering or withholding shares of Common Stock, any shares of Common Stock so tendered or withheld shall not again be available for awards under the Plan. Shares of Common Stock subject to an SAR granted pursuant to Section 6(k) of this Plan or the 2014 Plan that are not issued in connection with cash or stock settlement of the exercise of the SAR shall not again be available for award under the Plan. Shares of Common Stock reacquired by the Company on the open market or otherwise using cash proceeds from the exercise of Options shall not be available for awards under the Plan.

(c) Notwithstanding anything to the contrary in this Plan, the value of all Awards awarded under this Plan and all other cash compensation paid by the Company to any non-employee Director in any calendar year shall not exceed \$1,000,000. For the purpose of this limitation, the value of any Award shall be its grant date fair value, as determined in accordance with ASC 718 or successor provision but excluding the impact of estimated forfeitures related to service-based vesting provisions.

4. Administration of the Plan.

(a) Plan Administrator.

(i) Administration with Respect to Directors and Officers. With respect to grants of Awards to Directors or Employees who are also Officers or Directors of the Company, the Plan shall be administered by (A) the Board or (B) a Committee designated by the Board, which Committee shall be constituted in such a manner as to satisfy the Applicable Laws and to permit such grants and related transactions under the Plan to be exempt from Section 16(b) of the Exchange Act in accordance with Rule 16b-3. Once appointed, such Committee shall continue to serve in its designated capacity until otherwise directed by the Board.

(ii) Administration With Respect to Consultants and Other Employees. With respect to grants of Awards to Employees or Consultants who are neither Directors nor Officers of the Company, the Plan shall be administered by (A) the Board or (B) a Committee designated by the Board, which Committee shall be constituted in such a manner as to satisfy the Applicable Laws. Once appointed, such Committee shall continue to serve in its designated capacity until otherwise directed by the Board.

(b) Multiple Administrative Bodies. The Plan may be administered by different bodies with respect to Directors, Officers, Consultants, and Employees who are neither Directors nor Officers.

(c) Powers of the Administrator. Subject to Applicable Laws and the provisions of the Plan (including any other powers given to the Administrator hereunder), and except as otherwise provided by the Board, the Administrator shall have the authority, in its discretion:

- (i) to select the Employees, Directors and Consultants to whom Awards may be granted from time to time hereunder;
  - (ii) to determine whether and to what extent Awards are granted hereunder;
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- hereunder;
- (iii) to determine the number of Shares or the amount of other consideration to be covered by each Award granted
  - (iv) to approve forms of Award Agreements for use under the Plan;
  - (v) to determine the type, terms and conditions of any Award granted hereunder;
  - (vi) to establish additional terms, conditions, rules or procedures to accommodate the rules or laws of applicable non-U.S. jurisdictions and to afford Grantees favorable treatment under such rules or laws; provided, however, that no Award shall be granted under any such additional terms, conditions, rules or procedures with terms or conditions which are inconsistent with the provisions of the Plan;
  - (vii) to amend the terms of any outstanding Award granted under the Plan, provided that any amendment that would adversely affect the Grantee's rights under an outstanding Award shall not be made without the Grantee's written consent; provided, however, that an amendment or modification that may cause an Incentive Stock Option to become a Non-Qualified Stock Option shall not be treated as adversely affecting the rights of the Grantee;
  - (viii) to construe and interpret the terms of the Plan and Awards, including without limitation, any notice of award or Award Agreement, granted pursuant to the Plan;
  - (ix) to institute an option exchange program; and
  - (x) to take such other action, not inconsistent with the terms of the Plan, as the Administrator deems appropriate.

The express grant in the Plan of any specific power to the Administrator shall not be construed as limiting any power or authority of the Administrator; provided that the Administrator may not exercise any right or power reserved to the Board. Any decision made, or action taken, by the Administrator or in connection with the administration of this Plan shall be final, conclusive and binding on all persons having an interest in the Plan.

(d) Indemnification. In addition to such other rights of indemnification as they may have as members of the Board or as Officers or Employees of the Company or a Related Entity, members of the Board and any Officers or Employees of the Company or a Related Entity to whom authority to act for the Board, the Administrator or the Company is delegated shall be defended and indemnified by the Company to the extent permitted by law on an after-tax basis against all reasonable expenses, including attorneys' fees, actually and necessarily incurred in connection with the defense of any claim, investigation, action, suit or proceeding, or in connection with any appeal therein, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan, or any Award granted hereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved by the Company) or paid by them in satisfaction of a judgment in any such claim, investigation, action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such claim, investigation, action, suit or proceeding that such person is liable for gross negligence, bad faith or intentional misconduct; provided, however, that within thirty (30) days after the institution of such claim, investigation, action, suit or proceeding, such person shall offer to the Company, in writing, the opportunity at the Company's expense to defend the same.

5. Eligibility. Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants of the Company and any Related Entity. Incentive Stock Options may be granted only to Employees of the Company or a Parent or a Subsidiary of the Company. An Employee, Director or Consultant who has been granted an Award may, if otherwise eligible, be granted additional Awards. Awards may be granted to such Employees, Directors or Consultants who are residing in non-U.S. jurisdictions as the Administrator may determine from time to time.

6. Terms and Conditions of Awards.

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(a) Types of Awards. The Administrator is authorized under the Plan to award any type of arrangement to an Employee, Director or Consultant that is not inconsistent with the provisions of the Plan and that by its terms involves or might involve the issuance of (i) Shares, (ii) cash or (iii) an Option, an SAR, or similar right with a fixed or variable price related to the Fair Market Value of the Shares and with an exercise or conversion privilege related to the passage of time, the occurrence of one or more events, or the satisfaction of performance criteria or other conditions. Such awards include, without limitation, Options, SARs, sales or bonuses of Restricted Stock, Restricted Stock Units, Unrestricted Stock or Dividend Equivalent Rights, and an Award may consist of one (1) such security or benefit, or two (2) or more of them in any combination or alternative. Unrestricted Stock may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to the grantee.

(b) Designation of Award. Each Award shall be designated in the Award Agreement. In the case of an Option, the Option shall be designated as either an Incentive Stock Option or a Non-Qualified Stock Option. However, notwithstanding such designation, an Option will qualify as an Incentive Stock Option under the Code only to the extent the \$100,000 dollar limitation of Section 422(d) of the Code is not exceeded. The \$100,000 limitation of Section 422(d) of the Code is calculated based on the aggregate Fair Market Value of the Shares subject to Options designated as Incentive Stock Options which become exercisable for the first time by a Grantee during any calendar year (under all plans of the Company or any Parent or Subsidiary of the Company). For purposes of this calculation, Incentive Stock Options shall be taken into account in the order in which they were granted, and the Fair Market Value of the Shares shall be determined as of the grant date of the relevant Option.

(c) Conditions of Award. Subject to the terms of the Plan, the Administrator shall determine the provisions, terms, and conditions of each Award including, but not limited to, the Award vesting schedule, repurchase provisions, rights of first refusal, forfeiture provisions, form of payment (cash, Shares, or other consideration) upon settlement of the Award, payment contingencies, and satisfaction of any performance criteria. The performance criteria established by the Administrator may be based on any one of, or combination of, increase in share price, earnings per share, total stockholder return, return on equity, return on assets, return on investment, net operating income, cash flow, revenue, economic value added, initiation or completion of clinical trials, results of clinical trials, regulatory approval, regulatory submissions, drug development or commercialization milestones, collaboration milestones or strategic partnerships. Partial achievement of the specified criteria may result in a payment or vesting corresponding to the degree of achievement as specified in the Award Agreement.

(d) Acquisitions and Other Transactions. The Administrator may issue Awards under the Plan in settlement, assumption or substitution for, outstanding awards or obligations to grant future awards in connection with the Company or a Related Entity acquiring another entity, an interest in another entity or an additional interest in a Related Entity whether by merger, stock purchase, asset purchase or other form of transaction.

(e) Deferral of Award Payment. The Administrator may establish one or more programs under the Plan to permit selected Grantees the opportunity to elect to defer receipt of consideration upon exercise of an Award, satisfaction of performance criteria, or other event that absent the election would entitle the Grantee to payment or receipt of Shares or other consideration under an Award. The Administrator may establish the election procedures, the timing of such elections, the mechanisms for payments of, and accrual of interest or other earnings, if any, on amounts, Shares or other consideration so deferred, and such other terms, conditions, rules and procedures that the Administrator deems advisable for the administration of any such deferral program.

(f) Separate Programs. The Administrator may establish one or more separate programs under the Plan for the purpose of issuing particular forms of Awards to one or more classes of Grantees on such terms and conditions as determined by the Administrator from time to time.

(g) Early Exercise. The Award Agreement may, but need not, include a provision whereby the Grantee may elect at any time while an Employee, Director or Consultant to exercise any part or all of the Award prior to full vesting of the Award. Any unvested Shares received pursuant to such exercise may be subject to a repurchase right in favor of the Company or a Related Entity or to any other restriction the Administrator determines to be appropriate.

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(h) Term of Option or SAR. The term of each Option or SAR shall be the term stated in the Award Agreement, provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. However, in the case of an Incentive Stock Option granted to a Grantee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary of the Company, the term of the Incentive Stock Option shall be five (5) years from the date of grant thereof or such shorter term as may be provided in the Award Agreement.

(i) Transferability of Awards. Unless the Administrator provides otherwise, in its sole discretion, no Award may be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Grantee, only by the Grantee. Notwithstanding the foregoing, the Grantee may designate one or more beneficiaries of the Grantee's Award in the event of the Grantee's death on a beneficiary designation form provided by the Administrator.

(j) Time of Granting Awards. The date of grant of an Award shall for all purposes be the date on which the Administrator makes the determination to grant such Award, or such other later date as is determined by the Administrator.

(k) Stock Appreciation Rights. An SAR may be granted (i) with respect to any Option granted under this Plan, either concurrently with the grant of such Option or at such later time as determined by the Administrator (as to all or any portion of the shares of Common Stock subject to the Option), or (ii) alone, without reference to any related Option. Each SAR granted by the Administrator under this Plan shall be subject to the following terms and conditions. Each SAR granted to any participant shall relate to such number of shares of Common Stock as shall be determined by the Administrator, subject to adjustment as provided in Section 12. In the case of an SAR granted with respect to an Option, the number of shares of Common Stock to which the SAR pertains shall be reduced in the same proportion that the holder of the Option exercises the related Option. The exercise price of an SAR will be determined by the Administrator, in its discretion, at the date of grant but may not be less than one hundred percent (100%) of the Fair Market Value of the shares of Common Stock subject thereto on the date of grant. Subject to the right of the Administrator to deliver cash in lieu of shares of Common Stock (which, as it pertains to Officers and Directors of the Company, shall comply with all requirements of the Exchange Act), the number of shares of Common Stock which shall be issuable upon the exercise of an SAR shall be determined by dividing:

(i) the number of shares of Common Stock as to which the SAR is exercised multiplied by the amount of the appreciation in such shares (for this purpose, the "appreciation" shall be the amount by which the Fair Market Value of the shares of Common Stock subject to the SAR on the exercise date exceeds (1) in the case of an SAR related to an Option, the exercise price of the shares of Common Stock under the Option or (2) in the case of an SAR granted alone, without reference to a related Option, an amount which shall be determined by the Administrator at the time of grant, subject to adjustment under Section 12); by

(ii) the Fair Market Value of a share of Common Stock on the exercise date.

In lieu of issuing shares of Common Stock upon the exercise of an SAR, the Administrator may elect to pay the holder of the SAR cash equal to the Fair Market Value on the exercise date of any or all of the shares which would otherwise be issuable. No fractional shares of Common Stock shall be issued upon the exercise of an SAR; instead, the holder of the SAR shall be entitled to receive a cash adjustment equal to the same fraction of the Fair Market Value of a share of Common Stock on the exercise date or to purchase the portion necessary to make a whole share at its Fair Market Value on the date of exercise. The exercise of an SAR related to an Option shall be permitted only to the extent that the Option is exercisable under Section 10 on the date of surrender. Any Incentive Stock Option surrendered pursuant to the provisions of this Section 6(k) shall be deemed to have been converted into a Non-Qualified Stock Option immediately prior to such surrender.

(l) Compliance with Section 409A of the Code. Notwithstanding anything to the contrary set forth herein, any Award that is not exempt from the requirements of Section 409A of the Code shall contain such provisions so that such Award will comply with the requirements of Section 409A of the Code. Such restrictions, if any, shall be determined by the Administrator and contained in the Award Agreement evidencing such Award.

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(m) Minimum Vesting. Awards granted to Employees under the Plan that are subject to time vesting shall not vest or become exercisable until at least one year after the date of grant, except in the case of death, Disability, retirement, separation of service or a Corporate Transaction. Awards granted to Directors under the Plan that are subject to time vesting shall not vest or become exercisable until at least the earlier of (i) one year after the date of grant or (ii) the next annual meeting of stockholders, except in the case of death, Disability or a Corporate Transaction.

7. Award Exercise or Purchase Price, Consideration and Taxes.

(a) Exercise or Purchase Price. The exercise or purchase price, if any, for an Award shall be as follows.

(i) In the case of an Incentive Stock Option:

(1) granted to an Employee who, at the time of the grant of such Incentive Stock Option owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary of the Company, the per Share exercise price shall be not less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant; or

(2) granted to any Employee other than an Employee described in the preceding paragraph, the per Share exercise price shall be not less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Non-Qualified Stock Option, the per Share exercise price shall be not less than one-hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(iii) In the case of other Awards, such price as is determined by the Administrator.

(iv) Notwithstanding the foregoing provisions of this Section 7(a), in the case of an Award issued pursuant to Section 6(d), above, the exercise or purchase price for the Award shall be determined in accordance with the provisions of the relevant instrument evidencing the agreement to issue such Award.

(b) Consideration. Subject to Applicable Laws, the consideration to be paid for the Shares to be issued upon exercise or purchase of an Option or upon the issuance of another Award, including the method of payment, shall be determined by the Administrator. In addition to any other types of consideration the Administrator may determine, the Administrator is authorized to accept as consideration for Shares issued under the Plan the following:

(i) cash;

(ii) check;

(iii) delivery of Grantee's promissory note with such recourse, interest, security, and redemption provisions as the Administrator determines as appropriate (but only to the extent that the acceptance or terms of the promissory note would not violate an Applicable Law); provided, however, that interest shall compound at least annually and shall be charged at the minimum rate of interest necessary to avoid (i) the imputation of interest income to the Company and compensation income to the Grantee under any applicable provisions of the Code, and (B) the classification of the Award as a liability for financial accounting purposes;

(iv) surrender of Shares or delivery of a properly executed form of attestation of ownership of Shares as the Administrator may require which have a Fair Market Value on the date of surrender or attestation equal to the aggregate exercise price of the Shares as to which said Award shall be exercised;

(v) payment through a broker-dealer sale and remittance procedure pursuant to which the Grantee (A) shall provide written instructions to a Company designated brokerage firm to effect the immediate sale of some or all of the purchased Shares and remit to the Company sufficient funds to cover the aggregate exercise price payable for the purchased Shares and (B) shall provide written directives to the Company to deliver the certificates (or other evidence satisfactory to the Company to the extent that the Shares are uncertificated) for the purchased Shares directly to such brokerage firm in order to complete the sale transaction;

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(vi) with respect to Non-Qualified Options, payment through a “net exercise” such that, without the payment of any funds, the Grantee may exercise the Option and receive the net number of Shares equal to (i) the number of Shares as to which the Option is being exercised, multiplied by (ii) a fraction, the numerator of which is the Fair Market Value per Share (on such date as is determined by the Administrator) less the Exercise Price per Share, and the denominator of which is such Fair Market Value per Share; or

(vii) past or future services actually or to be rendered to the Company or a Related Entity; or

(viii) any combination of the foregoing methods of payment.

The Administrator may at any time or from time to time, by adoption of or by amendment to the standard forms of Award Agreement described in Section 4(c)(iv), or by other means, grant Awards which do not permit all of the foregoing forms of consideration to be used in payment for the Shares or which otherwise restrict one or more forms of consideration.

8. Notice to Company of Disqualifying Disposition. Each Employee who receives an Incentive Stock Option must agree to notify the Company in writing immediately after the Employee makes a Disqualifying Disposition of any Common Stock acquired pursuant to the exercise of an Incentive Stock Option.

9. Withholding of Additional Income Taxes.

(a) Upon the exercise of a Non-Qualified Stock Option or SAR, the grant of any other Award for less than the Fair Market Value of the Common Stock, the grant of Unrestricted Stock or the vesting of restricted Common Stock acquired on the exercise of an Award hereunder, the Company, in accordance with Section 3402(a) of the Code and any applicable state statute or regulation, may require the Grantee to pay to the Company additional withholding taxes in respect of the amount that is considered compensation includable in such person’s gross income. With respect to (i) the exercise of an Option, (ii) the grant of Unrestricted Stock, (iii) the grant of any other Award for less than its Fair Market Value, (iv) the vesting of restricted Common Stock acquired by exercising an Award, or (v) the exercise of an SAR, the Committee in its discretion may condition such event on the payment by the Grantee of any such additional withholding taxes.

(b) At the sole and absolute discretion of the Administrator, the holder of Awards may pay all or any part of the total estimated federal and state income tax liability arising out of the exercise or receipt of such Awards or the vesting of restricted Common Stock acquired on the exercise of an Award hereunder (each of the foregoing, a “**Tax Event**”) by tendering already-owned shares of Common Stock or by directing the Company to withhold shares of Common Stock otherwise to be transferred to the Grantee as a result of the exercise or receipt thereof in an amount equal to the estimated federal and state income tax liability arising out of such event, provided that no more Shares may be withheld than are necessary to satisfy the Grantee’s withholding obligation with respect to the exercise of Awards; provided, however, that the amount withheld does not exceed the maximum statutory tax rate or such lesser amount as is necessary to avoid liability accounting treatment for Awards granted under the Plan. In such event, the Grantee must, however, notify the Administrator of his or her desire to pay all or any part of the total estimated federal and state income tax liability arising out of a Tax Event by tendering already-owned shares of Common Stock or having shares of Common Stock withheld prior to the date that the amount of federal or state income tax to be withheld is to be determined. For purposes of this Section 9, shares of Common Stock shall be valued at their Fair Market Value on the date that the amount of the tax withholdings is to be determined.

10. Exercise of Award.

(a) Procedure for Exercise; Rights as a Stockholder.

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(i) Any Award granted hereunder shall be exercisable at such times and under such conditions as determined by the Administrator under the terms of the Plan and specified in the Award Agreement.

(ii) An Award shall be deemed to be exercised when written notice of such exercise has been given to the Company in accordance with the terms of the Award by the person entitled to exercise the Award and full payment for the Shares with respect to which the Award is exercised has been made, including, to the extent selected, use of the broker-dealer sale and remittance procedure to pay the purchase price as provided in Section 7(b)(v).

(b) Exercise of Award Following Termination of Continuous Service. In the event of termination of a Grantee's Continuous Service for any reason other than Disability or death (but not in the event of a Grantee's change of status from Employee to Consultant or from Consultant to Employee), such Grantee may, but only during the Post-Termination Exercise Period (but in no event later than the expiration date of the term of such Award as set forth in the Award Agreement), exercise the portion of the Grantee's Award that was vested at the date of such termination or such other portion of the Grantee's Award as may be determined by the Administrator. The Grantee's Award Agreement may provide that upon the termination of the Grantee's Continuous Service for Cause, the Grantee's right to exercise the Award shall terminate concurrently with the termination of Grantee's Continuous Service. In the event of a Grantee's change of status from Employee to Consultant, an Employee's Incentive Stock Option shall convert automatically to a Non-Qualified Stock Option on the day three (3) months and one (1) day following such change of status. To the extent that the Grantee's Award was unvested at the date of termination, or if the Grantee does not exercise the vested portion of the Grantee's Award within the Post-Termination Exercise Period, the Award shall terminate.

(c) Disability of Grantee. In the event of termination of a Grantee's Continuous Service as a result of his or her Disability, such Grantee may, but only within twelve (12) months from the date of such termination (or such longer period as specified in the Award Agreement but in no event later than the expiration date of the term of such Award as set forth in the Award Agreement), exercise the portion of the Grantee's Award that was vested at the date of such termination; provided, however, that if such Disability is not a "disability" as such term is defined in Section 22(e)(3) of the Code, in the case of an Incentive Stock Option such Incentive Stock Option shall automatically convert to a Non-Qualified Stock Option on the day three (3) months and one (1) day following such termination. To the extent that the Grantee's Award was unvested at the date of termination, or if Grantee does not exercise the vested portion of the Grantee's Award within the time specified herein, the Award shall terminate.

(d) Death of Grantee. In the event of a termination of the Grantee's Continuous Service as a result of his or her death, or in the event of the death of the Grantee during the Post-Termination Exercise Period or during the twelve (12) month period following the Grantee's termination of Continuous Service as a result of his or her Disability, the Grantee's estate or a person who acquired the right to exercise the Award by bequest or inheritance may exercise the portion of the Grantee's Award that was vested as of the date of termination, within twelve (12) months from the date of death (or such longer period as specified in the Award Agreement but in no event later than the expiration of the term of such Award as set forth in the Award Agreement). To the extent that, at the time of death, the Grantee's Award was unvested, or if the Grantee's estate or a person who acquired the right to exercise the Award by bequest or inheritance does not exercise the vested portion of the Grantee's Award within the time specified herein, the Award shall terminate.

(e) Extension if Exercise Prevented by Law. Notwithstanding the foregoing, if the exercise of an Award within the applicable time periods set forth in this Section 10 is prevented by the provisions of Section 11 below, the Award shall remain exercisable until one (1) month after the date the Grantee is notified by the Company that the Award is exercisable, but in any event no later than the expiration of the term of such Award as set forth in the Award Agreement.

11. Conditions Upon Issuance of Shares.

(a) If at any time the Administrator determines that the delivery of Shares pursuant to the exercise, vesting or any other provision of an Award is or may be unlawful under Applicable Laws, the vesting or right to exercise an Award or to otherwise receive Shares pursuant to the terms of an Award shall be suspended until the Administrator determines that such delivery is lawful and shall be further subject to the approval of counsel for the Company with respect to such compliance. The Company shall have no obligation to effect any registration or qualification of the Shares under federal or state laws.

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(b) As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required by any Applicable Laws.

12. Adjustments. Subject to any required action by the stockholders of the Company, the number of Shares covered by each outstanding Award, and the number of Shares which have been authorized for issuance under the Plan but as to which no Awards have yet been granted or which have been returned to the Plan, the exercise or purchase price of each such outstanding Award, as well as any other terms that the Administrator determines require adjustment shall be proportionately adjusted for (i) any increase or decrease in the number of issued Shares resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Shares, or similar transaction affecting the Shares, (ii) any other increase or decrease in the number of issued Shares effected without receipt of consideration by the Company, or (iii) any other transaction with respect to the Company's Common Stock including a corporate merger, consolidation, acquisition of property or stock, separation (including a spin-off or other distribution of stock or property), reorganization, liquidation (whether partial or complete) or any similar transaction; provided, however that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Administrator and its determination shall be final, binding and conclusive. Except as the Administrator determines, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason hereof shall be made with respect to, the number or price of Shares subject to an Award. No adjustments shall be made for dividends paid in cash or in property other than Common Stock of the Company, nor shall cash dividends or dividend equivalents accrue or be paid in respect of unexercised Options or unvested Awards hereunder.

13. Corporate Transactions.

(a) Termination of Award to Extent Not Assumed in Corporate Transaction. Effective upon the consummation of a Corporate Transaction, all outstanding Awards under the Plan shall terminate. However, all such Awards shall not terminate to the extent they are Assumed in connection with the Corporate Transaction.

(b) Acceleration of Award Upon Corporate Transaction. The Administrator shall have the authority, exercisable either in advance of any actual or anticipated Corporate Transaction or at the time of an actual Corporate Transaction and exercisable at the time of the grant of an Award under the Plan or any time while an Award remains outstanding, to provide for the full or partial automatic vesting and exercisability of one or more outstanding unvested Awards under the Plan and the release from restrictions on transfer and repurchase or forfeiture rights of such Awards in connection with a Corporate Transaction on such terms and conditions as the Administrator may specify. The Administrator also shall have the authority to condition any such Award vesting and exercisability or release from such limitations upon the subsequent termination of the Continuous Service of the Grantee within a specified period following the effective date of the Corporate Transaction. The Administrator may provide that any Awards so vested or released from such limitations in connection with a Corporate Transaction shall remain fully exercisable until the expiration or sooner termination of the Award.

(c) Effect of Acceleration on Incentive Stock Options. Any Incentive Stock Option accelerated under this Section 13 in connection with a Corporate Transaction shall remain exercisable as an Incentive Stock Option under the Code only to the extent the \$100,000 dollar limitation of Section 422(d) of the Code is not exceeded.

14. Effective Date and Term of Plan. The Plan shall become effective upon the earlier to occur of its adoption by the Board or its approval by the stockholders of the Company. It shall continue in effect for a term of ten (10) years from the date of stockholder approval unless sooner terminated, provided that no incentive stock options may be granted under the Plan after April 5, 2028. Subject to Applicable Laws, Awards may be granted under the Plan upon Board approval, contingent on stockholder approval.

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15. Amendment, Suspension or Termination of the Plan.

(a) The Board may at any time amend, suspend or terminate the Plan in any respect, except that it may not, without the approval of the stockholders obtained within twelve (12) months before or after the Board adopts a resolution authorizing any of the following actions, do any of the following:

- (i) increase the total number of shares that may be issued under the Plan (except by adjustment pursuant to Section 12);
- (ii) modify the provisions of Section 6 regarding eligibility for grants of ISOs may not be modified;
- (iii) the provisions of Section 7(a) regarding the exercise price at which shares may be offered pursuant to Options may not be modified (except by adjustment pursuant to Section 12);
- (iv) extend the expiration date of the Plan; and
- (v) except as provided in Section 12 (including, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, or exchange of shares), the Company may not amend an Award granted under the Plan to reduce its exercise price per share, cancel and regrant new Awards with lower prices per share than the original prices per share of the cancelled Awards, or cancel any Awards in exchange for cash or the grant of replacement Awards with an exercise price that is less than the exercise price of the original Awards, essentially having the effect of a repricing, without approval by the Company's stockholders.

(b) No Award may be granted during any suspension of the Plan or after termination of the Plan.

(c) No suspension or termination of the Plan (including termination of the Plan under Section 15, above) shall adversely affect any rights under Awards already granted to a Grantee without his or her consent.

16. Reservation of Shares.

(a) The Company, during the term of the Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

(b) The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

17. No Effect on Terms of Employment/Consulting Relationship. The Plan shall not confer upon any Grantee any right with respect to the Grantee's Continuous Service, nor shall it interfere in any way with his or her right or the right of the Company or a Related Entity to terminate the Grantee's Continuous Service at any time, with or without Cause, and with or without notice. The ability of the Company or any Related Entity to terminate the employment of a Grantee who is employed at will is in no way affected by its determination that the Grantee's Continuous Service has been terminated for Cause for the purposes of this Plan.

18. No Effect on Retirement and Other Benefit Plans. Except as specifically provided in a retirement or other benefit plan of the Company or a Related Entity, Awards shall not be deemed compensation for purposes of computing benefits or contributions under any retirement plan of the Company or a Related Entity, and shall not affect any benefits under any other benefit plan of any kind or any benefit plan subsequently instituted under which the availability or amount of benefits is related to level of compensation. The Plan is not a "Retirement Plan" or "Welfare Plan" under the Employee Retirement Income Security Act of 1974, as amended.

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19. Stockholder Approval. Continuance of the Plan shall be subject to approval by the stockholders of the Company within twelve (12) months before or after the date the Plan is adopted by the Board. Such stockholder approval shall be obtained in the degree and manner required under Applicable Laws. Any Award exercised before stockholder approval is obtained shall be rescinded if stockholder approval is not obtained within the time prescribed, and Shares issued on the exercise of any such Award shall not be counted in determining whether stockholder approval is obtained.

20. Electronic Delivery. The Administrator may, in its sole discretion, decide to deliver any documents related to any Award granted under the Plan through an online or electronic system established and maintained by the Company or another third party designated by the Company or to request a Grantee's consent to participate in the Plan by electronic means. Each Grantee hereunder consents to receive such documents by electronic delivery and agrees to participate in the Plan through an online or electronic system established and maintained by the Company or another third party designated by the Company, and such consent shall remain in effect throughout Grantee's term of employment or service with the Company and any Related Entity and thereafter until withdrawn in writing by Grantee.

21. Data Privacy. The Administrator may, in its sole discretion, decide to collect, use and transfer, in electronic or other form, personal data as described in this Plan or any Award for the exclusive purpose of implementing, administering and managing participation in the Plan. Each Grantee hereunder acknowledges that the Company holds certain personal information about Grantee, including, but not limited to, name, home address and telephone number, date of birth, social security number or other identification number, salary, nationality, job title, details of all Awards awarded, cancelled, exercised, vested or unvested, for the purpose of implementing, administering and managing the Plan (the "**Data**"). Each Grantee hereunder further acknowledges that Data may be transferred to any third parties assisting in the implementation, administration and management of the Plan and that these third parties may be located in jurisdictions that may have different data privacy laws and protections, and Grantee authorizes such third parties to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Plan, including any requisite transfer of such Data as may be required to a broker or other third party with whom the recipient or the Company may elect to deposit any shares of Common Stock acquired upon any Award.

22. Compliance with Section 409A. To the extent that the Administrator determines that any Award granted hereunder is subject to Section 409A of the Code, the Award Agreement evidencing such Award shall incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Award Agreements shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued or amended after the effective date of the Plan. Notwithstanding any provision of the Plan to the contrary, in the event that following the effective date of the Plan the Administrator determines that any Award may be subject to Section 409A of the Code and related Department of Treasury guidance (including such Department of Treasury guidance as may be issued after the effective date of the Plan), the Administrator may adopt such amendments to the Plan and the applicable Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to (1) exempt the Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or (2) comply with the requirements of Section 409A of the Code and related Department of Treasury guidance.

23. Unfunded Obligation. Grantees shall have the status of general unsecured creditors of the Company. Any amounts payable to Grantees pursuant to the Plan shall be unfunded and unsecured obligations for all purposes, including, without limitation, Title I of the Employee Retirement Income Security Act of 1974, as amended. Neither the Company nor any Related Entity shall be required to segregate any monies from its general funds, or to create any trusts, or establish any special accounts with respect to such obligations. The Company shall retain at all times beneficial ownership of any investments, including trust investments, which the Company may make to fulfill its payment obligations hereunder. Any investments or the creation or maintenance of any trust or any Grantee account shall not create or constitute a trust or fiduciary relationship between the Administrator, the Company or any Related Entity and a Grantee, or otherwise create any vested or beneficial interest in any Grantee or the Grantee's creditors in any assets of the Company or a Related Entity. The Grantees shall have no claim against the Company or any Related Entity for any changes in the value of any assets that may be invested or reinvested by the Company with respect to the Plan.

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24. Construction. Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of the Plan. Except when otherwise indicated by the context, the singular shall include the plural and the plural shall include the singular. Use of the term “or” is not intended to be exclusive, unless the context clearly requires otherwise.

As approved by the Board of Directors on April 5, 2018

And the stockholders on May 30, 2018

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ASSEMBLY BIOSCIENCES, INC.  
2018 Stock Incentive Plan  
NOTICE OF STOCK OPTION GRANT

Grant Number \_\_\_\_\_

[Name] \_\_\_\_\_

[Address] \_\_\_\_\_

You have been granted an option to purchase Common Stock of Assembly Biosciences, Inc. (the "Company"), as follows:

Date of Grant [•]

Vesting Commencement Date [•]

Exercise Price per Share \$[•]

Total Number of Shares Granted [•]

Total Exercise Price \$[•]

Type of Option: \_\_\_\_\_ Incentive Stock Option  
\_\_\_\_\_ Nonstatutory Stock Option

Term/Expiration Date: 10 years

Vesting Schedule: [•] [1/4 to vest on the first anniversary of the vesting commencement date; and thereafter 1/36 of remaining option shares to vest each month thereafter for 36 months; in each case subject to your Continuous Services through each vesting date and otherwise in accordance with the terms and conditions of the Plan (as defined below) and the Stock Option Agreement attached hereto. Shares to vest on any vesting date shall be rounded down to nearest whole number. Monthly installments shall take into effect prior rounding so that each monthly installment including the last installment is approximately the same. On the fourth anniversary of the vesting commencement date, assuming Continuous Service, the options shall be fully vested. Upon the termination of your employment by the Company for any reason other than for Cause within 6 months following the occurrence of a Corporate Transaction, all unvested options shall immediately vest.]

Termination Period: Vested option may be exercised for up to 90 days after termination of Continuous Service [, unless otherwise provided in your employment agreement]. By your signature and the signature of the Company's representative below, you and the Company agree that this option is granted under and governed by the terms and conditions of the Assembly Biosciences, Inc. 2018 Stock Incentive Plan (the "Plan") and the Stock Option Agreement, all of which are attached and made a part of this document. Capitalized terms used in this Notice of Stock Option Grant and not otherwise defined herein shall have the meaning assigned to such term in the Plan.

Dated: \_\_\_\_\_

OPTIONEE:  
\_\_\_\_\_  
[Name]

ASSEMBLY BIOSCIENCES, INC.  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

\_\_\_\_\_

ASSEMBLY BIOSCIENCES, INC.

STOCK OPTION AGREEMENT

1. Grant of Option. Assembly Biosciences, Inc. (the "Company"), hereby grants to the Optionee named in the Notice of Grant (the "Optionee") an option (the "Option") to purchase a total number of shares of Common Stock (the "Shares") set forth in the Notice of Grant, at the exercise price per share set forth in the Notice of Grant (the "Exercise Price") subject to the terms, definitions and provisions of the Assembly Biosciences, Inc. 2018 Stock Incentive Plan (the "Plan") adopted by the Company, which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option.

If designated an Incentive Stock Option, this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code, or any successor provision.

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the provisions of Sections 10 and 11 of the Plan as follows:

(a) Right to Exercise.

(i) This Option may not be exercised for a fraction of a share.

(ii) In no event may this Option be exercised after the date of expiration of the term of this Option as set forth in the Notice of

Grant.

(b) Method of Exercise. This Option shall be exercisable by written notice (in the form attached hereto as **Exhibit A**) which shall state the election to exercise the Option, the number of Shares in respect of which the Option is being exercised, and such other representations and agreements as to the holder's investment intent with respect to such shares of Common Stock as may be required by the Company pursuant to the provisions of the Plan. Such written notice shall be signed by the Optionee and shall be delivered in person, by certified mail or electronic transmission (with confirmation of receipt) to the Secretary of the Company. The written notice shall be accompanied by payment of the Exercise Price. This Option shall be deemed to be exercised upon receipt by the Company of such written notice accompanied by the Exercise Price.

Notwithstanding anything to the contrary contained herein, you may not exercise your option unless the shares of Common Stock issuable upon such exercise are then registered under the Securities Act of 1933, as amended (the "Securities Act"), or, if such shares of Common Stock are not then so registered, the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations. No Shares will be issued pursuant to the exercise of an Option unless such issuance and such exercise shall comply with all relevant provisions of law and the requirements of any stock exchange upon which the Shares may then be listed. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Method of Payment. Payment of the Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:
- (i) cash; or
  - (ii) check; or
  - (iii) surrender of other shares of Common Stock of the Company, or attestation of ownership of such shares, as described in Section 7(b)(iv) of the Plan; or
  - (iv) "net exercise" as described in Section 7(b)(vi) of the Plan; or
  - (v) a broker-assisted exercise as described in Section 7(b)(v) of the Plan; or
  - (vi) promissory note as described in Section 7(b)(iii) of the Plan to the extent not prohibited by applicable law; or
  - (vii) any combination of the foregoing methods of payment.

4. Nontransferability of Option. This Option may not be transferred in any manner other than as set forth in the Plan. The terms of this Option shall be binding upon the executors, administrators, heirs, successors transferees and assigns of the Optionee as if such persons were the Optionee.

5. Termination of Relationship. In the event of termination of Optionee's employment or consulting relationship with the Company, Optionee may, to the extent otherwise so entitled at the date of such termination (the "Termination Date"), exercise this Option during the Termination Period set out in the Notice of Grant. To the extent that Optionee was not entitled to exercise this Option at the date of such termination, or if Optionee does not exercise this Option within the time specified herein, the Option shall terminate.

6. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant and the Plan, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

7. Disability of Optionee. Notwithstanding the provisions of Section 5 above, in the event of termination of Optionee's consulting or employment relationship as a result of Optionee's total and permanent disability (as defined in Section 22(e)(3) of the Code or any successor provision), Optionee may, but only within twelve (12) months from the date of termination of employment or consulting relationship (but in no event later than the date of expiration of the term of this Option as set forth in the Notice of Grant), exercise this Option to the extent Optionee was entitled to exercise it at the date of such termination. To the extent that Optionee was not entitled to exercise the Option at the date of termination, or if Optionee does not exercise such Option (which Optionee was entitled to exercise) within the time specified herein, the Option shall terminate.

8. Death of Optionee. In the event of the death of Optionee during the term of this Option and, with respect to a consultant, during such consultant's continuing consulting relationship with the Company or within 90 days of termination of consultant's relationship with the Company and, with respect to an employee, during such employee's employment relationship with the Company or within 90 days of termination of such employee's relationship with the Company, the Option may be exercised at any time within twelve (12) months following the date of termination (but in no event later than the date of expiration of the term of this Option as set forth in the Notice of Grant), by Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent of the right to exercise that Optionee was entitled to at the date of death.

9. Taxation Upon Exercise of Option. Pursuant to Section 9 of the Plan, the Company may require the Optionee to pay to the Company amounts necessary to satisfy any applicable Company withholding obligations. The Optionee shall satisfy Optionee's tax withholding obligation arising upon the exercise of this Option by one or some combination of the following methods: (i) by cash payment, or (ii) out of Optionee's current compensation, or (iii) if permitted by the Board or Committee, in its discretion, by surrendering to the Company already-owned Shares or by directing the Company to withhold shares otherwise to be transferred to the Optionee, in each case in accordance with Section 9(b) of the Plan. For this purpose, the fair market value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined (the "Tax Date").

If the Optionee is subject to Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (an "Insider"), any surrender of previously owned Shares to satisfy tax withholding obligations arising upon exercise of this Option must comply with the applicable provisions of Rule 16b-3 promulgated under the Exchange Act ("Rule 16b-3") and shall be subject to such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

All elections by an Optionee to have Shares withheld to satisfy tax-withholding obligations shall be made in writing in a form acceptable to the Committee and shall be subject to the following restrictions:

- (1) the election must be made on or prior to the applicable Tax Date;
- (2) once made, the election shall be irrevocable as to the particular Shares of the Option as to which the election is made;
- (3) all elections shall be subject to the consent or disapproval of the Board or Committee;
- (4) if the Optionee is an Insider, the election must comply with the applicable provisions of Rule 16b-3 and shall be subject to such additional conditions or restrictions as may be required thereunder to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.

10. Tax Consequences. Set forth below is a brief summary as of the date of this Option of some of the federal tax consequences of exercise of this Option and disposition of the Shares. THIS SUMMARY IS NECESSARILY INCOMPLETE, AND THE TAX LAWS AND REGULATIONS ARE SUBJECT TO CHANGE. OPTIONEE SHOULD CONSULT A TAX ADVISER BEFORE EXERCISING THIS OPTION OR DISPOSING OF THE SHARES.

(a) Exercise of ISO. If this Option qualifies as an ISO, there will be no regular federal income tax liability (or state income tax liability in most states) upon the exercise of the Option, although the excess, if any, of the fair market value of the Shares on the date of exercise over the Exercise Price will be treated as an item of adjustment to the alternative minimum tax for federal tax purposes in the year of exercise and may subject the Optionee to the alternative minimum tax.

(b) Exercise of Nonstatutory Stock Option. If this Option does not qualify as an ISO, there may be a regular federal income tax liability and a state income tax liability upon the exercise of the Option. The Optionee will be treated as having received compensation income (taxable at ordinary income tax rates) equal to the excess, if any, of the fair market value of the Shares on the date of exercise over the Exercise Price and the Company will qualify for a deduction in the same amount, subject to the requirement that the compensation be reasonable. If Optionee is an employee, the Company will be required to withhold from Optionee's compensation or collect from Optionee and pay to the applicable taxing authorities an amount equal to a percentage of this compensation income at the time of exercise.

(c) Disposition of Shares. In the case of an NSO, if Shares are held for at least one year, any gain realized on disposition of the Shares will be treated as long-term capital gain for federal income tax purposes. In the case of an ISO, if Shares transferred pursuant to the Option are held for at least one year after exercise and are disposed of at least two years after the Date of Grant, any gain realized on disposition of the Shares will also be treated as long-term capital gain for federal income tax purposes. If Shares purchased under an ISO are disposed of within one-year after exercise or within two years after the Date of Grant, any gain realized on such disposition will be treated as compensation income (taxable at ordinary income rates) in an amount equal to the excess of the lesser of (1) the fair market value of the Shares on the date of exercise, or (2) the sale price of the Shares over the Exercise Price paid for those shares. The Company will also be allowed a deduction equal to any such amount recognized, subject to the requirement that the compensation be reasonable.

(d) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Optionee herein is an ISO, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (1) the date two years after the Date of Grant, or (2) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition. Optionee agrees that Optionee may be subject to income tax withholding by the Company on the compensation income recognized by the Optionee from the early disposition by payment in cash or out of the current earnings paid to the Optionee.

11. Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Optionee and his or her heirs, executors, administrators, successors, transferees and assigns.



12. Interpretation. Any dispute regarding the interpretation of this Agreement shall be submitted by Optionee or by the Company forthwith to the Company's Board of Directors or the Committee that administers the Plan, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Board or committee shall be final and binding on the Company and on Optionee.

13. Governing Law; Severability. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware excluding that body of law pertaining to conflicts of law. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

14. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon receipt or three (3) days after deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to in the case of the Company at its corporate headquarters and in the case of Optionee at the last address Optionee provided to the Company. Notwithstanding the foregoing, the Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. You hereby consent to receive such documents by electronic delivery and, if requested, to agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

15. Option Not a Service Contract.

(a) Your Continuous Service with the Company or a Related Entity is not for any specified term and may be terminated by you or by the Company or a Related Entity at any time, for any reason, with or without cause and with or without notice. Nothing in this Agreement (including, but not limited to, the vesting of your Option pursuant to the schedule set forth in the Notice of Stock Option Grant or the issuance of the shares upon exercise of your option), the Plan or any covenant of good faith and fair dealing that may be found implicit in this Agreement or the Plan shall: (i) confer upon you any right to continue in the employ of, or affiliation with, the Company or a Related Entity; (ii) constitute any promise or commitment by the Company or a Related Entity regarding the fact or nature of future positions, future work assignments, future compensation or any other term or condition of employment or affiliation; (iii) confer any right or benefit under this Agreement or the Plan unless such right or benefit has specifically accrued under the terms of this Agreement or Plan; or (iv) deprive the Company of the right to terminate you at will and without regard to any future vesting opportunity that you may have.

(b) By accepting this Option, you acknowledge and agree that the right to continue vesting in the Option pursuant to the schedule set forth in Notice of Stock Option Grant is earned only by continuing as an employee, director or consultant at the will of the Company (not through the act of being hired, being granted this option or any other award or benefit) and that the Company has the right to reorganize, sell, spin-out or otherwise restructure one or more of its businesses or Related Entity at any time or from time to time, as it deems appropriate (a "reorganization"). You further acknowledge and agree that such a reorganization could result in the termination of your Continuous Service, or the termination of Related Entity status of your employer and the loss of benefits available to you under this Agreement, including but not limited to, the termination of the right to continue vesting in the option. You further acknowledge and agree that this Agreement, the Plan, the transactions contemplated hereunder and the vesting schedule set forth herein or any covenant of good faith and fair dealing that may be found implicit in any of them do not constitute an express or implied promise of continued engagement as an employee or consultant for the term of this Agreement, for any period, or at all, and shall not interfere in any way with your right or the Company's right to terminate your Continuous Service at any time, with or without Cause and with or without notice.

16. Further Instruments. The parties agree to execute such further instruments and to take such further action as may be reasonably necessary to carry out the purposes and intent of this Agreement.

17. 2018 Stock Incentive Plan. This Option shall be subject to and governed by the terms and conditions of the Plan in all respects, and to the extent of any inconsistency between this Option and the terms of the Plan, the terms of the Plan will control. Optionee acknowledges receipt of a copy of the Plan and represents that he is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board or Committee upon any questions arising under the Plan or this Option.

18. Other Documents. You acknowledge receipt of the Company's insider trading policy and agree to comply with its terms.

**EXHIBIT A**

**ASSEMBLY BIOSCIENCES, INC.**

**EXERCISE NOTICE**

Assembly Biosciences, Inc.

\_\_\_\_\_  
\_\_\_\_\_  
Attention: Secretary

1. **Exercise of Option.** Effective as of today, the undersigned ("Optionee") hereby elects to exercise Optionee's option to purchase \_\_\_\_\_ shares of the Common Stock (the "Shares") of Assembly Biosciences, Inc. (the "Company") under and pursuant to the Company's 2018 Stock Incentive Plan, as amended (the "Plan") and the Notice of Stock Option Grant dated \_\_\_\_\_, 20\_\_\_\_ with its attached Stock Option Agreement (the "Option Agreement"). The purchase price for the Shares shall be \$ \_\_\_\_\_ as required by the Option Agreement. Optionee herewith delivers to the Company the full Exercise Price for the Shares.

2. **Representations of Optionee.** Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions. Optionee represents that Optionee is purchasing the Shares for Optionee's own account for investment and not with a view to, or for sale in connection with, a distribution of any of such Shares.

3. **Rights as Stockholder.** Until the stock certificate evidencing such Shares is issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the optioned Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly after the Option is exercised.

4. **Tax Consultation.** Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

5. **Entire Agreement.** The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan and the Option Agreement and any Investment Representation statement executed and delivered to Company by Optionee shall constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and is governed by Delaware law except for that body of law pertaining to conflict of laws.

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Submitted by:

**OPTIONEE:**

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Accepted by:

**Assembly Biosciences, Inc.**

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

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

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

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**ASSEMBLY BIOSCIENCES, INC.  
2018 STOCK INCENTIVE PLAN  
RESTRICTED STOCK UNIT AWARD NOTICE**

\_\_\_\_\_  
Grant Number

[Name] \_\_\_\_\_

[Address] \_\_\_\_\_

You have been granted Restricted Stock Units (“RSUs”) of Assembly Biosciences, Inc. (the “Company”), as follows:

Effective Date: [•]

Vesting Commencement Date: [•]

Total Number of RSUs Granted: [•]

Vesting Schedule: [•] [performance milestones] [time-vesting] [combination] [One-fourth of the granted RSUs to vest on the first anniversary of the Vesting Commencement Date; One-fourth of the granted RSUs to vest on the second anniversary of the Vesting Commencement Date; One-fourth of the granted RSUs to vest on the third anniversary of the Vesting Commencement Date; One-fourth of the granted RSU to vest on the fourth anniversary of the Vesting Commencement Date (each such date, a “Vesting Date”).] RSUs to vest on any vesting date shall be rounded down to nearest whole number. Each installments shall take into effect prior rounding so that each annual installment including the last installment is approximately the same. [On the fourth anniversary of the Vesting Commencement Date, assuming Continuous Service through each Vesting Date, the RSUs shall be fully vested. Upon the termination of your employment by the Company for any reason other than for Cause within 6 months following the occurrence of a Corporate Transaction, all unvested RSUs shall immediately vest.]

Payment Date: The Company shall deliver, to you one Share (as defined in the Plan) in respect of each vested RSU. Delivery shall be made as soon as practicable following each vesting date and in no event later than 30 days following the applicable vesting date (the date of delivery, the “Payment Date”).

By your signature and the signature of the Company's representative below, you and the Company agree that this RSU is granted under and governed by the terms and conditions of the Assembly Biosciences, Inc. 2018 Stock Incentive Plan (the "Plan") and the Restricted Stock Unit Agreement, all of which are attached and made a part of this document. Capitalized terms used in this Notice of Restricted Stock Unit Award and not otherwise defined herein shall have the meaning assigned to such term in the Plan.

Dated: \_\_\_\_\_

**GRANTEE:**

\_\_\_\_\_  
[Name]

**ASSEMBLY BIOSCIENCES, INC.**

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

Name: Derek A. Small

Title: Chief Executive Officer

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**ASSEMBLY BIOSCIENCES, INC.**  
**RESTRICTED STOCK UNIT AWARD AGREEMENT**  
**UNDER THE 2018 STOCK INCENTIVE PLAN**

THIS RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Award Agreement") is made and entered into by and between Assembly Biosciences, Inc. (the "Company") and the individual named in the Restricted Stock Unit Award Notice (the "Grantee") under the Company's 2018 Stock Incentive Plan (the "Plan"). The Award Notice also establishes the Effective Date of the Award, the number of Restricted Stock Units awarded, vesting conditions, and the Payment Date of the Award.

WHEREAS, the Grantee is expected to provide valuable services to the Company;

WHEREAS, the Company considers it desirable and in the best interests of the Company that the Grantee be given an opportunity to acquire a proprietary interest in the Company as an incentive to advance the interests of the Company and to perform future services that will contribute materially to the successful operation of the Company; and

WHEREAS, the Company, acting through the Board of Directors of the Company (the "Board") or (ii) the Committee appointed by the Board under the Plan (the "Committee"), desires to grant the Grantee a Restricted Stock Unit Award measured in shares of common stock of the Company (the "Common Stock"), in accordance with the Plan. Capitalized terms used herein which are not otherwise defined herein shall have the meanings ascribed to them under the Plan.

NOW, THEREFORE, in consideration of the premises, it is agreed by and between the parties as follows:

1. Grant of Restricted Stock Unit Award. The Company awards the Grantee Restricted Stock Units in a number that is specified in the Award Notice provided to the Grantee. The Award is subject to the vesting, payment and other provisions of this Award Agreement, the Award Notice and the Plan. Each Restricted Stock Unit represents one (1) Share of Common Stock of the Company. The Company will account for the Restricted Stock Units in a bookkeeping account on the Grantee's behalf until they become payable or are forfeited. The number of Restricted Stock Units shall be adjusted if the Common Stock is split, combined, if stock dividends are paid on Common Stock, or upon a similar event in the same manner that the Common Stock is adjusted.

2. Dividend Equivalents. For each Restricted Stock Unit that is granted and credited to the Grantee's account, the Grantee's account will also be credited with a Dividend Equivalent Rights in an amount equal to any cash dividends paid by the Company upon one Share of Common Stock after the Effective Date and before the Payment Date (as provided in the Award Notice) for the Restricted Stock Unit, subject to the vesting and other provisions of this Award Agreement and the Award Notice.

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3. Vesting. The Restricted Stock Units (and Dividend Equivalent Rights associated with the Restricted Stock Units) shall be unvested and shall be subject to the restrictions set forth in this Award Agreement and the Award Notice. Unless sooner forfeited in accordance with Section 5, the Restricted Stock Units and Dividend Equivalent Rights associated with the Restricted Stock Unit shall vest as set forth in the Grantee's Award Notice.

4. Settlement of Vested Restricted Stock Units and Restricted Dividend Equivalents. If any of the Restricted Stock Units vest on a Vesting Date, the Company shall settle such Restricted Stock Units (the "Vested Restricted Stock Units") and Dividend Equivalent Rights attributable to such Vested Restricted Stock Units ("Vested Dividend Equivalents") on the Payment Date established in the Award Notice (the "Payment Date") by delivering to the Grantee (a) shares of Common Stock of the Company and (b) cash, determined as follows:

- (a) Number of Shares of Common Stock. The Company will determine the value as of the Payment Date of the Vested Restricted Stock Units and the Vested Dividend Equivalent Rights (together, the "Total Amount"). For this purpose, the Vested Dividend Equivalents shall be valued at their original value and shall not be increased or decreased by an interest or earnings factor. The Total Amount will be reduced by any tax withholding under the procedure in Section 6 below (the amount after the reduction is the "Net Amount"). The Net Amount will be divided by the value of one (1) Common Share of the Company as of the Vesting Date, and the resulting whole number (without remainder) shall be the number of shares of Common Stock that will be delivered to the Grantee, and
- (b) Cash. The remainder resulting from the division in (a) above to determine the number of shares of Common Stock will be the dollar amount of the cash payable to the Grantee, and such amount shall be paid to the Grantee by check.

The Vested Restricted Stock Units and Vested Dividend Equivalents will be settled by the Company within thirty (30) days of the applicable Vesting Date.

5. Forfeiture of Restricted Stock Units (and Dividend Equivalent Rights Attributable to Restricted Stock Units). In the event of Termination of Employment of the Grantee from the Company for any reason (including Disability), any Restricted Stock Units and Dividend Equivalent Rights attributable to such Restricted Stock Units that were not already vested on the termination of Employment shall be forfeited on that date.

6. Certain Tax Matters. The Grantee acknowledges that the Grantee understands the federal, state and local income, employment and foreign (if applicable) tax consequences of the Restricted Stock Unit Award, and the issuance, vesting and forfeiture provisions relating to the Restricted Stock Unit Award.

The Grantee understands that, at the time that the Grantee realizes any compensation income in respect of the Restricted Stock Unit Award, the Company will be required to withhold federal, state and local income and employment taxes on the full amount of the compensation income realized by the Grantee, and if the Grantee is located outside of the United States, the Company may be required to withhold to meet tax, employment, or other obligations imposed by the tax jurisdiction that may be applicable to the Grantee. It is understood that all matters with respect to the total amount of taxes to be withheld in respect of such compensation income shall be determined by the Board (or the Committee) in its reasonable discretion. It is understood that although the Company may pay withheld amounts for the taxing jurisdiction that may be credited to the Grantee against taxes due by the Grantee, the Grantee is responsible for payment of all taxes due as a result of compensation arising under this Award Agreement.

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The Board (or the Committee) may make such provisions and take such steps as it may deem necessary or appropriate for the withholding of taxes by the Company on compensation income the Grantee realizes. The Company shall accept payment by the Grantee of an amount in cash for all or part of the withholding obligation of the Company on the compensation income, so that the payment(s) to the Grantee under this Award Agreement are not reduced for tax withholding to the extent of the payment. Such payment by the Grantee must be made to the Company by the time that the Company is required to pay the withholding to the taxing authority, but in any event not later than thirty (30) days from the Payment Date. If the Grantee does not make a payment for the full withholding obligation, the Company shall withhold part of the payment due for redemption of the Vested Restricted Stock Units and Vested Dividend Equivalent Rights in the amount needed by the Company to meet its withholding obligations, with the result that the payment amount for the Vested Restricted Stock Units and Vested Dividend Equivalent Rights will be reduced as provided in Section 4(a) above by the amount needed to meet the Company's withholding obligations.

7. Rights Prior to Vesting. The Restricted Stock Units and Dividend Equivalent Rights represent a right to payment from the Company if the conditions of this Award Agreement are met and do not give the Grantee ownership of any Common Stock prior to delivery as provided in Section 4. No assets have been set aside by the Company or otherwise to pay the amounts promised by this Award Agreement, the right to payment is unsecured, and the Grantee is a general creditor of the Company for payment under this Award Agreement.

8. Investment Representation. The Grantee represents and warrants to the Company that the Grantee has read this Award Agreement carefully, and to the extent believed necessary, has discussed this Award Agreement and its impact and limitations upon the Grantee with counsel.

9. Transferability. The right to payment under this Award Agreement may not be sold, exchanged, transferred, pledged, hypothecated, encumbered or otherwise disposed of except as provided in the Plan. The Company shall have the right to assign to any of its affiliates any of its rights, or to delegate to any of its affiliates any of its obligations under this Award Agreement.

10. Binding Effect. This Award Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

11. Gender and Number. All terms used in this Award Agreement shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the context may require.

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12. Terms and Conditions of Plan. The terms and conditions included in the Plan and the Award Notice are incorporated by reference herein, and to the extent that any conflict may exist between any term or provision of this Award Agreement and any term or provision of the Plan as in effect from time to time, such term or provision of the Plan shall control.

13. Certain Remedies. Without intending to limit the remedies available to the Company, the Grantee agrees that damages at law will be an insufficient remedy in the event the Grantee violates the terms of this Award Agreement. The Grantee agrees that the Company may apply for and have injunctive or other equitable relief in any court of competent jurisdiction to restrain the breach or threatened breach of, or otherwise specifically to enforce, any of the provisions hereof.

14. Waiver. The waiver by either party of compliance with any provision of this Award Agreement by the other party shall not operate or be construed as a waiver of any other provision of this Award Agreement, or of any subsequent breach by such party of a provision of this Award Agreement.

15. No Restriction on Right of Company to Effect Corporate Changes. Neither the Plan nor this Award Agreement shall affect in any way the right or power of the Company or its stockholders to make or authorize any or all adjustments, recapitalizations, reorganizations or other changes in the capital structure or business of the Company, or any merger or consolidation of the Company, or any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of the assets or business of the Company, or any other corporate act or proceeding, whether of a similar character or otherwise.

16. Entire Agreement. This Award Agreement (including the Award Notice, and the Plan which are incorporated herein by reference and all additional riders incorporated herein) sets forth all of the promises, agreements, conditions and understandings between the parties hereto with respect to the Award, and there are no promises, agreements, conditions, understandings, warranties or representations, oral or written, express or implied, between them with respect to the Restricted Stock Unit Award other than as set forth therein or herein. This Award Agreement supersedes and replaces any and all prior agreements between the parties hereto with respect to Restricted Stock Units and Dividend Equivalent Rights. This Award Agreement is, and is intended by the parties to be, an integration of any and all prior agreements or understandings, oral or written, with respect to Restricted Stock Units and Dividend Equivalent Rights. No modification, amendment or waiver of any of the provisions of this Award Agreement shall be effective unless approved in writing by both parties.

17. Invalid or Unenforceable Provision. The invalidity or unenforceability of any particular provision of this Award Agreement shall not affect the other provisions hereof, and this Award Agreement shall be construed in all respects as if such invalid or unenforceable provision was omitted.

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18. Governing Law. This Award Agreement shall be construed and enforced in accordance with the laws of Delaware, without giving effect to principles of conflicts of laws.

19. Miscellaneous.

(a) Neither the granting or vesting of the Restricted Stock Units and Dividend Equivalent Rights nor any other provision of this Award Agreement shall be construed as conferring upon the Grantee any right to continue in the employment of the Company, or as interfering with or restricting in any way the right of the Company to terminate such employment at any time.

(b) The Company, the Board (or the Committee) and any employees or agents thereof are relieved from any liability for the non-issuance or non-transfer, or any delay in the issuance or transfer, of any Common Stock which results from the inability of the Company to obtain, or in any delay in obtaining, from each regulatory body having jurisdiction all requisite authority to issue or transfer the Common Stock in satisfaction of this Award Agreement if counsel for the Company deems such authorization necessary for the lawful issuance or transfer of any of the Common Stock.

(c) No Common Stock shall be sold or otherwise disposed of in violation of any federal or state securities law or regulations.

(d) All decisions of the Board (or the Committee) with respect to the interpretation, construction and application of the Plan and/or this Award Agreement shall be conclusive and binding upon the Grantee and all other persons.

(e) This Award Agreement has been drafted with the intent that payments (and the right to payments) under it are exempt from or comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations thereunder applicable to nonqualified deferred compensation. This Award Agreement shall be interpreted in a manner consistent with such intent.

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**2018 EMPLOYEE STOCK PURCHASE PLAN**

The purpose of the Assembly Biosciences, Inc. 2018 Employee Stock Purchase Plan (“the Plan”) is to provide eligible employees of Assembly Biosciences, Inc. (the “Company”) and each Designated Subsidiary (as defined in Section 11) with opportunities to purchase shares of the Company’s common stock, par value \$0.01 per share (the “Common Stock”). An aggregate of 400,000 shares of Common Stock have been approved and reserved for this purpose.

The Plan includes two components: a Code Section 423 Component (the “423 Component”) and a non-Code Section 423 Component (the “Non-423 Component”). It is intended for the 423 Component to constitute an “employee stock purchase plan” within the meaning of Section 423(b) of the U.S. Internal Revenue Code of 1986, as amended (the “Code”) and the 423 Component shall be interpreted in accordance with that intent (although the Company makes no undertaking or representation to maintain such qualification). In addition, this Plan authorizes the grant of options under the Non-423 Component that does not qualify as an “employee stock purchase plan” under Section 423 of the Code. Except as otherwise provided herein, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

1. **Administration.** The Plan will be administered by the person or persons (the “Administrator”) appointed by the Company’s Board of Directors (the “Board”) for such purpose. The Administrator has authority at any time to: (i) adopt, alter and repeal such rules, guidelines and practices for the administration of the Plan and for its own acts and proceedings as it shall deem advisable; (ii) interpret the terms and provisions of the Plan; (iii) make all determinations it deems advisable for the administration of the Plan; (iv) decide all disputes arising in connection with the Plan; and (v) otherwise supervise the administration of the Plan. All interpretations and decisions of the Administrator shall be binding on all persons, including the Company and the Participants. No member of the Board or individual exercising administrative authority with respect to the Plan shall be liable for any action or determination made in good faith with respect to the Plan or any option granted hereunder.

2. **Offerings.** The Company will make one or more offerings to eligible employees to purchase Common Stock under the Plan (“Offerings”). Unless otherwise determined by the Administrator, the initial Offering will begin on June 15, 2018 and will end on the following November 14<sup>th</sup> (the “Initial Offering”). Thereafter, unless otherwise determined by the Administrator, an Offering will begin on the first business day occurring on or after each November 15<sup>th</sup> and May 15<sup>th</sup> and will end on the last business day occurring on or before the following May 14<sup>th</sup> and November 14<sup>th</sup>, respectively. The Administrator may, in its discretion, designate a different period for any Offering, provided that no Offering shall exceed six months in duration or overlap any other Offering.

3. **Eligibility.** All individuals classified as employees on the payroll records of the Company and each Designated Subsidiary are eligible to participate in any one or more of the Offerings under the Plan, provided that as of the first day of the applicable Offering (the “Offering Date”) they are employed by the Company or a Designated Subsidiary and have completed at least 30 days of employment. Notwithstanding any other provision herein, individuals who are not contemporaneously classified as employees of the Company or a Designated Subsidiary for purposes of the Company’s or applicable Designated Subsidiary’s payroll system are not considered to be eligible employees of the Company or any Designated Subsidiary and shall not be eligible to participate in the Plan. In the event any such individuals are reclassified as employees of the Company or a Designated Subsidiary for any purpose, including, without limitation, common law or statutory employees, by any action of any third party, including, without limitation, any government agency, or as a result of any private lawsuit, action or administrative proceeding, such individuals shall, notwithstanding such reclassification, remain ineligible for participation. Notwithstanding the foregoing, the exclusive means for individuals who are not contemporaneously classified as employees of the Company or a Designated Subsidiary on the Company’s or Designated Subsidiary’s payroll system to become eligible to participate in this Plan is through an amendment to this Plan, duly executed by the Company, which specifically renders such individuals eligible to participate herein.

4. **Participation.**

(a) An eligible employee who is not a Participant in any prior Offering may participate in a subsequent Offering by submitting an enrollment form to his or her appropriate payroll location at least 15 business days before the Offering Date (or by such other deadline as shall be established by the Administrator for the Offering).

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(b) The enrollment form will (a) state a whole percentage to be deducted from an eligible employee's Compensation (as defined in Section 11) per pay period, (b) authorize the purchase of Common Stock in each Offering in accordance with the terms of the Plan and (c) specify the exact name or names in which shares of Common Stock purchased for such individual are to be issued pursuant to Section 10. An employee who does not enroll in accordance with these procedures will be deemed to have waived the right to participate. Unless a Participant files a new enrollment form or withdraws from the Plan, such Participant's deductions and purchases will continue at the same percentage of Compensation for future Offerings, provided he or she remains eligible.

(c) Notwithstanding the foregoing, participation in the Plan will neither be permitted nor be denied contrary to the requirements of the Code.

5. Employee Contributions. Each eligible employee may authorize payroll deductions at a minimum of one percent up to a maximum of 15 percent of such employee's Compensation for each pay period. The Company will maintain book accounts showing the amount of payroll deductions made by each Participant for each Offering. No interest will accrue or be paid on payroll deductions.

6. Deduction Changes. Except as may be determined by the Administrator in advance of an Offering, a Participant may not increase or decrease his or her payroll deduction during any Offering, but may increase or decrease his or her payroll deduction with respect to the next Offering (subject to the limitations of Section 5) by filing a new enrollment form at least 15 business days before the next Offering Date (or by such other deadline as shall be established by the Administrator for the Offering). The Administrator may, in advance of any Offering, establish rules permitting a Participant to increase, decrease or terminate his or her payroll deduction during an Offering.

7. Withdrawal. A Participant may withdraw from participation in the Plan by delivering a written notice of withdrawal to his or her appropriate payroll location. The Participant's withdrawal will be effective as of the next business day. Following a Participant's withdrawal, the Company will promptly refund such individual's entire account balance under the Plan to him or her (after payment for any Common Stock purchased before the effective date of withdrawal). Partial withdrawals are not permitted. Such an employee may not begin participation again during the remainder of the Offering, but may enroll in a subsequent Offering in accordance with Section 4.

8. Grant of Options. On each Offering Date, the Company will grant to each eligible employee who is then a Participant in the Plan an option ("Option") to purchase on the last day of such Offering (the "Exercise Date"), at the Option Price hereinafter provided for, the lowest of (a) a number of shares of Common Stock determined by dividing such Participant's accumulated payroll deductions on such Exercise Date by the Option Price (as defined herein), (b) 1,000 shares; or (c) such other lesser maximum number of shares as shall have been established by the Administrator in advance of the Offering; provided, however, that such Option shall be subject to the limitations set forth below. Each Participant's Option shall be exercisable only to the extent of such Participant's accumulated payroll deductions on the Exercise Date. The purchase price for each share purchased under each Option (the "Option Price") will be 85 percent of the Fair Market Value of the Common Stock on the Offering Date or the Exercise Date, whichever is less.

Notwithstanding the foregoing, no Participant may be granted an option hereunder if such Participant, immediately after the option was granted, would be treated as owning stock possessing five percent or more of the total combined voting power or value of all classes of stock of the Company or any Parent or Subsidiary (as defined in Section 11). For purposes of the preceding sentence, the attribution rules of Section 424(d) of the Code shall apply in determining the stock ownership of a Participant, and all stock which the Participant has a contractual right to purchase shall be treated as stock owned by the Participant. In addition, no Participant may be granted an Option which permits his or her rights to purchase stock under the Plan, and any other employee stock purchase plan of the Company and its Parents and Subsidiaries, to accrue at a rate which exceeds \$25,000 of the fair market value of such stock (determined on the option grant date or dates) for each calendar year in which the Option is outstanding at any time. The purpose of the limitation in the preceding sentence is to comply with Section 423(b)(8) of the Code and shall be applied taking Options into account in the order in which they were granted.

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9. Exercise of Option and Purchase of Shares. Each employee who continues to be a Participant in the Plan on the Exercise Date shall be deemed to have exercised his or her Option on such date and shall acquire from the Company such number of whole shares of Common Stock reserved for the purpose of the Plan as his or her accumulated payroll deductions on such date will purchase at the Option Price, subject to any other limitations contained in the Plan. Any amount remaining in a Participant's account at the end of an Offering solely by reason of the inability to purchase a fractional share will be carried forward to the next Offering; any other balance remaining in a Participant's account at the end of an Offering will be refunded to the Participant promptly.

10. Issuance of Certificates. Certificates representing shares of Common Stock purchased under the Plan may be issued only in the name of the employee, in the name of the employee and another person of legal age as joint tenants with rights of survivorship, or in the name of a broker authorized by the employee to be his, her or their, nominee for such purpose.

11. Definitions.

The term "Compensation" means the amount of base pay, prior to salary reduction pursuant to Sections 125, 132(f) or 401(k) of the Code, but excluding overtime, commissions, incentive or bonus awards, allowances and reimbursements for expenses such as relocation allowances or travel expenses, income or gains on the exercise of Company stock options, and similar items.

The term "Designated Subsidiary" means any present or future Subsidiary (as defined below) that has been designated by the Board to participate in the Plan. The Board may so designate any Subsidiary, or revoke any such designation, at any time and from time to time, either before or after the Plan is approved by the stockholders and may further designate such Subsidiaries as participating in the 423 Component or the Non-423 Component. The current list of Designated Subsidiaries is attached hereto as Appendix A.

The term "Fair Market Value of the Common Stock" on any given date means the fair market value of the Common Stock determined in good faith by the Administrator; provided, however, that if the Common Stock

is admitted to quotation on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ Global Select Market or The NASDAQ Capital Market of The NASDAQ Stock Market LLC or another national securities exchange, the determination shall be made by reference to the closing price on such date. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price.

The term "Parent" means a "parent corporation" with respect to the Company, as defined in Section 424(e) of the Code.

The term "Participant" means an individual who is eligible as determined in Section 3 and who has complied with the provisions of Section 4.

The term "Subsidiary" means a "subsidiary corporation" with respect to the Company, as defined in Section 424(f) of the Code.

The term "Corporate Transaction" means any of the following transactions, provided, however, that the Administrator shall determine under parts (iv) and (v) whether multiple transactions are related, and its determination shall be final, binding and conclusive:

- (i) a merger or consolidation in which the Company is not the surviving entity, except for a transaction the principal purpose of which is to change the state in which the Company is incorporated;
  - (ii) the sale, transfer or other disposition of all or substantially all of the assets of the Company;
  - (iii) the complete liquidation or dissolution of the Company;
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(iv) any reverse merger or series of related transactions culminating in a reverse merger (including, but not limited to, a tender offer followed by a reverse merger) in which the Company is the surviving entity but (A) the shares of Common Stock outstanding immediately prior to such merger are converted or exchanged by virtue of the merger into other property, whether in the form of securities, cash or otherwise, or (B) in which securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities are transferred to a person or persons different from those who held such securities immediately prior to such merger or the initial transaction culminating in such merger; or

(v) acquisition in a single or series of related transactions by any person or related group of persons (other than the Company or by a Company-sponsored employee benefit plan) of beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities.

12. Rights on Termination of Employment. If a Participant's employment terminates for any reason before the Exercise Date for any Offering, no payroll deduction will be taken from any pay due and owing to the Participant and the balance in the Participant's account will be paid to such Participant or, in the case of such Participant's death, to his or her designated beneficiary as if such Participant had withdrawn from the Plan under Section 7. An employee will be deemed to have terminated employment, for this purpose, if the corporation that employs him or her, having been a Designated Subsidiary, ceases to be a Subsidiary, or if the employee is transferred to any corporation other than the Company or a Designated Subsidiary. An employee will not be deemed to have terminated employment for this purpose, if the employee is on an approved leave of absence for military service or sickness or for any other purpose approved by the Company, if the employee's right to reemployment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise provides in writing.

13. Special Rules. Notwithstanding anything herein to the contrary, the Administrator may adopt special rules applicable to the employees of a particular Designated Subsidiary, whenever the Administrator determines that such rules are necessary or appropriate for the implementation of the Plan in a jurisdiction where such Designated Subsidiary has employees; provided that if such rules are inconsistent with the requirements of Section 423(b) of the Code, these employees will participate in the Non-423 Component. Any special rules established pursuant to this Section 13 shall, to the extent possible, result in the employees subject to such rules having substantially the same rights as other Participants in the Plan.

14. Optionees Not Stockholders. Neither the granting of an Option to a Participant nor the deductions from his or her pay shall constitute such Participant a holder of the shares of Common Stock covered by an Option under the Plan until such shares have been purchased by and issued to him or her.

15. Rights Not Transferable. Rights under the Plan are not transferable by a Participant other than by will or the laws of descent and distribution, and are exercisable during the Participant's lifetime only by the Participant.

16. Designation of Beneficiary.

(a) A Participant may file a written designation of a beneficiary who is to receive any shares of Common Stock and/or cash, if any, from the Participant's account under the Plan in the event of such Participant's death subsequent to the end of an Offering but prior to delivery to the Participant of such shares of Common Stock or cash. In addition, a Participant may file a written designation of a beneficiary who is to receive any cash from the Participant's account under the Plan in the event of such Participant's death during an Offering. Any such designation shall be on a form provided by or otherwise acceptable to the Company.

(b) The Participant may change such designation of beneficiary at any time by written notice to the Company. In the event of the death of a Participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such Participant's death, the Company shall deliver such shares of Common Stock and/or cash to the executor or administrator of the estate of the Participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its sole discretion, may deliver such shares of Common Stock and/or cash to the spouse or to any one or more dependents or relatives of the Participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

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17. Application of Funds. All funds received or held by the Company under the Plan may be combined with other corporate funds and may be used for any corporate purpose.

18. Adjustment in Case of Changes Affecting Common Stock; Corporate Transaction.

(a) In the event of a subdivision of outstanding shares of Common Stock, the payment of a dividend in Common Stock or any other change affecting the Common Stock, the number of shares approved for the Plan and the share limitation set forth in Section 8 shall be equitably or proportionately adjusted to give proper effect to such event.

(b) In the event of a Corporate Transaction, then the Participants' accumulated payroll deductions under an ongoing Offering shall be used to purchase shares of Common Stock subject to the limitations in this Plan on a date determined by the Company within ten (10) business days prior to the closing of the Corporate Transaction, which date shall constitute the Exercise Date under this Plan, and the Plan shall terminate immediately after such Exercise Date and the issuance of the shares purchased on such Exercise Date.

19. Amendment of the Plan. The Board may at any time and from time to time amend the Plan in any respect, except that without the approval within 12 months of such Board action by the stockholders, no amendment shall be made increasing the number of shares approved for the Plan or making any other change that would require stockholder approval in order for the Plan, as amended, to qualify as an "employee stock purchase plan" under Section 423(b) of the Code.

20. Insufficient Shares. If the total number of shares of Common Stock that would otherwise be purchased on any Exercise Date plus the number of shares purchased under previous Offerings under the Plan exceeds the maximum number of shares issuable under the Plan, the shares then available shall be apportioned among Participants in proportion to the amount of payroll deductions accumulated on behalf of each Participant that would otherwise be used to purchase Common Stock on such Exercise Date.

21. Termination of the Plan. Except as otherwise contemplated under Section 18(b) with respect to a Corporate Transaction, the Plan may be terminated at any time by the Board. Upon termination of the Plan, all amounts in the accounts of Participants shall be promptly refunded.

22. Governmental Regulations. The Company's obligation to sell and deliver Common Stock under the Plan is subject to obtaining all governmental approvals required in connection with the authorization, issuance, or sale of such stock.

23. Governing Law. This Plan and all Options and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

24. Issuance of Shares. Shares may be issued upon exercise of an Option from authorized but unissued Common Stock, from shares held in the treasury of the Company, or from any other proper source.

25. Tax Withholding. Participation in the Plan is subject to any minimum required tax withholding on income of the Participant in connection with the Plan. Each Participant agrees, by entering the Plan, that the Company and its Subsidiaries shall have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant, including shares issuable under the Plan.

26. Notification Upon Sale of Shares. Each Participant agrees, by entering the Plan, to give the Company prompt notice of any disposition of shares purchased under the Plan where such disposition occurs within two years after the date of grant of the Option pursuant to which such shares were purchased or within one year after the date such shares were purchased.

27. Effective Date and Approval of Shareholders. The Plan shall take effect on the later of the date it is adopted by the Board and the date it is approved by the holders of a majority of the votes cast at a meeting of stockholders at which a quorum is present or by written consent of the stockholders.

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**APPENDIX A**

**Designated Subsidiaries**

**None**

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