

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

FORM S-8

REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

SYNTHETIC BIOLOGICS, INC.

(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of
incorporation or organization)

13-3808303
(IRS Employer
Identification No.)

9605 Medical Center Drive, Suite 270
Rockville, Maryland 20850
(Address, of principal executive offices)

Synthetic Biologics, Inc. 2020 Stock Incentive Plan
(Full title of the plan)

Steven A. Shallcross
Chief Executive Officer and Chief Financial Officer
9605 Medical Center Drive, Suite 270
Rockville, Maryland 20850
(Name and address of agent for service)

(301) 417-4364
(Telephone number, including area code, of agent for service)

Copy to:

Leslie Marlow, Esq.
Hank Gracin, Esq.
Patrick J. Egan, Esq.
Gracin & Marlow, LLP
The Chrysler Building
405 Lexington Avenue, 26th Floor
New York, New York 10174

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

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

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

CALCULATION OF REGISTRATION FEE

Title of securities to be registered (1)	Amount to be Registered (2)	Proposed maximum offering price per share (3)	Proposed maximum aggregate offering price (1)	Amount of registration fee (4)
Common Stock, par value \$0.001 per share	4,000,000 shares	\$ 0.395	\$ 1,580,000	\$ 172.38

- (1) The securities to be registered include options and rights to acquire the common stock of Synthetic Biologics, Inc.
- (2) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional securities that may be offered or issued in connection with any stock split, stock dividend or similar transaction.
- (3) Estimated pursuant to Rule 457(c) and 457(h) of the Securities Act solely for purposes of calculating the registration fee. The price for the shares under the plan is based upon the average of the high and low sale prices of the Common Stock on October 23, 2020, as reported by the NYSE American.
- (4) Calculated pursuant to Section 6(b) of the Securities Act as .00010910 of the proposed maximum aggregate offering price.

Explanatory Note

Synthetic Biologics, Inc., a Nevada corporation (the “Registrant” or the “Company”) hereby files this Registration Statement on Form S-8 relating to its common stock, par value \$0.001 per share (the “Common Stock”), which have been reserved for issuance and are issuable pursuant to the Company’s 2020 Stock Incentive Plan (hereinafter referred to as the “Plan”).

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents By Reference.

The Registrant has filed the documents listed below with the SEC under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and these documents are incorporated into this registration statement by reference:

- [Our Annual Report on Form 10-K the fiscal year ended December 31, 2019 filed with the SEC on February 20, 2020 \(File No. 001-12584\);](#)
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2020 and June 30, 2020 filed with the SEC on [May 5, 2020](#) and [August 6, 2020](#), respectively (File No. 001-12584);
- Our Current Reports on Form 8-K (File No. 001-12584) filed with the SEC on [January 7, 2020](#), [February 7, 2020](#), [August 5, 2020](#), [September 18, 2020](#) and [October 2, 2020](#) (other than as indicated therein);
- [Our Definitive Proxy Statement on Schedule 14A filed with the SEC on August 4, 2020 \(File No. 001-12584\);](#) and
- [The description of our common stock set forth in our Registration Statement on Form 8-A12B, filed with the SEC on June 20, 2007 \(File No. 000-12584\).](#)

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the date hereof and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

Item 4. Description of Securities.

Not applicable

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 78.138 of the Nevada Revised Statutes provides that a director or officer is not individually liable to the Registrant or its stockholders or creditors for any damages as a result of any act or failure to act in his capacity as a director or officer unless it is proven that (1) his act or failure to act constituted a breach of his fiduciary duties as a director or officer and (2) his breach of those duties involved intentional misconduct, fraud or a knowing violation of law.

This provision is intended to afford directors and officers protection against and to limit their potential liability for monetary damages resulting from suits alleging a breach of the duty of care by a director or officer. As a consequence of this provision, the Registrant's stockholders will be unable to recover monetary damages against directors or officers for actions taken by them that may constitute negligence or gross negligence in performance of their duties unless such conduct falls within one of the foregoing exceptions. The provision, however, does not alter the applicable standards governing a director's or officer's fiduciary duty and does not eliminate or limit the right of the Registrant or any of its stockholders to obtain an injunction or any other type of non-monetary relief in the event of a breach of fiduciary duty.

The Registrant's Articles of Incorporation, as amended, and amended and restated bylaws provide for indemnification of directors, officers, employees or agents of the Registrant to the fullest extent permitted by Nevada law (as amended from time to time). Section 78.7502 of the Nevada Revised Statutes provides that such indemnification may only be provided if the person acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interest of the Registrant and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit No.	Description
4.1	Certificate of Incorporation, as amended (Incorporated by reference to (i) <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed October 16, 2008, File No. 001-12584</u>, (ii) <u>Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2001 filed August 14, 2001, File No. 001-12584</u>; and (iii) <u>Exhibits 3.1, 4.1 and 4.2 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 1998 filed August 14, 1998, File No. 001-12584</u>.)
4.2	Articles of Merger (Incorporated by reference to <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed October 19, 2009, File No. 001-12584</u>.)
4.3	Certificate of Merger filed with the Secretary of State of Delaware (Incorporated by reference to <u>Exhibit 3.2 of the Registrant's Current Report on Form 8-K filed October 19, 2009, File No. 001-12584</u>.)
4.4	Articles of Incorporation filed with the Nevada Secretary of State (Incorporated by reference to <u>Exhibit 3.3 of the Registrant's Current Report on Form 8-K filed October 19, 2009, File No. 001-12584</u>.)
4.5	Amended and Restated Bylaws Adopted and Effective October 31, 2011 (Incorporated by reference to <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed November 2, 2011, File No. 001-12584</u>.)
4.6	Certificate of Amendment to Articles of Incorporation (Incorporated by reference to <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed February 16, 2012, File No. 001-12584</u>.)
4.7	Certificate of Amendment to Certificate of Incorporation. (Incorporated by reference to <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed May 18, 2015, File No. 001-12584</u>.)
4.8	Certificate of Amendment to Certificate of Incorporation. (Incorporated by reference to <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed September 8, 2017, File No. 001-12584</u>.)
4.9	Certificate of Amendment to Articles of Incorporation (Incorporated by reference to <u>Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed September 26, 2018, File No. 001-12584</u>.)

4.10	Synthetic Biologics, Inc. 2020 Stock Incentive Plan (Incorporated by reference to Appendix A to the Registrant’s Definitive Proxy Statement filed with the Securities and Exchange Commission on August 4, 2020).
4.11*	Form of Incentive Stock Option Grant Agreement
4.12*	Form of Nonqualified Stock Option Grant Agreement
4.13*	Form of Restricted Stock Unit Award Agreement
5.1*	Opinion of Parsons Behle & Latimer as to the legality of securities being registered
23.1*	Consent of BDO USA, LLP*
23.2*	Consent of Parsons Behle & Latimer (included in Exhibit 5.1 hereof)
24.1*	Power of Attorney (included on the signature page of this registration statement)

* Filed Herewith

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in this registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities Exchange Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for purposes of determining any liability under the Securities Act, each filing of the Registrant’s annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan’s annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(5) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to existing provisions or arrangements whereby the Registrant may indemnify a trustee, officer or controlling person of the Registrant against liabilities arising under the Securities Act, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a trustee, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such trustee, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Rockville and State of Maryland, on the 28th day of October, 2020.

SYNTHETIC BIOLOGICS, INC.

By: /s/ Steven A. Shallcross
Name: Steven A. Shallcross
Title: Chief Executive Officer and
Chief Financial Officer

POWER OF ATTORNEY

Each of the undersigned, whose signature appears below, hereby constitutes and appoints Steven A. Shallcross as his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign any or all amendments to this Registration Statement, whether pre-effective or post-effective, and to file the same with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, or his substitute full power and authority to do and perform each and every act and thing necessary or appropriate to be done with respect to this Registration Statement or any amendments hereto in the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, or any of them, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed below by the following persons, in the capacities and on the date or dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Steven A. Shallcross</u> Steven A. Shallcross	Chief Executive Officer and Chief Financial Officer (Principal Executive Officer and Principal Financial and Accounting Officer) Director	October 28, 2020
<u>/s/ Jeffrey J. Kraws</u> Jeffrey J. Kraws	Chairman of the Board of Directors	October 28, 2020
<u>/s/ Scott L. Tarriff</u> Scott L. Tarriff	Director	October 28, 2020
<u>/s/ Jeffrey Wolf</u> Jeffrey Wolf	Director	October 28, 2020

EXHIBIT INDEX

Exhibit Description

<u>No.</u>	<u>Description</u>
4.1	<u>Certificate of Incorporation, as amended (Incorporated by reference to (i) Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed October 16, 2008, File No. 001-12584, (ii) Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2001 filed August 14, 2001, File No. 001-12584 and (iii) Exhibits 3.1, 4.1 and 4.2 of the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 1998 filed August 14, 1998, File No. 001-12584.)</u>
4.2	<u>Articles of Merger (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed October 19, 2009, File No. 001-12584.)</u>
4.3	<u>Certificate of Merger filed with the Secretary of State of Delaware (Incorporated by reference to Exhibit 3.2 of the Registrant's Current Report on Form 8-K filed October 19, 2009, File No. 001-12584.)</u>
4.4	<u>Articles of Incorporation filed with the Nevada Secretary of State (Incorporated by reference to Exhibit 3.3 of the Registrant's Current Report on Form 8-K filed October 19, 2009, File No. 001-12584.)</u>
4.5	<u>Amended and Restated Bylaws Adopted and Effective October 31, 2011 (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed November 2, 2011, File No. 001-12584.)</u>
4.6	<u>Certificate of Amendment to Articles of Incorporation (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed February 16, 2012, File No. 001-12584.)</u>
4.7	<u>Certificate of Amendment to Certificate of Incorporation. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed May 18, 2015, File No. 001-12584.)</u>
4.8	<u>Certificate of Amendment to Certificate of Incorporation. (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed September 8, 2017, File No. 001-12584.)</u>
4.9	<u>Certificate of Amendment to Articles of Incorporation (Incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed September 26, 2018, File No. 001-12584.)</u>
4.10	<u>Synthetic Biologics, Inc. 2020 Stock Incentive Plan (Incorporated by reference to Appendix A to the Registrant's Definitive Proxy Statement filed with the Securities and Exchange Commission on August 4, 2020.)</u>
4.11*	<u>Form of Incentive Stock Option Grant Agreement</u>
4.12*	<u>Form of Nonqualified Stock Option Grant Agreement</u>
4.13*	<u>Form of Restricted Stock Unit Award Agreement</u>
5.1*	<u>Opinion of Parsons Behle & Latimer as to the legality of securities being registered</u>
23.1*	<u>Consent of BDO USA, LLP*</u>
23.2*	<u>Consent of Parsons Behle & Latimer (included in Exhibit 5.1 hereof)</u>
24.1*	<u>Power of Attorney (included on the signature page of this registration statement)</u>

* Filed Herewith

FORM OF
INCENTIVE STOCK OPTION GRANT AGREEMENT
SYNTHETIC BIOLOGICS, INC. 2020 STOCK INCENTIVE PLAN

This Stock Option Grant Agreement (the "Grant Agreement") is made and entered into effective on the Date of Grant set forth in Exhibit A (the "Date of Grant") by and between Synthetic Biologics, Inc., a Nevada corporation (the "Company"), and the individual named in Exhibit A hereto (the "Optionee").

WHEREAS, the Company desires to provide the Optionee an incentive to participate in the success and growth of the Company through the opportunity to earn a proprietary interest in the Company; and

WHEREAS, to give effect to the foregoing intention, the Company desires to grant the Optionee an option pursuant to the Synthetic Biologics, Inc. 2020 Stock Incentive Plan (the "Plan") to acquire the Company's common stock, par value \$0.001 per share (the "Common Stock");

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for good and valuable consideration, the parties hereto agree as follows:

1. Grant. The Company hereby grants the Optionee a Nonqualified Stock Option (the "Option") to purchase up to the number of shares of Common Stock (the "Shares") set forth in Exhibit A hereto at the exercise price per Share (the "Exercise Price") set forth in Exhibit A, and on the vesting schedule set forth in Exhibit A, subject to the terms and conditions set forth herein and the provisions of the Plan, the terms of which are incorporated herein by reference. Capitalized terms used but not otherwise defined in this Grant Agreement shall have the meanings as set forth in the Plan.

This Option is intended to qualify as an Incentive Stock Option ("ISO") under Section 422 of the Code. However, notwithstanding such designation, if the Optionee becomes eligible in any given year to exercise ISOs for Shares having a Fair Market Value in excess of \$100,000, those options representing the excess shall be treated as Nonqualified Stock Options. In the previous sentence, "ISOs" include ISOs granted under any plan of the Company or any parent or any Subsidiary of the Company. For the purpose of deciding which options apply to Shares that "exceed" the \$100,000 limit, ISOs shall be taken into account in the same order as granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted. The Optionee hereby acknowledges that there is no assurance that the Option will, in fact, be treated as an Incentive Stock Option under Section 422 of the Code.

2. Exercise Period Following Termination of Service. This Option shall terminate and be canceled to the extent not exercised within three (3) months after the Optionee's Service terminates; provided that if such termination is due to the Optionee's total and permanent disability within the meaning of Section 22(c)(3) of the Code, this Option shall terminate and be canceled one (1) year from the date of termination of the Optionee's Service; and provided, further, that if Optionee's Service terminates (other than for Cause) on or after a Change in Control, then the Option shall remain exercisable until the Expiration Date. Notwithstanding the foregoing, in the event that the Optionee's Service is terminated for Cause, then the Option shall immediately terminate on the date of such termination of Service and shall not be exercisable for any period following such date. In no event, however, shall this Option be exercised later than the Expiration Date set forth in Exhibit A and in no event shall this Option be exercised for more Shares than the Shares which otherwise have become exercisable as of the date of termination.

3. Method of Exercise. This Option is exercisable by delivery to the Company of an exercise notice (the "Exercise Notice") in a form satisfactory to the Committee or by such other form or means as the Committee may permit or require. Any Exercise Notice shall state or provide the number of Shares with respect to which the Option is being exercised (the "Exercised Shares"), and include such other representations and agreements as may be required by the Company pursuant to the provisions of the Plan. The Optionee may elect to make payment of the exercise price in cash or by check or by delivery to the Company of certificates representing shares of outstanding Common Stock already owned by the Optionee that are owned free and clear of any liens, claims, encumbrances or security interests together with stock powers duly executed and with signature guaranteed. In addition, the Optionee may make payment through a "cashless exercise" such that without the payment of any funds, the undersigned may exercise the Option and receive the net number of Shares equal to (x) the number of Shares as to which the Option is being exercised, multiplied by (y) a fraction, the numerator of which is the Fair Market Value per share (on such date as is determined by the Committee) less the Exercise Price per Share, and the denominator of which is such Fair Market Value per Share (the number of net Shares to be received shall be rounded down to the nearest whole number). In the event payment is made by delivery of such Shares, said Shares shall be deemed to have a per Share value equal to the Fair Market Value per Share on the date of exercise. Upon exercise of the Option by the Optionee and prior to the delivery of such Exercised Shares, the Company shall have the right to require the Optionee to satisfy applicable Federal and state tax income tax withholding requirements and the Optionee's share of applicable employment withholding taxes in a method satisfactory to the Company. Notwithstanding the foregoing, the Optionee may not exercise the Option by tender to the Company of Common Stock to the extent such tender would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's Common Stock. Further, no Exercised Shares shall be issued unless such exercise and issuance complies with the requirements relating to the administration of stock option plans and other applicable equity plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted, and the applicable laws of any foreign country or jurisdiction where stock grants or other applicable equity grants are made under the Plan; assuming such compliance, for income tax purposes the Exercised Shares shall be considered transferred to the Optionee on the date the Option is exercised with respect to such Shares.

4. Covenants Agreement. This Option shall be subject to forfeiture at the election of the Company in the event that the Optionee breaches any agreement between the Optionee and the Company with respect to noncompetition, nonsolicitation, assignment of inventions and contributions and/or nondisclosure obligations of the Optionee.

5. Taxes.

(a) By executing this Grant Agreement, Optionee acknowledges and agrees that Optionee is solely responsible for the satisfaction of any applicable taxes that may be imposed on Optionee that arise as a result of the grant, vesting or exercise of the Option, including without limitation any taxes arising under Section 409A of the Code (regarding deferred compensation) or Section 4999 of the Code (regarding golden parachute excise taxes), and that neither the Company nor the Committee shall have any obligation whatsoever to pay such taxes or otherwise indemnify or hold Optionee harmless from any or all of such taxes.

(b) Notwithstanding paragraph (a) above, if any amounts or benefits provided for in this Grant Agreement, when aggregated with any other payments or benefits payable or provided to the Optionee (the "Total Payments") would (i) constitute "parachute payments" within the meaning of Section 280G of the Code (which will not include any portion of payments classified as payments of reasonable compensation for purposes of Section 280G of the Code, including without limitation amounts allocated to any restrictive covenants), and (ii) but for this Section 5(b), would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Total Payments will be either: (a) provided in full, or (b) provided as to such lesser extent as would result in no portion of such Total Payments being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income and employment taxes and the Excise Tax, results in the Optionee's receipt on an after-tax basis of the greatest amount of the Total Payments, notwithstanding that all or some portion of the Total Payments may be subject to the Excise Tax. To the extent any reduction in Total Payments is required by this Section 5(b), such reduction shall occur to the payments and benefits in the order that results in the greatest economic present value of all payments and benefits actually made to Optionee. Subject to Section 409A of the Code, such order of reductions shall be determined by the Optionee. Unless the Company and the Optionee otherwise agree in writing, any determination required under this Section 5(b) shall be made in writing by an independent public accounting firm mutually acceptable to the Company and the Optionee (the "Accountants") whose determination shall be conclusive and binding upon the Optionee and the Company for all purposes. For purposes of making the calculations required by this Section 5(b), the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and the Optionee shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 5(b). The Company shall pay all fees and expenses of the Accountants.

6. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of the Optionee only by the Optionee. The terms of the Plan and this Grant Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

7. Securities Matters. All Shares and Exercised Shares shall be subject to the restrictions on sale, encumbrance and other disposition provided by Federal or state law. The Company shall not be obligated to sell or issue any Shares or Exercised Shares pursuant to this Grant Agreement unless, on the date of sale and issuance thereof, such Shares are either registered under the Securities Act of 1933, as amended (the "Securities Act"), and all applicable state securities laws, or are exempt from registration thereunder. Regardless of whether the offering and sale of Shares under the Plan have been registered under the Securities Act, or have been registered or qualified under the securities laws of any state, the Company at its discretion may impose restrictions upon the sale, pledge or other transfer of such Shares (including the placement of appropriate legends on stock certificates or the imposition of stop-transfer instructions) if, in the judgment of the Company, such restrictions are necessary in order to achieve compliance with the Securities Act or the securities laws of any state or any other law.

8. Investment Purpose. The Optionee represents and warrants that unless the Shares are registered under the Securities Act, any and all Shares acquired by the Optionee under this Grant Agreement will be acquired for investment for the Optionee's own account and not with a view to, for resale in connection with, or with an intent of participating directly or indirectly in, any distribution of such Shares within the meaning of the Securities Act. The Optionee agrees not to sell, transfer or otherwise dispose of such Shares unless they are either (1) registered under the Securities Act and all applicable state securities laws, or (2) exempt from such registration in the opinion of Company counsel.

9. Lock-Up Agreement. The Optionee hereby agrees that in the event that the Optionee exercises this Option during a period in which any directors or officers of the Company have agreed with one or more underwriters not to sell securities of the Company, then, as a condition to such exercise, the Optionee shall enter into an agreement, in form and substance satisfactory to the Company, pursuant to which the Optionee shall agree to restrictions on transferability of the Shares comparable to the restrictions agreed upon by such directors or officers of the Company.

10. Other Plans. No amounts of income received by the Optionee pursuant to this Grant Agreement shall be considered compensation for purposes of any pension or retirement plan, insurance plan or any other employee benefit plan of the Company or its subsidiaries, unless otherwise expressly provided in such plan.

11. No Guarantee of Continued Service. The Optionee acknowledges and agrees that the right to exercise the Option pursuant to the exercise schedule hereof is earned only through continuous Service and such other requirements, if any, as are set forth in Exhibit A (and not through the act of being hired, being granted an option or purchasing shares hereunder). The Optionee further acknowledges and agrees that (i) this Grant Agreement, the transactions contemplated hereunder and the exercise schedule set forth herein do not constitute an express or implied promise of continued employment or service for the exercise period or for any other period, and shall not interfere with the Optionee's right or the right of the Company or its Subsidiaries to terminate the employment or service relationship at any time, with or without cause, subject to the terms of any written employment agreement that the Optionee may have entered into with the Company or any of its Subsidiaries; and (ii) the Company would not have granted this Option to the Optionee but for these acknowledgements and agreements.

12. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Grant Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Optionee with respect to the subject matter hereof, and may not be amended to materially impair the rights of the Optionee without the Optionee's consent; provided, however, that no action of the Board or the Committee that alters or affects the tax treatment of the Option shall be considered to materially impair any rights of the Optionee. In the event of any conflict between this Grant Agreement and the Plan, the Plan shall be controlling, except as otherwise specifically provided in the Plan. This Grant Agreement shall be construed under the laws of the State of Nevada, without regard to conflict of laws principles.

13. Opportunity for Review. Optionee and the Company agree that this Option is granted under and governed by the terms and conditions of the Plan and this Grant Agreement. The Optionee has reviewed the Plan and this Grant Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Agreement and fully understands all provisions of the Plan and this Grant Agreement. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions relating to the Plan and this Grant Agreement. The Optionee further agrees to notify the Company upon any change in the residence address indicated herein.

14. Section 409A. This Option is intended to be excepted from coverage under Section 409A and shall be administered, interpreted and construed accordingly. The Company may, in its sole discretion and without the Optionee's consent, modify or amend the terms of this Grant Agreement, impose conditions on the timing and effectiveness of the exercise of the Option by Optionee, or take any other action it deems necessary or advisable, to cause the Option to be excepted from Section 409A (or to comply therewith to the extent the Company determines it is not excepted).

15. Recoupment. In the event the Company restates its financial statements due to material noncompliance with any financial reporting requirements under applicable securities laws, any shares issued pursuant to this Agreement for or in respect of the year that is restated, or the prior three years, may be recovered to the extent the shares issued exceed the number that would have been issued based on the restatement. In addition and without limitation of the foregoing, any amounts paid hereunder shall be subject to recoupment in accordance with The Dodd-Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company or as is otherwise required by applicable law or stock exchange listing conditions.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement as of the date set forth in Exhibit A.

SYNTHETIC BIOLOGICS, INC.

By: _____
Name:
Title:

OPTIONEE

Name:

EXHIBIT A

INCENTIVE STOCK OPTION GRANT AGREEMENT

SYNTHETIC BIOLOGICS, INC.

- (a). **Optionee's Name:** _____
- (b). **Date of Grant:** _____
- (c). **Number of Shares Subject to the Option:** _____
- (d). **Exercise Price:** \$ _____ per Share
- (e). **Expiration Date:** _____
- (f). **Vesting Schedule:**

Notwithstanding anything contained herein to the contrary, if a "Change in Control" (as defined in the Plan) occurs prior to the cessation of the Optionee's "Service" (as defined in the Plan), then the Option, to the extent not then vested, shall become fully (100%) vested immediately prior to the date of such Change in Control.

_____(Initials)
Optionee

_____(Initials)
Company Signatory

FORM OF
NONQUALIFIED STOCK OPTION GRANT AGREEMENT
SYNTHETIC BIOLOGICS, INC. 2020 STOCK INCENTIVE PLAN

This Stock Option Grant Agreement (the "Grant Agreement") is made and entered into effective on the Date of Grant set forth in Exhibit A (the "Date of Grant") by and between Synthetic Biologics, Inc., a Nevada corporation (the "Company"), and the individual named in Exhibit A hereto (the "Optionee").

WHEREAS, the Company desires to provide the Optionee an incentive to participate in the success and growth of the Company through the opportunity to earn a proprietary interest in the Company; and

WHEREAS, to give effect to the foregoing intention, the Company desires to grant the Optionee an option pursuant to the Synthetic Biologics, Inc. 2020 Stock Incentive Plan (the "Plan") to acquire the Company's common stock, par value \$0.001 per share (the "Common Stock");

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for good and valuable consideration, the parties hereto agree as follows:

1. Grant. The Company hereby grants the Optionee a Nonqualified Stock Option (the "Option") to purchase up to the number of shares of Common Stock (the "Shares") set forth in Exhibit A hereto at the exercise price per Share (the "Exercise Price") set forth in Exhibit A, and on the vesting schedule set forth in Exhibit A, subject to the terms and conditions set forth herein and the provisions of the Plan, the terms of which are incorporated herein by reference. Capitalized terms used but not otherwise defined in this Grant Agreement shall have the meanings as set forth in the Plan.

2. Exercise Period Following Termination of Service. This Option shall terminate and be canceled to the extent not exercised within ninety (90) days after the Optionee's Service terminates; provided that if such termination is due to the death or Disability of the Optionee, this Option shall terminate and be canceled twelve (12) months from the date of termination of the Optionee's Service; and provided, further, that if Optionee's Service terminates (other than for Cause) on or after a Change in Control, then the Option shall remain exercisable until the Expiration Date. Notwithstanding the foregoing, in the event that the Optionee's Service is terminated for Cause, then the Option shall immediately terminate on the date of such termination of Service and shall not be exercisable for any period following such date. In no event, however, shall this Option be exercised later than the Expiration Date set forth in Exhibit A and in no event shall this Option be exercised for more Shares than the Shares which otherwise have become exercisable as of the date of termination.

3. Method of Exercise. This Option is exercisable by delivery to the Company of an exercise notice (the "Exercise Notice") in a form satisfactory to the Committee or by such other form or means as the Committee may permit or require. Any Exercise Notice shall state or provide the number of Shares with respect to which the Option is being exercised (the "Exercised Shares"), and include such other representations and agreements as may be required by the Company pursuant to the provisions of the Plan. The Optionee may elect to make payment of the exercise price in cash or by check or by delivery to the Company of certificates representing shares of outstanding Common Stock already owned by the Optionee that are owned free and clear of any liens, claims, encumbrances or security interests together with stock powers duly executed and with signature guaranteed. In addition, the Optionee may make payment through a "cashless exercise" such that without the payment of any funds, the undersigned may exercise the Option and receive the net number of Shares equal to (x) the number of Shares as to which the Option is being exercised, multiplied by (y) a fraction, the numerator of which is the Fair Market Value per share (on such date as is determined by the Committee) less the Exercise Price per Share, and the denominator of which is such Fair Market Value per Share (the number of net Shares to be received shall be rounded down to the nearest whole number). In the event payment is made by delivery of such Shares, said Shares shall be deemed to have a per Share value equal to the Fair Market Value per Share on the date of exercise. Upon exercise of the Option by the Optionee and prior to the delivery of such Exercised Shares, the Company shall have the right to require the Optionee to satisfy applicable Federal and state tax income tax withholding requirements and the Optionee's share of applicable employment withholding taxes in a method satisfactory to the Company. Notwithstanding the foregoing, the Optionee may not exercise the Option by tender to the Company of Common Stock to the extent such tender would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's Common Stock. Further, no Exercised Shares shall be issued unless such exercise and issuance complies with the requirements relating to the administration of stock option plans and other applicable equity plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted, and the applicable laws of any foreign country or jurisdiction where stock grants or other applicable equity grants are made under the Plan; assuming such compliance, for income tax purposes the Exercised Shares shall be considered transferred to the Optionee on the date the Option is exercised with respect to such Shares.

4. Covenants Agreement. This Option shall be subject to forfeiture at the election of the Company in the event that the Optionee breaches any agreement between the Optionee and the Company with respect to noncompetition, nonsolicitation, assignment of inventions and contributions and/or nondisclosure obligations of the Optionee.

5. Taxes.

(a) By executing this Grant Agreement, Optionee acknowledges and agrees that Optionee is solely responsible for the satisfaction of any applicable taxes that may be imposed on Optionee that arise as a result of the grant, vesting or exercise of the Option, including without limitation any taxes arising under Section 409A of the Code (regarding deferred compensation) or Section 4999 of the Code (regarding golden parachute excise taxes), and that neither the Company nor the Committee shall have any obligation whatsoever to pay such taxes or otherwise indemnify or hold Optionee harmless from any or all of such taxes.

(b) Notwithstanding paragraph (a) above, if any amounts or benefits provided for in this Grant Agreement, when aggregated with any other payments or benefits payable or provided to the Optionee (the "Total Payments") would (i) constitute "parachute payments" within the meaning of Section 280G of the Code (which will not include any portion of payments classified as payments of reasonable compensation for purposes of Section 280G of the Code, including without limitation amounts allocated to any restrictive covenants), and (ii) but for this Section 5(b), would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Total Payments will be either: (a) provided in full, or (b) provided as to such lesser extent as would result in no portion of such Total Payments being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income and employment taxes and the Excise Tax, results in the Optionee's receipt on an after-tax basis of the greatest amount of the Total Payments, notwithstanding that all or some portion of the Total Payments may be subject to the Excise Tax. To the extent any reduction in Total Payments is required by this Section 5(b), such reduction shall occur to the payments and benefits in the order that results in the greatest economic present value of all payments and benefits actually made to Optionee. Subject to Section 409A of the Code, such order of reductions shall be determined by the Optionee. Unless the Company and the Optionee otherwise agree in writing, any determination required under this Section 5(b) shall be made in writing by an independent public accounting firm mutually acceptable to the Company and the Optionee (the "Accountants") whose determination shall be conclusive and binding upon the Optionee and the Company for all purposes. For purposes of making the calculations required by this Section 5(b), the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and the Optionee shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 5(b). The Company shall pay all fees and expenses of the Accountants.

6. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of the Optionee only by the Optionee. The terms of the Plan and this Grant Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

7. Securities Matters. All Shares and Exercised Shares shall be subject to the restrictions on sale, encumbrance and other disposition provided by Federal or state law. The Company shall not be obligated to sell or issue any Shares or Exercised Shares pursuant to this Grant Agreement unless, on the date of sale and issuance thereof, such Shares are either registered under the Securities Act of 1933, as amended (the "Securities Act"), and all applicable state securities laws, or are exempt from registration thereunder. Regardless of whether the offering and sale of Shares under the Plan have been registered under the Securities Act, or have been registered or qualified under the securities laws of any state, the Company at its discretion may impose restrictions upon the sale, pledge or other transfer of such Shares (including the placement of appropriate legends on stock certificates or the imposition of stop-transfer instructions) if, in the judgment of the Company, such restrictions are necessary in order to achieve compliance with the Securities Act or the securities laws of any state or any other law.

8. Investment Purpose. The Optionee represents and warrants that unless the Shares are registered under the Securities Act, any and all Shares acquired by the Optionee under this Grant Agreement will be acquired for investment for the Optionee's own account and not with a view to, for resale in connection with, or with an intent of participating directly or indirectly in, any distribution of such Shares within the meaning of the Securities Act. The Optionee agrees not to sell, transfer or otherwise dispose of such Shares unless they are either (1) registered under the Securities Act and all applicable state securities laws, or (2) exempt from such registration in the opinion of Company counsel.

9. Lock-Up Agreement. The Optionee hereby agrees that in the event that the Optionee exercises this Option during a period in which any directors or officers of the Company have agreed with one or more underwriters not to sell securities of the Company, then, as a condition to such exercise, the Optionee shall enter into an agreement, in form and substance satisfactory to the Company, pursuant to which the Optionee shall agree to restrictions on transferability of the Shares comparable to the restrictions agreed upon by such directors or officers of the Company.

10. Other Plans. No amounts of income received by the Optionee pursuant to this Grant Agreement shall be considered compensation for purposes of any pension or retirement plan, insurance plan or any other employee benefit plan of the Company or its subsidiaries, unless otherwise expressly provided in such plan.

11. No Guarantee of Continued Service. The Optionee acknowledges and agrees that the right to exercise the Option pursuant to the exercise schedule hereof is earned only through continuous Service and such other requirements, if any, as are set forth in Exhibit A (and not through the act of being hired, being granted an option or purchasing shares hereunder). The Optionee further acknowledges and agrees that (i) this Grant Agreement, the transactions contemplated hereunder and the exercise schedule set forth herein do not constitute an express or implied promise of continued employment or service for the exercise period or for any other period, and shall not interfere with the Optionee's right or the right of the Company or its Subsidiaries to terminate the employment or service relationship at any time, with or without cause, subject to the terms of any written employment agreement that the Optionee may have entered into with the Company or any of its Subsidiaries; and (ii) the Company would not have granted this Option to the Optionee but for these acknowledgements and agreements.

12. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Grant Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Optionee with respect to the subject matter hereof, and may not be amended to materially impair the rights of the Optionee without the Optionee's consent; provided, however, that no action of the Board or the Committee that alters or affects the tax treatment of the Option shall be considered to materially impair any rights of the Optionee. In the event of any conflict between this Grant Agreement and the Plan, the Plan shall be controlling, except as otherwise specifically provided in the Plan. This Grant Agreement shall be construed under the laws of the State of Nevada, without regard to conflict of laws principles.

13. Opportunity for Review. Optionee and the Company agree that this Option is granted under and governed by the terms and conditions of the Plan and this Grant Agreement. The Optionee has reviewed the Plan and this Grant Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Agreement and fully understands all provisions of the Plan and this Grant Agreement. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions relating to the Plan and this Grant Agreement. The Optionee further agrees to notify the Company upon any change in the residence address indicated herein.

14. Section 409A. This Option is intended to be excepted from coverage under Section 409A and shall be administered, interpreted and construed accordingly. The Company may, in its sole discretion and without the Optionee's consent, modify or amend the terms of this Grant Agreement, impose conditions on the timing and effectiveness of the exercise of the Option by Optionee, or take any other action it deems necessary or advisable, to cause the Option to be excepted from Section 409A (or to comply therewith to the extent the Company determines it is not excepted).

15. Recoupment. In the event the Company restates its financial statements due to material noncompliance with any financial reporting requirements under applicable securities laws, any shares issued pursuant to this Agreement for or in respect of the year that is restated, or the prior three years, may be recovered to the extent the shares issued exceed the number that would have been issued based on the restatement. In addition and without limitation of the foregoing, any amounts paid hereunder shall be subject to recoupment in accordance with The Dodd-Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company or as is otherwise required by applicable law or stock exchange listing conditions.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement as of the date set forth in Exhibit A.

SYNTHETIC BIOLOGICS, INC.

By: _____
Name:
Title:

OPTIONEE

Name:

EXHIBIT A

NONQUALIFIED STOCK OPTION GRANT AGREEMENT

SYNTHETIC BIOLOGICS, INC.

- (a). **Optionee's Name:** _____
- (b). **Date of Grant:** _____
- (c). **Number of Shares Subject to the Option:** _____
- (d). **Exercise Price:** \$ _____ per Share
- (e). **Expiration Date:** _____
- (f). **Vesting Schedule:**

Notwithstanding anything contained herein to the contrary, if a "Change in Control" (as defined in the Plan) occurs prior to the cessation of the Optionee's "Service" (as defined in the Plan), then the Option, to the extent not then vested, shall become fully (100%) vested immediately prior to the date of such Change in Control.

_____ (Initials)

Optionee

_____ (Initials)
Company Signatory

FORM OF
RESTRICTED STOCK UNIT AWARD AGREEMENT
SYNTHETIC BIOLOGICS, INC. 2020 STOCK INCENTIVE PLAN

This Restricted Stock Unit Award Agreement (the “Agreement” or “Award Agreement”), dated as of the “Award Date” set forth in the attached Exhibit A, is entered into between Synthetic Biologics, Inc., a Nevada corporation (the “Company”), and the individual named in Exhibit A hereto (the “Awardee”).

WHEREAS, the Company desires to provide the Awardee an incentive to participate in the success and growth of the Company through the opportunity to earn a proprietary interest in the Company; and

WHEREAS, to give effect to the foregoing intention, the Company desires to award the Awardee Restricted Stock Units pursuant to the Synthetic Biologics, Inc. 2020 Stock Incentive Plan (the “Plan”);

NOW, THEREFORE, the following provisions apply to this Award:

1 . Award. The Company hereby awards the Awardee the number of Restricted Stock Units (each an “RSU” and collectively the “RSUs”) set forth in Exhibit A. Such RSUs shall be subject to the terms and conditions set forth in this Agreement and the provisions of the Plan, the terms of which are incorporated herein by reference. Capitalized terms used but not otherwise defined herein shall have the meanings as set forth in the Plan.

2 . Vesting. Except as otherwise provided in this Agreement, the RSUs shall vest in accordance with the vesting schedule set forth in Exhibit A, provided that the Awardee remains in Service through the applicable vesting date.

For each RSU that becomes vested in accordance with this Agreement, the Company shall issue and deliver to Awardee, on or within thirty (30) business days after becoming vested, one share of the Company’s common stock, par value \$.001 per share (the “Common Stock”). Except as may be provided in Exhibit A, in the event that the Awardee ceases to be in Service, any RSUs that have not vested as of the date of such cessation of service shall be forfeited.

3 . Dividend Equivalent Units. If and to the extent that the Company pays a cash dividend with respect to the Common Stock, Awardee shall be credited with an additional number of RSUs (“Dividend Equivalent Units”), including a fractional Dividend Equivalent Unit if applicable, equal to (i) the amount of such dividends as would have been paid with respect to Awardee’s outstanding RSUs on the record date of such dividend (the “record date”) had each such outstanding RSU been an outstanding share of Common Stock on such record date, divided by (ii) the closing price of a share of Common Stock on such record date. Dividend Equivalent Units shall be subject to the same vesting terms and conditions as the RSUs to which they relate.

4 . No Rights as Stockholder. The Awardee shall not be entitled to any of the rights of a stockholder with respect to any share of Common Stock that may be acquired following vesting of an RSU unless and until such share of Common Stock is issued and delivered to the Awardee. Without limitation of the foregoing, the Awardee shall not have the right to vote any share of Common Stock to which an RSU relates and shall not be entitled to receive any dividend attributable to such share of Common Stock for any period prior to the issuance and delivery of such share to Awardee (but Awardee shall have dividend equivalent rights as provided in Section 3 above).

5 . Transfer Restrictions. Neither this Agreement nor the RSUs may be sold, assigned, pledged or otherwise transferred or encumbered without the prior written consent of the Committee.

6 . Government Regulations. Notwithstanding anything contained herein to the contrary, the Company's obligation hereunder to issue or deliver certificates evidencing shares of Common Stock shall be subject to the terms of all applicable laws, rules and regulations and to such approvals by any governmental agencies or national securities exchanges as may be required.

7 . Withholding Taxes. The Awardee shall pay to the Company, or make provision satisfactory to the Company for payment of, the minimum statutory amount required to satisfy all federal, state and local income tax withholding requirements and the Awardee's share of applicable employment withholding taxes in connection with the issuance and deliverance of shares of Common Stock following vesting of RSUs, in any manner permitted by the Plan. No shares of Common Stock shall be issued with respect to RSUs unless and until satisfactory arrangements acceptable to the Company have been made by the Awardee with respect to the payment of any income and other taxes which the Company determines must be withheld or collected with respect to the RSUs. Subject to the following sentence, the Committee, in its sole discretion, may provide for the withholding of applicable taxes from the proceeds of the sale of Shares acquired upon vesting of the RSUs, either through a voluntary sale or through a mandatory sale arranged by the Company (on Awardee's behalf pursuant to this authorization). Notwithstanding the foregoing, if requested by Awardee, and if the Committee consents, the Company shall withhold shares of Common Stock that would otherwise be issued upon vesting of the RSUs to cover applicable withholding taxes, equal to the greatest number of whole shares of Common Stock having a Fair Market Value on the date immediately preceding the date on which the applicable tax liability is determined not in excess of the minimum amount required to satisfy the statutory withholding tax obligations with respect to the award. The Company may refuse to issue or deliver the shares of Common Stock unless all withholding taxes that may be due as a result of this Award have been paid.

8. Section 280G. Notwithstanding anything contained herein to the contrary, if any amounts or benefits provided for in this Agreement, when aggregated with any other payments or benefits payable or provided to the Awardee (the "Total Payments") would (i) constitute "parachute payments" within the meaning of Section 280G of the Code (which will not include any portion of payments classified as payments of reasonable compensation for purposes of Section 280G of the Code, including without limitation amounts allocated to any restrictive covenants), and (ii) but for this Section 8, would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Total Payments will be either: (a) provided in full, or (b) provided as to such lesser extent as would result in no portion of such Total Payments being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income and employment taxes and the Excise Tax, results in the Awardee's receipt on an after-tax basis of the greatest amount of the Total Payments, notwithstanding that all or some portion of the Total Payments may be subject to the Excise Tax. To the extent any reduction in Total Payments is required by this Section 8, such reduction shall occur to the payments and benefits in the order that results in the greatest economic present value of all payments and benefits actually made to Awardee. Subject to Section 409A of the Code, such order of reductions shall be determined by the Awardee. Unless the Company and the Awardee otherwise agree in writing, any determination required under this Section 8 shall be made in writing by an independent public accounting firm mutually acceptable to the Company and the Awardee (the "Accountants") whose determination shall be conclusive and binding upon the Awardee and the Company for all purposes. For purposes of making the calculations required by this Section 8, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and the Awardee shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 8. The Company shall pay all fees and expenses of the Accountants.

9. Investment Purpose. Any and all shares of Common Stock acquired by the Awardee under this Agreement will be acquired for investment for the Awardee's own account and not with a view to, for resale in connection with, or with an intent of participating directly or indirectly in, any distribution of such shares of Common Stock within the meaning of the Securities Act of 1933, as amended (the "Securities Act"). The Awardee shall not sell, transfer or otherwise dispose of such shares unless they are either (1) registered under the Securities Act and all applicable state securities laws, or (2) exempt from such registration in the opinion of Company counsel.

10. Securities Law Restrictions. Regardless of whether the offering and sale of shares of Common Stock issuable to Awardee pursuant to this Agreement and the Plan have been registered under the Securities Act, or have been registered or qualified under the securities laws of any state, the Company at its discretion may impose restrictions upon the sale, pledge or other transfer of such shares of Common Stock (including the placement of appropriate legends on stock certificates or the imposition of stop-transfer instructions) if, in the judgment of the Company, such restrictions are necessary in order to achieve compliance with the Securities Act or the securities laws of any state or any other law.

11. Lock-Up Agreement. The Awardee, in the event that any shares of Common Stock which become deliverable to Awardee with respect to RSUs at a time during which any directors or officers of the Company have agreed with one or more underwriters not to sell securities of the Company, shall enter into an agreement, in form and substance satisfactory to the Company, pursuant to which the Awardee shall agree to restrictions on transferability of the shares of such Common Stock comparable to the restrictions agreed upon by such directors or officers of the Company.

12. Awardee Obligations. The Awardee should review this Agreement with his or her own tax advisors to understand the federal, state, local and foreign tax consequences of the transactions contemplated by this Agreement. The Awardee will rely solely on such advisors and not on any statements or representations of the Company or any of its agents, if any, made to the Awardee. The Awardee (and not the Company) shall be responsible for the Awardee's own tax liability arising as a result of the transactions contemplated by this Agreement.

13. No Guarantee of Continued Service. The Awardee acknowledges and agrees that (i) nothing in this Agreement or the Plan confers on the Awardee any right to continue an employment, service or consulting relationship with the Company, nor shall it affect in any way the Awardee's right or the Company's right to terminate the Awardee's employment, service, or consulting relationship at any time, with or without cause, subject to any employment or service agreement that may have been entered into by the Company and the Awardee; and (ii) the Company would not have granted this Award to the Awardee but for these acknowledgements and agreements.

14. Notices. Notices or communications to be made hereunder shall be in writing and shall be delivered in person, by registered mail, by confirmed facsimile or by a reputable overnight courier service to the Company at its principal office or to the Awardee at his or her address contained in the records of the Company. Alternatively, notices and other communications may be provided in the form and manner of such electronic means as the Company may permit.

15. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Award Agreement constitute the entire Agreement with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and the Awardee with respect to the subject matter hereof, and except as provided in the Plan or in this Agreement, may not be modified adversely to the Awardee's interest except by means of a writing signed by the Company and the Awardee. In the event of any conflict between this Award Agreement and the Plan, the Plan shall be controlling. This Award Agreement shall be construed under the laws of the State of Nevada, without regard to conflict of laws principles.

16. Opportunity for Review. Awardee and the Company agree that this Award is granted under and governed by the terms and conditions of the Plan and this Award Agreement. The Awardee has reviewed the Plan and this Award Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to accepting this Award Agreement and fully understands all provisions of the Plan and this Award Agreement. The Awardee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions relating to the Plan and this Award Agreement. The Awardee further agrees to notify the Company upon any change in Awardee's residence address.

17. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Awardee and their respective permitted successors, assigns, heirs, beneficiaries and representatives.

18. Section 409A Compliance. To the extent that this Agreement and the award of RSUs hereunder are or become subject to the provisions of Section 409A of the Code, the Company and the Awardee agree that this Agreement may be amended or modified by the Company, in its sole discretion and without the Awardee's consent, as appropriate to maintain compliance with the provisions of Section 409A of the Code.

19. Recoupment. In the event the Company restates its financial statements due to material noncompliance with any financial reporting requirements under applicable securities laws, any payments made or shares issued pursuant to this Agreement for or in respect of the year that is restated, or the prior three years, may be recovered to the extent the payments made or shares issued exceed the amount that would have been paid or issued based on the restatement. In addition and without limitation of the foregoing, any amounts paid hereunder shall be subject to recoupment in accordance with The Dodd–Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company or as is otherwise required by applicable law or stock exchange listing conditions.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date set forth in Exhibit A.

SYNTHETIC BIOLOGICS, INC.

By: _____
Name:
Title:

AWARDEE

Name:



October 28, 2020

The Board of Directors
Synthetic Biologics, Inc.
9605 Medical Center Drive, Suite 270
Rockville, Maryland 20850

Re: Synthetic Biologics, Inc. Form S-8

Gentlemen:

We refer to the Registration Statement on Form S-8 (the "Registration Statement") to be filed on even date by Synthetic Biologics, Inc., a Nevada corporation (the "Company"), with the Securities and Exchange Commission with respect to the registration of up to an aggregate of 4,000,000 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), to be issued in connection with the Company's 2020 Stock Incentive Plan (the "Plan").

As counsel to the Company, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the Nevada Revised Statutes, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction or, in the case of Nevada, any other laws, or as to any matters of municipal law or the laws of any local agencies within any state.

We have made such examination as we have deemed necessary for the purpose of this opinion. Based upon such examination, it is our opinion, that, when the Registration Statement has become effective under the Securities Act of 1933, as amended, and when the shares of Common Stock to be issued are sold and paid for in the manner described in the Plan, the Common Stock so issued will be validly issued, fully paid and non-assessable. No opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the Plan. In connection with this opinion we have examined and relied on the representations and warranties as to factual matters in the Registration Statement. Our knowledge of the Company and its legal and other affairs is limited by the scope of our engagement, which scope includes the delivery of this opinion letter. We do not represent the Company with respect to all legal matters or issues. The Company may employ other independent counsel and, to our knowledge, handles certain matters and issues without the assistance of independent counsel.

This opinion is given as of the date hereof and we assume no obligation to advise you of changes that may hereafter be brought to our attention.

We hereby consent to the use of this opinion as an exhibit to the Registration Statement.

Very truly yours,
/s/ Parsons Behle & Latimer
PARSONS BEHLE & LATIMER

Consent of Independent Registered Public Accounting Firm

Synthetic Biologics, Inc.
Rockville, Maryland

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 20, 2020, relating to the consolidated financial statements of Synthetic Biologics, Inc. appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2019. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

/s/BDO USA, LLP
Potomac, Maryland

October 28, 2020
