

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

FORM S-8

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

STELLAR BIOTECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

British Columbia, Canada
(State or other jurisdiction of
incorporation or organization)

N/A
(I.R.S. Employer Identification No.)

332 E. Scott Street
Port Hueneme, California 93041
(Address of Principal Executive Offices) (Zip Code)

Stellar Biotechnologies, Inc. 2017 Incentive Compensation Plan
(Full title of the plan)

Kathi Niffenegger
Chief Financial Officer
c/o Stellar Biotechnologies, Inc.
332 E. Scott Street
Port Hueneme, California 93041
(Name and address of agent for service)

(805) 488-2800
(Telephone number, including area code, of agent for service)

Copies to:

Barbara A. Jones, Esq.
Greenberg Traurig, LLP
One International Place
Boston, MA 02110
Telephone: (617) 310-6064
Facsimile: (617) 310-6001

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or 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 (Do not check if a smaller reporting company)

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	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Shares, no par value per share	2,000(2)	\$ 2.07(3)(4)	\$ 4,140.00	\$ 0.48
Common Shares, no par value per share	7,000(2)	\$ 4.74(3)(4)	\$ 33,180.00	\$ 3.85
Common Shares, no par value per share	4,000(2)	\$ 7.41(3)(4)	\$ 29,640.00	\$ 3.44
Common Shares, no par value per share	69,860(2)	\$ 4.81(3)(4)	\$ 336,026.60	\$ 38.95
Common Shares, no par value per share	500(2)	\$ 3.70(3)(4)	\$ 1,850.00	\$ 0.21
Common Shares, no par value per share	7,000(2)	\$ 2.96(3)(4)	\$ 20,720.00	\$ 2.40
Common Shares, no par value per share	67,860(2)	\$ 3.11(3)(4)	\$ 210,044.60	\$ 24.46
Common Shares, no par value per share	9,000(2)	\$ 2.15(3)(4)	\$ 19,350.00	\$ 2.24
Common Shares, no par value per share	22,000(2)	\$ 2.74(3)(4)	\$ 60,280.00	\$ 6.99
Common Shares, no par value per share	10,750(2)	\$ 1.85(3)(4)	\$ 19,887.50	\$ 2.30
Common Shares, no par value per share	52,500(2)	\$ 4.30(3)(4)	\$ 225,750.00	\$ 26.16
Common Shares, no par value per share	39,500(2)	\$ 18.30(3)	\$ 722,850.00	\$ 83.78
Common Shares, no par value per share	10,000(2)	\$ 13.85(3)(4)	\$ 138,500.00	\$ 16.05
Common Shares, no par value per share	10,000(2)	\$ 18.40(3)	\$ 184,000.00	\$ 21.33
Common Shares, no par value per share	3,500(2)	\$ 6.96(3)(4)	\$ 24,360.00	\$ 2.82
Common Shares, no par value per share	11,500(2)	\$ 11.26(3)(4)	\$ 129,490.00	\$ 15.01
Common Shares, no par value per share	5,000(2)	\$ 6.59(3)(4)	\$ 32,950.00	\$ 3.82
Common Shares, no par value per share	15,100(2)	\$ 7.24(3)	\$ 109,324.00	\$ 12.67
Common Shares, no par value per share	8,300(2)	\$ 2.22(3)	\$ 18,426.00	\$ 2.14
Common Shares, no par value per share	46,600(2)	\$ 2.03(3)	\$ 94,598.00	\$ 10.96
Common Shares, no par value per share	15,000(2)	\$ 1.67(3)	\$ 25,050.00	\$ 2.90
Common Shares, no par value per share	10,000(2)	\$ 1.60(3)	\$ 16,000.00	\$ 1.85
Common Shares, no par value per share	1,170,030(5)	\$ 1.38(6)	\$ 1,614,641.40	\$ 187.14
Totals	1,597,000	n/a	\$ 4,071,065.10	\$ 471.95

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional shares of the registrant's Common Shares that become issuable under the Stellar Biotechnologies, Inc. 2017 Incentive Compensation Plan (the "Plan"), by reason of any share dividend, share split, recapitalization, or any other similar transaction without receipt of consideration that results in an increase in the number of the registrant's Common Shares.
- (2) Represents Common Shares subject to share options under the Plan that are outstanding as of the date this registration statement is being filed.
- (3) Estimated solely for purpose of calculating the registration fee in accordance with Rule 457(h) of the Securities Act. The price per share and aggregate offering price are based upon the specified exercise price per share with respect to such securities and have been calculated in accordance with Rule 457(c) under the Securities Act.
- (4) The exercise price for these options is denominated in Canadian currency. The US dollar price reported in this table reflects the US dollar equivalent exercise price as of April 24, 2017, calculated at the average of the maximum and minimum bid rates as reported by OANDA on such date of CDN\$1.00 = U.S. \$0.74054.
- (5) Represents Common Shares available for grant under the Plan as of the date this registration statement is being filed.
- (6) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(h) and 457(c) of the Securities Act using the average of the high and low sales prices of the registrant's Common Shares as reported on The Nasdaq Capital Market on April 24, 2017.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Information required by Item 1 and Item 2 of Part I to be contained in the Section 10(a) prospectus is omitted from this Registration Statement in accordance with the provisions of Rule 428 under the Securities Act and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I have been or will be delivered to the participants in the Plan as required by Rule 428(b). These documents, which include the statement of availability required by Item 2 of Part I, and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The registrant is subject to the informational and reporting requirements of Sections 13(a), 14, and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. The following documents, which are on file with the SEC, are incorporated in this Registration Statement by reference:

- (a) The registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2016, filed with the SEC on December 14, 2016;
- (b) The registrant's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2016, filed with the SEC on February 6, 2017;
- (c) The registrant's Current Reports on Form 8-K filed on October 24, 2016, December 7, 2016, December 9, 2016, March 13, 2017 and March 29, 2017; and
- (d) The description of the registrant's Common Shares contained in the registrant's Registration Statement on Form 8-A filed with the SEC on November 3, 2015, including any amendment or report filed for the purposes of updating such description.

In addition, all documents filed by the registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the date hereof and prior to the filing of a post-effective amendment which indicates that all securities offered herein have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing such documents. Any statement contained herein or in a document incorporated by reference or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that such statement is modified or superseded by any other subsequently filed document which is incorporated or is deemed to be incorporated by reference herein. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Subject to the British Columbia Business Corporations Act, or "the Act", our directors, former directors and alternate directors and their heirs and legal personal representatives are indemnified against any judgment, penalty or fine awarded or imposed in, or an amount paid in settlement of, a stipulated legal or investigative proceeding, as set forth in our Articles. In addition, our Articles provide that we may, subject to any restrictions in the Act, indemnify any person.

Under the Act, we may indemnify (a) a current or former director or officer of the Company; (b) a current or former director or officer of another corporation at a time when that corporation is or was an affiliate of the Company; (c) a current or former director or officer of another corporation who holds or held such position at the request of the Company; or (d) an individual who at the request of the Company, is or was, or holds or held a position equivalent to that of, a director, or officer of a partnership, trust, joint venture or other unincorporated entity (collectively, an “Eligible Party”). In certain circumstances an Eligible Party will include the heirs and personal or other legal representatives of an Eligible Party. We may indemnify an Eligible Party against any Eligible Penalty (defined below) to which the Eligible Party is or may be liable. After the final disposition of an Eligible Proceeding (defined below), we may pay all Expenses (defined below) actually and reasonably incurred by the Eligible Party in connection with such Proceeding (defined below) and must pay all such Expenses actually and reasonably incurred by the Eligible Party in connection with such Proceeding if the Eligible Party has not been reimbursed for those Expenses and is wholly successful on the merits or otherwise in the outcome of the Proceeding. Among other circumstances, we shall not indemnify or cover the Expenses of an Eligible Party if the Eligible Party did not act honestly and in good faith with a view to the best interests of the Company or if the Eligible Party (other than in connection with a civil Proceeding) did not have reasonable grounds for believing that the Eligible Party’s conduct in respect of which the Proceeding was brought was lawful. Further, we cannot indemnify or cover the Expenses of an Eligible Party in respect of any Proceeding brought by or on behalf of the Company against an Eligible Party. The Supreme Court of British Columbia may, among other things, on the applications of a corporation or an Eligible Party, order indemnification by the Company of any liability or expense incurred by an Eligible Party.

“Eligible Penalty” means a judgment, penalty or fine awarded or imposed in, or an amount paid in settlement of, an Eligible Proceeding.

“Eligible Proceeding” means any legal proceeding or investigative action, whether current, threatened, pending or completed (each, a “Proceeding”), in which an Eligible Party, or any of the Eligible Party’s heirs and personal or other legal representatives (i) is or may be joined as a party, or (ii) is or may be liable for or in respect of a judgment, penalty or fine in, or Expenses related to, such Proceeding, in each case by reason of the Eligible Party’s being or having been a director or officer of, or holding or having held a position equivalent to that of a director or officer of, the Company, one of its current or former subsidiaries or affiliates, or another entity at the Company’s request.

“Expenses” includes costs, charges and expenses, including legal and other fees, but does not include judgments, penalties, fines or amounts paid in settlement of a Proceeding.

We have also entered into separate indemnification agreements with each of our directors and executive officers, which are intended to indemnify our directors and executive officers to the fullest extent permitted under the Securities Act, subject to certain exceptions. Our obligations under such separate indemnification agreements are in addition to our indemnification obligations under the Act and our charter documents.

We maintain a directors’ and officers’ liability insurance policy, which insures directors and officers of the Company and its subsidiaries for losses as a result of claims based upon the directors’ and officers’ acts or omissions, including liabilities arising under the Securities Act. The policy also reimburses us for payments made pursuant to the indemnity provisions under the Act and our charter documents.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

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 the Registration Statement; and

(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 the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the 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 therein, 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.

(b) The undersigned registrant hereby undertakes 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 the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities 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 director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, 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 Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Port Hueneme, State of California, on this 26th day of April, 2017.

STELLAR BIOTECHNOLOGIES, INC.

By: /s/ Kathi Niffenegger
Kathi Niffenegger
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Frank R. Oakes and Kathi Niffenegger as such person's true and lawful attorney-in-fact and agent, each with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Frank R. Oakes</u> Frank R. Oakes	Chairman, Chief Executive Officer (Principal Executive Officer)	April 26, 2017
<u>/s/ Kathi Niffenegger</u> Kathi Niffenegger	Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	April 26, 2017
<u>/s/ Daniel E. Morse</u> Daniel E. Morse	Director	April 26, 2017
<u>/s/ David L. Hill</u> David L. Hill	Director	April 26, 2017
<u>/s/ Mayank D. Sampat</u> Mayank D. Sampat	Director	April 26, 2017
<u>/s/ Tessie M. Che</u> Tessie M. Che	Director	April 26, 2017
<u>/s/ Paul Chun</u> Paul Chun	Director	April 26, 2017
<u>/s/ Charles V. Olson</u> Charles V. Olson	Director	April 26, 2017

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
5.1	Opinion of McMillan LLP
10.1	Stellar Biotechnologies, Inc. 2017 Incentive Compensation Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the U.S. Securities and Exchange Commission on March 29, 2017)
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of McMillan LLP (contained in the opinion filed as Exhibit 5.1 to this registration statement)
24.1	Power of Attorney (included on signature page to this registration statement)

April 26, 2017

Stellar Biotechnologies, Inc.
332 E. Scott Street
Port Hueneme, California 93041

Re: 2017 Incentive Compensation Plan

Ladies and Gentlemen:

We have acted as Canadian legal counsel to Stellar Biotechnologies, Inc., a corporation organized under the laws of British Columbia (the "Company"), in connection with the registration statement on Form S-8 (the "Registration Statement"), being filed by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), on the date hereof. This Registration Statement relates to the registration of up to an aggregate of 1,597,000 common shares (the "Shares"), no par value per share (the "Common Shares"), of the Company that may be issued under the Company's 2017 Incentive Compensation Plan (the "Plan").

This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related applicable prospectus, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, 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 qualified to practice law in the Provinces of British Columbia, Alberta, Ontario and Quebec and we do not purport to be experts on the law of any other jurisdiction other than the Provinces of British Columbia, Alberta, Ontario and Quebec and the federal laws of Canada applicable therein. We do not express any opinion herein concerning any law other than the laws of the Provinces of British Columbia, Alberta, Ontario and Quebec and the federal laws of Canada applicable therein. We express no opinion and make no representation with respect to the law of any other jurisdiction.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, the Shares have been duly authorized by all necessary corporate action of the Company and, when issued and paid for in accordance with the provisions of the Plan, will be validly issued, fully paid and nonassessable.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ McMillan LLP

McMillan LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of Stellar Biotechnologies, Inc., of our report dated December 14, 2016, relating to the consolidated financial statements of Stellar Biotechnologies, Inc., which report appears in the Annual Report on Form 10-K of Stellar Biotechnologies, Inc. for the year ended September 30, 2016, filed with the Securities and Exchange Commission.

/s/ Moss Adams LLP

Los Angeles, California
April 26, 2017
