Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

SELECTA BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

65 Grove Street Watertown, Massachusetts

(Address of principal executive offices)

26-1622110 (I.R.S. Employer Identification No.)

02472

(Zip code)

Selecta Biosciences, Inc. 2016 Incentive Award Plan Selecta Biosciences, Inc. 2016 Employee Stock Purchase Plan (Full title of the plan)

> Carsten Brunn, Ph.D. President and Chief Executive Officer Selecta Biosciences, Inc. 65 Grove Street Watertown, Massachusetts 02472 (Name and address of agent for service)

(617) 923-1400 (Telephone number, including area code, of agent for service)

Copies to:

Brian K. Rosenzweig Covington & Burling LLP The New York Times Building 620 Eighth Avenue New York, New York 10018 (212) 841-1000

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 \Box Non-accelerated filer \boxtimes Accelerated filer $\ \square$

Smaller reporting company \boxtimes

Emerging growth company \boxtimes

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. x

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share ⁽⁴⁾	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	1,080,711 shares ⁽²⁾	\$3.045	\$3,290,765.00	\$359.03
Common Stock, par value \$0.0001 per share	4,322,850 shares ⁽³⁾	\$3.045	\$13,163,078.25	\$1,436.10
Total	5,403,561 shares		\$16,453,843.25	\$1,795.13

- In accordance with Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement (this "Registration Statement") shall be deemed to cover any additional securities that may from time to time be offered or issued under the Selecta Biosciences, Inc. 2016 Employee Stock Purchase Plan ("ESPP") and the Selecta Biosciences, Inc. 2016 Incentive Award Plan (the "Incentive Plan") to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Consists of 1,080,711 shares of the Registrant's common stock, par value \$0.0001 per share (the "Common Stock") that may become issuable under the ESPP pursuant to its terms.
- (3) Consists of 4,322,850 shares of Common Stock that may become issuable under the Incentive Plan pursuant to its terms.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act and based upon the average of the high and low prices of the Registrant's Common Stock as reported on the Nasdaq Global Market on May 7, 2021.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 1,080,711 shares of the Common Stock of Selecta Biosciences, Inc. (the "Registrant") to be issued pursuant to the ESPP and an additional 4,322,850 shares of the Registrant's Common Stock to be issued pursuant to the Incentive Plan.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents, which have been filed by the Registrant with the Securities and Exchange Commission (the "Commission"), are incorporated herein by reference:

- The Registrant's definitive proxy statement on Schedule 14A for the 2021 annual meeting of stockholders, filed with the Commission on April 29, 2021;
- The Registrant's Annual Report on Form 10-K for the year ended December 31, 2020, filed with the Commission on March 12, 2021;
- The Registrant's Current Reports on Form 8-K filed with the Commission on January 6, 2021, April 15, 2021, and April 29, 2021; and
- The description of the Common Stock contained in the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020, filed with the Commission on March 12, 2021, including any amendments or reports filed for the purpose of updating such description; and
- The Registrant's Registration Statements on Form S-8 (File Nos. 333-212215, 333-224109, 333-228264, 333-230501 and 333-2390975) filed with the Securities and Exchange Commission, relating to the ESPP and Incentive Plan.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; *provided, however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the SEC shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. 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 8. Exhibits

Exhibit No.	Description
<u>4.1</u>	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-37798) filed on June 29, 2016)
<u>4.2</u>	<u>Amended and Restated By-laws of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current</u> <u>Report on Form 8-K (File No. 001-37798) filed on June 29, 2016)</u>
<u>5.1+</u>	Opinion of Covington & Burling LLP, counsel to the Registrant
<u>23.1+</u>	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
<u>23.2 +</u>	Consent of Covington & Burling LLP (included in Exhibit 5.1)
24.1+	Power of attorney (included on signature pages below)
<u>99.1</u>	<u>Selecta Biosciences, Inc. 2016 Incentive Award Plan (incorporated by reference to Exhibit 10.2 to the Registrant's</u> <u>Registration Statement on Form S-1 (Reg. No. 333-2111555) filed on June 8, 2016)</u>
<u>99.2</u>	Selecta Biosciences, Inc. 2016 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1 (Reg. No. 333-211555) filed on June 8, 2016)

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+ Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 Watertown, Commonwealth of Massachusetts, on this 13th day of May, 2021.

SELECTA BIOSCIENCES, INC.

By: /s/ Carsten Brunn, Ph.D.

Carsten Brunn, Ph.D. President and Chief Executive Officer, and Director

POWER OF ATTORNEY

We, the undersigned officers and directors of Selecta Biosciences, Inc. (the "Company"), hereby severally constitute and appoint the Chief Executive Officer of the Company, who is currently Carsten Brunn, Ph.D., and the Chief Financial Officer of the Company, who is currently Bradford D. Dahms, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto 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 or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

<u>Signature</u>	Title	Date
/s/ Carsten Brunn, Ph.D.	President and Chief Executive Officer, and Director	May 13, 2021
Carsten Brunn, Ph.D.	(Principal Executive Officer)	
/s/ Bradford D. Dahms	Chief Financial Officer	May 13, 2021
Bradford D. Dahms	(Principal Financial and Accounting Officer)	
/s/ Göran A. Ando, M.D.	Director	May 13, 2021
Göran A. Ando, M.D.		
/s/ Timothy C. Barabe	Director	May 13, 2021
Timothy C. Barabe	-	
/s/ Carrie S. Cox	Chairman of the Board	May 13, 2021
Carrie S. Cox		
/s/ Scott D. Myers	Director	May 13, 2021
Scott D. Myers	-	
/s/ Aymeric Sallin	Director	May 13, 2021
Aymeric Sallin	-	
/s/ Timothy Springer, Ph.D.	Director	May 13, 2021
Timothy Springer, Ph.D.	-	
/s/ Patrick Zenner	Director	May 13, 2021
Patrick Zenner	-	

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BEIJING BRUSSELS DUBAI FRANKFURT JOHANNESBURG LONDON LOS ANGELES NEW YORK PALO ALTO SAN FRANCISCO SEDUL SHANGHAI WASHINGTON Covington & Burling LLP The New York Times Building 620 Eighth Avenue New York, NY 10018-1405 T +1 212 841 1000

May 13, 2021

Selecta Biosciences, Inc. 65 Grove Street Watertown, MA 02472

Ladies and Gentlemen:

We have acted as counsel to Selecta Biosciences, Inc., a Delaware corporation (the "Company"), in connection with the registration by the Company under the Securities Act of 1933, as amended (the "Act"), of 5,403,561 shares of the Company's common stock, par value \$0.0001 per share (the "Shares"), issuable under the Company's 2016 Incentive Award Plan (the "Incentive Plan") and under the Company's 2016 Employee Stock Purchase Plan (the "ESPP"), pursuant to the registration statement on Form S-8 being filed with the Securities and Exchange Commission on the date hereof (such registration statement is referred to herein as the "Registration Statement").

We have reviewed such corporate records, certificates and other documents, and such questions of law, as we have considered necessary or appropriate for the purposes of this opinion. We have assumed that all signatures are genuine, that all documents submitted to us as originals are authentic and that all copies of documents submitted to us conform to the originals.

We have relied as to certain matters on information obtained from public officials, officers of the Company and other sources believed by us to be responsible.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized and, when issued and paid for in accordance with the terms of the Company's Restated Certificate of Incorporation, the Incentive Plan and the ESPP and any individual agreements relating to such Shares, will be validly issued, fully paid and nonassessable.

We are members of the bar of the State of New York. We do not express any opinion herein on any laws other than the General Corporation Law of the State of Delaware and reported judicial decisions interpreting such law.

We hereby consent to the filing of this opinion as Exhibit 5.1 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.

Very truly yours,

/s/ Covington & Burling LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2016 Incentive Award Plan and the 2016 Employee Stock Purchase Plan of Selecta Biosciences, Inc. of our report dated March 12, 2021, with respect to the consolidated financial statements of Selecta Biosciences, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts May 13, 2021