

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

Amendment No. 1
to
FORM S-1
REGISTRATION STATEMENT
Under
The Securities Act of 1933

ACHIEVE LIFE SCIENCES, INC.
(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2835
(Primary Standard Industrial
Classification Code Number)

95-4343413
(I.R.S. Employer
Identification Number)

1040 West Georgia Street, Suite 1030
Vancouver, British Columbia, V6E 4H1 (604) 210-2217
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Richard Stewart
Chairman and Chief Executive Officer
Achieve Life Sciences, Inc.
1040 West Georgia Street, Suite 1030
Vancouver, British Columbia, V6E 4H1
(604) 210-2217
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Alan Smith
Amanda Rose
Chelsea Anderson
Fenwick & West LLP
1191 2nd Ave, 10th Floor
Seattle, WA 98101
(206) 389-4510

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, anon-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 to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a) may determine.

EXPLANATORY NOTE

This Amendment No. 1 to the Registration Statement on FormS-1 (File No. 333-232817) (the "Registration Statement") is being filed for the sole purpose of filing a revised Exhibit 5.1 as indicated in Part II of this Amendment No. 1. Accordingly, this Amendment No. 1 consists only of the facing page, this explanatory note, Part II of the Registration Statement, the signature pages to the Registration Statement and the filed exhibit. The prospectus is unchanged and has been omitted.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the registration fee, the FINRA filing fee and the Nasdaq Stock Market listing fee.

| | Amount to be Paid |
|-----------------------------------|------------------------------|
| SEC registration fee | \$ 10,700 |
| Legal fees and expenses | 50,000 |
| Accounting fees and expenses | 8,000 |
| Transfer agent and registrar fees | — |
| Miscellaneous | — |
| Total | <u>\$ 68,700</u> |

Item 14. Indemnification of Officers and Directors

Our Second Amended and Restated Certificate of Incorporation, as amended and as may be further amended and in effect from time to time, which we refer to as the certificate of incorporation, provides that our directors shall not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability for breach of the director's duty of loyalty to us or our stockholders, for acts or omissions not in good faith or involving intentional misconduct or a knowing violation of law, for payment of dividends or approval of stock purchases or redemptions that are prohibited by the General Corporation Law of the State of Delaware, as amended, which we refer to as the DGCL, or for any transaction from which the director derived an improper personal benefit. Under the DGCL, our directors have a fiduciary duty to us that is not eliminated by this provision of the restated certificate of incorporation and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available. This provision also does not affect our directors' responsibilities under any other laws, such as federal securities laws or state or federal environmental laws.

Section 145 of the DGCL empowers a corporation to indemnify its directors and officers against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by them in connection with any action, suit or proceeding brought by third parties by reason of the fact that they were or are directors or officers of the corporation, if they acted in good faith, in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe that their conduct was unlawful. The DGCL provides further that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. The restated certificate of incorporation provides that, to the fullest extent permitted by Section 145 of the DGCL, we shall indemnify any person who is or was a director or officer of us, or is or was serving at our request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, against the expenses, liabilities or other matters referred to in or covered by Section 145 of the DGCL. Our amended and restated bylaws provide that we will indemnify any person who was or is a party or threatened to be made a party to any proceeding by reason of the fact that such person is or was a director or officer of us or is or was serving at our request as a director, officer or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise to the fullest extent permitted by the DGCL. In addition, we have entered into agreements with each of our directors and officers under which, among other things, we have agreed to indemnify the director or officer against expenses incurred in any proceeding, including any action by us, in which the director or officer was, is or is threatened to be made a party or a participant by reason of his or her status as a present or former director, officer, employee or agent of us or, at our request, any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise. At present, there is no pending litigation or proceeding involving any director or officer as to which indemnification will be required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for such indemnification.

Section 145 of the DGCL also empowers a corporation to purchase insurance for its officers and directors for such liabilities. We maintain liability insurance for our officers and directors.

See also the undertakings set out in response to Item 17 herein.

Item 15. Recent Sales of Unregistered Securities

On October 1, 2018, we issued warrants to purchase an aggregate of 894,626 shares of Common Stock at an exercise price of \$3.1445 per share. This transaction was exempt from the registration requirements of the Securities Act in reliance upon Rule 506 of Regulation D and Section 4(a)(2) of the Securities Act of 1933.

On May 30, 2019, we issued the Warrant to purchase an aggregate of 1,200,000 shares of Common Stock at an exercise price of \$4.50 per share. This transaction was exempt from the registration requirements of the Securities Act in reliance upon Rule 506 of Regulation D and Section 4(a)(2) of the Securities Act of 1933.

Item 16. Exhibits and Financial Statement Schedules

The following exhibits are filed as part of this registration statement.

| Exhibit Number | Description | Incorporated by Reference | | | | Filed/ Furnished Herewith |
|----------------|---|---------------------------|-----------|---------|------------------|---------------------------------|
| | | Form | File No. | Exhibit | Filing Date | |
| 3.1 | Second Amended and Restated Certificate of Incorporation filed on May 24, 2013 | 8-K | 033-80623 | 3.1 | May 29, 2013 | |
| 3.2 | Certificate of Amendment to Amended and Restated Certificate of Incorporation filed on May 21, 2015 | 8-K | 033-80623 | 3.1 | May 22, 2015 | |
| 3.3 | Certificate of Amendment (Reverse Stock Split) to Second Amended and Restated Certificate of Incorporation filed on August 1, 2017 | 8-K | 033-80623 | 3.1 | August 2, 2017 | |
| 3.4 | Certificate of Amendment (Name Change) to Second Amended and Restated Certificate of Incorporation filed on August 1, 2017 | 8-K | 033-80623 | 3.2 | August 2, 2017 | |
| 3.5 | Certificate of Amendment (Elimination of Cumulative Voting) to Second Amended and Restated Certificate of Incorporation filed on October 31, 2017 | 8-K | 033-80623 | 3.1 | November 1, 2017 | |
| 3.6 | Certificate of Amendment (Reverse Stock Split) to Second Amended and Restated Certificate of Incorporation filed on May 22, 2018 | 8-K | 033-80623 | 3.1 | May 23, 2018 | |

| | | | | | |
|------|--|---------|------------|------------|--------------------|
| 3.7 | Certificate of Amendment (Increase in Authorized Shares) to Second Amended and Restated Certificate of Incorporation filed on May 22, 2018 | 8-K | 033-80623 | 3.2 | May 23, 2018 |
| 3.8 | Certificate of Designation of Preferences, Rights and Limitations, with respect to the Series A Convertible Preferred Stock, filed June 18, 2018 | 8-K | 033-80623 | 3.1 | June 20, 2018 |
| 3.9 | Sixth Amended and Restated Bylaws | 8-K | 033-80623 | 3.1 | January 5, 2017 |
| 3.10 | Amendment to Sixth Amended and Restated Bylaws (Virtual Meeting) | 10-Q | 033-80623 | 3.1 | November 7, 2018 |
| 3.11 | Form of Certificate of Designation of Series A Preferred | S-1/A | 333-224840 | 3.9 | June 12, 2018 |
| 4.1 | Specimen Certificate of Common Stock | 10-Q | 000-21243 | 4.1 | November 10, 2008 |
| 4.2 | Form of Series A Warrant | 8-K | 033-80623 | 4.1 | June 27, 2014 |
| 4.3 | Form of Series A-1 Warrant | 8-K | 033-80623 | 4.1 | April 30, 2015 |
| 4.4 | Form of Pre-Funded Series B Warrant | 8-K | 033-80623 | 4.2 | June 27, 2014 |
| 4.5 | Form of Series B Warrant | 8-K | 033-80623 | 4.3 | June 27, 2014 |
| 4.6 | Form of Warrant (LPC) | 8-K | 033-80623 | 4.1 | September 14, 2017 |
| 4.7 | Form of Common Stock Purchase Warrant (June 2018 Offering) | 8-K | 033-80623 | 4.1 | June 20, 2018 |
| 4.8 | Form of Preferred Stock Certificate | 8-K | 033-80623 | 4.2 | June 20, 2018 |
| 4.9 | Form of Warrant (October 2018 Private Placement) | 8-K | 033-80623 | 4.1 | October 1, 2018 |
| 4.10 | Form of Warrant (May 2019) | 8-K | 033-80623 | 4.1 | June 3, 2019 |
| 5.1 | Opinion of Fenwick & West LLP | | | | |
| 10.1 | Sonus Pharmaceuticals, Inc. 2007 Performance Incentive Plan (the "2007 Plan") | DEF 14A | 000-21243 | Appendix A | April 3, 2007 |
| 10.2 | Form of Sonus Pharmaceuticals, Inc. Stock Option Agreement (pertaining to the 2007 Plan) | 10-Q | 000-21243 | 10.1 | November 9, 2007 |
| 10.3 | OncoGenex Technologies Inc. Amended and Restated Stock Option Plan | F-1 | 333-139293 | 10.1 | December 13, 2006 |
| 10.4 | Form of OncoGenex Pharmaceuticals, Inc. 2010 Stock Option Agreement | 8-K | 033-80623 | 10.1 | June 14, 2010 |

X

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|--------|---|---------|------------|------------|--------------------|
| 10.5 | Form of OncoGenex Pharmaceuticals, Inc. 2010 Restricted Stock Unit Agreement | 10-Q | 033-80623 | 10.2 | November 3, 2011 |
| 10.6 | OncoGenex Pharmaceuticals, Inc. 2010 Performance Incentive Plan, as amended and restated | DEF 14A | 033-80623 | Appendix A | April 16, 2015 |
| 10.7a | Achieve Life Sciences 2017 Equity Incentive Plan | DEF 14A | 033-80623 | Appendix A | September 21, 2017 |
| 10.7b | Form of Achieve Life Sciences Stock Option Agreement | 10-K | 033-80623 | 10.7b | March 1, 2018 |
| 10.7c | Form of Achieve Life Sciences Restricted Stock Unit Agreement | 10-K | 033-80623 | 10.7c | March 1, 2018 |
| 10.8 | Achieve Life Sciences 2017 Employee Stock Purchase Plan | DEF 14A | 033-80623 | Appendix B | September 21, 2017 |
| 10.9 | Achieve Life Sciences 2018 Equity Incentive Plan, and forms of award agreements thereunder | 10-Q | 033-80623 | 10.1 | November 7, 2018 |
| 10.10 | Form of Indemnification Agreement for Officers and Directors of the Company(P) | S-1 | 33-96112 | 10.19 | September 25, 1995 |
| 10.11 | Form of Indemnification Agreement between OncoGenex Technologies Inc. and Cindy Jacobs | F-1 | 333-139293 | 10.7 | December 13, 2006 |
| 10.12 | Employment Agreement between the Company and Cindy Jacobs dated as of November 3, 2009 | 10-Q | 033-80623 | 10.27 | November 5, 2009 |
| 10.13 | Employment Agreement between OncoGenex Pharmaceuticals, Inc. and John Bencich | 10-Q | 033-80623 | 10.1 | November 10, 2016 |
| 10.14 | Employment Agreement between the Company and Richard Stewart, executed May 22, 2018 | 8-K | 033-80623 | 10.1 | May 23, 2018 |
| 10.15 | Employment Agreement between the Company and Anthony Clarke, executed May 22, 2018 | 8-K | 033-80623 | 10.2 | May 23, 2018 |
| 10.16# | Exclusive License Agreement, by and between Sopharma Joint Stock Company and Extab Corporation, dated May 26, 2009 | S-4/A | 333-216961 | 10.21 | May 3, 2017 |
| 10.17# | Variation of Contract, by and between Sopharma AD and Extab Corporation, dated May 14, 2015 | S-4/A | 333-216961 | 10.22 | May 3, 2017 |
| 10.18# | Commercial Agreement on Supply of Pharmaceutical Products, by and between Sopharma AD and Extab Corporation, dated February 1, 2010 | S-4/A | 333-216961 | 10.23 | May 3, 2017 |

| | | | | | |
|---------|--|------------|------------|----------------|--------------------|
| 10.19# | Variation of Contract, by and between Sopharma AD and Extab Corporation, dated May 14, 2015 | S-4/A | 333-216961 | 10.24 | May 3, 2017 |
| 10.20# | Technical and Quality Agreement, by and between Sopharma AD and Extab Corporation, dated May 14, 2015 | S-4/A | 333-216961 | 10.25 | May 3, 2017 |
| 10.21# | License of Technology, by and between University of Bristol and Achieve Life Science, Inc., dated July 13, 2016 | S-4/A | 333-216961 | 10.27 | May 3, 2017 |
| 10.22 | Amendment to University of Bristol License Agreement, dated January 22, 2018, by and between Achieve Life Science, Inc., and the University of Bristol | 10-Q/ A | 033-80623 | 10.1 | May 23, 2018 |
| 10.23 | Lease by and between 520 Pike Street, Inc. and Achieve Life Sciences, Inc., dated December 1, 2017 | 10-K | 033-80623 | 10.20 | March 1, 2018 |
| 10.24 | Office Lease by and between 0846869 B.C. Ltd. and Achieve Life Sciences Technologies Inc., commencing February 1, 2019 | 10-K | 033-80623 | 10.25 | March 14, 2019 |
| 10.25 | Purchase Agreement, by and between Achieve Life Sciences, Inc. and Lincoln Park Capital Fund, LLC, dated as of September 14, 2017 | 8-K | 033-80623 | 10.1 | September 14, 2017 |
| 10.26## | Amended and Restated Supply Agreement, dated July 28, 2017, by and between Achieve Life Science, Inc., and Sopharma AD | 10-Q | 033-80623 | 10.1 | November 9, 2017 |
| 10.27 | Warrant Exercise Agreement by and between Armistice Capital Master Fund, Ltd. and Achieve Life Sciences, Inc., dated May 30, 2019 | 8-K | 033-80623 | 10.1 | June 3, 2019 |
| 10.28 | At The Market Offering Agreement by and between H.C. Wainwright & Co., LLC and Achieve Life Sciences, Inc., dated June 7, 2019 | 8-K | 033-80623 | 1.1 | June 7, 2019 |
| 21.1 | Subsidiaries of the Registrant | 10-K | 033-80623 | 21.1 | March 1, 2018 |
| 23.1* | Consent of PricewaterhouseCoopers LLP | S-1 | 333-232817 | 23.1 | July 25, 2019 |
| 23.2 | Consent of Fenwick & West LLP (included in Exhibit 5.1) | | | | X |
| 24.1* | Power of Attorney | S-1 | 333-232817 | Signature page | July 25, 2019 |

Confidential portions of this exhibit have been omitted and filed separately with the Commission pursuant to a Confidential Treatment Order granted under Rule 406 promulgated under the Securities Act of 1933, as amended.

Confidential portions of this exhibit have been omitted and filed separately with the Commission pursuant to a Confidential Treatment Order granted under Rule 24b-2 promulgated under the Securities Exchange Act of 1934, as amended.

* Previously filed.

Item 17. Undertakings

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the 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 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 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 Act and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes:

(a) 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 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. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective 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)(i), (a)(ii) and (a)(iii) 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 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(b) That, for the purpose of determining any liability under the 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;

(c) 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;

(d) That, for the purpose of determining liability under the Act of to any purchaser:

(i) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the Registration Statement as of the date the filed prospectus was deemed part of and included in the Registration Statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Act shall be deemed to be part of and included in the Registration Statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the Registration Statement relating to the securities in the Registration Statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the Registration Statement or made in a document incorporated or deemed incorporated by reference into the Registration Statement or prospectus that is part of the Registration Statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the Registration Statement or prospectus that was part of the Registration Statement or made in any such document immediately prior to such effective date;

(e) That, for purposes of determining any liability under the Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Act shall be deemed to be part of this Registration Statement as of the time it was declared effective;

(f) That, for the purpose of determining any liability under the Act, each post-effective amendment that contains a form of prospectus 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;

(g) To deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information; and

(h) That, for purposes of determining any liability under the Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Vancouver, British Columbia, Canada, on August 2, 2019.

ACHIEVE LIFE SCIENCES, INC.

By: /s/ Richard Stewart

Richard Stewart
Chairman and Chief Executive Officer

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

| Signature | Title | Date |
|---|--|----------------|
| <u>/s/ Richard Stewart</u> Richard Stewart | Chief Executive Officer, Chairman and Director (Principal Executive Officer) | August 2, 2019 |
| <u>/s/ John Bencich</u> John Bencich | Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) | August 2, 2019 |
| <u>*</u> Anthony Clarke | Director | August 2, 2019 |
| <u>*</u> Scott Cormack | Director | August 2, 2019 |
| <u>*</u> Donald Joseph | Director | August 2, 2019 |
| <u>*</u> Martin Mattingly | Director | August 2, 2019 |
| <u>*</u> Jay Moyes | Director | August 2, 2019 |
| <u>*</u> H. Stewart Parker | Director | August 2, 2019 |

* By: /s/ John Bencich
Attorney-in-Fact



1191 SECOND AVENUE, 10TH FLOOR SEATTLE, WA 98101
TEL: 206.389.4510 FAX: 206.389.4511 WWW.FENWICK.COM

August 2, 2019

Achieve Life Sciences, Inc.
1040 West Georgia Street, Suite 1030
Vancouver, B.C. V6E 4H1

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-1 filed by Achieve Life Sciences, Inc. (the "**Company**") with the Securities and Exchange Commission (the "**Commission**") on July 25, 2019, as amended (the "**Registration Statement**"), in connection with the registration under the Securities Act of 1933, as amended (the "**Securities Act**"), of an aggregate of 1,200,000 shares of the Company's common stock, \$0.001 par value per share (the "**Common Stock**"), issuable upon exercise of an outstanding Common Stock purchase warrant issued by the Company pursuant to a Warrant Exercise Agreement by and between the Company and Armistice Capital Master Fund, Ltd. (the "**Selling Stockholder**"), dated May 30, 2019 (the "**Warrant**"). The Warrant was issued to the Selling Stockholder, as set forth in the Registration Statement and the prospectus contained within the Registration Statement (the "**Prospectus**").

In connection with our opinion expressed below we have examined originals or copies of the Company's Amended and Restated Certificate of Incorporation, as amended (the "**Certificate**") and the Company's Bylaws (the "**Bylaws**"), the Warrant, certain corporate proceedings of the Company's board of directors (the "**Board**") and stockholders relating to the Registration Statement, the Certificate and Bylaws, and such other agreements, documents, certificates and statements of the Company, its transfer agent and public or government officials, as we have deemed advisable, and have examined such questions of law as we have considered necessary. We have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures on documents submitted to us, the conformity to originals of all documents submitted to us as copies, and the absence of any undisclosed termination, waiver or amendment to any document reviewed by us. In giving our opinion, we have also relied upon a good standing certificate issued by the Delaware Secretary of State and representations made to us by the Company, including representations that the Company has available a sufficient number of authorized shares of Common Stock that are not currently outstanding or reserved for issuance under other outstanding securities or equity plans of the Company, to enable the Company to issue and deliver all of the shares of Common Stock issuable upon exercise of the Warrant as of the date of this letter.

We render this opinion only with respect to, and express no opinion herein concerning the application or effect of the laws of any jurisdiction other than, the existing laws of the Delaware General Corporation Law.

Based upon the foregoing, we are of the opinion that, upon exercise of the Warrant, in the manner and for the consideration stated in the Warrant, the Common Stock to be sold by the Selling Stockholder pursuant to the Registration Statement and the Prospectus will be validly issued, nonassessable and fully paid.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement, the Prospectus constituting a part thereof and any amendments thereto. We do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder. This opinion is intended solely for use in connection with sale of the Common Stock to be sold by the Selling Stockholder pursuant to the Registration Statement and is not to be relied upon for any other purpose. In providing this letter, we are opining only as to the specific legal issues expressly set forth above, and no opinion shall be inferred as to any other matter or matters. This opinion is rendered on, and speaks only as of, the date of this letter first written above, and does not address any potential change in facts of law that may occur after the date of this opinion letter. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention, whether or not such occurrence would affect or modify any of the opinions expressed herein.

Very truly yours,

/s/ Fenwick & West LLP

FENWICK & WEST LLP