UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d)

of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 19, 2022

Axsome Therapeutics, Inc. (Exact name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation)	001-37635 (Commission File Number)	45-4241907 (IRS Employer Identification No.)
22 Cortlandt Street, 16th Floor New York, New York (Address of Principal Executive Offices)		10007 (Zip Code)
Registrant's Tele	ephone Number, Including Area Code: (212	2) 332-3241
(Former !	Name or Former Address, if Changed Since Last Repo	ort)
Check the appropriate box below if the Form 8-K filing is following provisions:	is intended to simultaneously satisfy the filing	s obligation of the registrant under any of the
☐ Written communications pursuant to Rule 425 und	er the Securities Act (17 CFR 230.425)	
☐ Soliciting material pursuant to Rule 14a-12 under t	the Exchange Act (17 CFR 240.14a-12)	
☐ Pre-commencement communications pursuant to F	Rule 14d-2(b) under the Exchange Act (17 CF)	R 240.14d-2(b))
☐ Pre-commencement communications pursuant to F	Rule 13e-4(c) under the Exchange Act (17 CF)	R 240.13e-4(c))
Securities registered pursuant to Section 12(b) of the Act	t:	
Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$0.0001 Per Share	AXSM	NASDAQ Global Market
Indicate by check mark whether the registrant is an emer chapter) or Rule 12b-2 of the Securities Exchange Act of		of the Securities Act of 1933 (§ 230.405 of this

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any

new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. □

Emerging growth company \square

Item 8.01 Other Events.

As previously disclosed, on March 1, 2022, (i) Axsome Therapeutics, Inc. (the "Company") entered into a Sales Agreement (the "Agreement") with SVB Securities LLC ("SVB Securities") with respect to an at the market offering program, under which the Company may, from time to time in its sole discretion, issue and sell through SVB Securities, acting as sales agent, shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock") and (ii) the Company filed a prospectus supplement to the Company's registration statement on Form S-3 (File No. 333-235372), originally filed with the Securities and Exchange Commission (the "SEC") on December 5, 2019 (the "Shelf Registration Statement"), which became effective immediately upon filing, for the issuance and sale of up to \$200,000,000 of shares of Common Stock by the Company under the Agreement (the "Prior ATM Program").

On August 19, 2022, the Company filed a prospectus supplement to the Company's Shelf Registration Statement for the issuance and sale, if any, of up to an additional \$250,000,000 of shares of Common Stock (the "Placement Shares") by the Company under the Agreement. The Company has exhausted sales of its shares of Common Stock under the Prior ATM Program.

Pursuant to the Agreement, SVB Securities may sell the Placement Shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act of 1933, as amended (the "Securities Act"), including, without limitation, sales made directly on or through the Nasdaq Global Market, on or through any other existing trading market for the Company's common stock or to or through a market maker. SVB Securities will use commercially reasonable efforts consistent with its normal trading and sales practices to sell the Placement Shares from time to time, based upon instructions from the Company (including any price or size limits or other customary parameters or conditions the Company may impose). SVB Securities will not purchase any Placement Shares on a principal basis pursuant to the Agreement unless the Company and SVB Securities enter into a separate written agreement setting forth the terms of such sale.

The Company will pay SVB Securities a commission of up to 3.0% of the gross sales proceeds of any Placement Shares sold through SVB Securities, acting as sales agent, under the Agreement.

The Company is not obligated to make any sales of Placement Shares under the Agreement. The offering of Placement Shares pursuant to the Agreement will terminate upon the earlier to occur of (i) the issuance and sale, through SVB Securities, of all Placement Shares subject to the Agreement and (ii) termination of the Agreement in accordance with its terms.

The Agreement contains representations, warranties and covenants that are customary for transactions of this type. In addition, the Company has agreed to indemnify SVB Securities against certain liabilities, including liabilities under the Securities Act, and the Securities Exchange Act of 1934, as amended.

The foregoing description of the Agreement is not complete and is qualified in its entirety by reference to the full text of the Agreement, a copy of which is filed as Exhibit 1.1 to our Current Report on Form 8-K filed on March 1, 2022, and is incorporated herein by reference.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of an offer to buy the securities discussed herein, nor shall there be any offer, solicitation or sale of the securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
5.1	Opinion of DLA Piper LLP (US).
23.1	Consent of DLA Piper LLP (US) (contained in Exhibit 5.1).
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Axsome Therapeutics, Inc.

Date: August 19, 2022 By: /s/ Herriot Tabuteau, M.D.

Name: Herriot Tabuteau, M.D.

Title: President and Chief Executive Officer

August 19, 2022

Axsome Therapeutics, Inc. 22 Cortlandt Street, 16th Floor New York, New York 10007

RE: Axsome Therapeutics, Inc. Registration Statement on Form S-3 (File No. 333-235372)

Ladies and Gentlemen:

We have acted as counsel to Axsome Therapeutics, Inc., a Delaware corporation (the "<u>Company</u>"), in connection with the issuance and sale by the Company from time to time of shares of the Company's common stock, par value \$0.0001 per share, having an aggregate offering price of up to \$250.0 million (the "<u>Placement Shares</u>"), pursuant to the Registration Statement on Form S-3 (File No. 333-235372), filed with the Securities and Exchange Commission (the "<u>SEC</u>") under the Securities Act of 1933, as amended (the "<u>Securities Act</u>"), on December 5, 2019, which became effective immediately upon filing (the "<u>Registration Statement</u>"), the related base prospectus, dated December 5, 2019 (the "<u>Base Prospectus</u>"), and the prospectus supplement, dated August 19, 2022 (the "<u>Prospectus Supplement</u>" and together with the Base Prospectus, the "<u>Prospectus</u>"), filed with the SEC pursuant to Rule 424(b) under the Act, and a sales agreement dated March 1, 2022 by and between the Company and SVB Securities LLC, as sales agent (the "<u>Sales Agreement</u>").

In connection with this opinion letter, we have examined the Registration Statement, the Prospectus, the Sales Agreement, and originals, or copies certified or otherwise identified to our satisfaction, of the Amended and Restated Certificate of Incorporation and the Amended and Restated Bylaws of the Company, and such other documents, records and other instruments as we have deemed appropriate for purposes of the opinion set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies.

Based upon the foregoing, we are of the opinion that the Placement Shares have been duly authorized by the Company and, when issued and sold by the Company and delivered by the Company against receipt of the purchase price therefor, in the manner contemplated by the Sales Agreement, will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited to the Delaware General Corporation Law.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to us under the caption "Legal Matters" in the Prospectus Supplement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the SEC thereunder.

Very truly yours,

/s/ DLA Piper LLP (US)