Registration No. 333-___

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

APREA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

3805 Old Easton Road Doylestown, PA

(Address of Principal Executive Offices)

84-2246769 (I.R.S. Employer Identification No.)

> **18902** (Zip Code)

Aprea Therapeutics, Inc. 2019 Equity Incentive Plan (Full title of the plan)

> Oren Gilad, Ph.D. President and Chief Executive Officer 3805 Old Easton Road Doylestown, PA 18902 (617) 463-9385

(Name, address and telephone number, including area code, of agent for service)

Copies to:

Fahd M.T. Riaz, Esq. DLA Piper LLP (US) One Liberty Place 1650 Market Street, Suite 5000 Philadelphia, PA 19103-7300 (215) 656-3316

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

Large Accelerated filer \Box Non-accelerated filer \boxtimes Accelerated filer \Box 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.

Part II

Information Required In The Registration Statement

This Registration Statement relates to the registration of an additional 106,211 shares (the "*Shares*") of Aprea Therapeutics, Inc. (the "*Registrant*") Common Stock, par value \$0.001 per share. The Shares are securities of the same class and relate to the same employee benefit plan, the Aprea Therapeutics, Inc. 2019 Equity Incentive Plan (in the form attached hereto as Exhibit 99.1) (the "*2019 Plan*"), as those registered pursuant to the Registrant's registration statements on Form S-8, previously filed with the Securities and Exchange Commission on <u>November 18, 2019 (Registration No. 333-234765)</u>, <u>November 12, 2020 (Registration No. 333-250043)</u>, <u>November 9, 2021 (Registration No. 333-260884</u>), and <u>December 15, 2022 (Registration No. 333-268816</u>).

In accordance with General Instruction E of Form S-8, the contents of the Registrart's registration statements filed with the Securities and Exchange Commission on <u>November 18, 2019 (Registration No. 333-234765)</u>, <u>November 12, 2020 (Registration No. 333-250043)</u>, <u>November 9, 2021 (Registration No. 333-260884)</u>, and <u>December 15, 2022 (Registration No. 333-268816)</u> are incorporated herein by reference (solely to the extent the contents of such registration statements relate to the 2019 Plan) and the information required by Part II is omitted, except as supplemented by the information set forth below.

Item 8

Exhibits.

Exhibit		
No.		

Description

- <u>4.1</u> <u>Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the Commission on October 7, 2019)</u>
- <u>4.2</u> Certificate of Amendment to Amended and Restated Certificate of Incorporation of Aprea Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on February 13, 2023)
- 4.3 Certificate of Designation of Series A Non-Voting Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on May 17, 2022)
- <u>4.4</u> Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, filed with the Commission on November 6, 2020)
- 5.1* Opinion of DLA Piper LLP (US).
- 23.1* Consent of Ernst & Young LLP
- 23.2* Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
- <u>24</u> <u>Power of Attorney (contained on the signature page hereto).</u>
- 99.1 Aprea Therapeutics, Inc. 2019 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement (Form S-1/A), filed with the Commission on September 27, 2019)
- <u>107*</u> <u>Filing Fee Table</u>
 - <u>riiiig ree table</u>

Filed herewith

SIGNATURE

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 with respect to the Aprea Therapeutics, Inc. 2019 Equity Incentive Plan, to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Doylestown, State of Pennsylvania, on November 9, 2023.

Aprea Therapeutics, Inc.

 By:
 /s/ Oren Gilad

 Name:
 Oren Gilad, Ph.D.

 Title:
 President and Chief Executive Officer

POWER OF ATTORNEY

The officers and directors of Aprea Therapeutics, Inc. whose signatures appear below hereby constitute and appoint Oren Gilad and John Hamill, and each of them, their true and lawful attorneys and agents, with full power of substitution, each with power to act alone, to sign and execute on behalf of the undersigned this Registration Statement on Form S-8 with respect to the Aprea Therapeutics, Inc. 2019 Equity Incentive Plan, and any amendment or amendments thereto, and each of the undersigned does hereby ratify and confirm all that each attorney and agent, or his or her substitutes, shall 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.

Signature /s/ Oren Gilad Oren Gilad, Ph.D.	Title President, Chief Executive Officer and Director (Principal Executive Officer)	Date November 9, 2023
/s/ John P. Hamill John P. Hamill	Senior Vice President, Chief Financial Officer (Principal Financial and Accounting Officer)	November 9, 2023
/s/ Marc Duey Marc Duey	Director	November 9, 2023
/s/ Michael Grissinger Michael Grissinger	Director	November 9, 2023
/s/ John B. Henneman John B. Henneman III	Director	November 9, 2023
/s/ Rifat Pamukcu Rifat Pamukcu, M.D.	Director	November 9, 2023
/s/ Richard Peters Richard Peters, M.D., Ph.D.	Director	November 9, 2023
/s/ Gabriel Gruia Gabriel Gruia, M.D.	Director	November 9, 2023
/s/ Bernd Seizinger Bernd R. Seizinger, M.D., Ph.D.	Director	November 9, 2023
/s/ Jean-Pierre Bizzari Jean-Pierre Bizzari, M.D.	Director	November 9, 2023



DLA Piper LLP (US) One Liberty Place 1650 Market Street, Suite 5000 Philadelphia, PA 19103-7300 www.dlapiper.com

November 9, 2023 Aprea Therapeutics, Inc. 3805 Old Easton Road Doylestown, PA 18902

RE: Aprea Therapeutics, Inc. - Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Aprea Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the preparation of a Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to the registration of an aggregate of 106,211 shares (the "Plan Shares") of the Company's common stock, par value \$0.001 per share, issuable under the Aprea Therapeutics, Inc. 2019 Equity Incentive Plan (the "Plan").

In connection with this opinion letter, we have examined the Registration Statement and originals, or copies certified or otherwise identified to our satisfaction, of the Amended and Restated Certificate of Incorporation, as amended 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 certified.

Based upon the foregoing, we are of the opinion that the Plan Shares have been duly authorized and, when and to the extent issued in accordance with the terms of the Plan and any award agreement entered into under the Plan, the Plan Shares will be validly issued, fully paid and nonassessable.

The opinion expressed herein is limited to the Delaware General Corporation Law.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement. 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 U.S. Securities and Exchange Commission thereunder.

Very truly yours, /s/ DLA Piper LLP (US)

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Aprea Therapeutics, Inc. 2019 Equity Incentive Plan of our report dated March 30, 2023, with respect to the consolidated financial statements of Aprea Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2022, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Iselin, New Jersey November 8, 2023

Calculation of Filing Fee Tables

Form S-8 (Form Type)

Aprea Therapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, par value \$0.001	Rule 457(c) and Rule 457(h)	106,211 ⁽²⁾	\$3.7664 ⁽³⁾	\$400,033.11 ⁽³⁾	\$0.00014760	\$59.04
Total Offering Amounts				\$400,033.11		\$59.04	
Total Fee Offsets ⁽⁴⁾						-	
Net Fee Due						\$59.04	

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 shall cover any additional shares of common stock, \$0.001 par value per share ("Common Stock") of the Registrant that become issuable under the Aprea Therapeutics, Inc. 2019 Equity Incentive Plan (the "2019 Plan") by reason of any stock dividend, stock split, recapitalization, or other similar transaction effected without the Registrant's receipt of consideration which results in an increase in the number of the outstanding shares of Common Stock.

(2) Consists of shares of Common Stock under the 2019 Plan.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Registrant's Common Stock as reported on the Nasdaq on November 3, 2023.

(4) The Registrant does not have any fee offsets.