As filed with the Securities and Exchange Commission on September 17, 2026.

Registration No. 333-

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Electra Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	2836	83-2193635
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

230 E Grand Avenue
Suite S-100
South San Francisco, California 94080
(888) 743-2290
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Quehuong (Kathy) Dong, Pharm.D., M.B.A.
President and Chief Executive Officer
230 E Grand Avenue
Suite S-100
South San Francisco, California 94080
(888) 743-2290
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Charles J. Bair **Charles S. Kim** **Sara Semnani** **Dylan Kornbluth** **Cooley LLP** **10265 Science Center Drive** **San Diego, California 92121** **(858) 550-6000**	**Chris Clark, C.F.A.** **Chief Financial Officer** **Electra Therapeutics, Inc.** **230 E Grand Avenue** **Suite S-100** **South San Francisco, California 94080** **(888) 743-2290**	**Matthew T. Bush** **Latham & Watkins LLP** **12670 High Bluff Drive** **San Diego, California 92130** **(858) 523-5400**

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

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. ☒ (333-298617)

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, a non-accelerated filer, 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	☐	Accelerated filer	☐
Non-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. ☐

The Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.

EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

This Registration Statement is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "***Securities Act***"), by Electra Therapeutics, Inc. (the "***Registrant***"), for the sole purpose of increasing the aggregate number of shares of common stock offered and registered by the Earlier Registration Statement (as defined below) by 1,916,667 shares, 250,000 of which are subject to purchase upon exercise of the underwriters' option to purchase additional shares of the Registrant's common stock. The contents of the Registration Statement on Form S-1, as amended (File No. 333-298617), including all exhibits thereto (the "***Earlier Registration Statement***"), filed by the Registrant with the Securities and Exchange Commission (the "***Commission***") pursuant to the Securities Act, which was declared effective by the Commission on September 17, 2026, are incorporated by reference into this Registration Statement. The additional shares of common stock that are being registered for issuance and sale pursuant to this Registration Statement are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in Exhibit 107 of the Earlier Registration Statement.

The required opinion and consents are listed on an Exhibit Index attached hereto and filed herewith.

EXHIBIT INDEX

Exhibit No.	Description
5.1	Opinion of Cooley LLP.
23.1	Consent of Independent registered public accounting firm.
23.2	Consent of Cooley LLP (included in Exhibit 5.1).
24.1*	Power of Attorney.
107	Filing Fee Table.

* Previously filed on the signature page to the Registrant's Registration Statement on Form S-1 (File No. 333-298617), originally filed with the Commission on August 28, 2026 and incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, California on September 17, 2026.

ELECTRA THERAPEUTICS, INC.

By: /s/ Quehuong (Kathy) Dong, Pharm.D., M.B.A.
Quehuong (Kathy) Dong, Pharm.D., M.B.A.
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-1 has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
/s/ Quehuong (Kathy) Dong, Pharm.D., M.B.A. Quehuong (Kathy) Dong, Pharm.D., M.B.A.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	September 17, 2026
/s/ Chris Clark, C.F.A. Chris Clark, C.F.A.	Chief Financial Officer (*Principal Financial Officer*)	September 17, 2026
/s/ David J. Tucker David J. Tucker	Senior Vice President, Finance (*Principal Accounting Officer*)	September 17, 2026
* Nancy Stagliano, Ph.D.	Chairperson	September 17, 2026
* Matthew Fust, M.B.A.	Director	September 17, 2026
* Carl L. Gordon, Ph.D., C.F.A.	Director	September 17, 2026

*By: /s/ Quehuong (Kathy) Dong, Pharm.D., M.B.A.
Quehuong (Kathy) Dong, Pharm.D., M.B.A.
Attorney-in-Fact

Cooley

Charles J. Bair
T: +1 858 550 6142
cbair@cooley.com

September 17, 2026

Electra Therapeutics, Inc.
230 E Grand Avenue, Suite S-100
South San Francisco, California 94080

Ladies and Gentlemen:

We have acted as counsel to Electra Therapeutics, Inc., a Delaware corporation (the "***Company***"), in connection with the filing by the Company of a registration statement on Form S-1 (the "***Registration Statement***") with the Securities and Exchange Commission (the "***Commission***") pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "***Securities Act***"), including a related prospectus included in the Registration Statement (the "***Prospectus***"), covering an underwritten public offering by the Company of up to 1,916,667 shares (the "***Shares***") of its common stock, par value $0.0001 per share. The Registration Statement incorporates by reference the registration statement on Form S-1, as amended (No. 333-298617) (the "***Prior Registration Statement***"), including the prospectus that is part of the Prior Registration Statement (the "***Prospectus***").

In connection with this opinion, we have (i) examined and relied upon (a) the Registration Statement and the Prospectus, (b) the Company's certificate of incorporation and bylaws, each as currently in effect, (c) the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, filed as Exhibits 3.2 and 3.4 to the Prior Registration Statement, respectively, each of which is to be in effect in connection with the closing of the offering contemplated by the Prior Registration Statement and (d) such other records, documents, opinions, certificates, memoranda and instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below and (ii) the Amended and Restated Certificate of Incorporation referred to in clause (i)(c) is filed with the Secretary of State of the State of Delaware before issuance of the Shares.

We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials and the due authorization, execution and delivery of all documents by all persons other than the Company. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, in reliance thereon and subject to the assumptions, qualifications, limitations and exceptions set forth herein, we are of the opinion that the Shares, when sold and issued against payment therefor as described in the Prior Registration Statement and the Prospectus, will be validly issued, fully paid and nonassessable.

This opinion is limited to the matters expressly set forth in this letter, and no opinion has been or should be implied, or may be inferred, beyond the matters expressly stated. This opinion speaks only as to law and facts in effect or existing as of the date hereof, and we have no obligation or responsibility to update or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

We consent to the reference to our firm under the heading "Legal Matters" in the Prospectus and to the filing of this opinion as an exhibit to the Registration Statement. In giving such consents, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act, or the rules and regulations of the Commission thereunder.

Sincerely,

Cooley LLP

By: /s/ Charles J. Bair
Charles J. Bair

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement on Form S-1 filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption "Experts" and to the incorporation by reference of our report dated June 26, 2026 (except for the seventh paragraph of Note 1, as to which the date is September 14, 2026), with respect to the financial statements of Electra Therapeutics, Inc. included in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-298617) and related Prospectus of Electra Therapeutics, Inc. for the registration of its common stock.

/s/ Ernst & Young LLP

San Mateo, California
September 17, 2026

Calculation of Filing Fee Tables

S-1

Electra Therapeutics, Inc.

Table 1: Newly Registered and Carry Forward Securities ☐Not Applicable

		Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities													
Fees to be Paid	1	Equity	Common Stock, $0.0001 par value per share	457(a)	1,916,667	$ 15.00	$ 28,750,005.00	0.0001381	$ 3,970.38				
Fees Previously Paid													
Carry Forward Securities													
Carry Forward Securities													
					Total Offering Amounts:		$ 28,750,005.00		$ 3,970.38				
					Total Fees Previously Paid:				$ 0.00				
					Total Fee Offsets:				$ 0.00				
					Net Fee Due:				$ 3,970.38				

Offering Note

1 The registrant previously registered securities with a proposed maximum aggregate offering price not to exceed $398,666,672 on a Registration Statement on Form S-1 (File No. 333-298617), which was declared effective by the Securities and Exchange Commission on September 17, 2026. In accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended, an additional amount of securities having a proposed maximum aggregate offering price of $28,750,005 is hereby registered, which includes the shares of common stock that the underwriters have the option to purchase.

Table 2: Fee Offset Claims and Sources ☑Not Applicable

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims												
Fee Offset Sources												
Rule 457(p)												
Fee Offset Claims												
Fee Offset Sources												

Table 3: Combined Prospectuses ☑Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date