UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CLEARPOINT NEURO, INC.

(Exact name of registrant as specified in its charter)

Delaware58-2394628(State or other jurisdiction of incorporation or organization)(I.R.S. Employer Identification No.)120 S. Sierra Ave., Suite 100
Solana Beach, California92075(Address of principal executive offices)(Zip Code)

ClearPoint Neuro, Inc. Amended and Restated 2021 Employee Stock Purchase Plan ClearPoint Neuro, Inc. Sixth Amended and Restated 2013 Incentive Compensation Plan (Full title of the plans)

> Ellisa Cholapranee General Counsel and Secretary 120 S. Sierra Ave., Suite 100 Solana Beach, California 92075 (Name and address of agent for service)

> > (888) 287-9109

(Telephone number, including area code, of agent for service)

With copies to:

John Tishler, Esq. Sheppard, Mullin, Richter & Hampton LLP 12275 El Camino Real, Suite 100 San Diego, CA, 92130-4092 (858) 720-8900

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.

Non-accel	erated filer	⊠	Smaller reporting company Emerging growth company	
		te by check mark if the registrant has el to Section 7(a)(2)(B) of the Securities A		od for complying with any new or revised financial
		EXP	LANATORY NOTE	
Company'	s common stock, par value \$0	0.01 per share (the "Common Stock"), u		r the purpose of registering additional shares of the ended and Restated 2021 Employee Stock Purchase entive Compensation Plan").
	stration Statement relates to t Commission (the "SEC"):	he following currently effective registr	ation statements on Form S-8 (collectively,	the "Existing S-8s") filed with the Securities and
Regi resta		9454, filed with the SEC on May 16, 20)24, relating to the ClearPoint Neuro, Inc. 20	13 Incentive Compensation Plan, as amended and
Regi resta		5349, filed with the SEC on June 1, 202	22, relating to the ClearPoint Neuro, Inc. 201	3 Incentive Compensation Plan, as amended and
	stration Statement No. 333-25 hase Plan;	66789, filed with the SEC on June 4, 202	21, relating to the ClearPoint Neuro, Inc. Am	ended and Restated 2021 Employee Stock
Regiresta		8907, filed with the SEC on June 3, 202	20, relating to the ClearPoint Neuro, Inc. 201	3 Incentive Compensation Plan, as amended and
_	stration Statement No. 333-22 restated;	20783, filed with the SEC on October 3,	2017, relating to the ClearPoint Neuro, Inc. 2	2013 Incentive Compensation Plan, as amended
	stration Statement No. 333-20 restated; and	6432, filed with the SEC on August 17,	2015, relating to the ClearPoint Neuro, Inc.	2013 Incentive Compensation Plan, as amended
_	stration Statement No. 333-19 restated.	21908, filed with the SEC on October 25	s, 2013, relating to the ClearPoint Neuro, Inc.	2013 Incentive Compensation Plan, as amended
of Form S				litional securities. Pursuant to General Instruction E tement, except for Items 3 and 8, which are being
			-1-	

Accelerated filer

Large accelerated filer

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Company with the SEC pursuant to the Securities Act of 1933, as amended (the "Securities Act") and the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are incorporated herein by reference:

- The Company's definitive proxy statement on <u>Schedule 14A</u>, filed with the Commission on April 9, 2025;
- The Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on February 26, 2025;
- The Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2025, filed with the SEC on May 13, 2025;
- The Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2025, filed with the SEC on August 12, 2025;
- The Company's Current Reports on Form 8-K (excluding any reports or portions thereof that are deemed to be furnished and not filed) filed with the SEC on each of May 12, 2025, May 19, 2025, May 23, 2025 and June 17, 2025; and
- The description of the Company's Common Stock, contained in Exhibit 4.4 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2023, as filed with the SEC on March 12, 2024, including any amendments or reports filed for the purpose of updating such description.

In addition, all other reports and documents filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) subsequent to 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 hereby have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing such reports and documents. 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 herein or in any subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not constitute a part of this Registration Statement, except as so modified or superseded.

Item 8. Exhibits.

Exhibit Number	Description
4.1	Amended and Restated Certificate of Incorporation of MRI Interventions, Inc. (Previously filed as, and incorporated herein by reference to, Exhibit 3.1
	to our quarterly report on Form 10-Q, filed on May 11, 2012; File No. 000-54575).
4.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of MRI Interventions, Inc. (Previously filed as, and incorporated
	herein by reference to, Exhibit 3.1 to the Company's Current Report on Form 8-K filed on June 8, 2015).
4.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of MRI Interventions, Inc. (Previously filed with, and incorporated
	herein by reference to, Exhibit 3.3 to the Company's Registration Statement on Form S-1 filed on August 2, 2016).

4.4	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of ClearPoint Neuro, Inc. (Previously filed with, and incorporated
	herein by reference to, Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 12, 2020).
4.5	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of ClearPoint Neuro, Inc. (Previously filed with, and incorporated
	herein by reference to, Exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 25, 2023).
4.6	Fourth Amended and Restated Bylaws of ClearPoint Neuro, Inc. (Previously filed with, and incorporated herein by reference to, Exhibit 3.1 to the
	Company's Current Report on Form 8-K filed on December 14, 2022).
5.1*	Opinion of Sheppard, Mullin, Richter & Hampton LLP
10.1	ClearPoint Neuro, Inc. Sixth Amended and Restated 2013 Incentive Compensation Plan (Previously filed with, and incorporated herein by reference to,
	Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 23, 2025).
10.2	ClearPoint Neuro, Inc. Amended and Restated 2021 Employee Stock Purchase Plan (Previously filed with, and incorporated herein by reference to,
	Appendix A to our Definitive Proxy Statement on Schedule 14A, filed on April 9, 2025, File No. 001-34822).
23.1*	Consent of Cherry Bekaert LLP
23.2*	Consent of Sheppard, Mullin, Richter & Hampton LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included as part of the signature page to this Registration Statement).
107*	Filing Fee Table

Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Solana Beach, State of California, on the 4th day of September, 2025.

CLEARPOINT NEURO, INC.

By: /s/ Joseph M. Burnett
Joseph M. Burnett
Chief Executive Officer and President
(Principal Executive Officer)

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Joseph M. Burnett and Danilo D'Alessandro and each of them, with full power of substitution and resubstitution and full power to act without the other, as his true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file, any and all amendments to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange 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, 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 thereof.

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

SIGNATURE	TITLE	DATE
/s/ Joseph M. Burnett Joseph M. Burnett	President, and Chief Executive Officer and Director (Principal Executive Officer)	September 4, 2025
/s/ Danilo D'Alessandro Danilo D'Alessandro	Chief Financial Officer (Principal Financial and Accounting Officer)	September 4, 2025
/s/ R. John Fletcher R. John Fletcher	Chairman and Director	September 4, 2025
/s/ Lynnette C. Fallon Lynnette C. Fallon	Director	September 4, 2025
/s/ Pascal E.R. Girin Pascal E.R. Girin	Director	September 4, 2025
/s/ B. Kristine Johnson B. Kristine Johnson	Director	September 4, 2025
/s/ Matthew B. Klein	Director	September 4, 2025

Matthew B. Klein		
/s/ Linda M. Liau Linda M. Liau	Director	September 4, 2025
/s/ Timothy T. Richards	Director	September 4, 2025



Sheppard, Mullin, Richter & Hampton LLP 12275 El Camino Real, Suite 100 San Diego, California 92130-4092 858.720.8900 main 858.509.3691 fax www.sheppardmullin.com

September 4, 2025

VIA ELECTRONIC MAIL

ClearPoint Neuro, Inc. 120 S. Sierra Avenue, Suite 100 Solana Beach, CA 92075

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by ClearPoint Neuro, Inc., a Delaware corporation (the "Company"), of a Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), with the U.S. Securities and Exchange Commission (the "Commission"), covering: (i) 300,000 shares (the "Shares") of the Company's common stock, par value \$0.01 per share (the "Common Stock"), which may be issued pursuant to the Company's Amended and Restated 2021 Employee Stock Purchase Plan, as amended (the "ESPP"); and (ii) 700,000 Shares of Common Stock which may be issued pursuant to the Company's Sixth Amended and Restated 2013 Incentive Compensation Plan, as amended (the "Incentive Compensation Plan").

This opinion (this "Opinion") is being furnished in accordance with the requirements of Item 8 of Form S-8 and Item 601(b)(5)(i) of Regulation S-K.

In connection with this Opinion, we have reviewed and relied upon the Registration Statement, the Company's Amended and Restated Certificate of Incorporation, as amended, as in effect on the date hereof (the "Certificate of Incorporation"), the Company's Fourth Amended and Restated Bylaws, as in effect on the date hereof (the "Bylaws" and together with the Certificate of Incorporation, the "Charter Documents"), the proceedings taken by the Company with respect to the authorization and adoption of the Plan, resolutions adopted by the board of directors of the Company, and such other documents, records, certificates, memoranda and other instruments as we deem necessary as a basis for this Opinion.

With respect to the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, and the conformity to the original of all documents submitted to us as certified or reproduced copies. We have also assumed that the Shares will be uncertificated in accordance with Section 158 of the Delaware General Corporation Law, and the transfer agent therefor will register the purchaser thereof as the registered owner of any uncertificated Shares on its stock transfer books and records. We have further assumed that (a) shares of Common Stock currently reserved for issuance under the Plan will remain available for the issuance of the Shares, and (b) neither the Company's Charter Documents nor any of the proceedings relating to either the Plan or any of the award agreements relating to the Shares will be rescinded, amended or otherwise modified prior to the issuance of the Shares. We have also obtained from public officials and officers of the Company certificates or comparable documents as to certain factual matters and, insofar as this Opinion is based on matters of fact, we have relied on such certificates and comparable documents without independent investigation. We have made such other investigations as we have deemed relevant and necessary in connection with the opinions hereinafter set forth.

SheppardMullin

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On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when issued and sold in the manner referred to in the Plan and against proper payment and consideration thereof and pursuant to the agreements that accompany the Plan, will be legally and validly issued, fully paid and nonassessable.

We 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 included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

We express no opinion as to matters governed by any laws other than the Delaware General Corporation Law and reported decisions of the Delaware courts interpreting such law.

This Opinion is rendered as of the date first written above, and we disclaim any obligation to advise you of facts, circumstances, events or developments which hereafter may be brought to our attention and which may alter, affect or modify the opinion expressed herein. Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Shares, the Plan, the award agreements related to the Shares, or the Registration Statement.

Respectfully Submitted,

/s/ Sheppard, Mullin, Richter & Hampton LLP SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

Consent of Independent Registered Public Accounting Firm

ClearPoint Neuro, Inc. Solana Beach, California

We consent to the incorporation by reference in this Registration Statement on Form S-8 of ClearPoint Neuro, Inc. (the "Company") of our report dated February 26, 2025, related to the consolidated financial statements of the Company as of and for the years ended December 31, 2024, and 2023.

/s/ Cherry Bekaert LLP

Tampa, Florida September 4, 2025

Calculation of Filing Fee Table

FORM S-8

(Form Type)

ClearPoint Neuro, 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 Share ⁽⁴⁾	Maximum Aggregate Offering Price ⁽⁴⁾	Fee Rate	Amount of Registration Fee
Equity	Common Stock, par value \$0.01 per share (2)	Other (4)	300,000	\$10.60	\$3,180,000	\$0.0001531	\$486.86
Equity	Common Stock, par value \$0.01 per share ⁽³⁾	Other (4)	700,000	\$10.60	\$7,420,000	\$0.0001531	\$1,136.00
	Total Offer	ing Amounts			\$10,600,000		\$1,622.86
	Total Offering Amounts Total Fees Previously Paid				\$10,000,000		\$1,022.80 —
	Total Fee Offsets						_
	Net Fee Due						\$1,622.86

- Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover an indeterminate number of additional shares of common stock, no par value per share (the "Common Stock"), of ClearPoint Neuro, Inc. (the "Company"), which become issuable under the ClearPoint Neuro, Inc. Amended and Restated 2021 Employee Stock Purchase Plan (the "ESPP") and the ClearPoint Neuro, Inc. Sixth Amended and Restated 2013 Incentive Compensation Plan (the "Incentive Compensation Plan") by reason of any stock splits, stock dividends, reorganizations, mergers, consolidations, recapitalizations or other similar transactions.
- (2) To be issued under the ESPP.
- (3) To be issued under the Incentive Compensation Plan.

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(4)			ules 457(c) and 457(h) under the Securities Act, based on the average of the high and 28, 2025, which date is within five business days prior to the filing of this Registration
SMRH:4902-4981-5883.2		-2-	80VE-404774