

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

FORM S-8

**REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933**

HYPERION DEFI, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or
organization)

47-1178401

(I.R.S. Employer Identification No.)

23461 S. Pointe Drive, Suite 390

Laguna Hills, CA

(Address of Principal Executive Offices)

92653

(Zip Code)

Hyperion DeFi, Inc. Restricted Stock Unit Inducement Award

(Full titles of the plans)

Hyunsu Jung

Interim Chief Executive Officer

23461 S. Pointe Drive, Suite 390

Laguna Hills, CA 92653

(833) 393-6684

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

Copy:

Megan N. Gates

Covington & Burling LLP

1 International Place

Boston, MA 02110

(617) 603-8805

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.

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 pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

EXPLANATORY NOTE

This Registration Statement registers an aggregate of 100,000 shares of common stock, par value \$0.0001 per share (“Common Stock”), of Hyperion DeFi, Inc. (the “Company” or the “Registrant”), issuable upon the vesting of restricted stock units (“RSUs”) granted to David Knox as an inducement to employment with the Company pursuant to Nasdaq Listing Rule 5635(c)(4) on September 29, 2025.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Company is subject to the informational and reporting requirements of Sections 13(a), 14 and 15(d) of the Securities Exchange Act of 1934 (the “Exchange Act”) and in accordance therewith files reports, proxy statements and other information with the Commission. The following documents, which are on file with the Commission, are incorporated in this Registration Statement by reference:

- (a) The Company’s [Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the Commission on April 15, 2025](#) (File No. 001-38365), as amended by the Company’s [Amendment No. 1 to Annual Report on Form 10-K, filed with the Commission on April 30, 2025](#);
- (b) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the document referred to in (a) above (other than the portions of those documents not deemed to be filed); and
- (c) The description of the Company’s Common Stock contained in [Exhibit 4.1](#) to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the Commission on April 15, 2025 (File No. 001-38365).

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment 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 in this Registration Statement and to be part hereof from the date of the filing of such 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 the purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 8. Exhibits.

Exhibit No.	Description
<u>4.1</u>	<u>Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on January 29, 2018).</u>
<u>4.2</u>	<u>Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1.1 of the Registrant's Current Report on Form 8-K filed on June 14, 2018).</u>
<u>4.3</u>	<u>Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on June 14, 2024).</u>
<u>4.4</u>	<u>Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on January 31, 2025).</u>
<u>4.5</u>	<u>Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on July 2, 2025).</u>
<u>4.6</u>	<u>Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on August 21, 2025).</u>
<u>4.7</u>	<u>Second Amended and Restated Bylaws of the Registrant (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on February 7, 2022).</u>
<u>4.8*</u>	<u>Inducement Restricted Stock Unit Award Agreement between Hyperion DeFi, Inc. and David Knox.</u>
<u>5.1*</u>	<u>Opinion of Covington and Burling LLP.</u>
<u>23.1*</u>	<u>Consent of Marcum LLP</u>
<u>23.2*</u>	<u>Consent of Covington and Burling LLP (included in Exhibit 5.1).</u>
<u>24.1*</u>	<u>Power of Attorney (included on the signature page of this Registration Statement).</u>
<u>107*</u>	<u>Filing Fees Exhibit.</u>

* Filed herewith.

SIGNATURES

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 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Laguna Hills, State of California, on November 12, 2025.

HYPERION DEFI, INC.

By: /s/ Hyunsu Jung
Hyunsu Jung
Interim Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Hyunsu Jung as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully 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 dates indicated.

Signature	Title	Date
<u>/s/ Hyunsu Jung</u> Hyunsu Jung	Interim Chief Executive Officer (<i>Principal Executive Officer</i>) and Director	November 12, 2025
<u>/s/ David Knox</u> David Knox	Chief Financial Officer (<i>Principal Financial and Accounting Officer</i>)	November 12, 2025
<u>/s/ Michael Geltzeiler</u> Michael Geltzeiler	Director	November 12, 2025
<u>/s/ Rachel Jacobson</u> Rachel Jacobson	Director	November 12, 2025
<u>/s/ Ellen R. Strahlman</u> Ellen R. Strahlman	Director	November 12, 2025
<u>/s/ Happy Walters</u> Happy Walters	Director	November 12, 2025

HYPERION DEFI, INC.
INDUCEMENT RESTRICTED STOCK UNIT AWARD AGREEMENT

This Restricted Stock Unit Award Agreement (this “**Agreement**”) is made and entered into between Hyperion DeFi, Inc. (the “**Company**”) and David Knox (“**Grantee**”), effective as of September 29, 2025 (the “**Date of Grant**”). This Agreement sets forth the terms and conditions associated with the Company’s award to Grantee of Restricted Stock Units payable as described below in shares of Common Stock of the Company for the number of Units set forth below (the “**Award**”).

NOW, THEREFORE, in consideration of the foregoing and Grantee’s provision of valuable services to the Company, it is agreed by and between the parties as follows:

1. Grant of Units. Effective as of the Date of Grant, the Company grants the Grantee 100,000 Restricted Stock Units (the “**Units**”). The Units are subject to the vesting, payment, and other provisions of this Agreement. Each Unit is subject to settlement into one (1) share of Common Stock of the Company (a “**Share**”) that will be delivered to the Grantee when and if such Unit becomes vested subject to the terms of this Agreement. The Company will account for the Units in a bookkeeping account on the Grantee’s behalf until they become deliverable or are forfeited.

2. Vesting. The Units vest in two equal installments, with fifty percent (50%) vesting on the six-month anniversary of the Date of Grant and the remaining fifty percent (50%) vesting on the twelve-month anniversary of the Date of Grant, subject to the Grantee’s continued employment with the Company through each such vesting date.

3. Delayed Delivery of Shares to Settle Vested Units. Units vested as provided in Section 2 will be settled by delivering to Grantee a number of Shares equal to the number of vested Units on the Payment Date (as hereafter defined). As soon as practicable after the Payment Date, the Company will, at its election, either: (a) issue a certificate representing the Shares deliverable pursuant to this Agreement; or (b) not issue any certificate representing the Shares deliverable pursuant to this Agreement and instead document the Grantee’s interest in the Shares by registering such Shares with the Company’s transfer agent (or another custodian selected by the Company) in book-entry form in the Grantee’s name. For purposes of this Agreement, the “**Payment Date**” will be 50,000 Units on March 29, 2026 and 50,000 Units on September 29, 2026. Notwithstanding the above, the Company may settle Units upon the closing of a Corporate Transaction by delivering other consideration to the Grantee, including but not limited to shares of the capital stock of the acquirer or surviving entity of such Corporate Transaction (or such entity’s affiliates), such consideration having a fair market value equal in the aggregate to the value of the Shares for which the Unit is being settled. In any case, the Company may provide a reasonable delay in the issuance or delivery of the Shares to address tax withholding and other administrative matters.

4. Capitalization Changes. The number of Units convertible to Shares subject to this Award may be adjusted from time to time by the Administrator to account for changes in capitalization of the Company, as follows: Subject to any required action by the stockholders of the Company, the number of Shares covered by this Award, as well as any other terms that the Administrator determines require adjustment, shall be proportionately adjusted for (i) any increase or decrease in the number of issued and outstanding Shares resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Shares, or similar transaction affecting the Shares, (ii) any other increase or decrease in the number of issued and outstanding Shares effected without receipt of consideration by the Company, or (iii) any other transaction with respect to the Company's Common Stock including a corporate merger, consolidation, acquisition of property or stock, separation (including a spin-off or other distribution of stock or property), reorganization, liquidation (whether partial or complete) or any similar transaction. Such adjustment shall be made by the Administrator and its determination shall be final, binding and conclusive. Except as the Administrator determines, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason hereof shall be made with respect to, the number or price of Shares subject to this Award. No adjustments shall be made for dividends paid in cash or in property other than Common Stock of the Company.

5. Rights as a Stockholder. The Units represent a right to payment from the Company if the conditions of the Agreement are met and do not give the Grantee ownership of any Common Stock prior to delivery as provided in Section 3. Grantee shall not have any rights and/or privileges of a stockholder of the Company with respect to the Units prior to such delivery. If Grantee becomes vested in Units as provided in Section 2, any Shares to which Grantee becomes entitled shall be delivered to Grantee as provided in Section 3, and Grantee shall have full ownership of the Shares upon such delivery.

6. Non-Transferability of the Award. The Units and the right to payment under this Agreement are not transferable, may not be sold, exchanged, transferred, pledged, hypothecated, encumbered or otherwise disposed of other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Grantee, only by the Grantee. Notwithstanding the foregoing, the Grantee may designate one or more beneficiaries of the Grantee's Award in the event of the Grantee's death on a beneficiary designation form provided by the Administrator. Any purported transfer of the Units or the right to payment under this Agreement is null and void and will not be given effect.

7. Award Not A Service Contract. Neither the Award nor this Agreement is an employment or service contract, and nothing this Agreement confers or will be construed as conferring upon the Grantee any right to continue to provide services to the Company, or as interfering with or restricting in any way the right of either party to terminate such service at any time.

8. Tax Consequences. Grantee acknowledges that he understands the federal, state, and local tax consequences of the Award and the issuance, vesting, forfeiture, and delivery provisions hereof relating to the Units. Grantee will rely solely on the advice of his own tax advisors and not on any statements or representations of the Company or any of its agents. Grantee understands that Grantee (and not the Company) shall be responsible for his own tax liability that may arise as a result of the Award or the transactions contemplated by this Agreement. The Company has no duty or obligation to minimize the tax consequences associated with this Award to the Grantee and will not be liable to the Grantee for any adverse tax consequences arising in connection with this Award.

9. Withholding Obligations. Grantee understands that, at the time that Grantee becomes vested and/or receives payment for any Units (including through the delivery of Shares), the Company may be required to withhold federal, state and local income taxes. At the time of vesting, or at or before the time Grantee receives a distribution of the Shares underlying the Units or other consideration, or at any time thereafter as requested by the Company, Grantee hereby authorizes the Company to satisfy any required withholding to satisfy federal, state, local, payroll, and foreign tax withholding obligations of the Company or any Affiliate that arise in connection with the Units (the “**Withholding Taxes**”). Notwithstanding any other provision of this Section, the Company may, in its sole discretion, satisfy all or any portion of the Withholding Taxes obligation relating to the Units by any of the following means or by a combination of such means: (a) withholding from any compensation otherwise payable to the Grantee by the Company; (b) causing the Grantee to tender a cash payment; or (c) withholding Shares from the Shares issued or otherwise issuable to Grantee in connection with the Units with a Fair Market Value (measured as of the date the Withholding Taxes are to be determined) equal to the amount of such Withholding Taxes; *provided, however*, that the number of such Shares so withheld shall not exceed the amount necessary to satisfy the Company’s required tax withholding obligations using the minimum statutory withholding rates for federal, state, local and foreign tax purposes, including payroll taxes, that are applicable to supplemental taxable income (or such lesser amount as may be necessary to avoid classification of the Units as a liability for financial accounting purposes). Grantee understands that all matters with respect to the total amount of taxes to be withheld in respect of such compensation income will be determined by the Administrator in its reasonable discretion. Grantee further understands that, although the Company may pay withheld amounts to the applicable taxing authorities, the Grantee is responsible for payment of all taxes due as a result of compensation arising under the Agreement.

10. Application of Section 409A of the Code.

(a) The parties intend that the delivery of Shares or other consideration in respect of the Units provided under this Agreement will be exempt from, or comply with, the provisions of Section 409A, and this Agreement will be construed, to the greatest extent possible, in a manner that complies with Section 409A and is consistent with the requirements for avoiding taxes or penalties under Section 409A.

(b) The parties further intend that each installment of any payments provided for in this Agreement is a separate “payment” for purposes of Section 409A.

(c) To the extent any payment hereunder due upon the occurrence of a Corporate Transaction is deferred compensation that is subject to Section 409A, and is not otherwise exempt from complying with the provisions of Section 409A, then a Corporate Transaction shall only be deemed to occur if the Corporate Transaction also qualifies as a “change in control event” with respect to the Company within the meaning of Treasury Regulation Section 1.409A-3(i)(5).

(d) To the extent any payment hereunder due upon the termination of the Grantee’s Continuous Service is deferred compensation that is subject to Section 409A, and is not otherwise exempt from complying with the provisions of Section 409A, then such payment will not be made unless and until Grantee has also incurred a “separation from service” (as such term is defined in Treasury Regulation Section 1.409A-1(h)).

(e) To the extent that (i) one or more of the payments received or to be received by the Grantee pursuant to this Agreement would constitute deferred compensation subject to the requirements of Section 409A, and (ii) the Grantee is a “specified employee” within the meaning of Section 409A, then solely to the extent necessary to avoid the imposition of any additional taxes or penalties under Section 409A, the commencement of any payments under this Agreement will be deferred until the date that is six months and one day following the Grantee’s termination of Continuous Service (or, if earlier, the date of death of the Grantee) and will instead be paid on the date that immediately follows the end of such period (or death) or as soon as administratively practicable within thirty (30) days thereafter.

(f) The Company makes no representations to Grantee regarding the compliance of this Agreement or the Units with Section 409A, and Grantee is solely responsible for the payment of any taxes or penalties arising under Section 409A(a)(1), or any state law of similar effect, with respect to the grant or vesting of the Units or the delivery of the Shares subject to this Award.

11. Notices. Any notice or request required or permitted hereunder shall be given in writing to each of the other parties hereto and shall be deemed effectively given on the earlier of (a) the date of personal delivery, or (b) three days after the date of deposit in the United States Mail by registered or certified mail, postage prepaid, return receipt requested, addressed in the case of the Company to the Company’s Chief Executive Officer at the Company’s primary business address and in the case of the Grantee to the most recent address shown in the Company’s records.

12. Entire Agreement; Modification. This Agreement sets forth all of the promises, agreements, conditions and understandings between the parties hereto with respect to the Award, and there are no promises, agreements, conditions, understandings, warranties or representations, oral or written, express or implied, between them with respect to the Award other than as set forth therein or herein. This Agreement supersedes and replaces any and all prior agreements between the parties hereto with respect to Restricted Stock Units granted under this Award. No modification, amendment or waiver of any of the provisions of this Agreement will be effective unless approved in writing by both parties.

13. Choice of Law. The interpretation, performance and enforcement of this Agreement shall be governed by the law of the state of Delaware without regard to the conflicts of laws rules of any jurisdiction.

14. Miscellaneous.

(a) The headings of the Sections in this Agreement are inserted for convenience only and shall not be deemed to constitute a part of this Agreement or to affect the meaning of this Agreement.

(b) If all or any part of this Agreement is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity shall not invalidate any portion of this Agreement not declared to be unlawful or invalid. Any Section of this Agreement (or part of such a Section) so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

(c) This Agreement will inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns. The rights and obligations of the Company under this Agreement shall be transferable by the Company to any one or more persons or entities, and all covenants and agreements hereunder shall inure to the benefit of, and be enforceable by, the Company's successors and assigns.

(d) The waiver by either party of compliance with any provision of this Agreement by the other party will not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by such party of a provision of this Agreement.

(e) Grantee agrees upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of the Award.

(f) Grantee acknowledges and agrees that he (i) has reviewed this Agreement in its entirety; (ii) fully understands the provisions of each such document; and (iii) has had an opportunity to obtain the advice of counsel prior to executing and accepting the Award. Grantee further acknowledges receipt or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act.

(g) This Agreement shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

(h) All obligations of the Company under this Agreement shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

(i) This Agreement may be executed in one or more counterparts, each of which will be deemed an original but all of which together will constitute one and the same agreement. Facsimile or PDF reproductions of original signatures will be deemed binding for the purpose of the execution of this Agreement.

(j) **"Administrator"** means the Compensation Committee of the Board of Directors of the Company.

(k) **"Consultant"** means any person (other than an Employee or a Director, solely with respect to rendering services in such person's capacity as a Director) who is engaged by the Company or any Related Entity to render consulting or advisory services to the Company or such Related Entity.

(l) **“Continuous Service”** means that the provision of services to the Company or a Related Entity in any capacity of Employee, Director or Consultant is not interrupted or terminated. In jurisdictions requiring notice in advance of an effective termination as an Employee, Director or Consultant, Continuous Service shall be deemed terminated upon the actual cessation of providing services to the Company or a Related Entity notwithstanding any required notice period that must be fulfilled before a termination as an Employee, Director or Consultant can be effective under applicable laws. Continuous Service shall be deemed to have terminated either upon an actual termination of Continuous Service or upon the entity for which the Grantee provides services ceasing to be a Related Entity. Continuous Service shall not be considered interrupted in the case of (i) any approved leave of absence, (ii) transfers among the Company, any Related Entity, or any successor in any capacity of Employee, Director or Consultant, or (iii) any change in status as long as the individual remains in the service of the Company or a Related Entity in any capacity of Employee, Director or Consultant (except as otherwise provided in the Award Agreement). An approved leave of absence for purposes of this definition shall include sick leave, military leave, or any other authorized personal leave, so long as the Company or Related Entity has a reasonable expectation that the individual will return to provide services for the Company or Related Entity, and provided further that the leave does not exceed six months, unless the individual has a statutory or contractual right to re-employment following a longer leave.

(m) **“Corporate Transaction”** means any of the following transactions, provided, however, that the Administrator shall determine under sections (iv) and (v) whether multiple transactions are related, and its determination shall be final, binding and conclusive:

(i) a merger or consolidation in which the Company is not the surviving entity, except for a transaction the principal purpose of which is to change the state in which the Company is incorporated;

(ii) the sale, transfer or other disposition of all or substantially all of the assets of the Company;

(iii) the complete liquidation or dissolution of the Company;

(iv) any reverse merger or series of related transactions culminating in a reverse merger (including, but not limited to, a tender offer followed by a reverse merger) in which the Company is the surviving entity but (A) the Shares outstanding immediately prior to such merger are converted or exchanged by virtue of the merger into other property, whether in the form of securities, cash or otherwise, or (B) in which securities possessing more than 50% of the total combined voting power of the Company’s outstanding securities are transferred to a person or persons different from those who held such securities immediately prior to such merger or the initial transaction culminating in such merger; or

(v) acquisition in a single or series of related transactions by any person or related group of persons (other than the Company or by a Company-sponsored employee benefit plan) of beneficial ownership (within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934, as amended) of securities possessing more than 50% of the total combined voting power of the Company’s outstanding securities.

(n) **“Related Entity”** means any Parent or Subsidiary of the Company.

(o) **“Subsidiary”** means a “subsidiary corporation,” whether now or hereafter existing, as defined in Section 424(f) of the Internal Revenue Code of 1986, as amended, or any successor statute.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Company has caused this Agreement to be signed by its duly authorized officer, and Grantee has hereunto set his hand.

COMPANY:

Hyperion DeFi, Inc.

By: /s/ Ellen Strahlman

Name: Dr. Ellen Strahlman

Title: Chair, Compensation Committee

Address: 23461 South Pointe Drive, Suite 390 Laguna Hills, CA 92653

GRANTEE:

David Knox

/s/ David Knox

Address:

23461 South Pointe Drive, Suite 390 Laguna Hills, CA 92653

Signature Page to the Restricted Stock Unit Award Agreement

COVINGTON

BEIJING BOSTON BRUSSELS DUBAI FRANKFURT
JOHANNESBURG LONDON LOS ANGELES NEW YORK
PALO ALTO SAN FRANCISCO SEOUL SHANGHAI WASHINGTON

Covington & Burling LLP
One International Place
Suite 1020
Boston, MA 02110-2600
T +1 617 603 8800

November 12, 2025

Hyperion DeFi, Inc.
23461 S. Pointe Drive, Suite 390
Laguna Hills, CA 92653

Ladies and Gentlemen:

We have acted as counsel to Hyperion DeFi, Inc., a Delaware corporation (the “*Company*”), and are rendering this opinion in connection with the registration by the Company under the Securities Act of 1933 (the “*Securities Act*”) of the offer and sale of 100,000 shares of the Company’s common stock, par value \$0.0001 per share (the “*Shares*”) issuable upon the vesting of restricted stock units granted as an inducement to employment with the Company pursuant to Nasdaq Listing Rule 5635(c)(4), pursuant to the registration statement on Form S-8 filed with the United States Securities and Exchange Commission on the date hereof (the “*Registration Statement*”).

We have reviewed the Registration Statement and such corporate records, certificates and other documents, and such questions of law, as we have deemed necessary or appropriate for the purposes of this opinion. We have assumed that all signatures are genuine, that all documents submitted to us as originals are authentic and that all copies of documents submitted to us conform to the originals. We have assumed further that, except as to legal conclusions expressly set forth in this opinion, the information and representations and warranties contained in the agreements, instruments, records, certificates and other documents we reviewed were true, accurate and complete as of their stated date and are true, accurate and complete as of the date of this letter.

We have relied as to certain matters on information obtained from public officials, officers of the Company, and other sources believed by us to be responsible.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized and, when issued in accordance with the terms of any individual agreements relating to such Shares, will be validly issued, fully paid and nonassessable.

We are members of the bar of the Commonwealth of Massachusetts. We do not express any opinion herein on any laws other than the Delaware General Corporation Law.

We hereby 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 in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ Covington & Burling LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated April 15, 2025 with respect to the financial statements of Hyperion DeFi, Inc. (formerly known as Eyenovia, Inc.) for the year ended December 31, 2024 included in the Annual Report on Form 10-K.

/s/ MARCUM LLP

Philadelphia, PA
November 12, 2025

HYPERION DEFI, INC.

[illegible]