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

FORM S-8

REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

SKYE BIOSCIENCE, INC.

		(Exact name of Registrant as speci	fied in its charter)			
	Nevada		45-0692882 (I.R.S. Employer Identification Number)			
	or other jurisdiction oration or organization	on)				
		11250 El Camino Real, Suite 100, San (Address of Principal Executive				
		Skye Bioscience, Inc. Amended and Resta Skye Bioscience, Inc. 2022 Em				
		(Full Title of the I	lan)			
		Punit Dhillor Chief Executive O Skye Bioscience, 11250 El Camino Real, San Diego, CA 92 (858) 410-026	Inc. Suite 100 130			
	(Nā	ame, Address, and Telephone number, Includin Copies to:	g Area Code, of Agent for	r Service)		
Steven G. Rowles Morrison & Foerster LLP 12531 High Bluff Drive, #100 San Diego, CA 92130 (858) 720-5100			Emily K. Beers Morrison & Foerster LLP 2100 L Street NW, Suite 900 Washington, D.C. 20037 (202) 887-1563			
Indicate by check mark who company. See the definitions	ether the registrant is of "large accelerate	s a large accelerated filer, an accelerated file d filer," "accelerated filer," "smaller reporting	r, a non-accelerated filer, company," and "emerging	a smaller reporting company or an emerging growth g growth company" in Rule 12b-2 of the Exchange Act.		
Large accelerated filer		Accelerated filer				
Non-accelerated filer	\boxtimes	Smaller reporting company Emerging growth company				
		ck mark if the registrant has elected not to use n $7(a)(2)(B)$ of the Securities Act. \square	the extended transition p	period for complying with any new or revised financial		

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed with the Securities and Exchange Commission (the "Commission") in accordance with General Instruction E to Form S-8 for the purpose of registering an additional 1,548,728 shares of common stock of Skye Bioscience, Inc. (the "Registrant") issuable or which may become issuable under the Skye Bioscience, Inc. Amended and Restated Omnibus Incentive Plan (the "Amended and Restated Plan") and 154,873 additional shares of common stock under the Skye Bioscience, Inc. 2022 Employee Stock Purchase Plan (the "2022 ESPP"), in each case, pursuant to the evergreen provisions of such plans.

Pursuant to General Instruction E of Form S-8, the contents of the prior registration statements on Form S-8, File No. 333-283068, File No. 333-281460, File No. 333-276211, File No. 333-245177, File No. 333-227860, and File No. 333-226259, previously filed with respect to the Amended and Restated Plan and the 2022 ESPP, are incorporated into this Registration Statement by reference to the extent not modified or superseded hereby or by any subsequently filed document, which is incorporated by reference herein or therein.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which are on file with the Commission, are incorporated herein by reference:

- a. the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, as filed with the Commission on March 20, 2025;
- b. the Registrant's Current Reports on Form 8-K (other than information furnished rather than filed) filed with the Commission on February 26, 2025; and
- d. the description of the Registrant's common stock contained in the Registrant's Registration Statement on Form 8-A filed with the Commission on April 10, 2024, pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All reports and other documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than Current Reports on Form 8-K furnished pursuant to Item 2.02 or Item 7.01 of Form 8-K, including any exhibits included with such information, unless otherwise indicated therein) after the date of this Registration Statement, but 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 into this Registration Statement and to be a part hereof from the date of filing 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 purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersededs 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 Number	Description
3.1	Articles of Incorporation of Registrant, as amended (incorporated by reference to Exhibit 3.1 to our Annual Report on Form 10-K filed on March 22, 2024)
3.2	Amended and Restated Bylaws of Registrant (incorporated by reference to Exhibit 3.2 to our Report on Form 10-K filed on March 2, 2021)
5.1*	Opinion of Fennemore Craig, P.C.
10.1	Skye Bioscience, Inc. Amended and Restated Omnibus Incentive Plan and form of award agreements thereunder (incorporated by reference to Exhibit 10.1 to our Annual Report on Form 10-K filed on March 20, 2025)
10.6	Skye Bioscience, Inc. 2022 Employee Stock Purchase Plan (incorporated by reference to Appendix C to the Registrant's Definitive Proxy Statement filed on August 31, 2022)
23.1*	Consent of Fennemore Craig, P.C. (included in Exhibit 5.1)
23.2*	Consent of Marcum LLP
24.1*	Power of Attorney (included on signature page of this Registration Statement)
107*	Filing Fee Table

^{*} 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 San Diego, state of California, on March 20, 2025.

SKYE BIOSCIENCE, INC.

By: /s/ Kaitlyn Arsenault

Name: Kaitlyn Arsenault Title: Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Punit Dhillon and/or Kaitlyn Arsenault 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 his or her 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 and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or any of them, or his/her 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	Position	Date
/s/ Punit Dhillon	Chief Executive Officer and Director	March 20, 2025
Punit Dhillon	(Principal Executive Officer)	
/s/ Kaitlyn Arsenault	Chief Financial Officer	March 20, 2025
Kaitlyn Arsenault	(Principal Financial Officer and Principal Accounting Officer)	
/s/ Deborah Charych	Director	March 20, 2025
Deborah Charych		
/s/ Annalisa Jenkins	Director	March 20, 2025
Annalisa Jenkins		
/s/ Paul Grayson	Director, Chairman	March 20, 2025
Paul Grayson		
/s/ Andrew J. Schwab	Director	March 20, 2025
Andrew J. Schwab		
/s/ Karen Smith	Director	March 20, 2025
Karen Smith		

Calculation of Filing Fee Table

Form S-8 (Form Type)

Skye Bioscience, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Title of Securities to be Registered	Fee Calculation Rule	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
	Common stock \$0.001 par value per share, reserved for issuance under the Amended and Restated Plan	457(c), 457(h)	1,548,728	\$2.48	\$ 3,840,845.44	\$0.00015310	\$ 588.03
	Common stock, \$0.001 par value per share, reserved for issuance under the 2022 ESPP	457(c), 457(h)	154,873	\$2.48	\$ 384,085.04	\$0.00015310	\$ 58.80
Total Offering Amounts			1,703,601		\$ 4,224,930.48		\$ 646.83
Total Fee Offsets							N/A
Net Fee Due			·		<u> </u>		\$ 646.83

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable under the Skye Bioscience, Inc. Amended and Restated Omnibus Incentive Plan (the "Amended and Restated Plan") and Skye Bioscience, Inc. 2022 Employee Stock Purchase Plan (the "2022 ESPP") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration that increases the number of the Registrant's outstanding shares of common stock.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee. Pursuant to Rule 457(c) and 457(h) under the Securities Act, the proposed maximum offering price per share and the proposed maximum offering price have been determined on the basis of the average of the high and low sales prices of the Common Stock as reported on the Nasdaq Global Market on March 14, 2025, which date is within five business days prior to filing this Registration Statement.

7800 Rancharrah Parkway Reno, NV 89511 **PH** (775) 788-2200 | **FX** (775) 786-1177 fennemorelaw.com

FENNEMORE.

March 20, 2025

Skye Bioscience, Inc. 11250 El Camino Real Suite 100 San Diego, CA 92130

Re: Registration Statement on U.S. Securities Exchange Commission form S-8

Ladies and Gentlemen:

We have acted as special Nevada counsel for Skye Bioscience, Inc., a Nevada corporation (the "Company"). Our opinion is provided below regarding certain matters in connection with the registration under the Securities Act of 1933, as amended (the "Act"), by the Company, by means of a registration statement on Form S-8 (as it may be amended and supplemented, the "Registration Statement"), filed with the United States Securities and Exchange Commission (the "Commission") relating to the registration of 1,548,728 shares of common stock, par value \$0.001 per share of the Company, issuable pursuant to the Skye Bioscience, Inc. Amended and Restated Omnibus Incentive Plan (the "Plan"), and 154,873 shares of common stock, par value \$0.001 per share of the Company, issuable pursuant to the Skye Bioscience, Inc. 2022 Employee Stock Purchase Plan (the "ESPP"), to be issued pursuant to the evergreen provisions of each such plan (collectively the "Shares").

In connection with this opinion, we have examined and relied upon (i) the Registration Statement, (ii) the Plan, (iii) the ESPP and (iv) the Company's Articles of Incorporation and Bylaws, each as amended and currently in effect, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below.

We have examined originals or copies of such corporate records and certificates of public officials as we have deemed necessary or advisable for purposes of this opinion. We have relied upon the certificates of all corporate officials with respect to the accuracy of all matters contained therein. We have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures, the legal capacity of natural persons and the conformity to originals of all copies of all documents submitted to us. We have assumed that at the time of issuance of the Shares, the Company will have sufficient authorized, but unissued, shares of its common stock available to allow for such issuance.

FENNEMORE.

Skye Bioscience, Inc. March 20, 2025 Page 2

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares have been duly authorized and, when issued and delivered pursuant to the Plan or the ESPP, as applicable, or pursuant to stock options or other instruments that have been issued pursuant to the Plan, the Shares will be validly issued, fully paid and nonassessable.

We express no opinion as to the laws of any jurisdiction other than the laws of the State of Nevada; provided, however, that we express no opinion with respect to any securities law or rule. Our opinion is rendered as of the date hereof, and we assume no obligation to advise you of changes in law or fact (or the effect thereof on the opinions expressed herein) that hereafter may come to our attention.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm therein. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations thereunder.

Very truly yours,

/s/ Fennemore Craig, P.C.

Fennemore Craig, P.C.

CETE

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Skye Bioscience, Inc. on Form S-8 of our report dated March 20, 2025 with respect to our audits of the consolidated financial statements of Skye Bioscience, Inc. as of December 31, 2024 and 2023 and for the two years ended December 31, 2024 appearing in the Annual Report on Form 10-K of Skye Bioscience, Inc., for the year ended December 31, 2024.

/s/ Marcum LLP

Marcum LLP Morristown, NJ March 20, 2025