

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): August 7, 2025

SKYE BIOSCIENCE, INC.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation)

000-55136

(Commission File Number)

45-0692882

(I.R.S. Employer Identification Number)

11250 El Camino Real, Suite 100, San Diego, CA 92130

(Address of principal executive offices)

(858) 410-0266

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions.

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---------------------------------|----------------------|--|
| Common Stock, par value \$0.001 | SKYE | Nasdaq Global Market |

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition.

On August 7, 2025, Skye Bioscience, Inc. (the “Company” or “Skye”) issued a press release providing a corporate update and reporting its financial results for the period ended June 30, 2025. The full text of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K.

In accordance with General Instruction B.2 of Form 8-K, the information contained or incorporated herein, including the press release filed as Exhibit 99.1, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, except as expressly set forth by specific reference in such filing to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

| Exhibit No. | Description |
|-------------|---|
| 99.1 | Press Release, dated August 7, 2025 |
| 104 | Cover Page Interactive Data File (embedded within the inline XBRL document) |

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

SKYE BIOSCIENCE, INC.

Dated: August 7, 2025

/s/ Punit Dhillon

Name: Punit Dhillon

Title: Chief Executive Officer

Skye Bioscience Reports Second Quarter 2025 Financial Results and Business Update

- *Reiterate top-line data readout from CBeyond™ Phase 2a study of nimacimab planned late Q3/early Q4 2025*
- *Patient enrollment in Skye's CBeyond™ Phase 2a obesity trial extension study initiated*
- *Independent Data Safety Monitoring Committee completed fourth unblinded review with no concerns raised; CBeyond™ study continues per protocol*
- *New preclinical study highlights superior weight rebound profile of nimacimab compared to incretin therapy.*
- *Preclinical data shows dosing nimacimab in combination with a low dose of tirzepatide resulted in enhanced weight loss compared to an optimal dose of tirzepatide.*
- *Used as a maintenance treatment, a preclinical study of nimacimab reduced the weight rebound effect observed in mice treated with tirzepatide alone or in combination with nimacimab.*

SAN DIEGO, CA, August 7, 2025 -- Skye Bioscience, Inc. (NASDAQ: SKYE) ("Skye" or the "Company"), a clinical stage biotechnology company developing next-generation molecules that modulate G-protein-coupled receptors to treat obesity, overweight, and related conditions, today reported financial results for the second quarter ended June 30, 2025, along with key accomplishments and upcoming milestones.

"As we eagerly await the 26-week top-line data from our CBeyond™ Phase 2a study in late Q3/early Q4 2025 (ClinicalTrials.gov: NCT06577090), we've now begun enrolling patients in the 26-week extension portion of our CBeyond Phase 2a study, which will potentially generate up to a full 52-week data set in 2026," said Punit Dhillon, President & CEO of Skye. "Recent data across the obesity landscape continue to underscore the tolerability and adherence limitations of GLP-1-based therapies. We believe nimacimab's peripherally-restricted CB1 mechanism represents a fundamentally different approach, one that could offer real-world advantages as a monotherapy or in combination, without compounding gastrointestinal side effects. As the market evolves, we see a growing need for therapies that deliver broader metabolic benefit, improved persistence, and combinability and we believe nimacimab is uniquely positioned to help define this next chapter in obesity care. We look forward to sharing more on this vision during our upcoming events."

Clinical Highlights: CBeyond™ Phase 2a Obesity Trial

- **Phase 2a Study Update:** Patients enrolled in the original Phase 2a study continue to receive active treatment and are progressing through scheduled follow-ups, supported by ongoing collaboration between the clinical team and study sites.
 - **Extension Study Enrolling:** In July, the 26-week extension study began enrolling patients in both the combination and monotherapy arms and will potentially provide up to 52-week safety and efficacy data. We expect approximately 50% of patients from the original study will be eligible for enrollment.
 - **Safety Reviews:** The independent Data Safety Monitoring Committee has completed four unblinded reviews with no concerns raised. The study continues per protocol.
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- **KOL Event:** Skye intends to host a key opinion leader (KOL) event that will be webcast live from Nasdaq on September 4, 2025, at 8:00 a.m. Eastern Time. The purpose of this event is to discuss perspectives regarding the anticipated Phase 2a top- line data.

Research and Development Highlights

- **Non-incretin Differentiated Profile:** During Q2, preclinical data findings highlighted nimacimab's key differentiators as a non-incretin mechanism. Notably, Skye's CSO, Chris Twitty, PhD, reviewed these distinguishing characteristics in multiple forums during Q2, including at a special session at the Innovation Hub during the Annual American Diabetes Association (ADA). The data shared from a preclinical diet-induced obesity (DIO) mouse model included:
 - **Weight Loss:** Demonstration of meaningful weight loss on a stand-alone basis and in combination with a dual GLP-1/GIP agonist, tirzepatide, which resulted in additive weight loss of greater than 30%.
 - **Key Appetite Regulating Hormones:** Regulation of key hormones responsible for normal metabolic functioning, including increasing GLP-1, decreasing leptin and resistin, and reducing caloric intake by engaging peripheral tissues that restore central hormone signaling to control appetite and satiety.
 - **Glycemic Control:** Improvement of glycemic control as noted by reduced fasting glucose and insulin levels as well as significant reduction in blood glucose in a glucose tolerance test.
 - **Lipid Metabolism:** Modulation of lipid metabolism reduced serum cholesterol, steatosis, and obesity-induced inflammation and liver fibrosis, as seen through the lowering of macrophage infiltration and inflammation markers.
 - **Favorable Potency Versus Small Molecules:** Enhanced potency and therapeutic window compared to small molecule CB1 inverse agonists due to nimacimab's unique binding mechanism as an allosteric inhibitor. This binding occurs irrespective of engagement by endogenous CB1 ligands (endocannabinoids), which makes nimacimab distinct from small molecule CB1 inhibitors that target the orthosteric site and must compete for binding. This binding mechanism allows the antibody to maintain sufficient potency to inhibit CB1, which may be a critical advantage to treating patients with obesity as this pathological state is often associated with elevated endocannabinoid levels.
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- ***New DIO Data Provides Further Evidence for 1) Potential Combination with Incretins; 2) Superior Post-treatment Durability of Weight Loss and 3) Weight Loss Maintenance Post-incretin Treatment***

1. **Combination efficacy:** The preclinical DIO mouse study findings demonstrated that at day 25 the combination of nimacimab and a suboptimal tirzepatide dose (3nmol/kg daily) yielded 44% vehicle-adjusted weight loss (29.6% weight loss with an average of 30g mice). The combination outperformed either agent alone, with nimacimab demonstrating 21.5% vehicle-adjusted weight loss (7.1% weight loss with an average of 40g mice) and the suboptimal tirzepatide dose demonstrating 29.7% vehicle-adjusted weight loss (15.4% weight loss with an average of 36g mice). The combination efficacy also exceeded an optimal dose of tirzepatide (10 nmol/kg), which resulted in 38.9% vehicle-adjusted weight loss (24.6% weight loss with 32g mice). This highlights a meaningful opportunity to develop combination strategies that achieve greater efficacy at lower doses, potentially improving tolerability, reducing cost, and expanding treatment accessibility.
 2. **Nimacimab demonstrates durable post-treatment weight loss compared to incretin therapy after therapy stopped:** In a comparison of nimacimab and tirzepatide following cessation of treatment in the preclinical DIO mouse model, nimacimab demonstrated superior durability of weight loss. Specifically, the low-dose tirzepatide group regained most of their original weight back 8 days after coming off therapy, regaining 29.7% of weight by day 24 post-treatment. In comparison, the nimacimab-treated group maintained their post-treatment weight for approximately 20 days, regaining only 7.4% by day 24. This “rebound effect” has been well-documented in animal models and clinical data and represents a major issue for patients who come off incretin-based therapies. Nimacimab's durability after cessation of therapy represents a potential clinically beneficial and distinct outcome relative to incretin-based therapies.
 3. **Maintenance of weight loss using nimacimab alone post-incretin treatment:** When nimacimab alone was used after an initial tirzepatide or combination treatment in the preclinical DIO mouse model, it greatly reduced rebound weight gain in these groups of mice, reinforcing its potential role as a post-incretin weight loss maintenance therapy. Specifically, when nimacimab was added following treatment with low-dose tirzepatide, nimacimab reduced rebound weight gain from 29.7% to 12.8%.
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Manufacturing Update

- The Company successfully manufactured and released its first batch of drug product to resupply the Phase 2a study since acquiring nimacimab and the clinical trial material used to start the trial.
- Initiated a formulation development collaboration with Arecor Therapeutics plc to identify and develop higher concentration formulations of nimacimab.

Corporate Highlights

- **Expanded Team:** During the second quarter, Skye increased its headcount to 20 employees, adding expertise in regulatory affairs, quality assurance, clinical operations, and chemistry, manufacturing, and controls (CMC). This included the hiring of a Vice President of CMC, a key role aligned with the company's advancing clinical development and manufacturing readiness.

Second Quarter 2025 Financial Results:

Balance Sheet and Cash Flow Highlights:

- Cash, cash equivalents and short-term investments totaled \$48.6 million as of June 30, 2025. The Company expects its current capital to fund projected operations and key clinical milestones through at least Q1 2027, which includes the completion of its Phase 2a study for nimacimab and certain Phase 2b manufacturing and clinical activities, including the initial manufacturing runs needed to start the trial and planning activities. In addition, our runway supports our discovery research and development efforts along with formulation and development work in preparation for nimacimab's later stage studies.

Operating Results:

- **R&D Expenses:**
Research and development (R&D) expenses for the three months ended June 30, 2025, were \$14.3 million, as compared to \$4.1 million for the same period in 2024. The increase was primarily due to contract manufacturing, clinical trial costs associated with our clinical study for nimacimab, discovery research and development expenses salaries and stock based compensation expense.
- **G&A Expenses:**
General and administrative (G&A) expenses for the three months ended June 30, 2025, were \$3.9 million, as compared to \$4.3 million for the same period in 2024. The decrease was primarily related to decreases in general business expenses and legal and professional fees offset by increases in salaries and stock based compensation expenses, consulting and advisory fees and investor relations costs.
- **Net Loss:**
Net loss for the three months ended June 30, 2025, totaled \$17.6 million, with non-cash stock-based compensation expense of \$4.2 million, compared to \$7.9 million for the same period in 2024, with non-cash stock-based compensation expense of \$4.3 million.

Conference Call Details

Skye will host a conference call to discuss its Q2 2025 results at 1:30 p.m. PT/4:30 p.m. ET today, August 7, 2025. The live streaming of the call can be accessed at the Skye investor

relations website, along with the Company's earnings press release, financial tables, and investor presentation. Following the call, a replay and transcript will be available at the same website.

ABOUT SKYE BIOSCIENCE

Skye is focused on unlocking new therapeutic pathways for metabolic health through the development of next-generation molecules that modulate G-protein coupled receptors. Skye's strategy leverages biologic targets with substantial human proof of mechanism for the development of first-in-class therapeutics with clinical and commercial differentiation. Skye is conducting a Phase 2a clinical trial (ClinicalTrials.gov: NCT06577090) in obesity for nimacimab, a negative allosteric modulating antibody that peripherally inhibits CB1. This study is also assessing the combination of nimacimab and a GLP-1R agonist (Wegovy®). For more information, please visit: www.skyebioscience.com. Connect with us on X and LinkedIn.

FORWARD LOOKING STATEMENTS

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. In some cases, forward-looking statements can be identified by terminology including "anticipated," "plans," "goal," "focus," "aims," "intends," "believes," "can," "could," "challenge," "potentially," "predictable," "will," "would," "may" or the negative of these terms or other comparable terminology. These forward looking statements include, but are not limited to: (i) inferences or conclusions from our preclinical data, including our observations regarding the enhanced potency and therapeutic window of nimacimab relative to other small molecule CB1 inhibitors, (ii) statements relating to any expectations regarding the efficacy and therapeutic potential of nimacimab as a monotherapy or in combination with tirzepatide or other incretin drugs, including expectations based on preclinical DIO mouse models, (iii) statements regarding the timing of receipt of topline data from Skye's Phase 2a obesity study of nimacimab, (iv) statements regarding the number of patients that may participate in Skye's Phase 2a extension study of nimacimab and the timing of the release of the data from the Phase 2a extension study and the data to be generated from the extension study, (v) statements regarding Skye's cash runway and (vi) statements regarding our ability identify and develop higher concentration formulations of nimacimab with manufacturing partners. Such statements and other statements in this press release that are not descriptions of historical facts are forward-looking statements that are based on management's current expectations and assumptions and are subject to risks and uncertainties that could cause our actual results to differ materially from those expressed or implied by such forward-looking statements. We operate in a rapidly changing environment, and new risks emerge from time to time. As a result, it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Risks and uncertainties that may cause actual results to differ materially include, among others: our cash runway guidance is subject to assumptions and risks, and our capital resources may be depleted faster than we anticipate as a result of unexpected expenses associated with operating our business, payments associated with litigation, increased costs due to inflation or otherwise, or other unbudgeted expenses, and likewise delays in our ability to achieve key clinical milestones on the timeframes we expect may result in our cash runway guidance not being sufficient to fund our projected operations through such milestones; results from preclinical studies and earlier trials may not be predictive of results seen in future trials; delays or difficulties in the enrollment or retention of patients in clinical trials may delay or otherwise adversely affect our clinical development activities or results; we rely on third-party contract manufacturing organizations to manufacture and supply nimacimab for us, and this reliance increases the risk that we will not have sufficient quantities

of nimacimab or such quantities at an acceptable cost, which could delay or impair our development efforts; and competition in our industry. These and other risks and uncertainties are described in the Company's periodic filings with the Securities and Exchange Commission, including in the "Risk Factors" section of Skye's most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q. Except as expressly required by law, Skye disclaims any intent or obligation to update these forward-looking statements.

SKYE BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

| | For the Three Months Ended June 30, | | For the Six Months Ended June 30, | |
|--|--|-----------------------|--------------------------------------|------------------------|
| | 2025 | 2024 | 2025 | 2024 |
| Operating expenses | | | | |
| Research and development | \$ 14,337,753 | \$ 4,078,751 | \$ 21,535,010 | \$ 6,025,201 |
| General and administrative | 3,906,172 | 4,326,820 | 8,468,477 | 8,532,620 |
| Total operating expenses | 18,243,925 | 8,405,571 | 30,003,487 | 14,557,821 |
| Operating loss | (18,243,925) | (8,405,571) | (30,003,487) | (14,557,821) |
| Other (income) expense | | | | |
| Interest expense | — | 450,052 | — | 886,988 |
| Interest and other income, net | (533,090) | (961,237) | (1,191,333) | (1,388,791) |
| (Gain) from asset sales | (89,363) | — | (89,363) | (1,145,141) |
| Other expense | — | 359 | — | 1,399 |
| Total other (income) expense, net | (622,453) | (510,826) | (1,280,696) | (1,645,545) |
| Loss before income taxes | (17,621,472) | (7,894,745) | (28,722,791) | (12,912,276) |
| Provision for income taxes | 3,400 | 8,071 | 5,400 | 10,071 |
| Net loss | <u>\$ (17,624,872)</u> | <u>\$ (7,902,816)</u> | <u>\$ (28,728,191)</u> | <u>\$ (12,922,347)</u> |
| Loss per common share: | | | | |
| Basic | <u>\$ (0.44)</u> | <u>\$ (0.20)</u> | <u>\$ (0.72)</u> | <u>\$ (0.39)</u> |
| Diluted | <u>\$ (0.44)</u> | <u>\$ (0.20)</u> | <u>\$ (0.72)</u> | <u>\$ (0.39)</u> |
| Weighted average shares of common stock outstanding used to compute loss per share: | | | | |
| Basic | <u>39,659,266</u> | <u>38,669,330</u> | <u>39,655,597</u> | <u>33,334,616</u> |
| Diluted | <u>39,659,266</u> | <u>38,669,330</u> | <u>39,655,597</u> | <u>33,334,616</u> |

SKYE BIOSCIENCE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

| | June 30, 2025 (Unaudited) | December 31, 2024 |
|---|---------------------------------|----------------------|
| ASSETS | | |
| Current assets | | |
| Cash and cash equivalents | \$ 23,838,244 | \$ 68,415,741 |
| Short-term investments | 24,747,039 | — |
| Prepaid expenses | 1,263,812 | 201,962 |
| Other current assets | 733,423 | 2,209,544 |
| Total current assets | <u>50,582,518</u> | <u>70,827,247</u> |
| Property and equipment, net | 1,169,056 | 1,432,752 |
| Operating lease right-of-use asset | 355,427 | 449,864 |
| Other assets | 53,910 | 53,910 |
| Total assets | <u>\$ 52,160,911</u> | <u>\$ 72,763,773</u> |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities | | |
| Accounts payable | \$ 3,222,510 | \$ 569,252 |
| Accrued payroll liabilities | 868,024 | 1,114,255 |
| Other current liabilities | 2,220,063 | 654,201 |
| Estimate for accrued legal contingencies and related expenses | 1,806,065 | 1,818,751 |
| Operating lease liability, current portion | 195,046 | 182,428 |
| Total current liabilities | <u>8,311,708</u> | <u>4,338,887</u> |
| Non-current liabilities | | |
| Operating lease liability, net of current portion | 172,494 | 273,162 |
| Total liabilities | <u>8,484,202</u> | <u>4,612,049</u> |
| Commitments and contingencies | | |
| Stockholders' equity | | |
| Preferred stock, \$0.001 par value; 200,000 shares authorized at June 30, 2025 and December 31, 2024; no shares issued and outstanding at June 30, 2025 and December 31, 2024 | — | — |
| Common stock, \$0.001 par value; 100,000,000 shares authorized at June 30, 2025 and December 31, 2024; 30,988,108 and 30,974,559 shares issued and outstanding at June 30, 2025 and December 31, 2024, respectively | 30,988 | 30,975 |
| Additional paid-in-capital | 203,323,584 | 199,070,421 |
| Accumulated deficit | (159,677,863) | (130,949,672) |
| Total stockholders' equity | 43,676,709 | 68,151,724 |
| Total liabilities and stockholders' equity | <u>\$ 52,160,911</u> | <u>\$ 72,763,773</u> |

CONTACTS

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