EXHIBIT 4

Form 8-K filed October 17, 2025 (warrant inducement and New Warrants), with Exhibit 10.1 (inducement letter)

Nejmeh v. Theriva Biologics, Inc., No. 3:26-cv-00705-ART-CSD (D. Nev.)
Cited in the First Amended Verified Complaint, paragraph(s) 55, 57, 60

Source

- Form 8-K filed October 17, 2025, SEC Accession No. 0001104659-25-100468: all 7 pages, as printed from the document on sec.gov (https://www.sec.gov/Archives/edgar/data/894158/000110465925100468/tm2528131d2_8k.htm).
- Exhibit 10.1 to Form 8-K filed October 17, 2025, SEC Accession No. 0001104659-25-100468: pages 1, 14 of 15, as printed from the document on sec.gov (https://www.sec.gov/Archives/edgar/data/894158/000110465925100468/tm2528131d2_ex10-1.htm).

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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): October 16, 2025

THERIVA BIOLOGICS, INC.

(Exact name of registrant as specified in its charter)

Nevada	**001-12584**	**13-3808303**
(State or other jurisdiction of incorporation)	(Commission File No.)	(IRS Employer Identification No.)

9605 Medical Center Drive, Suite 270
Rockville, Maryland 20850
(Address of principal executive offices and zip code)

(301) 417-4364
Registrant's telephone number, including area code

N/A
(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 obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12(b) 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 per share	TOVX	NYSE American

Indicate by check mark whether the registrant is an emerging growth company as defined in in Rule 405 of the Securities Act of 1933 (17 CFR §230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by checkmark 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 1.01. Entry into a Material Definitive Agreement.

Warrant Inducement Agreement and Issuance of New Warrants

On October 16, 2025, Theriva Biologics, Inc. (the "Company") entered into a warrant inducement agreement (the "Inducement Agreement") with certain holders named therein (the "Holders") of existing Common Stock Purchase Warrants to purchase up to an aggregate of 8,092,280 shares of the Company's common stock, par value $0.001 per share (the "Common Stock"), consisting of (i) Common Stock Purchase Warrants to purchase up to an aggregate of 1,345,000 shares of Common Stock issued on September 27, 2024 (the "September Warrants") and (ii) Common Stock Purchase Warrants to purchase up to an aggregate of 6,747,280 shares of Common Stock issued on May 8, 2025 (the "May Warrants" and, together with the September Warrants, the "Existing Warrants"). Pursuant to the Inducement Agreement, (1) the Holders agreed to exercise for cash the Existing Warrants at a reduced exercise price of $0.54 per share and (2) the Company agreed to issue to the Holders new Common Stock Purchase Warrants to purchase up to an aggregate of 16,184,560 shares of Common Stock (the "New Warrants").

The issuance of shares of Common Stock underlying the September Warrants has been registered pursuant to an effective registration statement on Form S-1 (File No. 333-282024), which was initially filed with the Securities and Exchange Commission (the "Commission") on September 10, 2024, as subsequently amended, and declared effective by the Commission on September 25, 2024 (the "September Warrants Registration Statement"), and the issuance of shares of Common Stock underlying the May Warrants has been registered pursuant to an effective registration statement on Form S-1 (File No. 333-283722), which was initially filed with the Commission on December 10, 2024, as subsequently amended, and declared effective by the Commission on May 7, 2025 (the "May Warrants Registration Statement" and, together with the September Warrants Registration Statement, the "Registration Statements").

The transactions contemplated by the Inducement Agreement closed on October 17, 2025 (the "Closing Date"). The Company received aggregate gross proceeds of approximately $4.4 million for the exercise of the Existing Warrants, before deducting placement agent fees and other expenses payable by the Company.

In consideration of the Holders' agreement to exercise the Existing Warrants (the "Warrant Exercise"), at the reduced exercise price of $0.54 per share, in accordance with the Inducement Agreement, the Company issued to the Holders New Warrants to purchase an aggregate of 16,184,560 shares of Common Stock, equal to 200% of the number of shares of Common Stock underlying the Existing Warrants, at an exercise price of $0.54 per share. The shares of Common Stock issuable upon exercise of the New Warrants are hereinafter referred to collectively as the "New Warrant Shares." The New Warrants are exercisable for a term of five (5) years from the date of Stockholder Approval (as hereinafter defined). The New Warrants and the New Warrant Shares were issued in a private placement and have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), and were instead offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder.

The Company agreed in the Inducement Agreement to file a registration statement to register the resale of the New Warrant Shares (the "Resale Registration Statement") as soon as practicable (and in any event within 30 calendar days following the date of the Inducement Agreement), and to use commercially reasonable efforts to have such Resale Registration Statement declared effective by the Commission within 60 days following the date of the Inducement Agreement (or 90 days following the date of the Inducement Agreement in the event of a "limited review" or "full review" by the Commission), provided, however, that if the Commission is closed for operations due to a government shutdown, the applicable deadline for the Resale Registration Statement becoming effective shall be extended by the same amount of days that the Commission remains closed for operations, and to keep the Resale Registration Statement effective at all times until no holder of the New Warrants owns any New Warrants or New Warrant Shares.

"Stockholder Approval" means such approval from the stockholders of the Company of the full exercise of the New Warrants and the issuance of all of the New Warrant Shares upon the exercise thereof, it being understood that no portion of the New Warrants may be exercised until such approval from the Company's stockholders is obtained. The Company shall use its reasonable best efforts to obtain all components of the Stockholder Approval. If the Company does not obtain all components of the Stockholder Approval at the first meeting of its stockholders called within sixty (60) days following the Closing Date, the Company shall call a meeting every sixty (60) days thereafter to seek any remaining components of the Stockholder Approval until the earlier of the date on which Stockholder Approval is obtained or the New Warrants are no longer outstanding.

Pursuant to the Inducement Agreement, the Company has agreed, with certain limited exceptions, for 45 days following the Closing Date, not to issue any shares of Common Stock or Common Stock Equivalents (as defined in the New Warrants) or to file any registration statement, subject to certain exceptions. The Company has also agreed not to enter into a Variable Rate Transaction (as

defined in the Inducement Agreement) for a period of 90 days following the Closing Date, provided however that sales pursuant to an at-the-market are permitted to be made beginning five (5) days after Closing Date.

The Company expects to use the net proceeds from the Warrant Exercise for working capital.

A.G.P./Alliance Global Partners LP ("AGP") served as the Company's exclusive financial advisor in connection with the Warrant Exercise and other transactions described in the Inducement Agreement. Pursuant to the terms of an engagement letter, dated October 16, 2025, by and between the Company and AGP (the "Engagement Letter"), the Company agreed to pay to AGP a cash fee equal to 7.0% of the aggregate gross proceeds received from the Holder upon exercise of the Existing Warrants and reimbursement of certain expenses.

Terms of the New Warrants

The New Warrants are exercisable on the date of Stockholder Approval and approval of the NYSE American in compliance with its rules and regulations and will expire on the fifth anniversary of the date of Stockholder Approval. If at any time after the date of Stockholder Approval a registration statement registering the issuance of the New Warrant Shares under the Securities Act is not effective or available, the holder may, in its sole discretion, elect to exercise the New Warrants through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of Common Stock determined according to the formula set forth in the New Warrants.

The exercise price of the New Warrants, and the number of New Warrant Shares, will be subject to adjustment in the event of any stock dividend or split, recapitalization, reorganization or similar transaction, as described in the New Warrants.

A holder of New Warrants will not have the right to exercise any portion of the New Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, upon election of the holder, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the New Warrants. However, a holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

In the event of a Fundamental Transaction (as such term is defined in the New Warrants), then the successor entity will succeed to, and be substituted for the Company, and may exercise every right and power that the Company may exercise and will assume all of its obligations under the New Warrants with the same effect as if such successor entity had been named in the warrant itself. If holders of Common Stock are given a choice as to the securities, cash or property to be received in a Fundamental Transaction, then a holder of the New Warrants shall be given the same choice as to the consideration it receives upon any exercise of the New Warrants following such Fundamental Transaction. In addition, the successor entity, at the request of holders of New Warrants, will be obligated to purchase any unexercised portion of the New Warrants in accordance with the terms thereof. Notwithstanding the foregoing, in the event of a Fundamental Transaction, the holders of the New Warrants have the right to require the Company or a successor entity to purchase the New Warrant for cash in the amount of the Black Scholes Value (as defined in the New Warrant) of the unexercised portion of the New Warrants concurrently with or within 30 days following the consummation of a Fundamental Transaction. However, in the event of a Fundamental Transaction which is not in the Company's control, including a Fundamental Transaction not approved by the Company's board of directors, the holders of the New Warrants will only be entitled to receive from the Company or its successor entity, as of the date of consummation of such Fundamental Transaction, the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of the New Warrant that is being offered and paid to the holders of Common Stock in connection with the Fundamental Transaction, whether that consideration is in the form of cash, stock or any combination of cash and stock, or whether the holders of Common Stock are given the choice to receive alternative forms of consideration in connection with the Fundamental Transaction.

Except as otherwise provided in the New Warrants or by virtue of such holder's ownership of shares of Common Stock, the holder of a New Warrants will not have the rights or privileges of a holder of Common Stock, including any voting rights, until the holder exercises such warrant.

The foregoing summaries of the Warrant Exercise, including the securities to be issued in connection therewith, the Inducement Agreement and the New Warrants do not purport to be complete and are qualified in their entirety by reference to the definitive transaction documents, copies of which are attached hereto as Exhibits 10.1 and 4.1, respectively, and are each incorporated herein by reference.

The Company notes that the representations, warranties and covenants made by the Company in any agreement that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements. In addition, the assertions embodied in any representations, warranties and covenants contained in such agreements may be subject to qualifications with respect to knowledge and materiality different from those applicable to security holders generally. Moreover, such representations, warranties or covenants were accurate only as of the date when

made, except where expressly stated otherwise. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of the Company's affairs at any time.

This Current Report on Form 8-K does not constitute an offer to sell or the solicitation of an offer to buy, and these securities cannot be sold in any state or jurisdiction in which this offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of any state or jurisdiction. Any offer will be made only by means of a prospectus, including a prospectus supplement, forming a part of the effective registration statement.

Item 3.02. Unregistered Sales of Equity Securities

The disclosure regarding the New Warrants and the New Warrant Shares set forth under Item 1.01 is incorporated by reference into this Item 3.02. None of the New Warrants or the New Warrant Shares have been registered under the Securities Act pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder, and none may be sold in the United States absent registration or an applicable exemption from the registration requirements of the Securities Act.

Item 8.01. Other Events

On October 16, 2025, the Company issued a press release regarding the pricing of the transaction described in Item 1.01, a copy of which is attached hereto as Exhibit 99.1 and incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

The following exhibits are filed herewith:

Exhibit No.		Description
4.1		Form of New Warrant
10.1		Form of Warrant Inducement Agreement
99.1		Press release issued by Theriva Biologics, Inc. dated October 16, 2025 (pricing of the offering)
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.

Dated: October 17, 2025

THERIVA BIOLOGICS, INC.

By: /s/ Steven A. Shallcross
Name: Steven A. Shallcross
Title: Chief Executive Officer and Chief Financial Officer

EX-10.1 3 tm2528131d2_ex10-1.htm EXHIBIT 10.1

Exhibit 10.1

THERIVA BIOLOGICS, INC.
9605 Medical Center Drive, Suite 270
Rockville, Maryland 20850

October 16, 2025

To the Holder of September 2024 and May 2025 Common Stock Purchase Warrants

Re: Inducement Offer to Exercise Existing Common Stock Purchase Warrants

Dear Holder:

THERIVA BIOLOGICS, INC. (the "Company") is pleased to offer (this "Inducement Offer") to you ("Holder", "you" or similar terminology) the opportunity to receive new warrants (the "New Warrants") to purchase up to a number of shares (the "New Warrant Shares") of Common Stock, par value $0.001 per share (the "Common Stock"), equal to **200%** of the number of shares of Common Stock issuable to you pursuant to the exercise of those certain Common Warrant to Purchase Shares of Common Stock issued to you on September 27, 2024 (the "September 2024 Existing Common Warrants") and May 8, 2025 (the "May 2025 Existing Common Warrants" and together with the September 2024 Existing Common Warrants, the "Existing Common Warrants"), as more particularly set forth on the signature page hereto, in consideration for exercising for cash any or all such Existing Common Warrants. The issuance, or resale, of shares of Common Stock underlying the September 2024 Existing Common Warrants have been registered pursuant to an effective registration statement on Form S-1 (File No. 333-282024) and the issuance, or resale, of shares of Common Stock underlying the May 2025 Existing Common Warrants have been registered pursuant to an effective registration statement on Form S-1 (File No. 333- 283722). The shares of Common Stock underlying the Existing Common Warrants are referred to herein as the "Existing Warrant Shares" and the registration statements referenced in the foregoing sentence is referred to herein collectively as the "Registration Statement." The Registration Statement is currently effective and, upon exercise of the Existing Common Warrants pursuant to this letter agreement (the "Inducement Agreement," and together with the Existing Common Warrants and the New Warrants (as defined below), the "Transaction Documents"), will be effective for the issuance or resale of the Existing Warrant Shares, as applicable. Capitalized terms not otherwise defined herein shall have the meanings set forth in the New Warrants.

The Company is making you this Inducement Offer during the period from the date of this Inducement Agreement set forth above and until 11:30 am, Eastern Time, on **October 16, 2025** (the "Exercise Period"). Exercise of the Existing Common Warrants may be made, in whole or in part, at any time or times during the Exercise Period by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise attached to the Existing Common Warrants, as applicable; *provided*, that the exercise of Existing Common Warrants will be accompanied by payment in full of the Exercise Price (as defined below) to the Company.

p) Stockholder Approval. The Company shall use its reasonable best efforts to call a stockholder meeting within sixty (60) days of the Closing Date for the purpose of obtaining Stockholder Approval, with the recommendation of the Company's Board of Directors that such proposals are approved, and the Company shall solicit proxies from its stockholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposals. If the Company does not obtain Stockholder Approval at the first meeting, the Company shall call a meeting every sixty (60) days thereafter to seek Stockholder Approval until the earlier of the date on which Stockholder Approval is obtained or the New Warrants are no longer outstanding.
