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

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. 2)

Comera Life Sciences Holdings, Inc.
(Name of Issuer)

Common Stock, par value \$0.0001 per share
(Title of Class of Securities)

20037C108
(CUSIP Number)

David Soane
c/o Soane Labs, LLC
380 NE 72nd Terrace
Miami, FL 33138
510-376-1425

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

July 31, 2023
(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), Rule 13d-1(f) or Rule 13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS	
	David Soane	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) PF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 1,311,350 ⁽¹⁾
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 1,182,975 ⁽²⁾
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,311,350 ⁽¹⁾	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.77% ⁽²⁾	
14	TYPE OF REPORTING PERSON(SEE INSTRUCTIONS) IN	

- (1) Consists of (a) 589,786 shares of Common Stock held directly by David Soane, which includes 119,779 Earn-Out Shares (as described below), (b) 225,648 shares held by the Alexander V. Soane 2019 Irrevocable Trust, which includes 4,298 Earn-Out Shares, (c) 225,648 shares held by the Nicholas V. Soane 2019 Irrevocable Trust, which includes 4,298 Earn-Out Shares, (d) 135,134 shares of Common Stock issuable upon the exercise of a warrant that is exercisable within 60 days and held by the Alexander V. Soane 2019 Irrevocable Trust, (e) 135,134 shares of Common Stock issuable upon the exercise of a warrant that is exercisable within 60 days and held by the Nicholas V. Soane 2019 Irrevocable Trust. Excludes (x) warrants to purchase 684,596 shares of Common Stock issued to the Alexander V. Soane 2019 Irrevocable Trust and the Nicholas V. Soane 2019 Irrevocable Trust pursuant to the Securities Purchase Agreement, dated as of July 31, 2023, as reported in the Issuer's Current Report on Form 8-K filed with the SEC on August 1, 2023 (the "July 2023 Private Placement Purchase Agreement") that are not exercisable until February 1, 2024, (y) 117,360 shares of Common Stock and warrants to purchase 293,398 shares of Common Stock issuable the Alexander V. Soane 2019 Irrevocable Trust and the Nicholas V. Soane 2019 Irrevocable Trust pursuant to the July 2023 Private Placement Purchase Agreement at a second closing that is subject to receipt of stockholder approval and satisfaction of the other conditions set forth in the July 2023 Private Placement Purchase Agreement.
- (2) Excludes earn-out shares. See footnote 1. Earn-Out Shares are shares of Common Stock held in escrow, which shares will be released if, at any time prior to May 19, 2024, either (i) the volume-weighted average price of the Common Stock is equal to or greater than \$12.50 for twenty trading days within a thirty trading day period or (ii) upon a change of control with aggregate consideration in excess of \$12.50 per share of Common Stock.
- (3) Calculated based on 27,498,042 shares of Common Stock outstanding, which is calculated by adding (i) 22,305,138 shares of Common Stock outstanding as of May 11, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q for the period ended March 31, 2023, as filed with the Securities and Exchange Commission on May 12, 2023, (ii) 388,486 shares of Common Stock issued by the Company to a third party vendor as partial consideration for services rendered, as reported in the Issuer's Current Report on Form 8-K filed with the SEC on August 1, 2023, (iii) 4,399,016 shares of Common Stock issued by the Issuer issued on July 31, 2023 pursuant to the July 2023 Private Placement Purchase Agreement, and (iv) warrants to purchase 405,402 shares of Common Stock held by the Soane Family Trust, Alexander V. Soane 2019 Irrevocable Trust and Nicholas V. Soane 2019 Irrevocable Trust (collectively, the "Soane Trusts").

1	NAMES OF REPORTING PERSONS		
	The Soane Family Trust		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>		
3	SEC USE ONLY		
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) PF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) <input type="checkbox"/>		
6	CITIZENSHIP OR PLACE OF ORGANIZATION Florida		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 3,471,696 ⁽¹⁾	
	8	SHARED VOTING POWER 0	
	9	SOLE DISPOSITIVE POWER 2,808,408 ⁽²⁾	
	10	SHARED DISPOSITIVE POWER 0	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,471,696 ⁽¹⁾		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>		
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 12.63% ⁽³⁾		
14	TYPE OF REPORTING PERSON(SEE INSTRUCTIONS) OO		

(1) Consists of (i) 3,336,562 shares of Common Stock held directly by The Soane Family Trust, which includes 663,288 Earn-Out Shares and (ii) 135,134 shares of Common Stock issuable upon the exercise of a warrant that is exercisable within 60 days.

(2) Excludes earn-out shares. See footnote 1.

(3) Calculated based on 27,498,042 shares of Common Stock outstanding, which is calculated by adding (i) 22,305,138 shares of Common Stock outstanding as of May 11, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q for the period ended March 31, 2023, as filed with the Securities and Exchange Commission on May 12, 2023, (ii) 388,486 shares of Common Stock issued by the Company to a third party vendor as partial consideration for services rendered, as reported in the Issuer's Current Report on Form 8-K filed with the SEC on August 1, 2023, (iii) 4,399,016 shares of Common Stock issued by the Issuer issued on July 31, 2023 pursuant to the July 2023 Private Placement Purchase Agreement, and (iv) warrants to purchase 405,402 shares of Common Stock held by the Soane Trusts.

Item 1. Security and Issuer.

Pursuant to Rule 13d-2 promulgated under the Securities Exchange Act of 1934, as amended, this Amendment No. 2 to Schedule 13D (this "Amendment") amends certain Items of the Schedule 13D originally filed with the United States Securities and Exchange Commission (the "SEC") on October 28, 2022 as amended by Amendment No. 1 to Schedule 13D originally filed with the SEC on January 9, 2023 (the "Original Schedule 13D") by furnishing the information set forth below. Except as set forth below, all previous Items are unchanged. The Original Schedule 13D, as amended by and this Amendment No. 2, is referred to herein as the "Schedule 13D".

This Schedule 13D relates to the shares of common stock, par value \$0.0001 per share (the "Common Stock"), of Comera Life Sciences Holdings, Inc., a Delaware corporation (the "Issuer"). The principal executive offices of the Issuer are located at 12 Gill Street, Suite 4650, Woburn, Massachusetts 01801.

Item 3. Source and Amount of Funds or Other Consideration.

The information set forth or incorporated by reference in Item 5 of this Amendment No. 2 is incorporated by reference in this Item 3.

Item 4. Purpose of Transaction.

Item 4 is hereby amended to add the following.

The Reporting Persons acquired the shares of Common Stock and warrants to purchase Common Stock in the July 2023 Private Placement, as described and defined in Item 5 of this Amendment No. 2 for investment purposes. The Reporting Persons have no present plan or proposal that relates to, or could result in, any of the events referred to in paragraphs (a) through (j) of Item 4 of Schedule 13D.

Item 5. Interest in Securities of the Issuer.

Paragraphs (a) and (b) of Item 5 of the Original Schedule 13D are hereby amended by replacing them in their entirety with the following.

(a)-(b) The information contained on the cover pages to this Schedule 13D and as set forth or incorporated in Items 2, 3, 4 and 6 hereof is incorporated by reference. The percent of class was calculated based on 27,498,042 shares of Common Stock outstanding, which is calculated by adding (i) 22,305,138 shares of Common Stock outstanding as of May 11, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q for the period ended March 31, 2023, as filed with the Securities and Exchange Commission on May 12, 2023, (ii) 388,486 shares of Common Stock issued by the Company to a third party vendor as partial consideration for services rendered, as reported in the Issuer's Current Report on Form 8-K filed with the SEC on August 1, 2023, (iii) 4,399,016 shares of Common Stock issued by the Issuer issued on July 31, 2023 pursuant to the Securities Purchase Agreement, dated as of July 31, 2023, as reported in the Issuer's Current Report on Form 8-K filed with the SEC on August 1, 2023 (the "July 2023 Private Placement Purchase Agreement"), and (iv) warrants to purchase 405,402 shares of Common Stock held by the Soane Family Trust, Alexander V. Soane 2019 Irrevocable Trust and Nicholas V. Soane 2019 Irrevocable Trust (collectively, the "Soane Trusts").

As of July 31, 2023, the Reporting Persons beneficially owned (a) 589,786 shares of Common Stock held directly by David Soane, representing approximately 2.14% of the outstanding Common Stock, (b) 225,648 shares of Common Stock and a warrant to purchase 135,134 shares of Common Stock, each held by the Alexander V. Soane 2019 Irrevocable Trust, representing approximately 1.31% of the outstanding Common Stock, (c) 225,648 shares of Common Stock and a warrant to purchase 135,134 shares of Common Stock, each held by the Nicholas V. Soane 2019 Irrevocable Trust, representing approximately 1.31% of the outstanding Common Stock, and (d) 3,336,562 shares of Common Stock and a warrant to purchase 135,134 shares of Common Stock, each held by The Soane Family Trust, representing approximately 12.63% of the outstanding Common Stock. Dr. Soane is a trustee of The Soane Family Trust, and Dr. Soane's spouse is a trustee of each of the Alexander V. Soane 2019 Irrevocable Trust and the Nicholas V. Soane 2019 Irrevocable Trust.

(c) During the past 60 days, the Reporting Persons engaged in the following transactions in shares of Common Stock:

On July 31, 2023, the Reporting Persons acquired beneficial ownership of 273,838 shares of Common Stock for a purchase price of \$0.5112 per share. Such shares of Common Stock were acquired from the Issuer in a private placement pursuant to the July 2023 Private Placement Purchase Agreement (the "July 2023 Private Placement").

In the July 2023 Private Placement, the Reporting Persons also acquired warrants to purchase 684,596 shares of Common Stock, which warrants are not exercisable until February 1, 2024 and not deemed beneficially owned by the Reporting Persons as of the date of this Amendment No. 2. In addition, pursuant to the July 2023 Private Placement Purchase Agreement, the Reporting Persons will acquire 117,360 shares of Common Stock and warrants to purchase 293,398 shares of Common Stock at a second closing; however, such second closing is subject to the Company's receipt of stockholder approval and the satisfaction of the other closing conditions set forth in the July 2023 Private Placement Purchase Agreement and such shares are not deemed beneficially owned by the Reporting Persons as of the date of this Amendment No. 2.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

Item 6 of the Original Schedule 13D is hereby amended to add the following.

At the closing of the July 2023 Private Placement, the Issuer entered into a registration rights agreement (the "July 2023 Private Placement Registration Rights Agreement") with the purchasers in the July 2023 Private Placement (including the Alexander V. Soane 2019 Irrevocable Trust and the Nicholas V. Soane 2019 Irrevocable Trust) with respect to the shares of Common Stock they received in the July 2023 Private Placement, including the shares of Common Stock issuable upon exercise of the warrants issued or issuable pursuant to the July 2023 Private Placement Purchase Agreement. The July 2023 Private Placement Registration Rights Agreement requires the Issuer to, among other things, file a registration statement with the SEC covering resales of the shares of Common Stock issued in the July 2023 Private Placement (including the shares of Common Stock issuable upon exercise of the warrants issued in the July 2023 Private Placement) no later than thirty (30) calendar days following the date of the first closing of the July 2023 Private Placement, and to use its best efforts to have such registration statement declared effective as promptly as possible thereafter. The Issuer has agreed to bear all expenses of such registration.

The foregoing description of the July 2023 Private Placement Registration Rights Agreement does not purport to be complete and is qualified in its entirety by the full text of the July 2023 Private Placement Registration Rights, the form of which is included as Exhibit 99.6 to this Schedule 13D and is incorporated by reference herein.

Item 7. Materials to be Filed as Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.6	Registration Rights Agreement among the Issuer and the Purchasers defined therein, dated as of July 31, 2023 (incorporated by reference to Exhibit 10.2 to the current report on Form 8-K, filed by the Issuer with the SEC on August 1, 2023).

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: August 3, 2023

/s/ David S. Soane

David S. Soane

THE SOANE FAMILY TRUST

/s/ David S. Soane

Name: David S. Soane

Title: Trustee