

Prospectus Supplement No. 4
(To Prospectus dated September 15, 2022)

Comera Life Sciences Holdings, Inc.

5,000,000 Shares of Common Stock

This prospectus supplement no. 4 (this "Prospectus Supplement") updates, amends and supplements the prospectus dated September 15, 2022 (as amended or supplemented from time to time, the "Prospectus") which forms a part of the Registration Statement on Form S-1 (Registration Statement No. 333-267283) filed by Comera Life Sciences Holdings, Inc. ("Holdco"). Capitalized terms used in this Prospectus Supplement and not otherwise defined herein have the meanings specified in the Prospectus.

This Prospectus Supplement is being filed to update, amend and supplement the information included or incorporated by reference in the Prospectus with the information contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission (the "SEC") on February 21, 2023 (the "Current Report"). Accordingly, we have attached the Current Report to this Prospectus Supplement.

This Prospectus Supplement is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This Prospectus Supplement should be read in conjunction with the Prospectus and any amendments or supplements thereto. If there is any inconsistency between the information in the Prospectus and this Prospectus Supplement, you should rely on the information in this Prospectus Supplement.

The Holdco Common Stock is listed on The Nasdaq Capital Market ("Nasdaq") under the symbol "CMRA" and the Holdco Warrants are listed on Nasdaq under the symbol "CMRAW". On February 17, 2023, the closing sale price of the Holdco Common Stock as reported on Nasdaq was \$1.285 per share, and the closing sale price of the Holdco Warrants as reported on Nasdaq was \$0.065 per warrant.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in "Risk Factors" beginning on page 10 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities to be issued under the Prospectus or passed upon the accuracy or adequacy of the Prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement is February 21, 2023.

**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): February 14, 2023

Comera Life Sciences Holdings, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

1-41403
(Commission
File Number)

87-4706968
(IRS Employer
Identification No.)

12 Gill Street
Suite 4650
Woburn, Massachusetts
(Address of principal executive offices)

01801
(Zip Code)

Registrant's telephone number, including area code: (617) 871-2101

Not Applicable
(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:

- 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	CMRA	The Nasdaq Stock Market LLC
Warrants	CMRAW	The Nasdaq Stock Market LLC

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 5.02 Departure of Directors or Principal Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On February 14, 2023, the Board of Directors (the “Board”) of Comera Life Sciences Holdings, Inc. (the “Company”) met to determine the non-equity incentive compensation to be paid to each of Jeffrey Hackman, the Company’s Chairman, President and Chief Executive Officer, Michael Campbell, the Company’s Chief Financial Officer and Neal Muni, the Company’s Chief Operating Officer (together the “Named Executive Officers”) in respect of their achievement of 2022 performance objectives. In furtherance of the Company’s cash conservation efforts and to better align the interests of the Named Executive Officers with those of the Company’s stockholders, the Board elected to grant options (the “Options”) to purchase shares of the Company’s common stock, \$0.0001 par value per share (the “Common Stock”) to the Named Executive Officers in lieu of performance-based cash compensation. The Options were granted under the Comera Life Sciences Holdings, Inc. 2022 Equity and Incentive Plan (the “2022 Plan”) and have an exercise price of \$1.30 per share, the closing price of the Common Stock on the date of grant. Twenty-five percent of the shares underlying the Options vest on February 14, 2024, with the remaining shares vesting on a monthly basis on the 14th day of each month thereafter, in each case, subject to continuous service to the Company, such that the Options shall be fully vested on February 14, 2027.

The Company filed a Registration Statement on Form S-1 with the Securities and Exchange Commission (the “SEC”) on February 3, 2023, as amended on February 8, 2023, which was declared effective on February 10, 2023 (File No. 333-269564) (the “Registration Statement”). The Summary Compensation Table included in the Registration Statement did not include non-equity incentive plan compensation paid to the Named Executive Officers for fiscal 2022 because 2022 non-equity incentive plan compensation had not yet been determined. In accordance with Item 5.02(f) of Form 8-K, the table below is updated to provide this information.

SUMMARY COMPENSATION TABLE

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>	<u>Option Awards (\$)(1)</u>	<u>Non-equity incentive plan compensation (\$)(2)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Jeffrey Hackman Chief Executive Officer (3)	2022	400,000	—	535,200	—	—	935,200
	2021	132,543	51,052	161,640	—	—	345,235
Michael Campbell, Chief Financial Officer(4)	2022	201,882	—	954,900	—	—	1,156,782
	2021	—	—	—	—	—	—
Neal Muni, MD Chief Operating Officer(5)	2022	350,000	—	88,250	—	—	439,200
	2021	106,178	45,989	121,230	—	—	273,397

- (1) Amounts reflect the full grant-date fair value of stock options granted, computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. For more information see footnote 2 to our financial statements for the years ended December 31, 2021 and 2020 “Basis of Presentation and Significant Accounting Policies — Stock-Based Compensation Expense” found elsewhere in this Report.
- (2) In furtherance of the Company’s cash conservation efforts and to align the interests of the Named Executive Officers with those of the Company’s stockholders, the Board granted options to purchase shares of the Company’s common stock to the Named Executive Officers in lieu of performance-based cash compensation for the fiscal year ended December 31, 2022. The following table sets forth the number of options granted to each Named Executive Officer on February 14, 2023:

<u>Name</u>	<u>Options Awarded</u>
Jeffrey Hackman	100,000
Michael Campbell	25,000
Neal Muni	100,000

- (3) Mr. Hackman became our Chief Executive Officer on September 1, 2021.

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- (4) Mr. Campbell became our Chief Financial Officer on June 15, 2022.
 - (5) Mr. Muni became our Chief Operating Officer on September 13, 2021.

SIGNATURE

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: February 21, 2023

COMERA LIFE SCIENCES HOLDINGS, INC.

By: /s/ Michael Campbell

Name: Michael Campbell

Title: Executive Vice President and Chief Financial Officer