Prospectus Supplement No. 7 (To Prospectus dated March 30, 2023)

Comera Life Sciences Holdings, Inc. 7,218,726 Shares of Common Stock

This prospectus supplement no. 7 (this "Prospectus Supplement") updates, amends and supplements the prospectus dated March 30, 2023 (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. 333-269564) 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 November 3, 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 November 2, 2023, the closing sale price of the Holdco Common Stock as reported on Nasdaq was \$0.3088 per share, and the closing sale price of the Holdco Warrants as reported on Nasdaq was \$0.0183 per warrant.

Investing in our securities is highly speculative and involves a high degree of risk. Before buying any securities, you should review carefully the risks and uncertainties of investing in our securities described in the section titled "Risk Factors" beginning on page 14 of the Prospectus, and under similar headings in any amendments or supplements thereto.

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 November 3, 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): October 31, 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)

k 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 wing 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))

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
napter) or Rule 12b-2 of the Securities Exchange Act merging growth company ⊠	• •	
an emerging growth company, indicate by check ma	rk if the registrant has elected not to use the e	extended transition period for complying with any ne
f an emerging growth company, indicate by check ma r revised financial accounting standards provided pur	8	1 150
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Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item Notice of Delisting or Failure to Satisfy a Continued Listing Rule or Standard; Transfer of Listing. 3.01.

On October 31, 2023, Comera Life Sciences Holdings, Inc. (the "Company") received notice from The Nasdaq Stock Market LLC that the Company had not regained compliance with the \$1.00 minimum bid price requirement for continued listing on The Nasdaq Capital Market (the "bid price requirement"), as set forth in Nasdaq Listing Rule 5550(a)(2) within the 180 calendar day period provided by Rule 5810(c)(3)(A) and that the Company is not eligible for a second 180 day period to regain compliance. The notice letter indicated that the Nasdaq Hearings Panel will consider this matter in their decision regarding the Company's continued listing on the Nasdaq Capital Market and that the Company should present its views with respect to this additional deficiency in writing no later than November 7, 2023.

As previously disclosed, the Company received a letter from the listing qualifications department staff of The Nasdaq Stock Market on November 18, 2022 notifying the Company that for the last 30 consecutive business days, the Company's minimum Market Value of Listed Securities ("MVLS") was below the minimum of \$35 million required for continued listing on the Nasdaq Capital Market pursuant to Nasdaq Listing Rule 5550(b)(2). On August 8, 2023, the Nasdaq Hearings Panel granted the Company's request for the continued listing of its common stock on the Nasdaq Capital Market, subject to the Company's satisfaction of certain interim milestones and, ultimately, the Company's compliance with all applicable criteria for continued listing on Nasdaq, including the bid price requirement and the MVLS rule, by no later than November 14, 2023.

The Company believes it is unlikely to regain compliance with Nasdaq Listing Rules 5550(a)(2) and 5550(b) by November 14, 2023, and therefore, its securities may be delisted from the Nasdaq Capital Market.

If the Company's securities are delisted from the Nasdaq Capital Market, the Company will continue to be a reporting company under the Securities Exchange Act of 1934, as amended. In addition, the Company expects that its common stock will be traded on one of the three tiered marketplaces of the OTC Markets Group.

Forward-Looking Statements

This Current Report on Form 8-K contains forward-looking statements that are based on the beliefs and assumptions of the Company's management and on information currently available to the Company's management. Forward-looking statements include statements regarding the Company's efforts and ability to comply with all applicable criteria for continued listing on Nasdaq. Forward-looking statements include statements that are not historical facts and can be identified by terms such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "seek," "should," "will," "would" or similar expressions and the negatives of those terms. The Company's ability to comply with the continued listing standards of Nasdaq, actual results and the timing of events could materially differ from those anticipated in such forward-looking statements as a result of certain risks and uncertainties including those described in more detail in the Company's most recent Annual Report on Form 10-K and other documents on file with the SEC. Except as required by law, the Company assumes no obligation to update these forward-looking statements, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

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: November 3, 2023 COMERA LIFE SCIENCES HOLDINGS, INC.

By: /s/ Michael Campbell

Name: Michael Campbell Title: Chief Financial Officer