

Prospectus Supplement No. 10
(To Prospectus dated March 30, 2023)

Comera Life Sciences Holdings, Inc.
1,946,846 Warrants to Purchase Common Stock
15,093,712 Shares of Common Stock Including
1,946,846 Shares of Common Stock issuable upon the
exercise of Warrants and 342,755 Shares of Common Stock
issuable upon conversion of the Series A Convertible Perpetual
Preferred Stock offered by Selling Securityholders

This prospectus supplement no. 10 (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. 333-264686) 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 December 6, 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 OTCQB of OTC Markets Group Inc. (the “OTCQB”) under the symbol “CMRA”, and the Holdco Warrants are listed on the OTC Pink Marketplace under the symbol “CMRAW”. On December 5, 2023, the closing price of the Holdco Common Stock as reported on the OTCQB was \$0.071 per share, and the last sale price of the Holdco Warrants as reported on the OTC Pink Marketplace was \$0.0008 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 17 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 December 6, 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): December 6, 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))
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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 Other Events.**8.01.**

On December 6, 2023, Comera Life Sciences Holdings, Inc. (the “Company”) issued a press release announcing that it has initiated a process to explore strategic alternatives to maximize shareholder value. A copy of the Company’s press release is included in this Report as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.**(d) Exhibits**

Exhibit No.	Description
99.1	Press Release dated December 6, 2023
104	Inline XBRL for the cover page of this Current Report on Form 8-K.

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: December 6, 2023

COMERA LIFE SCIENCES HOLDINGS, INC.

By: /s/ Michael Campbell

Name: Michael Campbell

Title: Chief Financial Officer



Comera Life Sciences Announces Process Exploring Strategic Alternatives

WOBURN, Mass. December 6, 2023 — Comera Life Sciences Holdings, Inc. (OTCQB: CMRA) (“Comera” or the “Company”), a life sciences company developing a new generation of biologic medicines to improve patient access, safety, and convenience, today announced that it has initiated a process to explore strategic alternatives to maximize shareholder value.

As part of its process, Comera is exploring the potential for an acquisition, company sale, merger, divestiture of assets, licensing, or other strategic transactions and/or seeking additional financing. There is no set timetable for this process and there can be no assurance that this process will result in the Company pursuing a transaction or that any transaction, if pursued, will be completed on attractive terms. If the Company is unable to complete a transaction, it may be required to seek a reorganization, liquidation or other restructuring. The Company does not expect to disclose or provide an update concerning developments related to this process unless or until the Company’s Board of Directors has approved a definitive course of action or otherwise determines that other disclosure is necessary or appropriate jurisdiction.

About Comera Life Sciences

Leading a compassionate new era in medicine, Comera Life Sciences is applying a deep knowledge of formulation science and technology to transform essential biologic medicines from intravenous (IV) to subcutaneous (SQ) forms. The goal of this approach is to provide patients with the freedom of self-injectable care, reduce institutional dependency and to put patients at the center of their treatment regimen.

To learn more about the Comera Life Sciences’ mission, as well as the proprietary SQore™ platform, visit <https://comeralifesciences.com/>.

Forward-Looking Statements

This press release includes “forward-looking statements” within the meaning of the federal securities laws. These forward-looking statements generally are identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “strategy,” “future,” “opportunity,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” and similar expressions. Forward-looking statements are predictions, projections and other statements about future events including statements related to the Company’s review and evaluation of potential strategic alternatives and their impact on stockholder value; the process by which the Company engages in evaluation of strategic alternatives; the Company’s ability to identify potential merger or acquisition partners; the Company’s ability to raise

capital to continue as a going concern; and the terms, timing, structure, benefits and costs of any strategic transaction and whether one will be consummated at all; and the impact of any strategic transaction on the Company. These forward-looking statements are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Many factors could cause actual future events to differ materially from the forward-looking statements in this document, including, but not limited to: the results of our strategic review process; our ability to raise capital; cash flow, cash burn, expenses, obligations and liabilities; the interest of third parties in entering into a merger, reverse merger, or other strategic transaction with the Company; the outcomes of any litigation, regulatory proceedings, inquiries or investigations that we may become subject to; and other important factors discussed in the Company's filings with the Securities and Exchange Commission. If we do not obtain additional equity or debt funding, our cash resources will be depleted and we could be required to materially reduce or suspend operations, which would likely have a material adverse effect on our business, stock price and our business relationships with third parties. If we do not have sufficient funds to continue operations or satisfy our liabilities, we could be required to seek a reorganization, liquidation or other restructuring that could result in our stockholders losing some or all of their investment in us. The foregoing list of factors is not exhaustive. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and Comera assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. Comera can give no assurance that it will achieve its expectations.

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