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

SCHEDULE 13D

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

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

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

20037C108
(CUSIP Number)

Charles Cherington
c/o Ara Partners
5300 Memorial Drive, Suite 500
Houston, Texas 77007
(713) 817-5702

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

May 19, 2022
(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 Charles Cherington	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input 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 2,129,774 ⁽¹⁾
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 2,129,774 ⁽¹⁾
	10	SHARED DISPOSITIVE POWER 0
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,129,774 ⁽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) 11.2% ⁽²⁾	
14	TYPE OF REPORTING PERSON(SEE INSTRUCTIONS) IN	

⁽¹⁾ Consists of (a) 575,030 shares of Common Stock held by Charles Cherington, (b) 1,268,761 shares of Common Stock held by Cherington Holdings LLC, (c) 95,328 shares of Common Stock held by Ashley S. Pettus 2012 Irrevocable Trust FBO Benjamin P. Cherington, (d) 95,327 shares of Common Stock held by Ashley S. Pettus 2012 Irrevocable Trust FBO Cyrus B. Cherington, and (e) 95,328 shares of Common Stock held by Ashley S. Pettus 2012 Irrevocable Trust FBO Henry S. Cherington.

⁽²⁾ Calculated based on 19,087,185 shares of Common Stock outstanding as of August 15, 2022, as reported in the Issuer's Registration Statement on Form S-1, as filed with the Securities and Exchange Commission on September 6, 2022.

Item 1. Security and Issuer.

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 2. Identity and Background.

(a)-(c) This Schedule 13D is being filed by Charles Cherington (the “Reporting Person”). The Reporting Person is a co-founder and managing partner of Ara Partners, a global private equity firm focused on industrial decarbonization investments. The Reporting Person’s principal office is located at 5300 Memorial Drive, Suite 500, Houston, Texas 77007.

(d)-(e) During the last five years, the Reporting Person (i) has not been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors), or (ii) was not a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

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

On May 19, 2022, the Issuer consummated the acquisition of all of the issued and outstanding shares of OTR Acquisition Corp., a Delaware corporation (“OTR”) and Comera Life Sciences, Inc., a Delaware corporation (“Comera”), in accordance with that certain Business Combination Agreement (as amended, the “Business Combination Agreement”) by and among the Issuer, OTR, Comera, CLS Sub Merger 1 Corp., a Delaware corporation, (“Comera Merger Sub”), and CLS Sub Merger 2 Corp., a Delaware corporation (“OTR Merger Sub”). As contemplated in the Business Combination Agreement, (i) Comera Merger Sub merged with and into Comera, with Comera surviving such merger as a direct wholly-owned subsidiary of the Issuer (the “Comera Merger”) and (ii) OTR Merger Sub merged with and into OTR, with OTR surviving such merger as a direct wholly-owned subsidiary of the Issuer (the “OTR Merger”) (collectively with the other transactions described in the Business Combination Agreement, the “Business Combination”). Upon the closing of the Business Combination, by virtue of the Comera Merger, all shares of Comera common stock, par value \$0.001 per share (“Comera Common Stock”), issued and outstanding were canceled and converted into the right to receive shares of the Issuer’s Common Stock.

The reporting person is a former holder of Comera Common Stock. Immediately after the closing of, and giving effect to the Business Combination and issuance of Common Stock in connection therewith, the Reporting Person was the beneficial owner of 2,129,774 shares of Common Stock.

The foregoing summary of the Business Combination Agreement does not purport to be complete and is qualified in its entirety by reference to the complete text of such agreement, which is filed herewith as Exhibits 1 and 2 and incorporated herein by reference.

Item 4. Purpose of Transaction.

The information set forth or incorporated by reference in Item 3 is incorporated by reference in this Item 4.

The Reporting Person intends to review its investment in the Issuer on a periodic basis and may from time to time purchase, sell or engage in other transactions involving the Common Stock. Depending on various factors including, without limitation, the Issuer's financial position and investment strategy, the price of the Issuer's securities, conditions in the securities markets and general economic and industry conditions, the Reporting Person may in the future take such actions with respect to its investment in the Issuer as it deems appropriate including, without limitation, making proposals concerning changes to the capitalization, ownership structure, board composition or operations of the Issuer, purchasing additional securities of the Issuer, selling some or all of its Common Stock of the Issuer, engaging in short selling of or any hedging or similar transaction with respect to the securities of the Issuer, or changing its intention with respect to any and all matters referred to in this Item 4.

Item 5. Interest in Securities of the Issuer.

(a)-(b) The information contained on the cover page to this Schedule 13D and as set forth or incorporated in Items 2, 3, 4 and 6 hereof is incorporated by reference.

As of May 19, 2022, the Reporting Person (a) 575,030 shares of Common Stock held by Charles Cherington, (b) 1,268,761 shares of Common Stock held by Cherington Holdings LLC, (c) 95,328 shares of Common Stock held by Ashley S. Pettus 2012 Irrevocable Trust FBO Benjamin P. Cherington, (d) 95,327 shares of Common Stock held by Ashley S. Pettus 2012 Irrevocable Trust FBO Cyrus B. Cherington, and (e) 95,328 shares of Common Stock held by Ashley S. Pettus 2012 Irrevocable Trust FBO Henry S. Cherington.

(c) Except as set forth in this Schedule 13D with reference to the Business Combination Agreement, the Reporting Person has not engaged in any transactions during the past 60 days in any Issuer Common Stock.

(d) To the knowledge of the Reporting Person, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the securities of the Issuer deemed to be beneficially owned by the Reporting Person.

(e) Not applicable.

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

The information contained as set forth or incorporated in Items 3, 4 and 5 is incorporated herein by reference. Except as set forth in this Schedule 13D, the Reporting Person does not have any contracts, arrangements, understandings or relationships with any persons with respect to any securities of the Issuer.

Item 7. Materials to be Filed as Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1	Business Combination Agreement, dated as of January 31, 2022, among the Issuer, OTR Acquisition Corp., CLS Sub Merger 1 Corp., CLS Sub Merger 1 Corp. and Comera Life Sciences, Inc. (incorporated by reference to Annex A to Amendment No. 3 to the registration statement on Form S-4, filed by the Issuer with the SEC on April 11, 2022).
2	First Amendment to Business Combination Agreement, dated as of May 19, 2022 among the Registrant, OTR Acquisition Corp., CLS Sub Merger 1 Corp., CLS Sub Merger 1 Corp. and Comera Life Sciences, Inc. (incorporated by reference to Exhibit 2.2 to the current report on Form 8-K, filed by the Issuer with the SEC on May 25, 2022).

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: September 13, 2022

/s/ Charles Cherington
Charles Cherington