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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM TO**

Commission File Number 001-39927

SEASTAR MEDICAL HOLDING CORPORATION

(Exact name of Registrant as specified in its Charter)

Delaware	**85-3681132**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
3513 Brighton Blvd., Suite 410 Denver, CO	**80216**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (844) 427-8100

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, $0.0001 par value	ICU	The Nasdaq Stock Market LLC
Warrants, each whole warrant exercisable for one share of Common Stock for $11.50 per share	ICUCW	The Nasdaq Stock Market LLC

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
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. ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes ☒ No ☐

As of August 4, 2023, the registrant had 18,570,971 shares of common stock, $0.0001 par value per share, outstanding.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

SeaStar Medical Holding Corporation
Condensed Consolidated Balance Sheets
(in thousands, except for share and per-share amounts)

	June 30, 2023	December 31, 2022
ASSETS		
Current assets		
Cash	$ 13	$ 47
Other receivables	—	12
Prepaid expenses	2,319	2,977
Total current assets	2,332	3,036
Forward option-prepaid forward contracts, net	-	1,729
Other assets	2	2
Total assets	$ 2,334	$ 4,767
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities		
Accounts payable	$ 4,355	$ 1,927
Accrued expenses	1,095	2,245
Contingent upfront payment for license agreement	100	—
Notes payable, net of deferred financing costs	5,907	1,178
Convertible notes	2,230	—
Warrants liability	95	—
Total current liabilities	13,782	5,350
Notes payable, net of deferred financing costs	-	7,652
Total liabilities	13,782	13,002
Commitments and contingencies (see Note 10)		
Stockholders' deficit (1)		
Common stock - $0.0001 par value per share; 100,000,000 shares authorized; 18,121,238 and 12,699,668 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively	2	1
Additional paid-in capital	96,806	91,089
Accumulated deficit	(108,256)	(99,325)
Total stockholders' deficit	(11,448)	(8,235)
Total liabilities and stockholders' deficit	$ 2,334	$ 4,767

(1) Retroactively restated to give effect to the reverse recapitalization

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

SeaStar Medical Holding Corporation
Condensed Consolidated Statements of Operations
(in thousands, except for share and per-share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating expenses				
Research and development	$ 2,007	$ 596	$ 3,791	$ 951
General and administrative	1,743	716	4,540	1,173
Total operating expenses	3,750	1,312	8,331	2,124
Loss from operations	(3,750)	(1,312)	(8,331)	(2,124)
Other income (expense), net				
Interest expense	(225)	(191)	(658)	(360)
Change in fair value of convertible notes	(100)	—	—	—
Change in fair value of warrants liability	480	—	480	—
Change in fair value of notes payable derivative liability	—	601	—	578
Change in fair value of forward option-prepaid forward contracts	(69)	—	(1,723)	—
Gain on sale of recycled shares	—	—	1,306	—
Total other income (expense), net	86	410	(595)	218
Loss before provision for income taxes	(3,664)	(902)	(8,926)	(1,906)
Provision for income taxes	5	—	5	—
Net loss	$ (3,669)	$ (902)	$ (8,931)	$ (1,906)
Net loss per share of common stock, basic and diluted	$ (0.25)	$ (0.12)	$ (0.64)	$ (0.26)
Weighted-average shares outstanding, basic and diluted (1)	14,932,866	7,238,767	13,984,625	7,238,767

(1) Retrospectively restated to give effect to the reverse recapitalization

The accompanying notes are an integral part of these condensed consolidated financial statements.

SeaStar Medical Holding Corporation
Condensed Consolidated Statements of Changes in Stockholders' Deficit
(in thousands, except for share and per-share amounts)

	Stockholders' Deficit				
	Common Shares		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares (1)	Amount			
Balance, January 1, 2022	7,238,767	$ 1	$ 73,495	$ (76,312)	$ (2,816)
Stock-based compensation	—	—	4	—	4
Net loss	—	—	—	(1,004)	(1,004)
Balance, March 31, 2022	7,238,767	1	73,499	(77,316)	(3,816)
Stock-based compensation			345		345
Net loss				(902)	(902)
Balance, June 30, 2022	7,238,767	$ 1	$ 73,844	$ (78,218)	$ (4,373)
Balance, January 1, 2023	12,699,668	$ 1	$ 91,089	$ (99,325)	$ (8,235)
Issuance of shares - equity line of credit	378,006	—	1,108	—	1,108
Issuance of shares - commitment fee for equity line of credit	218,842	—	1,000	—	1,000
Stock-based compensation	—	—	505	—	505
Net loss	—	—	—	(5,262)	(5,262)
Balance, March 31, 2023	13,296,516	1	93,702	(104,587)	(10,884)
Issuance of shares - equity line of credit	26,993	—	55	—	55
Issuance of shares - conversion of convertible notes	3,088,167	1	1,936	—	1,937
Issuance of shares - vesting of RSUs	153,405	—	—	—	—
Issuance of shares - prepaid forward contracts	1,096,972	—	558	—	558
Stock-based compensation	459,185	—	555	—	555
Net loss	—	—	—	(3,669)	(3,669)
Balance, June 30, 2023	18,121,238	$ 2	$ 96,806	$ (108,256)	$ (11,448)

(1) Retroactively restated to give effect to the reverse recapitalization

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements

SeaStar Medical Holding Corporation
Condensed Consolidated Statements of Cash Flows
(in thousands, except for shares and per-share amounts)

	Six Months Ended June 30,	
	2023	**2022**
Cash flows from operating activities		
Net loss	$ (8,931)	$ (1,906)
Adjustments to reconcile net loss to net cash used in operating activities		
Amortization of discount on notes payable	—	208
Amortization of deferred financing costs	23	—
Non-cash accrued interest related to notes payable	—	151
Non-cash conversion of accrued expenses into notes payable	—	96
Non-cash fair value of discount on issuance of notes payable	—	(52)
Non-cash fair value of derivative liability on issuance of notes payable	—	52
Change in fair value of notes payable derivative liability	—	(578)
Change in fair value of warrants liability	(480)	—
Change in fair value of forward option - prepaid forward contracts	1,723	—
Gain on sale of recycled shares	(1,306)	—
Stock-based compensation	1,060	349
Changes in operating assets and liabilities		
Other receivables	12	—
Prepaid expenses	658	(777)
Accounts payable	2,428	584
Accrued expenses	350	295
Net cash used in operating activities	(4,463)	(1,578)
Cash flows from financing activities		
Proceeds from issuance of convertible notes	5,000	—
Payment of convertible notes	(258)	—
Proceeds from issuance of shares	1,163	—
Payment of commitment fee - equity line of credit	(500)	—
Proceeds from sale of recycled shares	1,870	—
Proceeds from notes payable	100	1,681
Payment of notes payable	(2,946)	—
Net cash provided by financing activities	4,429	1,681
Net increase (decrease) in cash	(34)	103
Cash, beginning of period	47	510
Cash, end of period	$ 13	$ 613
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 675	$ —
Supplemental disclosure of noncash financing activities		
Shares issued as payment of convertible notes	$ 1,937	$ —
Shares issued to settle forward option-prepaid forward contracts	$ 558	$ —
Issuance of convertible note warrants	$ 575	$ —

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Note 1. Description of Business

Organization and description of business

SeaStar Medical, Inc. was incorporated as a Delaware corporation in June 2007, and it is headquartered in Denver, Colorado. The Company is principally engaged in the research, development, and commercialization of a platform medical device technology designed to modulate inflammation in various patient populations. The primary target of this technology is for the treatment of acute kidney injuries.

SeaStar Medical, Inc. is in the pre-revenue stage focused on product development.

On October 28, 2022, LMF Merger Sub, Inc., a wholly owned subsidiary of LMF Acquisition Opportunities, Inc., (“LMAO”) merged with and into SeaStar Medical, Inc. (the "Business Combination"), with SeaStar Medical, Inc. surviving the Business Combination as a wholly owned subsidiary of LMAO. Following the consummation of the Business Combination, LMAO was renamed to "SeaStar Medical Holding Corporation" ("the Company", "we", "SeaStar Medical").

Basis of presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC") for interim reporting. As permitted under those rules and regulations, certain notes or other financial information normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. The interim unaudited condensed consolidated financial statements have been prepared on the same basis as the annual condensed consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal, recurring adjustments that are necessary to present fairly the Company’s results for the interim periods presented. The results from operations for the three and six months ended June 30, 2023, are not necessarily indicative of the results to be expected for the year ended December 31, 2023, or for any future annual or interim period.

The accompanying interim unaudited condensed consolidated financial statements should be read in conjunction with the annual condensed consolidated financial statements and the related notes for the year ended December 31, 2022. There have been no material changes in our significant accounting policies as described in our Annual Report on Form 10-K for the year ended December 31, 2022.

The interim unaudited condensed consolidated financial statements include the consolidated accounts of the Company's wholly owned subsidiary, SeaStar Medical, Inc. All significant intercompany transactions have been eliminated in consolidation.

Segment information

The Company operates in one operating segment and, accordingly, no segment disclosures have been presented herein.

Liquidity and Going Concern

As of June 30, 2023, the Company has an accumulated deficit of $108,256 and cash of $13. We do not believe that will be sufficient to enable us to fund our operations, including clinical trial expenses and capital expenditure requirements for at least 12 months from the issuance of these unaudited condensed consolidated financial statements. We believe that these conditions raise substantial doubt about our ability to continue as a going concern.

Our need for additional capital will depend in part on the scope and costs of our development activities. To date, we have not generated any revenue from the sales of commercialized products. Our ability to generate product revenue will depend on the successful development and eventual commercialization of our product. Until such time, if ever, we expect to finance our operations through the sale of equity or debt, borrowing under credit facilities, or through potential collaborations, other strategic transactions or government and other grants. Adequate capital may not be available to us when needed or on acceptable terms.

If we are unable to raise capital, we could be forced to delay, reduce, suspend, or cease our research and development programs or any future commercialization efforts, which would have a negative impact on our business, prospects, operating results and financial condition. The accompanying unaudited condensed consolidated financial statements have been prepared assuming that the Company will continue as a going concern and do not include adjustments that might result from the outcome of this uncertainty. This basis of accounting contemplates the recovery of the Company's assets and the satisfaction of liabilities in the normal course of business.

Risks and uncertainties

The Company is subject to risks common to early-stage companies in the medical technology industry including, but not limited to, new medical and technological innovations, regulatory approval requirement, lack of funding and capital resources, protection of proprietary technology, and product liability. There can be no assurance that the Company's products or services will be accepted in the marketplace, nor can there be any assurance that any future products or services can be developed or deployed at an acceptable cost and with appropriate performance characteristics, or that such products or services will be successfully marketed, if at all. These factors could have a materially adverse effect on the Company's future financial results, financial position, and cash flows.

Note 2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of the unaudited condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and reported amounts of revenues and expenses during the period. Significant estimates include the valuation of the forward option on prepaid forward contracts, derivative liability, warrants, provision for income taxes, convertible debt measured at fair value, and the amount of stock-based compensation expense. Although actual results could differ from those estimates, such estimates are developed based on the best information available to management and management's best judgments at the time.

Concentrations of credit risk

Financial instruments that potentially subject the Company to a significant concentration of credit risk consist primarily of cash. Periodically, the Company may maintain deposits in financial institutions in excess of government insured limits. The Company has not experienced any losses on deposits since inception.

Fair value option of accounting

Generally, when financial instruments are first acquired and are not required to be recorded at fair value, ASC 825, *Financial Instruments* ("ASC 825"), allows an entity to elect the fair value option ("FVO"). The FVO may be elected on an instrument-by-instrument basis only at the time of acquisition and once elected is irrevocable. The FVO allows an entity to account for the entire financial instrument at fair value with subsequent changes in fair value recognized in earnings through the condensed consolidated statements of operations at each reporting date. A financial instrument is generally eligible for the FVO if, amongst other factors, no part of the financial instrument is classified in stockholders' equity.

Based on the eligibility assessment discussed above, the Company concluded that its convertible notes (see Note 7) were eligible for the FVO and accordingly elected the FVO for those debt instruments. This election was made because of operational efficiencies in valuing and reporting for these debt instruments at fair value in their entirety at each reporting date. The convertible notes contain certain embedded derivatives that otherwise would require bifurcation and separate accounting at fair value.

The convertible notes, inclusive of their respective accrued interest at the stated interest rates (collectively referred to as the "FVO debt instruments") were initially recorded at fair value as liabilities on the condensed consolidated balance sheets and subsequently re-measured at fair value at the end of each reporting period presented within the condensed consolidated financial statements. The changes in fair value of the FVO debt instruments are recorded in changes in fair value of convertible notes, included as a component of other income (expense), net, in the condensed consolidated statements of operations.

Fair value measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price). Inputs used to measure fair value are classified into the following hierarchy:

Level 1 – quoted prices in active markets for identical assets and liabilities.

Level 2 – other significant observable inputs (including quoted prices for similar assets and liabilities, interest rate, credit risk, etc.).

Level 3 – significant unobservable inputs (including the Company's own assumptions in determining the fair value of assets and liabilities).

The fair value of the forward option on prepaid forward contracts, convertible notes, and the warrants liability, are classified as Level 3 in the fair value hierarchy.

The following table presents the changes in the forward option-prepaid forward contracts, convertible notes measured at fair value, warrants liability, and the notes derivative liability for the six months ended June 30, 2023 and 2022 (in thousands):

Level 3 Rollforward	Forward Option-Prepaid Forward Contracts	Convertible Notes	Warrants Liability	Notes Payable Derivative Liability
Balance January 1, 2022	$ —	$ —	$ —	$ (526)
Additions	—	—	—	(52)
Changes in fair value	—	—	—	578
Balance June 30, 2022	$ —	$ —	$ —	$ —
Balance January 1, 2023	$ 1,729	$ —	$ —	$ —
Additions	—	4,425	575	—
Sale of recycled shares	(564)	—	—	—
Payments	—	(258)	—	—
Shares issued as payments	—	(1,937)	—	—
Changes in fair value	(1,723)	—	(480)	—
Shares issued as maturity consideration	558	—	—	—
Balance June 30, 2023	$ —	$ 2,230	$ 95	$ —

The convertible notes are recorded as liabilities and are recorded at fair value based on Level 3 measurements. The estimated fair values of the convertible notes are each determined based on the aggregated, probability-weighted average of the outcomes of certain possible scenarios. The combined value of the probability-weighted average of those outcomes is then discounted back to each reporting period in which the convertible notes are outstanding, in each case, based on a risk-adjusted discount rate estimated based on the implied interest rate using the changes in observed interest rates of corporate rate debt that the Company believes is appropriate for those probability-adjusted cash flows.

The estimated fair value of prepaid expenses, accounts payable and accrued expenses approximate their fair value because of the short-term nature of these instruments.

Emerging growth company status

The Company is an "emerging growth company", as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"). Under the JOBS Act, emerging growth companies can take advantage of an extended transition period for complying with new or revised accounting standards, delaying the adoption of these accounting standards until

they would apply to private companies. The Company has elected to use this extended transition period for complying with certain new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it is (1) no longer an emerging growth company or (2) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act.

Note 3. Forward Purchase Agreements

During the six months ended June 30, 2023, 374,005 recycled shares were sold by Forward Purchase Agreement Sellers ("FPA Sellers"). The Company received $1,870 for the shares sold and recognized a gain of $1,306 on the sale. Losses on remeasurement of $69 and $1,723 were recorded in Change in fair value of forward option-prepaid forward contracts on the unaudited condensed consolidated statements of operations for the three and six months ended June 30, 2023, respectively.

In March 2023, the price of the Company stock was below $3.00 for more than 20 trading days and the FPA Sellers at their discretion had the ability to specify the maturity dates for the FPA. During the three months ended June 30, 2023, the FPA Sellers specified the maturity dates and the FPAs matured and were settled by transferring 1,096,972 shares to the FPA Sellers, with a fair value of $558. As the FPAs were classified as a liability at fair value, upon settlement, the FPAs were marked to their fair value at the settlement dates and the liability was settled.

Note 4. Accrued Expenses

Accrued expenses consisted of the following:

($ in thousands)	June 30, 2023	December 31, 2022
Accrued commitment fee, equity line of credit	$ —	$ 1,500
Accrued bonus	502	450
Accrued director remuneration	244	61
Accrued settlement	150	—
Accrued interest	72	112
Accrued legal	51	80
Accrued research and development	19	18
Other	57	24
Total accrued expenses	$ 1,095	$ 2,245

Note 5. Equity Line of Credit

The Company paid previously accrued commitment fees of $1,500 during the six months ended June 30, 2023, of which $1,000 was paid in 218,842 shares of common stock and $500 was paid in cash.

During the three and six months ended June 30, 2023, the Company sold 26,993 and 404,999 shares of common stock to Tumim Stone Capital LLC for proceeds of $55 and $1,162, respectively, as part of the equity line financing arrangement. As of June 30, 2023, $98,837 was available to draw.

Note 6. Notes Payable

Notes payable consisted of the following:

($ in thousands)	June 30, 2023	December 31, 2022
LMFA notes payable	$ 438	$ 968
LMFAO note payable	1,757	2,785
Maxim note payable	3,590	4,167
Insurance financing	199	910
Unamortized deferred financing costs	(77)	—
	5,907	8,830
Less current portion	(5,907)	(1,178)
	$ —	$ 7,652

Future maturities of principal repayment of the notes payable as of June 30, 2023 are as follows:

($ in thousands)	
Years ended December 31:	
2023 (remaining)	$ —
2024	5,907
	$ 5,907

On March 15, 2023, the Company amended its LMFA notes, LMFAO note, and Maxim note, extending their maturity dates to June 15, 2024. In consideration for such extension, the Company agreed to pay the noteholders an aggregate amount of $100 in cash upon receipt of proceeds from the issuance of the note at the second closing under the securities purchase agreement (see Note 7). The $100 consideration for the modification was capitalized as a deferred financing cost. The Company amortized $20 and $23 of the deferred financing cost during the three and six months ended June 30, 2023, respectively.

LMFA Notes Payable

During the six months ended June 30, 2023, the maturity date was extended to June 15, 2024. The balance due was $438 and $968 as of June 30, 2023 and December 31, 2022, respectively. The balance at December 31, 2022 consisted of a $700 interest bearing note and a $268 noninterest bearing note. The Company recorded interest expense of $7 and $19 for the three and six months ended June 30, 2023, respectively, on the interest-bearing note. The noninterest bearing note was paid in full in January 2023.

The mandatory repayment provisions of the LMFA note were waived for the second senior unsecured convertible note drawn on May 12, 2023 (see Note 7).

LMFAO Note Payable

During the six months ended June 30, 2023, the maturity date was extended to June 15, 2024. The mandatory repayment provisions of the LMFA note were waived for the second senior unsecured convertible note drawn on May 12, 2023 (see Note 7).

The balance due was $1,757 and $2,785 on June 30, 2023 and December 31, 2022, respectively. The Company recorded interest expense of $31 and $74 for the three and six months ended June 30, 2023, respectively.

Maxim Note Payable

During the six months ended June 30, 2023, the maturity date was extended to June 15, 2024. The mandatory repayment provisions of the Maxim note were waived for the first senior unsecured convertible note drawn on March 15, 2023 (see Note 7).

The balance of the Maxim note was $3,590 and $4,167 as of June 30, 2023 and December 31, 2022, respectively. The Company recorded interest expense of $63 and $130 for the six months ended June 30, 2023.

Insurance Financing

The balance due was $199 and $910 on June 30, 2023 and December 31, 2022, respectively. As of June 30, 2023, two monthly installments of $101, consisting of principal and interest remain. The Company recorded interest expense of $6 and $17 for the three and six months ended June 30, 2023.

Notes Payable

Amortization of the debt discounts related to the Dow, Union Carbide, IBT and investor notes for the three and six months ended June 30, 2022 was $99 and $208, respectively.

Note 7. Convertible Notes

3i Notes

On March 15, 2023, the Company entered into a securities purchase agreement with 3i LP ("3i") an institutional investor, whereby the Company has the ability to issue a series of four senior unsecured convertible notes (collectively the "Convertible Notes"), with principal amounts totaling up to $9,000, and warrants to purchase shares of the Company's common stock. On March 15, 2023, the Company issued a note (the "First Convertible Note"), convertible into 1,207,729 shares of common stock at an initial conversion price of $2.70, in a principal amount of $3,261, and a warrant to purchase up to 328,352 shares of common stock. The First Convertible Note was issued at an 8.0% discount, bears interest at 7.0% per annum, matures on June 15, 2024, and requires monthly installments of principal and interest.

On May 12, 2023, the Company issued a note (the "Second Convertible Note"), convertible into 805,153 shares of common stock at an initial conversion price of $2.70, in a principal amount of $2,174, and a warrant to purchase up to 218,901 shares of common stock. The Second Convertible Note was issued at an 8.0% discount, bears interest at 7.0% per annum, matures on August 12, 2024, and requires monthly installments of principal and interest.

The Company concluded that the transactions include two legally detachable and separately exercisable freestanding financial instruments: the Convertible Notes and the warrants. The Company concluded that the warrants should be recorded as a liability (see Note 8). The Company determined the Convertible Notes are liability instruments under ASC 480, *Distinguishing Liabilities from Equity*. The Convertible Notes were then evaluated in accordance with the requirements of ASC 825, and it was concluded that the Company was not precluded from electing the FVO for the Convertible Notes. As such, the Convertible Notes are carried at fair value in the condensed consolidated balance sheets. The Convertible Notes are measured at fair value each reporting date with changes in fair value recognized in the condensed consolidated statements of operations, unless the change is concluded to be related to the changes in the Company's credit rating, in which case the change will be recognized as a component of accumulated other comprehensive income in the condensed consolidated balance sheets.

During the six months ended June 30, 2023, the Company made cash payments of principal and interest of $238 and $20, respectively, on the First Convertible Note. The Company also made additional principal and interest payments, which included accelerated payments through equity conversions. In accordance and pursuant to the First Convertible Note, 3i elected to convert the conversion amount (as defined in the First Convertible Note) into shares of common stock of the Company. The Company converted principal and interest into1,879,688 shares of common stock with a fair value of $1,291.

During the six months ended June 30, 2023, the Company made principal and interest payments on the Second Convertible Note, which included accelerated payments, though equity conversions. In accordance and pursuant to the Second Convertible Note, 3i elected to convert the conversion amount (as defined in the Second Convertible Note) of principal and interest into shares of common stock of the Company. The Company converted principal and interest into 1,208,479 shares of common stock with a fair value of $646.

Future maturities of principal repayment of the Convertible Notes as of June 30, 2023 are as follows:

($ in thousands)		
Years ended December 31:		
2023 (remaining)	$	2,609
2024		1,009
	$	3,618

Note 8. Warrants

On March 15, 2023, as part of the issuance of the First Convertible Note (see Note 7) 328,352 warrants ("Convertible Note Warrants") were issued with an exercise price of $2.97 per share. On May 12, 2023, as part of the issuance of the Second Convertible Note (see Note 7) 218,901 Convertible Note Warrants were issued with an exercise price of $2.97 per share. The Convertible Note Warrants expire five years from their issuance date and contain cashless exercise provisions. The Company does not have the ability to redeem the Convertible Note Warrants. The Convertible Note Warrants for the First Convertible Note were valued at $500 at issuance. The Convertible Note Warrants for the Second Convertible Note were valued at $75 at issuance.

In accordance with ASC 815-40, *Derivatives and Hedging-Contracts in and Entity's own Equity*, the Company has determined that the Convertible Note Warrants do not meet the conditions for equity classification, due to potential cash settlement under the exchange cap provision of the securities purchase agreement, and should be carried on the condensed consolidated balance sheets as a liability measured at fair value, with subsequent changes in fair value recorded in the condensed consolidated statements of operations as change in fair value of warrants liability. The fair value of the Convertible Note Warrants was determined using a Black-Scholes option pricing model, which considers variables such as estimated volatility, time to maturity, and the risk-free interest rate. The risk-free interest rate is the U.S. Treasury rate at the date of issuance, and the time to maturity is based on the contractual life at the date of issuance, which is five years.

The Company has the following warrants outstanding:

	June 30, 2023	December 31, 2022
Public Stockholders' Warrants	10,350,000	10,350,000
Private Placement Warrants	5,738,000	5,738,000
PIPE Investor Warrants	700,000	700,000
Convertible Note Warrants	547,253	—
SeaStar Warrants	69,714	69,714
	17,404,967	16,857,714

Note 9. Common Stock and Stock-Based Compensation

During the six months ended June 30, 2023, the Company issued 459,185 shares of common stock for management bonuses and 153,405 shares of common stock for vested restricted stock units. The Company also granted 351,029 options and 234,019 restricted stock units during the six months ended June 30, 2023. For options granted during the six months ended June 30, 2023, the weighted-average grant date fair value was $1.20 per share and the options vest one year from the grant date. For RSUs granted during the six months ended June 30, 2023, the weighted-average grant date fair value was $1.47 per share and the RSUs vest one year from the grant date.

The following represents stock-based compensation expense in the company's unaudited condensed consolidated statements of operations:

($ in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Research and development	$ 96	$ 90	$ 135	$ 90
General and administrative	459	255	925	259
Total	$ 555	$ 345	$ 1,060	$ 349

Note 10. Commitments and Contingencies

License and distribution agreement

On December 27, 2022, the Company entered into a license and distribution agreement with a distributor, appointing the distributor as the exclusive distributor to promote, advertise, market, distribute and sell the Selective Cytopheretic Device ("SCD") in the United States. The Company received an upfront payment of $100 on January 3, 2023. If the Company does not receive written authorization to market the SCD, prior to the first anniversary of the effective date, the Company will repay the $100. The Company has recorded the $100 upfront payment as a liability in the unaudited condensed consolidated balance sheets as of June 30, 2023. The Company shall also receive milestone payments in the amounts of $450 and $350 for obtaining approval from the Food and Drug Administration and for selling the first sixty units to any third parties. The term of the agreement is three years.

Lease agreements

The Company is part of a membership agreement for shared office space and can cancel at any time. Rent expense was $8 and $16 for the three and six months ended June 30, 2023 and 2022, respectively.

Litigation

Liabilities for loss contingencies arising from claims, assessments, litigation, fines, penalties, and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. From time to time, the Company may become involved in legal proceedings arising in the ordinary course of business.

In connection with the Business Combination, LMAO proposed, for stockholder approval, various amendments to its Amended and Restated Certificate of Incorporation, which included among other things a proposal to increase the authorized shares of common stock. A purported stockholder sent a Stockholder Litigation Demand letter (the "Demand") to the Board of Directors of LMAO alleging that the Delaware General Corporation Law required a separate class vote of the Class A common stockholders to increase the authorized shares of common stock. Following receipt of the Demand, the Company canceled and withdrew the proposal to increase the authorized shares of common stock.

The stockholder's counsel thereafter demanded that the Company pay counsel fees for the purported benefit conferred upon the Company's shareholders by causing the Company to withdraw the allegedly invalid proposal to increase the authorized shares of common stock. The Company recorded $150 for a legal settlement in accrued expenses as of June 30, 2023. The settlement will be paid in three installments of $50 in August 2023, September 2023, and November 2023. The Company was not subject to any other material legal proceedings during the three and six months ended June 30, 2023, and no material legal proceedings are currently pending or threatened.

Note 11. Income Taxes

In accordance with U.S. GAAP, a valuation allowance should be provided if it is more likely than not that some or all of the Company's deferred tax assets will not be realized. The Company's ability to realize the benefit of its deferred tax assets will depend on the generation of future taxable income. Due to the uncertainty of future profitable operations and taxable income, the Company has recorded a full valuation allowance against its net deferred tax assets. The

(in thousands, except for shares and per-share amounts)

Company believes its tax filing position and deductions related to tax periods subject to examination will be sustained under audit and, therefore, has no reserve for uncertain tax positions.

Note 12. Net Loss Per Share

Basic net loss per common share is calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period, including vested restricted stock units for which common shares have not yet been issued, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common shares and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, the warrants, common stock options, and unvested restricted stock units are considered to be potentially dilutive securities. As the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for all periods.

The following weighted-average outstanding shares of potentially dilutive securities were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Public Stockholders' warrants	10,350,000	—	10,350,000	—
Private Placement warrants	5,738,000	—	5,738,000	—
PIPE Investor warrants	700,000	—	700,000	—
Convertible Note warrants	448,627	—	256,393	—
SeaStar warrants	69,714	69,714	69,714	69,714
Options to purchase common stock	576,534	332,544	411,579	335,102
Unvested restricted stock units	129,640	296,696	213,548	149,168
Total	18,012,515	698,954	17,739,234	553,984

Net loss per share is calculated using the shares in connection with the Business Combination and related transactions, assuming the shares were outstanding since January 1, 2022. As the Business Combination and related transactions are being reflected as if they had occurred at the beginning of the period presented, the calculation of weighted average shares outstanding for basic and diluted net loss per share assumes that the shares issued in connection with the Business Combination have been outstanding for the entire period presented. The calculation of weighted average shares outstanding for basic and diluted net loss per share for the three and six months ended June 30, 2022 has been retroactively restated to give effect to the Business Combination.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Net loss	$ (3,669)	$ (902)	$ (8,931)	$ (1,906)
Weighted average shares outstanding - basic and diluted	14,932,866	7,238,767	13,984,625	7,238,767
Basic and diluted net loss per share	$ (0.25)	$ (0.12)	$ (0.64)	$ (0.26)

Note 13. Subsequent Events

In July 2023, the Company sold 234,579 shares of common stock to Tumim Stone Capital LLC for proceeds of $120, as part of the equity line financing arrangement (see Note 5).

In July and August 2023, the Company made principal and interest payments on the Second Convertible Note, which included accelerated payments, through equity conversions. In accordance and pursuant to the Second Convertible

Note, 3i elected to convert the conversion amount (as defined in the Second Convertible Note) into shares of common stock of the Company. The Company converted principal and interest into 590,154 shares of common stock with a fair value of $283.

On August 7, 2023, the Company entered into an amendment to the securities purchase agreement with 3i, whereby the VWAP price will be $0.20 for all future conversions and the provisions of the third closing have been amended. 3i will have the discretion to purchase additional shares of the Company common stock in an aggregate principal amount of $2,000, provided that 3i will purchase additional shares of the Company common stock in an aggregate principal amount of $1,000 in two tranches no later than September 5, 2023. On August 7, 2023, the Company issued a note (the "Third Convertible Note") in a principal amount of $543, convertible into shares of common stock at an initial conversion price of $0.20, and a warrant to purchase up to 738,791 shares of common stock. The Third Convertible Note was issued at an 8.0% discount, bears interest at 7.0% per annum, matures on November 6, 2024, and requires monthly installments of principal and interest.

In connection with the amendment to the securities purchase agreement with 3i, the Company entered into a letter agreement with 3i, providing for (i) certain adjustment mechanisms for the conversion price of the First and Second Convertible Notes and additional notes issued or to be issued under the securities purchase agreement, as amended, (ii) a six month waiver period of any cash payment obligations of the Company under each existing note, and (iii) the issuance of an additional warrant to purchase an aggregate of 4,765,620 shares of common stock.

Also on August 7, 2023, the Company entered into certain amendments and waivers for the Maxim Note, LMFA Note, and LMFAO Note. The lenders waved their rights to receive any mandatory prepayments for proceeds received by the Company from the convertible note financings and agreed to extend the maturity dates to 91 days after the last maturity date applicable to any of the notes issued pursuant to the amended securities purchase agreement with 3i.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis are intended to help you understand our business, financial condensed condition, results of operations, liquidity, and capital resources. You should read this discussion in conjunction with the Company's condensed consolidated financial statements and related notes included elsewhere in this Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2022.

In addition to historical financial analysis, this discussion and analysis contains forward-looking statements based upon current expectations that involve risks, uncertainties, and assumptions, as described under the heading "Cautionary Note Regarding Forward Looking Statements." Actual results and timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of various factors, risks and uncertainties, including those set forth under "Risk Factors" included elsewhere (or incorporated by reference) in this Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2022. Unless the context otherwise requires, references in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" to "SeaStar Medical," "we," "us," "our," and "the Company" are intended to mean the business and operations of SeaStar Medical Holding Corporation and its consolidated subsidiaries following the Business Combination.

Overview

On October 28, 2022, LMAO consummated a series of transactions that resulted in the combination of LMF Merger Sub, Inc. and SeaStar Medical, Inc. pursuant to an Agreement and Plan of Merger (the "Business Combination").

The Company is a medical technology company developing a platform therapy to reduce the consequences of hyperinflammation on vital organs. In a normal inflammatory response, neutrophils are the first immune cells to arrive at the site and are key to the entire immune response that kills pathogens and promotes tissue repair. If the inflammatory response becomes excessive and dysregulated, normal neutrophil die off may be delayed, altering feedback mechanisms that regulate the immune system. This results in damaging hyperinflammation spreading uncontrollably to other parts of the body, often leading to acute chronic solid organ dysfunction or failure, including heart, lung, kidney and liver diseases. This hyperinflammatory response is also known as the cytokine storm, referring to the body's reaction to the category of small-secreted proteins released by hyperinflammatory cells that affect communication between cells. The cytokine storm, when left uncontrolled, can lead to organ damage and even death.

We are initially using our proprietary Selective Cytopheretic Device ("SCD") technology platform to clinically validate several acute organ injury indications, including kidneys and lungs. Our investigational SCD is an extracorporeal synthetic membrane device designed to be easily integrated into existing Continuous Renal Replacement Therapy ("CRRT") systems that are commonly installed in hospitals, including in Intensive Care Units throughout the United States. Once approved and commercialized, the SCD would initially target acute kidney injury in both the pediatric CRRT population as well as adults on CRRT. In addition, we are developing our SCD to address inflammation associated with chronic dialysis and chronic heart failure. The regulatory approval process for our SCD product candidates is costly and involves significant risks and uncertainties. For a detailed description of these and other risks, please see "Risk Factors" under Part II, Item I of this Form 10-Q.

We have incurred net losses in each year since our inception in 2007. As of June 30, 2023 and December 31, 2022, we had an accumulated deficit of $108.3 million and $99.3 million, respectively. Our net losses were $3.7 million and $0.9 million for the three months ended June 30, 2023 and 2022, respectively. Our net losses were $8.9 million and $1.9 million for the six months ended June 30, 2023, respectively. Substantially all our net losses resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. For the three and six months ended June 30, 2022, additional losses were related to the change in fair value of the forward option derivatives and the change in fair value of convertible notes.

As of June 30, 2023 and December 31, 2022, we had cash of $0.0 million.

Our accompanying unaudited condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and liabilities in the normal course of business. Our condensed consolidated financial statements do not include any adjustments relating to the recoverability and classification of asset amounts or the classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

The recurring losses, working capital deficiency, the need for capital to fund our operations, including clinical trial and regulatory approval expenses, and the amount of cash reserve are factors that raise substantial doubt about our ability to continue as a going concern for the twelve-month period from the date the unaudited condensed consolidated financial statements are made available.

Our need for additional capital will depend in part on the scope and costs of our development activities. To date, we have not generated any significant revenue from the sale of commercialized products. Our ability to generate product revenue will depend on the successful development and eventual commercialization of our products. Until such time, if ever, we expect to finance our operations through the sale of equity or debt, borrowings under credit facilities, potential collaborations, other strategic transactions or government and other grants. Adequate capital may not be available to us when needed or on acceptable terms. If we are unable to raise capital, we could be

forced to delay, reduce, suspend or cease our research and development programs or any future commercialization efforts, which would have a negative impact on our business, prospects, operating results and financial condition. See Part I, Item 1A "Risk Factors" for additional information.

Key Components of Results of Operations

Revenue

To date, we have not generated any revenue from the sale of commercialized products. Revenue has been primarily derived from government and other grants. We may generate revenue in the future based on payments from future license or collaboration agreements and government and other grants, and, if our products receive regulatory approval for commercialization, from product sales. We expect that any revenue we generate will fluctuate from quarter to quarter. If we fail to complete the development of or obtain regulatory approval for commercialization of our products in a timely manner, our ability to generate future revenue and our results of operations and financial position, would be materially adversely affected.

Research and Development Expenses

Since our inception, we have focused our resources on our research and development activities, including conducting preclinical studies and clinical trials, and developing our process and activities related to regulatory filings for our products. Subject to the availability of additional funding, we plan to further increase our research and development expenses for the foreseeable future as we continue the development of our products.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related costs for employees in executive and finance roles, which also include stock-based compensation expenses and benefits for such employees.

Other significant general and administrative expenses include facilities costs, professional fees for accounting and legal services, expenses associated with obtaining and maintaining patents and obtaining financing, and expenses related to SEC reporting. As we continue to expand and grow our operations, we expect that our general and administrative expenses will increase, including additional expenses relating to new hires, travel, a new enterprise resource planning platform, and branding.

Other Income (Expense), Net

Total other income (expense), net primarily consists of interest expense relating to interest incurred on our notes, financing fees related to our convertible notes, gain on issuance of convertible notes, change in fair value of convertible notes, change in fair value of warrants liability, change in fair value of forward-option forward contracts, and gain on sale of recycled shares.

Net Loss

Net loss consists of the Company's loss from operations, less other expense.

Factors Affecting the Company's Operating Results

We believe that our performance and future success depend on a number of factors that present significant opportunities for us but also pose risks and challenges. Please see the factors discussed elsewhere in this Form 10-Q, including those discussed in Part I, Item 1A, "Risk Factors," for additional information.

Results of Operations

Comparison of the Three Months Ended June 30, 2023 to the Three Months Ended June 30, 2022

The following table sets forth a summary of our results of operations. This information should be read together with our unaudited condensed consolidated financial statements and related Notes included elsewhere in this Form 10-Q.

($ in thousands)	Three Months Ended June 30, 2023	2022	Change $	%
Revenue	$ —	$ —	$ —	—
Operating expenses				
Research and development	2,007	596	1,411	237%
General and administrative	1,743	716	1,027	143%
Total operating expenses	3,750	1,312	2,438	186%
Loss from operations	(3,750)	(1,312)	(2,438)	186%
Total other income (expense)	86	410	(324)	(79)%
Loss before income tax provision	(3,664)	(902)	(2,762)	306%
Income tax provision (benefit)	5	—	5	
Net loss	$ (3,669)	$ (902)	$ (2,767)	307%

Research and Development Expenses

The following table discloses the breakdown of research and development expenses:

($ in thousands)	Three Months Ended June 30, 2023	2022	Change $	%
Clinical trials	$ 803	$ —	$ 803	100%
External services	486	419	67	16%
Payroll and personnel expenses	656	115	541	470%
Other research and development expenses	62	62	-	0%
	$ 2,007	$ 596	$ 1,411	237%

Research and development expenses for the three months ended June 30, 2023 and 2022 were $2.0 million and $0.6 million, respectively. The increase in research and development expenses of $1.4 million, or 237%, was primarily driven by increases in clinical trial expenses of $0.8 million, an increase in the use of external services of $0.1 million, and an increase in payroll and personnel expenses of $0.5 million.

General and Administrative Expenses

General and administrative expenses for the three months ended June 30, 2023 and 2022 were $1.7 million and $0.7 million, respectively. The increase in general and administrative expenses of $1.0 million, or 143%, is due primarily to an increase in insurance expense of $0.4 million, increase in professional fees related to SEC reporting of $0.2 million, cost of SEC reporting of $0.2 million, an increase in payroll related expenses of $0.1 million, and an increase in marketing and travel expenses of $0.1 million.

Other Income (Expense)

Other income (expense) for the three months ended June 30, 2023 and 2022 was income of $0.1 million and income of $0.4 million, respectively. The decrease of $0.3 million primarily resulted from increases in interest, the change in fair value of forward option-prepaid forward contracts, and change in fair value of convertible notes, partially offset by the gain on issuance of convertible notes, and the change in fair value of warrants liability.

Income Tax Provision (Benefit)

SeaStar Medical recorded a provision for income taxes of $0.0 million for the three months ended June 30, 2023, and an income tax benefit of $0.0 million for the three months ended June 30, 2022.

Under Accounting Standards Codification (“ASC”) 740-10-30-5, Income Taxes, deferred tax assets should be reduced by a valuation allowance if, based on the weight of available evidence, it is more-likely-than-not (i.e., a likelihood of more than 50%) that some portion or all of the deferred tax assets will not be realized. SeaStar Medical considers all positive and negative evidence available in determining the potential realization of deferred tax assets including, primarily, the recent history of taxable earnings or losses. Based on operating losses reported during 2022 and 2021, the Company concluded there was not sufficient positive evidence to overcome this recent operating history. As a result, we believe that a valuation allowance continues to be necessary based on the more-likely-than-not threshold noted above.

Net Loss

During the three months ended June 30, 2023, SeaStar Medical had a net loss of $3.7 million compared to a net loss of $0.9 million for the three months ended June 30, 2022. The increased net loss of $2.8 million primarily resulted from increases in general and administrative expenses of $1.0 million, increases in research and development expenses of $1.4 million, change in fair value of forward option-prepaid forward contracts of $0.1 million, and the change in fair value of convertible notes of $0.8 million, partially offset by the change in fair value of notes payable of $0.6 million during the three months ended June 30, 2022, and the gain on issuance of convertible notes of $0.7 million, and the change in fair value of warrants liability of $0.5 million during the three months ended June 30, 2023.

Comparison of the Six Months Ended June 30, 2023 to the Six Months Ended June 30, 2022

The following table sets forth a summary of our results of operations. This information should be read together with our unaudited condensed consolidated financial statements and related Notes included elsewhere in this Form 10-Q.

	Six Months Ended June 30,		Change	
($ in thousands)	**2023**	**2022**	**$**	**%**
Revenue	$ —	$ —	$ —	—
Operating expenses				
Research and development	3,791	951	2,840	299%
General and administrative	4,540	1,173	3,367	287%
Total operating expenses	8,331	2,124	6,207	292%
Loss from operations	(8,331)	(2,124)	(6,207)	292%
Total other income (expense)	(595)	218	(813)	(373)%
Loss before income tax provision	(8,926)	(1,906)	(7,020)	368%
Income tax provision (benefit)	5	—	5	
Net loss	$ (8,931)	$ (1,906)	$ (7,025)	369%

Research and Development Expenses

The following table discloses the breakdown of research and development expenses:

	Six Months Ended June 30,		Change	
($ in thousands)	**2023**	**2022**	**$**	**%**
Clinical trials	$ 1,314	$ —	$ 1,314	100%
External services	1,167	689	478	69%
Payroll and personnel expenses	1,224	158	1,066	675%
Other research and development expenses	86	104	(18)	(17)%
	$ 3,791	$ 951	$ 2,840	299%

Research and development expenses for the six months ended June 30, 2023 and 2022 were $3.8 million and $1.0 million, respectively. The increase in research and development expenses of $2.8 million, or 299%, was primarily driven by increases in clinical trial expenses of $1.3 million, an increase in the use of external services of $0.5 million, and an increase in payroll and personnel expenses of $1.0 million.

General and Administrative Expenses

General and administrative expenses for the six months ended June 30, 2023 and 2022 were $4.5 million and $1.2 million, respectively. The increase in general and administrative expenses of $3.4 million, or 287%, was driven by an increase in payroll related expenses of $0.8 million, an increase in insurance expense of $0.8 million, an increase in professional fees related to SEC reporting of $0.8 million, cost of SEC reporting of $0.4 million, an increase in marketing and travel expenses of $0.3 million, a legal settlement of $0.2 million, and an increase in director's compensation of $0.1 million.

Other Income (Expense)

Other income (expense) for the six months ended June 30, 2023 and 2022 was expense of $0.6 million and income of $0.2 million, respectively. The decrease of $0.8 million primarily resulted from increases in interest expense, the change in fair value of convertible notes, the change in fair value of forward option-prepaid forward contracts, partially offset by the gain on issuance of convertible notes, the change in fair value of warrants liability, and a gain on sales of recycled shares.

Income Tax Provision (Benefit)

SeaStar Medical recorded a provision for income taxes of $0.0 million for the six months ended June 30, 2023, and an income tax benefit of $0.0 million for the six months ended June 30, 2022.

Under Accounting Standards Codification ("ASC") 740-10-30-5, Income Taxes, deferred tax assets should be reduced by a valuation allowance if, based on the weight of available evidence, it is more-likely-than-not (i.e., a likelihood of more than 50%) that some portion or all of the deferred tax assets will not be realized. SeaStar Medical considers all positive and negative evidence available in determining the potential realization of deferred tax assets including, primarily, the recent history of taxable earnings or losses. Based on operating losses reported during 2022 and 2021, the Company concluded there was not sufficient positive evidence to overcome this recent operating history. As a result, we believe that a valuation allowance continues to be necessary based on the more-likely-than-not threshold noted above.

Net Loss

During the six months ended June 30, 2023, SeaStar Medical had a net loss of $8.9 million compared to a net loss of $1.9 million for the six months ended June 30, 2022. The increased net loss of $7.0 million primarily resulted from increases in general and administrative expenses of $3.4 million, increases in research and development expenses of $2.8 million, increases in interest expense of $0.3 million, change in fair value of convertible notes of $0.7 million, and a change in fair value of forward option-prepaid forward contracts of $1.7 million, partially offset by the change in fair value of notes payable of $0.6 million during the six months ended June 30, 2022, and the gain on issuance of convertible notes of $0.7 million, change in fair value of warrants liability of $0.5 million, and a gain on sale of recycled shares of $1.3 million during the six months ended June 30, 2023.

Liquidity and Capital Resources

Sources of Liquidity

To date, we have financed our operations primarily through the sale of equity securities and convertible debt and, to a lesser extent, through grants from governmental and other agencies. Since our inception, we have incurred significant operating losses and negative cash flows. As of June 30, 2023 and December 31, 2022, we had an accumulated deficit of $108.3 million and $99.3 million, respectively.

As of June 30, 2023 and December 31, 2022, we had cash of $0.0 million. We expect that our existing cash will be insufficient to fund our operations, including clinical trial expenses and capital expenditure requirements. We believe that this raises doubt about our ability to continue as a going concern. To finance our operations beyond that point, we would need to raise additional capital, and there is no guarantee that we will be able to secure additional funding on favorable terms, or at all. We have concluded that these circumstances raise doubt about our ability to continue as a going concern within one year after the issuance date of this Form 10-Q.

On March 15, 2023, the Company entered into a securities purchase agreement with an institutional investor, whereby the Company agreed to issue a series of four senior unsecured convertible notes, with principal amounts totaling up to $9.8 million, and warrants to purchase shares of the Company's common stock. On March 15, 2023, the Company issued the first senior unsecured convertible note in the amount of $3.3 million and warrants to purchase 328,352 shares of common stock. On May 12, 2023, the Company issued the second senior unsecured convertible note in the amount of $2.2 million and warrants to purchase 218,901 shares of common stock. The senior unsecured convertible notes were issued at an 8.0% discount and bear interest at 7.0% per annum and mature on June 15, 2024, and August 12, 2024. The senior unsecured convertible notes are redeemable, in whole or in part, at any time at the discretion of the Company. The warrants have an initial exercise price of $2.97 per share of common stock, expire 5 years from their issuance date, and contain cashless exercise provisions.

At each of the third and fourth closings, the Company may, at its option, issue and sell to the Purchaser (i) additional Notes, each in a principal amount of $2.2 million and (ii) additional Warrants to purchase shares of common stock equal to 25% of the shares issuable upon conversion of the Notes on the applicable closing date. Pursuant to the Securities Purchase Agreement, the Company must satisfy certain additional conditions in order to sell and issue the additional Notes and additional Warrants at the second, third and fourth closings. Such additional conditions include, but are not limited to, the effectiveness of a registration statement to be filed by the Company with the SEC to register shares of common stock issuable upon conversion of the Notes and exercise of the Warrants, and for the third and fourth closings, the approval by stockholders of the Company to issue more than 19.99% of issued and outstanding shares pursuant to applicable Nasdaq Rules.

On August 7, 2023, the Company entered into an amendment to the securities purchase agreement, whereby the provisions of the third closing are amended. The institutional investor shall have the discretion to purchase additional shares of the Company common stock in an aggregate principal amount of $2.0 million, provided that institutional investor will purchase additional shares of the Company common stock in an aggregate principal amount of $1.0 million in two tranches no later than September 5, 2023. On August 7, 2023,

the Company issued a note, convertible into shares of common stock at an initial conversion price of $0.20, in a principal amount of $0.5 million, and a warrant to purchase up to 738,791 shares of common stock.

In connection with the amendment to the securities purchase agreement, the Company entered into a letter agreement with the institutional investor, providing for (i) certain adjustment mechanisms for the conversion price of the First and Second Convertible Notes and additional notes issued or to be issued under the securities purchase agreement, as amended, (ii) a six month waiver period of any cash payment obligations of the Company under each existing note, and (iii) the issuance of an additional warrant to purchase an aggregate of 4,765,620 shares of common stock.

On March 15, 2023, the Company amended its LMFA notes, LMFAO note and Maxim note, extending their maturity dates to June 15, 2024. In consideration for such extension, the Company agreed to pay the note holders an aggregate amount of $0.1 million in cash upon receipt of proceeds from the issuance of the notes at the second closing under the securities purchase agreement. The mandatory repayment provisions of the notes were waived for the first senior unsecured convertible note drawn on March 15, 2023.

On May 12, 2023, the Company amended its LMFA notes, LMFAO note and Maxim note. The mandatory repayment provisions of the notes were waived for the LMFA notes, and LMFAO note for the second senior unsecured convertible note drawn on May 12, 2023. The mandatory repayment for the Maxim note was reduced to $0.1 in full satisfaction of the obligation under the promissory note with respect to the second closing.

On August 7, 2023, the Company entered into certain amendments and waivers for the Maxim Note, LMFA Note, and LMFAO Note. The lenders waved their rights to receive any mandatory prepayments for proceeds received by the Company from the convertible note financings and agreed to extend the maturity dates to 91 days after the last maturity date applicable to any of the notes issued pursuant to the amended securities purchase agreement with 3i.

Future Funding Requirements

We expect to incur significant expenses in connection with our ongoing activities as we seek to (i) continue clinical development of our SCD product for approval by the Food and Drug Administration ("FDA"), and (ii) if regulatory approval is obtained, to launch and commercialize our product in the U.S. market, including subsequent launches in key international markets. We will need additional funding in connection with these activities. Our future funding requirements, both short-term and long-term, will depend on many factors, including:

- our ability to receive cash proceeds from our existing funding sources, including equity line of credit;
- the progress and results of our clinical trials and interpretation of those results by the FDA and other regulatory authorities;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims; and
- the costs of operating as a public company, including hiring additional personnel as well as increased director and officer insurance premiums, audit and legal fees, investor relations fees and expenses related to compliance with public company reporting requirements under the Securities Exchange Act of 1934, as amended, and rules implemented by the SEC and Nasdaq.

Until such time, if ever, as we are able to successfully develop and commercialize our products, we expect to continue financing our operations through the sale of equity, debt, borrowings under credit facilities or through potential collaborations with other companies, other strategic transactions or government or other grants. Adequate capital may not be available to us when needed or on acceptable terms.

Based on our results of operations and liquidity as of June 30, 2023, we believe our cash and cash equivalents, including the cash we obtained from the Business Combination and the PIPE Investment, as well as potential proceeds available under the Purchase Agreement with Tumim Stone Capital ("Tumim") and from the Forward Purchase Agreements ("FPA"), are not sufficient to meet our working capital and capital expenditure requirements for a period of at least twelve months from the date of our unaudited condensed consolidated financial statements as of June 30, 2023, are made available. In addition, we do not expect to receive any cash proceeds from the exercise of warrants in the near term, because the trading price of our common stock is currently below the exercise price of such warrants. We are seeking additional cash to fund our growth through future debt or equity financing transactions; however, there can be no assurance that we will be able to obtain additional capital on terms acceptable to us, if at all, or that we will generate sufficient future revenues and cash flows to fund our operations. Our estimates of our results of operations, working capital and capital expenditure requirements may be different than our actual needs, and those estimates may need to be revised if, for example, our actual revenue is lower, and our net operating losses are higher, than we project, and our cash and cash equivalents position is reduced faster than anticipated. We do not currently have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include

liquidation or other preferences that adversely affect the rights of stockholders. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making acquisitions or capital expenditures. Debt financing would also result in fixed payment obligations. If we are unable to raise additional funds through equity or debt financings or other arrangements when needed, we may be required to delay, reduce, suspend or cease our research and development programs or any future commercialization efforts, which would have a negative impact on our business, prospects, operating results, and financial condition. See the section titled "Risk Factors" for additional risks associated with our substantial capital requirements.

Cash Flows

The following table shows a summary of our cash flows for each of the periods shown below:

($ in thousands)	Six Months Ending June 30, 2023	Six Months Ending June 30, 2022
Statement of cash flow data:		
Total cash (used in)/provided by:		
Operating activities	$ (4,463)	$ (1,578)
Investing activities	—	—
Financing activities	4,429	1,681
	$ (34)	$ 103

Cash Flow from Operating Activities

Net cash used in operating activities for the six months ended June 30, 2023 was $4.5 million compared to $1.6 million for the six months ended June 30, 2022. The increase in cash used for operating activities of $2.9 million is primarily due to the increase of resources to launch the clinical trial.

Cash Flow from Financing Activities

Net cash provided by financing activities for the six months ended June 30, 2023 was $4.4 million, primarily related to the issuance of new shares of common stock, proceeds from convertible notes, and the sale of recycled shares, partially offset by payments of notes payable, payment of convertible notes, and payment of commitment fees for the equity line of credit. Cash provided by financing activities for the six months ended June 30, 2022 was $1.7 million, primarily from the issuance of notes payable.

Critical Accounting Policies and Estimates

The preparation of the unaudited condensed consolidated financial statements and related disclosures in conformity with U.S. GAAP requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, and income and expenses during the periods reported. Although actual results could materially differ from those estimates, such estimates are developed based on the best information available to management and management's best judgments at the time.

Significant estimates include the valuation of the forward option on forward purchase agreement, derivative liability, warrants, convertible notes at fair value, and the amount of share-based compensation expense.

Emerging Growth Company Status

We are an emerging growth company ("EGC"), as defined in the Jumpstart Our Business Startups ("JOBS") Act. The JOBS Act permits companies with EGC status to take advantage of an extended transition period to comply with new or revised accounting standards, delaying the adoption of these accounting standards until they apply to private companies. We have elected to use this extended transition period to enable us to comply with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our condensed consolidated financial statements may not be comparable to companies that comply with the new or revised accounting standards as of public company effective dates.

In addition, we intend to rely on the other exemptions and reduced reporting requirements provided by the JOBS Act. Since we intend to rely on such exemptions, we are not required to, among other things: (i) provide an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act; (ii) provide all of the compensation

disclosure that may be required of non-emerging growth public companies under the Dodd-Frank Wall Street Reform and Consumer Protection Act; (iii) comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the condensed consolidated financial statements (auditor discussion and analysis); and (iv) disclose certain executive compensation-related items such as the correlation between executive compensation and performance and comparisons of the Chief Executive Officer's compensation to median employee compensation.

We will remain an EGC under the JOBS Act until the earliest of (i) the last day of our first fiscal year following the fifth anniversary of the closing of this offering, (ii) the last date of our fiscal year in which we have total annual gross revenue of at least $1.07 billion, (iii) the date on which we are deemed to be a "large-accelerated filer" under the rules of the SEC with at least $700.0 million of outstanding securities held by non-affiliates, or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the previous three-years.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of June 30, 2023:

($ in thousands)	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Contractual Obligations:					
LMFA note payable	438	438	—	—	—
LMFAO note payable	1,757	1,757	—	—	—
Maxim note payable	3,590	3,590	—	—	—
First Convertible Note	2,107	2,107	—		
Second Convertible Note	1,719	1,719	—	—	—
Insurance Financing	199	199	—	—	—
Total contractual obligations	$ 9,810	$ 9,810	$ —	$ —	$ —

Financing Transactions

Forward Purchase Agreements

In March 2023, a Volume Weighted Average Price ("VWAP") trigger event occurred, and the FPAs could mature on the date specified by the FPA Sellers' discretion. During the three months ended June 30, 2023, the FPAs matured and were settled by transferring 1,096,972 shares to the FPA Sellers, with a fair value of $0.6 million.

Equity Line of Credit

The Company paid previously accrued commitment fees of $1.5 million during the six months ended June 30, 2023, of which $1.0 million was paid in 218,842 shares of common stock and $0.5 million was paid in cash.

During the six months ended June 30, 2023, the Company sold 404,999 shares of common stock to Tumim for $1.2 million as part of the equity line financing arrangement.

Convertible Notes

On March 15, 2023, the Company entered into a securities purchase agreement with a related party institutional investor, whereby the Company will issue a series of four senior unsecured convertible notes, with principal amounts totaling up to $9.0 million, and warrants to purchase shares of the Company's common stock. On March 15, 2023, the Company issued a note, convertible into 1,207,729 shares of common stock at an initial conversion price of $2.70, in a principal amount of $3.0 million, and a warrant to purchase up to 328,352 shares of common stock. The senior unsecured convertible note was issued at an 8.0% discount, bears interest at 7.0% per annum, and matures on June 15, 2024. The senior unsecured convertible notes are redeemable, in whole or in part, at any time at the discretion of the Company. The warrants have an initial exercise price of $2.97 per share of common stock, expire five years from their issuance date, and contain cashless exercise provisions. The convertible note contains an original issue discount of $0.3 million and was measured at fair value.

On May 12, 2023, the Company issued the second convertible note, convertible into 805,153 shares of common stock at an initial conversion price of $2.70, in a principal amount of $2.2 million, and a warrant to purchase up to 218,901 shares of common stock. The senior unsecured convertible note was issued at an 8.0% discount, bears interest at 7.0% per annum, and matures on August 12, 2024.

The senior unsecured convertible note is redeemable, in whole or in part, at any time at the discretion of the Company. The warrants have an initial exercise price of $2.97 per share of common stock, expire five years from their issuance date, and contain cashless exercise provisions. The convertible note contains an original issue discount of $0.2 million and was measured at fair value.

On May 12, 2023, the second convertible note and the warrants attached to the second convertible note were recorded at their fair values of $1.2 million and $0.1 million, respectively, which was less than the proceeds received from the second convertible note of $2.0 million and the Company recorded a gain on the issuance of the Second Convertible Note of $0.7 million in the unaudited condensed consolidated statements of operations for the three months ended June 30, 2023.

The warrants attached to the notes at the time of issuance are classified as a liability.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

Item 4. Controls and Procedures.

This Item 4 includes information concerning the controls and controls evaluation referred to in the certifications of our Chief Executive Officer and Interim Chief Financial Officer required by Rule 13a-14 of the Exchange Act included in this Form 10-Q as Exhibits 31.1 and 31.2.

Evaluation of Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and Interim Chief Financial Officer, have conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act") as of June 30, 2023 and based on this evaluation, have concluded that, as a result of the material weaknesses in internal control over financial reporting as described below, our disclosure controls and procedures were not effective as of June 30, 2023.

Pursuant to Rule 13a-15(e), the term "disclosure controls and procedures" means controls and other procedures of an issuer that are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its Chief Executive Officer and Chief Financial Officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for designing, implementing, and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The management of the Company has designed such internal control over financial reporting or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting, no matter how well designed, has inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

As discussed elsewhere in this report, we completed the Business Combination on October 28, 2022. Prior to the Business Combination, SeaStar Medical, Inc. was a private company and therefore its controls were not required to be designed or maintained in accordance with Rules 13a-15 and 15d-15 under the Exchange Act. The design and implementation of internal control over financial reporting for the Company post-Business Combination has required and will continue to require significant time and resources from management and other personnel. Because of this, the design and ongoing development of our framework for implementation and evaluation of internal control over financial reporting is in its preliminary stages. As a result, management was unable, without incurring unreasonable effort or expense, to conduct an assessment of our internal control over financial reporting as of December 31, 2022. Accordingly, we are excluding management's report on internal control over financial reporting pursuant to Section 215.02 of the SEC Division of Corporation Finance's Regulation S-K Compliance & Disclosure Interpretations.

Identification of Material Weaknesses

In the course of preparing the unaudited condensed consolidated financial statements that are included in this Form 10-Q, the Company has identified material weaknesses in its internal controls over financial reporting as of June 30, 2023, which relates to a deficiency in the design and operation of its financial accounting and reporting controls. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The Company has identified that additional headcount will be addressed in the near term to allow for further research and internal dialogue on complex accounting transactions prior to conclusion. The Company will also continue to review the overall internal control environment as we develop the requisite internal control framework.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the period ended June 30, 2023 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

From time to time, we may become involved in various claims and legal proceedings. We are not currently a party to any legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business, financial condition or results of operations. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 1A. Risk Factors.

In addition to the other information set forth in this report, you should carefully consider the factors discussed in the "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022 and our other public filings, which could materially affect our business, financial condition or future results. Except as set forth below, there has been no material changes from risk factors previously disclosed in "Risk Factors" in our Form 10-K for the year ended December 31, 2022:

If the Company fails to obtain additional financing, it would be forced to delay, reduce or eliminate its product development program, which may result in the cessation of its operations.

Developing medical device products, including conducting preclinical studies and clinical trials, is expensive. The Company expects its research and development expenses to substantially increase in connection with its ongoing activities, particularly as it advances its clinical programs. As of June 30, 2023 and December 31, 2022, the Company had negative working capital of $(11.4) million and $2.3 million, respectively. The Company currently does not have sufficient capital to support its operations and complete its planned regulatory approval process. The Company will need to secure additional capital to continue its operation, and such funding may not be available on acceptable terms, or at all. In addition, the Company incurred a significant amount of debt, including the issuance of unsecured and secured promissory notes to LM Funding America, Inc. ("LMFA"), LMFAO Sponsor (the "Sponsor"), Maxim ("Maxim"), and convertible notes to 3i LP, an affiliate of Tumim Stone Capital ("Tumim"), and the Company may not have sufficient funds to repay these loans. Even if the Company obtains additional funding, the Company will be required to make certain mandatory payments under such promissory notes, which will reduce the amount of proceeds available for the Company to operate its business.

On August 23, 2022, LMAO and SeaStar Medical, Inc. entered into a Common Stock Purchase Agreement (the "Purchase Agreement") with Tumim for the purchase of up to $100.0 million in shares of the common stock after the consummation of the Business Combination. There are certain conditions and limitations on the Company's ability to utilize the $100.0 million equity line with Tumim. The Company will be required to satisfy various conditions, which include, among others: (1) delivery of a compliance certificate; (2) filing of an initial registration statement; and (3) customary bring-down opinions and negative assurances, in order to commence the selling of common stock to Tumim under the Purchase Agreement. Once such conditions are satisfied, Tumim's purchases are subject to various restrictions and other limitations, including a cap on the number of shares of common stock that we can sell based on the trading volume of our common stock, as well as certain beneficial ownership restrictions of Tumim. If any of these conditions are not satisfied or limitations are in effect, the Company may not be able to utilize all or part of the Tumim equity line, which would have an adverse impact on the Company's ability to satisfy its capital needs and could have a material adverse impact on its business. The Company has received a total of $1.9 million from the Purchase Agreement through June 30, 2023. However, this source of capital may be limited since it depends substantially on the trading volume and price of our common stock.

In March 2023, the Company completed a convertible note financing in which the Company may issue up to a principal amount of approximately $9.8 million of convertible notes to 3i LP (the "Lender") in four separate tranches subject to certain conditions (the "Convertible Note Financing"), and on March 15, 2023, the Company closed the first tranche of the financing by issuing a convertible note in a principal amount of $3.3 million, and a warrant to purchase up to 328,352 shares of common stock. However, there is no guarantee that the Company will be able to satisfy the conditions required to issue additional notes under the remaining three tranches, including the requirement to obtain stockholder approval of such financing at the next annual meeting of stockholders. In addition, because some of the outstanding notes of the Company with Maxim, LMFA, and Sponsor include mandatory prepayment provisions, the Company may be required to use a portion of the proceeds from the Convertible Note Financing to repay such notes, unless the Company can obtain a waiver from holders of such notes, and there is no guarantee that such waivers will be obtained. Even if the Company receives sufficient capital in the future, the Company will be required to raise additional funds to support its own operations and complete its planned regulatory approval process, and such funding may not be available in sufficient amounts or on acceptable terms to the Company, or at all. If it is unable to raise additional capital when required or on acceptable terms, the Company may be required to:

- significantly delay, scale back or discontinue the development or commercialization of its product candidates;
- seek corporate partners on terms that are less favorable than might otherwise be available; and/or

- relinquish or license on unfavorable terms, its rights to technologies or product candidates that it otherwise would seek to develop or commercialize itself.

If it is unable to raise additional capital in sufficient amounts or on acceptable terms, the Company will be prevented from pursuing development and commercialization efforts, including completing the clinical trials and regulatory approval process for its SCD product candidates, which would have a material adverse impact on its business, results of operations, and financial condition.

The Company has not received, and may never receive, approval from the FDA to market its product in the United States or abroad.

The Company may encounter various challenges and difficulties in its application to seek approval from the FDA to sell and market its SCD product candidates, including the application for HDE for pediatric AKI indication and the pivotal trial for adult AKI indication.

The Company is required to submit a substantial amount of supporting documentation for its HDE application to demonstrate the eligibility of the SCD to treat pediatric patients. The Company recently announced that it has received a letter from the Center for Biologics Evaluation and Research ("CBER") of the FDA regarding the Company's HDE application for its pediatric SCD program. In the letter, the FDA indicated that the application is not approvable in its current form but outlined specific guidance as to how the application may be amended and resubmitted successfully. While the Company believes that each of the current deficiencies cited by CBER in their letter are readily addressable, there is no guarantee that the Company will be able to fully address these deficiencies to obtain approval in a timely or at all. In addition, even if the Company is able to comply with the guidance provided by the FDA and address the deficiencies, the Company may be required to make significant or material changes to the device structure and process of implement of SCD, and such changes may render the device less effective or require additional testing or trial to confirm effectiveness, which will increase the cost of our operations significantly. Our failure to address the FDA's concerns will adversely affect the Company's business operations and financial conditions.

While the Company recently obtained approval from the FDA to conduct the AKI adult pivotal trial for SCE, there is no guarantee that the Company will be able to complete such trial in a timely manner, or at all, nor will there be any assurance that positive data will be generated from such trials. Even if the Company is able to generate positive results from this trial, the FDA and other regulatory agencies may require the Company to conduct additional trials to support the study or disagree with the design of the trial and request changes or improvements to such design. The Company is also subject to numerous other risks relating to the regulatory approval process, which include but are not limited to:

- an inability to secure and obtain support and references from collaborators and suppliers required by the FDA;
- a disagreement with the FDA regarding the design of the trial, including the number of clinical study subjects and other data, which may require SeaStar Medical to conduct additional testing or increase the size and complexity of its pivotal study;
- a failure to obtain a sufficient supply of filters to conduct its trial;
- an inability to enroll a sufficient number of subjects;
- a shortage of necessary raw materials, such as calcium; and
- delays and failures to train qualified personnel to operate the SCD therapy.

Even if the Company obtains approval, the FDA or other regulatory authorities may require expensive or burdensome post-market testing or controls. Any delay in, or failure to receive or maintain, clearance or approval for its future products could prevent the Company from generating revenue from these products or achieving profitability. Additionally, the FDA and other regulatory authorities have broad enforcement powers. Regulatory enforcement or inquiries, or other increased scrutiny on the Company, could dissuade some physicians from using its products and adversely affect its reputation and the perceived safety and efficacy of its products.

Delays or rejections may occur based on changes in governmental policies for medical devices during the period of product development. The FDA can delay, limit or deny approval of a PMA application for many reasons, including:

- the Company's inability to demonstrate the safety or effectiveness of the SCD or any other product it develops to the FDA's satisfaction;
- insufficient data from its preclinical studies and clinical trials, including for its SCD, to support approval;
- failure of the facilities of its third-party manufacturers or suppliers to meet applicable requirements;
- inadequate compliance with preclinical, clinical or other regulations;
- its failure to meet the FDA's statistical requirements for approval; and

- changes in the FDA's approval policies, or the adoption of new regulations that require additional data or additional clinical studies.

If the Company is not able to obtain regulatory approval of its SCD in a timely manner or at all, it may not be able to continue to operate its business and may be forced to shut down its operations.

We recently received letters of deficiency from NASDAQ for failure to comply with certain continued listing requirements, and there is no guarantee that we will be able to regain compliance to avoid a delisting of our common stock.

On June 14, 2023, the Company received a letter from the NASDAQ Stock Market ("NASDAQ"), indicating that the Company did not comply with the $35 million minimum market value requirement for continued listing on the Nasdaq Capital Market under Nasdaq Listing Rule 5550(b)(2). In accordance with NASDAQ rules, the Company has been provided an initial period of 180 calendar days, or until December 11, 2023, to regain compliance with such market value requirement. In addition, on June 26, 2023, the Company received a letter from NASDAQ indicating that the Company did not comply with the $1.00 per share minimum bid price requirement for continued inclusion on the NASDAQ Capital Market pursuant to Nasdaq Listing Rule 5550(a)(2). In accordance with NASDAQ rules, the Company has been provided an initial period of 180 calendar days, or until December 26, 2023 to regain compliance with such minimum bid price requirement. If the Company does not regain compliance by each such date, the Company may apply for an extension of grace periods or file an appeal with NASDAQ requesting continued listing of our common stock.

There is no guarantee that we will be able to regain compliance of the market value or the minimum bid price requirement under NASDAQ rules prior to these deadlines for the grace periods, and while we have the option to extend the grace periods, there is no guarantee that NASDAQ will grant such extension. Our failure to meet NASDAQ's continued listing requirements may result in the delisting of our common stock, which will make our stock significantly less liquid and negatively affect its value. Delisting may also result in an event of default under our Notes and a breach of certain covenants with our warrant holders, which will have a material adverse effect on us. Delisting could also impair the liquidity of our common stock and could harm our ability to raise capital through alternative financing sources on terms acceptable to us, or at all, and may result in potential loss of confidence by investors, employees, and fewer business development opportunities.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

N/A

Item 3. Defaults Upon Senior Securities.

N/A

Item 4. Mine Safety Disclosures.

N/A

Item 5. Other Information.

On August 8, 2023, the compensation committee of the board of directors of the Company approved a modification of the terms of the base salary of each of Eric Schlorff, Chief Executive Officer, Kevin Chung, Chief Operating Officer and Caryl Baron, Interim Chief Financial Officer, as follows:

- 50% of cash payment of monthly salaries of each of Mr. Schlorff and Mr. Chung for the months of August and September 2023 will be paid in shares of common stock of the Company calculated based on the average trading price in ten (10) consecutive trading days immediately prior to each payroll date.
- 10% of cash payment of monthly salary of Ms. Baron for the months of August and September 2023 will be paid in shares of common stock of the Company calculated based on the average trading price in ten (10) consecutive trading days immediately prior to each payroll date.

Except for the above, no other changes have been made to the compensation arrangements with the three executive officers.

Item 6. Exhibits

Exhibit Index

Exhibit No.	Description
10.1**	Share Issuance and Settlement Agreement, dated as of June 6, 2023, by and between SeaStar Medical Holding Corporation and Vellar Opportunity Fund SPV LLC - Series 4.
31.1**	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2**	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

** Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized**.**

SeaStar Medical Holding Corporation

Date: August 14, 2023 By: /s/ Eric Schlorff

Eric Schlorff
Chief Executive Officer
(Principal Executive Officer)

Date: August 14, 2023 By: /s/ Caryl Baron

Caryl Baron
Interim Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT 10.1

SHARE ISSUANCE AND SETTLEMENT AGREEMENT

THIS SHARE ISSUANCE AND SETTLEMENT AGREEMENT (this "Agreement"), dated as of June 6, 2023, by and between SeaStar Medical Holding Corporation (the "Company") and Vellar Opportunity Fund SPV LLC - Series 4 ("Vellar").

WHEREAS, the Company, Vellar and SeaStar Medical, Inc. entered into an OTC Equity Prepaid Forward Transaction, dated October 17, 2022 (the "Confirmation"). Capitalized terms used but not defined in this Agreement have the meanings given them in the Confirmation.

WHEREAS, following the occurrence of a VWAP Trigger Event and written notice of such event from Vellar to Company, the Valuation Date and Maturity Date of the Confirmation occurred on May 10, 2023, which triggered (a) the obligation of Company to provide the Maturity Consideration to Vellar, (b) the obligation (following payment of the Maturity Consideration) of Vellar to transfer to Company the Number of Shares remaining in the Transaction on the Maturity Date, which is equal to 523,400 Shares (the "Maturity Shares"), and (c) the right of Vellar to retain a cash amount equal to the product of the Maturity Shares times the Redemption Price (the "Maturity Cash").

WHEREAS, in lieu of the provision of the Maturity Consideration to Vellar, the Company and Vellar instead desire that Company issue to Vellar shares of common stock, par value $0.0001, of the Company (the "Shares") to Vellar and to allow Vellar to retain the Maturity Shares, collectively in full settlement of the obligation of the Company to provide the Maturity Consideration to Vellar.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and for such other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto hereby agree as follows.

ARTICLE I. SETTLEMENT OF OBLIGATIONS

1.1 Issuance of Shares. Subject to the terms and conditions set forth in this Agreement, upon the signing of this Agreement, the Company shall issue and deliver to Vellar 1,000,000 Shares (the "New Shares") for no additional cash consideration.

1.2 Maturity Consideration. Upon the issuance and delivery of the New Shares the obligation of Company under the Confirmation to provide the Maturity Consideration to Vellar shall be deemed to have been completed in full and shall no longer be an obligation of the Company.

1.3 Maturity Shares and Maturity Cash. Upon the execution of this Agreement: (a) Vellar shall be permitted to retain ownership of the Maturity Shares, free of any encumbrance or further obligation on the part of Vellar, (b) Vellar shall be permitted to retain as Maturity Cash the full Prepayment Amount previously paid by Company to Vellar pursuant to the Confirmation, and (c) Vellar shall have no other obligations to Company under the Confirmation.

1.4 Closing Payments and Delivery of Shares. On or before June 12, 2023 (the "Delivery Deadline"), the Company shall irrevocably instruct Continental Stock Transfer & Trust Company, the Company's the transfer agent, to issue to Vellar the New Shares in book entry form in the name of Vellar and to provide Vellar with a share detail reflecting the same.

1.5 Penalty Shares. In the event that either (a) the New Shares are not issued and delivered to Vellar by the Delivery Deadline or (b) the Registration Statement is not effective by the Registration Deadline, then the Company shall, within three Business Days thereafter, issue and deliver to Vellar 300,000 Shares (the "Penalty Shares") in the manner set forth in Section 1.4. For

the avoidance of doubt, the Company shall only be required to issue and deliver Penalty Shares to

Vellar on the first to occur of the events set forth in the previous sentence and shall in no case be required to issue Penalty Shares on more than one occasion.

ARTICLE II. SHARE REGISTRATION

2.1 Registration Statement. As soon as practicable after the date of this Agreement, Company shall file (at Company's sole cost and expense) with the U.S. Securities and Exchange Commission (the "Commission") a registration statement registering the resale by Vellar of the New Shares and any Penalty Shares (the "Registration Statement"), and have the Registration Statement declared effective by the Commission as soon as practicable thereafter, but no later than 105 calendar days following the issuance and delivery of the New Shares (the "Registration Deadline"). No later than two Local Business Days after notification by the Commission that the Registration Statement has been declared effective, the Company shall file the final prospectus under Rule 424 of the Securities Act of 1933, as amended containing a "plan of distribution" reasonably agreeable to Vellar. Company shall not identify Vellar as a statutory underwriter in the Registration Statement unless requested by the Commission. If the Commission requests for Vellar to be identified as a statutory underwriter, Company will afford Vellar the ability to conduct standard due diligence of the Company, including review of documents, meetings with management and the delivery of a customary comfort letter from the Company's auditors.

2.2 Continued Effectiveness. The Company will use its reasonable best efforts to keep the Registration Statement continuously effective, except for customary blackout periods (up to twice per year and for a total of up to 20 calendar days, and not more than 12 calendar days in an occurrence) if and when the Company is in possession of material non-public information the disclosure of which, in the good faith judgment of the Company's board of directors, would be prejudicial (and the Company agrees to promptly notify Vellar of any such blackout determination), until all such shares have been sold or may be transferred without any restrictions, including the requirement for the Company to be in compliance with the current public information required under Rule 144(c)(1) (or Rule 144(i)(2), if applicable) or the volume and manner of sale limitations under Rule 144(e), (f) and (g) under the Securities Act; provided, that Company covenants and agrees to make all necessary filings, amendments, supplements and submissions in furtherance of the foregoing.

2.3 Vellar Information. Vellar will promptly deliver customary representations and other documentation reasonably acceptable to the Company, its counsel and/or its transfer agent in connection with the Registration Statement, including those related to selling shareholders, and to respond to comments from the Commission.

2.4 Reporting Obligations. As long as Vellar owns any New Shares or Penalty Shares, Company will file timely (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by it after the date hereof pursuant to Sections 13(a) or 15(d) of the Exchange Act. Company further covenants that it shall take such further action as Vellar may reasonably request, all to the extent required from time to time to enable Vellar to sell such Shares without registration under the Securities Act pursuant to the exemptions provided by Rule 144 under the Securities Act (or any successor rule promulgated thereafter by the Commission), including providing any customary legal opinions.

ARTICLE III.

REPRESENTATIONS, WARRANTIES AND AGREEMENTS OF VELLAR

Vellar hereby represents and warrants to, and agrees with, the Company, as of the date hereof, as follows.

3.1 Capacity; Authority; Validity. Vellar has all necessary capacity, power and authority

to enter into this Agreement and to perform all the obligations to be performed by Vellar hereunder; this Agreement and the consummation by Vellar of the transactions contemplated hereby has been duly and validly authorized by all necessary action of Vellar; this Agreement has been duly executed and delivered by Vellar; assuming the due execution and delivery of this Agreement by Vellar, this Agreement constitutes the legal, valid and binding obligation of Vellar enforceable against Vellar in accordance with its terms.

3.2 No Violation of Law or Agreement. Neither the execution and delivery of this Agreement by Vellar, nor the consummation of the transactions contemplated hereby by Vellar, will violate any judgment, order, writ, decree, law, rule or regulation or agreement applicable to Vellar.

3.3 Effect of Confirmation. Vellar acknowledges that this Agreement is subject to the terms of the Confirmation, including without limitation, the representations, warranties and covenants contained therein.

ARTICLE IV.

REPRESENTATIONS, WARRANTIES AND AGREEMENTS OF THE COMPANY

The Company hereby represents and warrants to, and agrees with, Vellar, as of the date hereof, as follows.

4.1 Organization and Qualification. The Company is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business.

4.2 Authorization; Due Execution. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder including, without limitation, the issuance of the Shares. The execution and delivery of the Agreement by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection therewith. This Agreement to which it is a party has been duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms.

4.3 Valid Issuance of Stock. The Shares to be issued hereunder have been duly and validly authorized and when issued will be duly and validly issued, fully paid and non-assessable free and clear of all liens and will be issued in compliance with all applicable federal and state securities laws.

4.4 No Violation of Law or Agreement. Neither the execution and delivery of this Agreement by the Company, nor the consummation of the transactions contemplated hereby by the Company (including the issuance of the New Shares and any Penalty Shares and the registration thereof), will (a) violate any judgment, order, writ, decree, law, rule or regulation applicable to the Company, (b) violate, conflict with, or create a default under any agreement to which the Company is a party or (c) violate the certificate of incorporation or by laws of the Company.

ARTICLE V. MISCELLANEOUS

5.1 Transfer Restrictions. The Company agrees that the Shares are not subject to any contractual or other restrictions on transfer other than those pursuant to the Confirmation or that otherwise may be imposed by the U.S. federal and state securities laws.

5.2 Legends. Any certificates or book entry notations evidencing the Shares shall bear a restrictive legend in the following form, until such time as they are not required under Section 5.3.

> THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED
> (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR (B) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT.

5.3 Removal of Legends. The Company shall remove, or instruct its transfer agent to remove, any restrictive legend with respect to transfers under the Securities Act from any and all Shares held by Vellar if (1) the Registration Statement is and continues to be effective under the Securities Act, (2) such Shares are sold or transferred pursuant to Rule 144 under the Securities Act (subject to all applicable requirements of Rule 144 being met), or (3) such Shares are eligible for sale under Rule 144, without the requirement for the Company to be in compliance with the current public information required under Rule 144(c)(1) (or Rule 144(i)(2), if applicable) or the volume and manner of sale limitations under Rule 144(e), (f) and (g) under the Securities Act; provided, that Vellar shall have timely provided customary representations and other documentation reasonably acceptable to the Company, its counsel and/or its transfer agent in connection therewith. The Company shall remove restrictive legends within three Local Business Days after the fulfillment of any of the conditions set forth in the previous sentence. Any fees (with respect to the transfer agent, Company's counsel or otherwise) associated with the issuance of any legal opinion required by the Company's transfer agent or the removal of such legend shall be borne by the Company.

5.4 Assignment. This Agreement shall not be assigned by Vellar or the Company; provided that Vellar may assign this Agreement to any entity that controls, is controlled by or is under common control with Vellar.

5.5 Release.

(a) The Company hereby fully waives, releases and discharges Vellar and its directors, officers, employees, advisors and controlling persons from any manner of suits, actions, or causes of action, including any claim for attorneys' fees or costs, arising from or relating to the Confirmation and the Transaction existing on the date of this Agreement, whether currently known or unknown.

(b) Following, and conditional upon, the issuance and delivery of the New Shares by the Delivery Deadline, Vellar hereby fully waives, releases and discharges Company and its directors, officers, employees, advisors and controlling persons from any manner of suits, actions, or causes of action, including any claim for attorneys' fees or costs, arising from or relating to the Confirmation and the Transaction existing on the date of this Agreement, whether currently known or unknown, except that such release shall not apply to the Company's obligations in Section 1.5 of this Agreement.

5.6 Amendment. This Agreement may not be amended without the written consent of the Company and Vellar.

5.7 Entire Agreement. This Agreement, together with the Confirmation, constitutes the entire agreement by the parties hereto and supersedes any other agreement, whether written or oral, that may have been made or entered into between them relating to the matters contemplated hereby,

except where this Agreement specifically modifies the terms of the Confirmation, this Agreement shall prevail.

[*Signature Page Follows*]

IN WITNESS WHEREOF, Vellar and The Company have caused this Agreement to be duly executed as of the date first above written.

VELLAR OPPORTUNITY FUND SPV LLC – SERIES 4

By: /s/ Solomon Cohen
Name: Solomon Cohen
Title: Authorized Representative

SEASTAR MEDICAL HOLDING CORPORATION

By: /s/ Eric Schlorff
Name: Eric Schlorff
Title: Chief Executive Officer

EXHIBIT 31.1

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Eric Schlorff, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of SeaStar Medical Holding Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2023

/s/ Eric Schlorff

Eric Schlorff
Chief Executive Officer

EXHIBIT 31.2

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Caryl Baron, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of SeaStar Medical Holding Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2023

/s/ Caryl Baron

Caryl Baron
Interim Chief Financial Officer

EXHIBIT 32.1

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Eric Schlorff, Chief Executive Officer of SeaStar Medical Holding Corporation (the "Company"), certify that:

1. the Quarterly Report on Form 10-Q of the Company for the six months ended June 30, 2023 as filed with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 14, 2023

/s/ Eric Schlorff
Eric Schlorff
Chief Executive Officer

EXHIBIT 32.2

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Caryl Baron, Interim Chief Financial Officer of SeaStar Medical Holding Corporation (the "Company"), certify that:

1. the Quarterly Report on Form 10-Q of the Company for the six months ended June 30, 2023 as filed with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 14, 2023

/s/ Caryl Baron

Caryl Baron
Interim Chief Financial Officer