

## SeaStar Medical Announces \$6 Million Registered Direct Offering Priced At-the-Market

**DENVER (January 31, 2025)** – SeaStar Medical Holding Corporation (Nasdaq: ICU) (SeaStar Medical), today announced it has entered into a securities purchase agreement with a single institutional investor for the issuance and sale of an aggregate of 3,529,412 shares of its common stock (or pre-funded warrants in lieu thereof) in a registered direct offering. In a concurrent private placement, the Company also agreed to issue and sell to the investor warrants to purchase up to an aggregate of 3,529,412 shares common stock. The combined offering price for each share of common stock (or pre-funded warrant in lieu thereof) and accompanying warrants is \$1.70 (or \$1.699 with respect to pre-funded warrants). The pre-funded warrants will have an exercise price of \$0.001 per share, will be exercisable immediately upon issuance, and will not expire until fully exercised. The warrants will have an exercise price of \$1.70 per share, will be exercisable upon shareholder approval and will expire five years following the shareholder approval date.

The closing of the offering is expected to occur on or about February 3, 2025, subject to the satisfaction of customary closing conditions. The gross proceeds from the offering are expected to be approximately \$6 million. SeaStar Medical intends to use the net proceeds of this offering for general corporate purposes, which may include additions to working capital and capital expenditures.

The shares of common stock, pre-funded warrants, and shares of common stock underlying the pre-funded warrants are being offered by SeaStar Medical pursuant to a shelf registration statement on Form S-3 (File No. 333-275968) that was previously filed with the Securities and Exchange Commission (“SEC”) on December 8, 2023, and subsequently declared effective on December 22, 2023. The securities offered in the registered direct offering are being offered only by means of a prospectus, including a prospectus supplement, forming a part of the effective registration statement. A final prospectus supplement and accompanying base prospectus relating to, and describing the terms of, the registered direct offering will be filed with the SEC and will be available on the SEC’s website at [www.sec.gov](http://www.sec.gov). The warrants to be issued in the concurrent private placement and the shares issuable upon exercise of such warrants were offered in a private placement under Section 4(a)(2) of the Securities Act of 1933, as amended (the “Act”), and Regulation D promulgated thereunder and have not been registered under the Act or applicable state securities laws.

This press release does not constitute an offer to sell or a solicitation of an offer to buy the securities in this offering, nor shall there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such state or other jurisdiction.

### About SeaStar Medical

SeaStar Medical is a commercial-stage therapeutic medical technology company that is redefining how extracorporeal therapies may reduce the consequences of excessive inflammation on vital organs. SeaStar Medical’s novel technologies rely on science and innovation to provide life-saving solutions to critically ill patients. The Company is developing and commercializing cell-directed extracorporeal therapies that target the effector cells that drive systemic inflammation, causing direct tissue damage and secreting a range of pro-inflammatory cytokines that initiate and propagate imbalanced immune responses.

For more information visit [www.seastarmedical.com](http://www.seastarmedical.com) or visit us on LinkedIn or X.

### Forward-Looking Statements

This press release contains certain forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, without limitation, statements related to the timing and completion of the registered direct offering and concurrent private placement, the satisfaction of customary closing conditions related to the registered direct offering and concurrent private placement, and the intended use of proceeds therefrom. Words such as “believe,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “strategy,” “future,” “opportunity,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” and similar expressions are intended to identify such forward-looking statements. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to significant risks and uncertainties that could cause the actual results to differ materially from the expected results. Most of these factors are outside SeaStar Medical’s control and are difficult to predict. Factors that may cause actual future events to differ materially from the expected results include, but are not limited to: (i) the risk that SeaStar Medical may not be able to obtain regulatory approval of its SCD product candidates; (ii) the risk that SeaStar Medical may not be able to raise sufficient capital to fund its operations, including current or future clinical trials; (iii) the risk that SeaStar Medical and its current and future collaborators are unable to successfully develop and commercialize its products or services, or experience significant delays in doing so, including failure to achieve approval of its products by applicable federal and state regulators, (iv) the risk that SeaStar Medical may never achieve or sustain profitability; (v) the risk that SeaStar Medical may not be able to access funding under existing agreements; (vi) the risk that third-parties suppliers and manufacturers are not able to fully and timely meet their obligations, (vii) the risk of product liability or regulatory lawsuits or proceedings relating to SeaStar Medical’s products and services, (viii) the risk that SeaStar Medical is unable to secure or protect its intellectual property, (ix) market and other conditions; and (x) other risks and uncertainties indicated from time to

time in SeaStar Medical's Annual Report on Form 10-K, including those under the "Risk Factors" section therein and in SeaStar Medical's other filings with the SEC. The foregoing list of factors is not exhaustive. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and SeaStar Medical assumes no obligation and do not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise.

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