

PROSPECTUS

**HELIUS MEDICAL TECHNOLOGIES, INC.****704,999 Shares of Common Stock****Series A Warrants to Purchase up to 2,852,221 Shares of Common Stock****Series B Warrants to Purchase up to 2,852,221 Shares of Common Stock****Pre-Funded Warrants to Purchase up to 2,147,222 Shares of Common Stock**

This is a best efforts public offering of 704,999 shares of our Class A common stock (the “Shares”), par value \$0.001 per share (the “Common Stock”), warrants to purchase up to 2,852,221 shares of our Common Stock (the “Series A Warrants”) and warrants to purchase up to 2,852,221 shares of our Common Stock (the “Series B Warrants”) and together with the Series A Warrants, the “Public Warrants”). Each share of Common Stock will be sold with one accompanying Series A Warrant and one accompanying Series B Warrant at a combined public offering price of \$2.25. Each Series A Warrant is immediately exercisable for one share of Common Stock at an initial exercise price of \$2.25 per share (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering) and will expire five years from the date of issuance. Each Series B Warrant is immediately exercisable for one share of Common Stock at an initial exercise price of \$2.25 per share (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering) and will expire twelve months from the date of issuance.

We are also offering to those purchasers, if any, whose purchase of Common Stock in this offering would otherwise result in any such purchaser, together with its affiliates, beneficially owning more than 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this offering, the opportunity to purchase 2,147,222 pre-funded warrants (“Pre-Funded Warrants”) and, together with the Public Warrants, the “Warrants”) in lieu of shares of our Common Stock that would otherwise result in such purchaser’s beneficial ownership exceeding 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding Common Stock. The purchase price for each Pre-Funded Warrant and accompanying Public Warrants is \$2.249 which equals the per share public offering price for each share of Common Stock and accompanying Public Warrants in this offering less the \$0.001 per share exercise price of each such Pre-Funded Warrant. Each Pre-Funded Warrant will be exercisable upon issuance and will not expire prior to exercise.

Our Common Stock is quoted for trading on the Nasdaq Capital Market (“Nasdaq”) under the symbol “HSDT”. On May 6, 2024, the last reported sales price for our Common Stock was \$2.42 per share. We do not intend to apply for listing of the Public Warrants or Pre-Funded Warrants on any national securities exchange or trading system. Without an active trading market, the liquidity of the Public Warrants and Pre-Funded Warrants will be limited.

An investment in our securities involves a high degree of risk. Before buying any securities you should carefully read the discussion of the material risks of investing in our securities in “Risk Factors” beginning on page [10](#) of this prospectus.

We have engaged Craig-Hallum Capital Group LLC as our exclusive placement agent (“Craig-Hallum” or the “Placement Agent”) to use its reasonable best efforts to solicit offers to purchase our securities in this offering. The Placement Agent has no obligation to purchase any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. Because there is no minimum offering amount required as a condition to closing in this offering the actual public amount, Placement Agent’s fee, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above and throughout this prospectus. We have agreed to pay the Placement Agent, the Placement Agent fees set forth in the table below and to provide certain other

compensation to the Placement Agent. See “Plan of Distribution” beginning on page [29](#) of this prospectus for more information regarding these arrangements.

Neither the U.S. Securities and Exchange Commission nor any other state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share and accompanying Public Warrants	Per Pre-Funded Warrant and accompanying Public Warrants	Total
Public offering price	\$ 2.25	\$2.249	\$6,417,497
Placement Agent fees ⁽¹⁾	\$0.158	\$0.158	\$ 559,225
Proceeds to us before offering expenses ⁽²⁾	\$2.092	\$2.091	\$5,858,272

(1) We have agreed to reimburse the Placement Agent for certain expenses. See “Plan of Distribution” on page [29](#) of this prospectus for a description of these arrangements.

(2) We have agreed to issue to the Placement Agent at the closing of this offering, five-year warrants to purchase shares of Common Stock equal to 5.0% of the shares of Common Stock, and if applicable, Pre-Funded Warrants sold in this offering at an exercise price of \$2.475 per share (the “Placement Agent Warrants”).

The Placement Agent expects to deliver expect to deliver the shares of Common Stock, Pre-Funded Warrants and accompanying Public Warrants to purchasers in this offering on or about May 9, 2024.

Craig-Hallum

The date of this prospectus is May 6, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC. Before making your investment decision, we urge you to carefully read this prospectus and all of the information contained in the documents incorporated by reference in this prospectus, as well as the additional information described under the headings “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”

To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference in this prospectus, on the other hand, you should rely on the information in this prospectus, provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date - for example, a document incorporated by reference in this prospectus - the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. The securities offered under this prospectus are not being offered or sold to any person resident in Canada or to any person acquiring such securities for the benefit of any person resident in Canada. Any securities distributed under this prospectus may not be resold to any person resident in Canada, to any person acquiring such securities for the benefit of any person resident in Canada or on any marketplace in Canada. You should assume that the information appearing in this prospectus, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before deciding to invest in our securities, you should read this entire prospectus and the documents incorporated by reference herein and therein carefully, including our consolidated financial statements and related notes, the information in the section “Risk Factors,” and “Where You Can Find More Information.” Unless otherwise specified or the context otherwise requires, references in this prospectus to the “Company,” “Heliu,” “Registrant,” “we,” “us,” and “our” refer to Heliu Medical Technologies, Inc. and its wholly owned subsidiaries, Heliu Medical, Inc., or HMI, Heliu Medical Technologies (Canada), Inc., Heliu Canada Acquisition Ltd., and Heliu NeuroRehab, Inc.

All trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Company Overview

We are a neurotechnology company focused on neurological wellness. Our purpose is to develop, license or acquire non-implantable technologies targeted at reducing symptoms of neurological disease or trauma.

Our product, known as the Portable Neuromodulation Stimulator, or PoNS[®], is an innovative non-implantable medical device, inclusive of a controller and mouthpiece, which delivers mild electrical stimulation to the surface of the tongue to provide treatment of gait deficit and chronic balance deficit. PoNS Therapy[®] is integral to the overall PoNS solution and is the physical therapy applied by patients during use of the PoNS device. PoNS has marketing clearance in the U.S. for use in the U.S. as a short-term treatment of gait deficit due to mild-to-moderate symptoms for multiple sclerosis (“MS”) and is to be used as an adjunct to a supervised therapeutic exercise program in patients 22 years of age and over by prescription only. We began accepting prescriptions for PoNS in the U.S. in March 2022, and commercial sales of PoNS commenced in April 2022. PoNS is authorized for sale in Canada for three indications: (i) as a short term treatment (14 weeks) of chronic balance deficit due to mild-to-moderate traumatic brain injury, or mmTBI, and is to be used in conjunction with physical therapy; (ii) as a short term treatment (14 weeks) of gait deficit due to mild and moderate symptoms from MS and it is to be used in conjunction with physical therapy; and (iii) for use as a short term treatment (14 weeks) of gait deficit due to mild and moderate symptoms from stroke, to be used in conjunction with physical therapy. It has been commercially available in Canada since March 2019. PoNS is authorized for sale as a Class IIa medical device in Australia and we have been seeking a business partner to commercialize and distribute PoNS in Australia.

Corporate History

We were originally incorporated in British Columbia, Canada on March 13, 2014 under the British Columbia Business Corporations Act, or the BCBCA, as “0996445 B.C. Ltd.” On March 25, 2014, and amended on April 8, 2014, we entered into an arrangement agreement with Boomerang Oil, Inc. (formerly known as 0922327 B.C. Ltd.) and 0995162 B.C. Ltd. to reorganize the business structure of such three entities in such a manner which would allow Boomerang Oil, Inc. to spin us out to become an independent entity that is a reporting issuer in Canada and for us to complete a reverse take-over of 0995162 B.C. Ltd.

On May 23, 2014, we changed our name to “Heliu Medical Technologies, Inc.” and filed articles of continuation with the Wyoming Secretary of State office to reincorporate from being a corporation governed by the BCBCA to a corporation governed by the Wyoming Business Corporation Act. On July 20, 2018, we reincorporated from the state of Wyoming to the state of Delaware.

Recent Developments

On May 6, 2024, the Company announced that the Centers for Medicare and Medicaid Services (“CMS”) published a proposed fee schedule payment rates for the PoNS Controller and PoNS Mouthpiece to be discussed at CMS’ bi-annual Healthcare Common Procedure Coding System (“HCPCS”) public meeting to be held on May 29, 2024. For the PoNS Controller (HCPCS Code A4593), CMS preliminarily set pricing by mapping reimbursement to existing code E0745, (Neuromuscular stimulator, electronic shock unit), resulting in a capped fee of \$1,206.53. For the PoNS Mouthpiece (HCPCS code A4594), CMS based pricing on the cash pay price of \$4,500, resulting in a total capped payment of \$3,075.53.

Partnership with Lovell Government Services

In April 2024, we announced that we have partnered with Lovell Government Services (“Lovell”), an SBA-certified Service Disabled Veteran Owned Small Business (“SDVOSB”), to make the PoNS device available to federal healthcare systems.

Nasdaq Deficiency Notice

On April 4, 2024, we received written notice from the Nasdaq Stock Market LLC (“Nasdaq”) stating that we no longer comply with the minimum stockholders’ equity requirement under Nasdaq Listing Rule 5550(b)(1) for continued listing on The Nasdaq Stock Market LLC because our stockholders’ equity, as reported in our Annual Report on Form 10-K for fiscal year ended December 31, 2023, has fallen below \$2.5 million. The notice from Nasdaq also indicated that we do not meet the alternative compliance standards.

Under applicable Nasdaq rules, we have 45 calendar days from the date of the notice, or until May 20, 2024, to submit a plan to regain compliance. We intend to timely submit such a plan to Nasdaq. If our plan is accepted, Nasdaq may grant us an extension of up to 180 calendar days from the date of the notice to evidence compliance.

The notice has no immediate impact on the listing of our Common Stock, which will continue to trade on the Nasdaq Capital Market under the symbol “HSDT”.

Preliminary Estimated Unaudited First Quarter 2024 Results

A brief summary of certain of our preliminary unaudited financial results as of March 31, 2024 and for the quarter ended March 31, 2024 is set forth below. This summary is not meant to be a comprehensive statement of our financial results for these periods. The following financial data as of March 31, 2024 and for the quarter ended March 31, 2024 is preliminary and based upon our estimates, and actual results may differ from these estimates following the completion of our financial closing procedures and related adjustments.

Revenue for the quarter ended March 31, 2024 is expected to be approximately \$135 thousand, as compared to \$111 thousand for the quarter ended March 31, 2023. Loss from operations for the quarter ended March 31, 2024 is expected to be \$3.4 million, as compared to \$3.8 million for the quarter ended March 31, 2023. Cash and cash equivalents totaled approximately \$3.6 million as of March 31, 2024, as compared to \$5.2 million as of December 31, 2023. The Company had no debt obligations outstanding at March 31, 2024.

You should read this data together with our consolidated financial statements and related notes included in the consolidated financial statements as of December 31, 2023 and 2022 and for each of the two years in the period ended December 31, 2023 incorporated by reference in this prospectus supplement. The unaudited preliminary financial data included in this registration statement has been prepared by, and is the responsibility of, our management.

Corporate Information

Our principal executive offices are located at 642 Newtown Yardley Road, Suite 100, Newtown, PA 18940 and our telephone number is 215 944 6100. We maintain a corporate website at www.heliusmedical.com. We make available free of charge through our Internet website our annual reports on Form 10-K, quarterly reports on Form 10 Q and current reports on Form 8 K, and any amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to the SEC. We are not including the information on our website as a part of, nor incorporating it by reference into this prospectus or the registration statement of which it forms a part. Additionally, the SEC maintains a website that contains annual, quarterly, and current reports, proxy statements, and other information that issuers (including us) file electronically with the SEC. The SEC's website address is <http://www.sec.gov>.

THE OFFERING

Issuer	Heliuss Medical Technologies, Inc.
Common Stock Offered	704,999 Shares on a best effort basis.
Series A Warrants Offered	Series A Warrants to purchase up to 2,852,221 shares of our Common Stock, which will be exercisable during the period commencing on the date of their issuance and ending 5 years from such date at an exercise price of \$2.25 per share of Common Stock (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering).
Series B Warrants Offered	Series B Warrants to purchase up to 2,852,221 shares of our Common Stock, which will be exercisable during the period commencing on the date of their issuance and ending twelve months from such date at an exercise price of \$2.25 per share of Common Stock (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering). We will have the right to require the holders of the Series B Warrants to exercise their Series B Warrants if the trading price of the Common Stock (which, for the avoidance of doubt, may be an intraday price) exceeds \$2.25 per share (the "Mandatory Exercise Trigger Price") on each of five (5) consecutive trading days within the thirty (30) trading days beginning on the date that we publicly announce that we have received reimbursement benefits in the United States of its PoNS device by the Centers for Medicare & Medicaid Service.
Public Offering price	\$2.25 per share of Common Stock and accompanying Series A Warrant and Series B Warrant, or \$2.249 per Pre-Funded Warrant and accompanying Series A Warrant and Series B Warrant, as applicable.
Pre-Funded Warrants Offered	We are also offering to certain purchasers whose purchase of our Common Stock in this offering would otherwise result in the purchaser, together with its affiliates, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding shares of Common Stock immediately following the consummation of this offering, the opportunity to purchase 2,147,222 Pre-Funded Warrants in lieu of Common Stock that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding shares of Common Stock. Each Pre-Funded Warrant will be exercisable for one share of Common Stock. The purchase price of each Pre-Funded Warrant and the accompanying Series A Warrant and Series B Warrant is \$2.249 which equals the price at which the Common Stock and the accompanying Series A Warrant and Series B Warrant are being sold to the public in this offering, minus \$0.001, and the exercise price of each Pre-Funded Warrant will be \$0.001 per share. The Pre-Funded Warrants will be exercisable immediately and may be exercised at any time until exercised in full.
Common Stock outstanding prior to this offering	888,419 shares of Common Stock.
Common Stock outstanding after this offering	3,740,640 (assuming that all of the Pre-Funded Warrants, and none of the Series A Warrants, Series B Warrants or Placement Agent Warrants are exercised).

Placement Agent Warrants

We have agreed to issue to the Placement Agent, for a price of \$50, at the closing of this offering, warrants to purchase shares of Common Stock equal to 5% of the shares of Common Stock, and if applicable, Pre-Funded Warrants sold in this offering (the “Placement Agent Warrants”). The Placement Agent Warrants have an exercise price of \$2.475 per share of Common Stock (110% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering). The Placement Agent Warrants will be exercisable immediately upon issuance and will expire five years from the commencement of sale in this offering. This prospectus also relates to the offering of up to 142,611 shares of Common Stock issuable upon exercise of the Placement Agent Warrants. See “Plan of Distribution”.

Best Efforts Offering

We have agreed to offer and sell the Securities offered hereby directly to the purchasers. We have retained Craig-Hallum Group, LLC to act as our exclusive placement agent (the “Placement Agent”) to use its reasonable best efforts to solicit offers to purchase the Securities offered by this prospectus. The Placement Agent is not required to buy or sell any specific number or dollar amount of the Common Stock or Pre-Funded Warrants, in each case together with the accompanying Series A Warrants and Series B Warrants offered hereby. See “Plan of Distribution” section beginning on page 29 for more information.

Use of proceeds

We estimate that we will receive net proceeds from this offering of approximately \$5.6 million based upon a public offering price of \$2.25 per share of Common Stock and accompanying Series A Warrant and Series B Warrant, or \$2.249 per Pre-Funded Warrant and accompanying Series A Warrant and Series B Warrant, as applicable, after deducting Placement Agent fees and estimated offering expenses payable by us. We currently intend to use the net proceeds we receive from this offering for funding operations, working capital and general corporate purposes. Because this is a best efforts offering with no minimum amount as a condition to closing, we may not sell all or any of the securities offered hereby. As a result, we may receive significantly less in net proceeds than we currently estimate. See “Use of Proceeds” on page 19.

Risk Factors

You should carefully read the “Risk Factors” section of this prospectus beginning on page 10 and the documents incorporated by reference herein for a discussion of factors that you should consider before deciding to invest in our securities.

Trading Symbol and Listing

Our Common Stock is listed on the Nasdaq Capital Market under the symbol “HSDT”. We do not intend to apply for listing of the Series A Warrants, Series B Warrants or Pre-Funded Warrants on any national securities exchange or trading system. Without a trading market, the liquidity of the Series A Warrants, Series B Warrants and Pre-Funded Warrants will be extremely limited.

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- (1) Based on 888,419 shares of Common Stock outstanding as of the date of this prospectus and excludes the shares of Common Stock being offered by this prospectus and issuable upon exercise of the Series A Warrants, Series B Warrants, Pre-Funded Warrants and Placement Agent Warrants and also excludes the following:

- 245,830 shares of Common Stock issuable upon the exercise of stock options outstanding as of December 31, 2023, at a weighted-average exercise price of \$76.28 per share;
- 637,059 shares of Common Stock issuable upon the exercise of warrants (comprised of 627,090 shares of Common Stock issuable upon the exercise of warrants issued in connection with our public offering in August 2022 (excluding the Warrants issued in this offering) with an exercise price of \$6.9135 per share and 9,969 shares of Common Stock issuable upon the exercise of warrants (excluding the Warrants issued in this offering) outstanding as of December 31, 2023, at a weighted-average exercise price of \$819.77);
- an aggregate 2,228 shares of unvested restricted stock units granted as of December 31, 2023;
- 9,240 shares of Common Stock reserved for future issuance under our 2021 Inducement Plan as of December 31, 2023; and
- 14,121 shares of Common Stock reserved for future issuance under our 2022 Equity Incentive Plan.

Unless otherwise indicated, all information in this prospectus assumes no exercise of the outstanding options or warrants described above.

SUMMARY RISK FACTORS

Our business is subject to a number of risks. The principal factors and uncertainties include, among others:

- We have a history of losses and may not achieve or sustain profitability in the future;
- Global macroeconomic conditions remain volatile and uncertain due in part to geopolitical conflicts, banking and financial markets disruptions, supply chain disruptions, labor shortages, increased inflation and high interest rates, and any adverse impacts of such conditions could significantly harm our business or negatively affect our ability to obtain financing;
- We will require additional financing to carry out our plan of operations, and failure to obtain such financing may cause our business to fail;
- We currently only have one product, the PoNS device, which is authorized for commercial distribution in Canada, Australia, and in the U.S. for treatment of MS, and we have not obtained authorization and/or certification to distribute the PoNS device commercially in Europe or in the U.S. for other indications and may never obtain such authorizations and/or certifications;
- We may encounter substantial delays in planned clinical trials, and planned clinical trials may fail to demonstrate the safety and efficacy of the PoNS device to the satisfaction of regulatory authorities;
- Generation of revenue related to the PoNS technology is dependent on the PoNS Therapy being prescribed by physicians in the U.S. and our ability to train physical therapists in the supervision of the use of the PoNS Therapy;
- Market awareness of the PoNS device is limited, and the neuromodulation market is new and uncertain;
- We are dependent on third-party scientists and research institutions, in part, for research and development and on third parties for the manufacture and distribution of our product;
- Third parties may gain access to our technology if our intellectual property protection is insufficient;
- We may be subject to various litigation claims and legal proceedings, including intellectual property litigation, which may adversely affect our business;
- Commercialization of our product outside of Canada, Australia, and the U.S. for indications other than MS is dependent on obtaining market authorization and/or certification from the FDA and foreign regulatory authorities, which will require significant time, research, development, and clinical study expenditures and ultimately may not be successful;
- Failure to secure contracts with workers' compensation and third-party administrators or rehabilitation clinics could have a negative impact on our sales and would have a material adverse effect on our business, financial condition and operating results;
- Failure to obtain a Healthcare Common Procedure Coding System code and benefit category determination so that the PoNS device may be more easily covered by Medicare could have a negative impact on our intended sales and would have a material adverse effect on our business, financial condition and operating results;
- If we fail to comply with healthcare laws, we could face substantial penalties and financial exposure;
- We face ongoing government scrutiny and regulation in connection with the development of product candidates and following marketing authorization and/or certification;
- After commercialization, a product recall or the discovery of serious safety issues with our products could have a significant adverse impact on us;

- Our controls and security measures may not be successful in avoiding cybersecurity incidents; and
- We are reliant on third-party, single-sourced contract manufacturing, exposing us to risks that could delay our sales or result in higher costs or lost product revenues including additional related risks resulting from the transition of our manufacturer.

RISK FACTORS

An investment in our securities has a high degree of risk. Before you invest you should carefully consider the risks and uncertainties described below and in the “Risk Factors” section of our [Annual Report on Form 10-K for the year ended December 31, 2023](#), each of which is incorporated by reference herein, and the other information in this prospectus. Any of the risks and uncertainties set forth herein and therein could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the trading price or value of our securities. Additional risks not currently known to us or which we consider immaterial based on information currently available to us may also materially adversely affect us. As a result, you could lose all or part of your investment.

Risks Related to the Offering

Because our management will have broad discretion and flexibility in how the net proceeds from this offering are used, our management may use the net proceeds in ways with which you disagree or which may not prove effective.

We currently intend to use the net proceeds from this offering as discussed under “Use of Proceeds” in this prospectus. We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements. Even if this offering is successfully completed, we may be unable to continue to operate without the threat of liquidation for the foreseeable future.

In connection with our management’s assessment, our report from our independent registered public accounting firm for the fiscal year ended December 31, 2023 includes an explanatory paragraph stating that our recurring losses from operations and net capital deficiency raise substantial doubt about our ability to continue as a going concern. If we are unable to obtain sufficient funding, our business, prospects, financial condition and results of operations will be materially and adversely affected and we may be unable to continue as a going concern. Future reports from our independent registered public accounting firm may also contain statements expressing substantial doubt about our ability to continue as a going concern. We believe our existing capital resources will be sufficient to fund our operations through the second quarter of 2024. We also expect our expenses to increase as we continue to conduct trials of PoNS Therapy[®] and as we pursue further regulatory approvals, and maintain, expand and protect our intellectual property portfolio. There can be no assurance that we will be successful in raising sufficient additional capital or that such capital, if available, will be on terms that are acceptable to us. Even if this offering is successful, we will need additional funding to continue our operations. If we are unable to raise capital when needed, we could be forced to delay, reduce, or eliminate our portions of our business strategy, or cease our operations entirely. If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our consolidated financial statements, and investors will likely lose all or a part of their investment. If we seek additional financing to fund our business activities in the future and there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding on commercially reasonable terms or at all.

The exercise price of certain of our existing warrants will be decreased by this offering.

Purchasers in this offering will experience additional dilution as a result of the re-setting the exercise price of the warrants issued in August 2022 (the “2022 Warrants”) because the public offering price of the

shares of Common Stock (or Pre-Funded Warrants) and accompanying Public Warrants is below the current exercise price of the 2022 Warrants of \$6.9135. In such case, we will receive a reduced level of proceeds from any exercise of the 2022 Warrants. Specifically, the exercise price of the 2022 Warrants will be decreased to \$2.25, and the potential proceeds from any exercise of 2022 Warrants will be decreased by approximately \$2.8 million.

There is no market for our Public Warrants or Pre-Funded Warrants.

There is no established public trading market for the Series A Warrants, Series B Warrants or Pre-Funded Warrants, and we do not expect a market to develop. We do not intend to apply to list the Public Warrants or Pre-Funded Warrants on the Nasdaq Capital Market or any nationally recognized trading system, and accordingly, there will be no trading market for such Warrants. In the absence of an active public trading market:

- you may not be able to resell your securities at or above the public offering price;
- the market price of our Common Stock may experience more price volatility; and
- there may be less efficiency in carrying out your purchase and sale orders.

Holders of our Public Warrants or Pre-Funded Warrants will have no rights as common stockholders until they acquire our Common Stock.

Until you acquire shares of Common Stock upon exercise of your Public Warrants or Pre-Funded Warrants, you will have no rights with respect to the shares of Common Stock issuable upon exercise of your Warrants, including voting rights or the right to receive dividends. Upon exercise of your Public Warrants or Pre-Funded Warrants, you will be entitled to exercise the rights of a holder of shares only as to matters for which the record date occurs after the exercise date.

The Series A Warrants, and Series B Warrants are speculative in nature.

Following this offering, the market value of the Series A Warrants and Series B Warrants, if any, is uncertain and there can be no assurance that the market value of the Series A Warrants and Series B Warrants will equal or exceed the exercise price or the imputed offering price of these warrants.

This is a best efforts offering, no minimum amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans.

The Placement Agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities being offered in this offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities or amount of proceeds that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, Placement Agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth above. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to fund for our operations as described in the “Use of Proceeds” section herein. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds, which may not be available or available on terms acceptable to us.

The market price of our Common Stock may be highly volatile, and you could lose all or part of your investment.

The trading price of our Common Stock has been and is likely to continue to be volatile. This volatility may prevent you from being able to sell your securities at or above the price you paid for your securities. Our stock price could be subject to wide fluctuations in response to a variety of factors, which include:

- whether we achieve our anticipated corporate objectives;
- termination of the lock-up agreement or other restrictions on the ability of our stockholders and other security holders to sell Shares after this offering;

- changes in revenue or earnings estimates or publication of research reports and recommendations by financial analyst;
- failure to meet analysts' revenue or earnings estimates;
- speculation in the press or investment community;
- strategic actions by us or our competitors, such as acquisitions or restructuring;
- proposed or adopted regulatory changes or developments;
- anticipated or pending investigations, proceedings or litigation that involve or affect us;
- changes in the market valuations of other comparable companies; and
- general economic or political conditions in the United States or elsewhere.

In addition, the stock market in general, and the stock of biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our Common Stock, regardless of our actual operating performance.

We are not in compliance with Nasdaq's continued listing requirements. If we are unable to comply with Nasdaq's continued listing requirements, our Common Stock could be delisted, which could affect our Common Stock's market price and liquidity and reduce our ability to raise capital.

Our Common Stock is currently listed on the Nasdaq Capital Market. Nasdaq imposes, among other requirements, continued listing standards including minimum bid, public float and stockholders' equity requirements.

As we previously disclosed on April 5, 2024, we received a notification letter from Nasdaq on April 4, 2024, notifying us that we were not in compliance with the stockholders' equity requirement of \$2,500,000, as set forth in Nasdaq Listing Rule 5550(b). Under applicable Nasdaq rules, we have 45 calendar days from the date of the notice, or until May 20, 2024, to submit a plan to regain compliance. We intend to timely submit such a plan to Nasdaq. If our plan is accepted, Nasdaq may grant an extension of up to 180 calendar days from the date of the notice to evidence compliance.

However, until Nasdaq has reached a final determination that we have regained compliance with the applicable Nasdaq requirements, there can be no assurances regarding the continued listing of our securities on Nasdaq. The delisting of our securities from Nasdaq would have a material adverse effect on our access to capital markets, and any limitation on market liquidity or reduction in the price of our Common Stock as a result of that delisting would adversely affect our ability to raise capital on terms acceptable to us, if at all.

We have not paid and do not intend to pay dividends on our Common Stock. Investors in this offering may never obtain a return on their investment.

We have not paid dividends on our Common Stock and do not intend to pay any dividends on our Common Stock in the foreseeable future. We intend to reinvest earnings, if any, in the development and expansion of our business. Accordingly, you will need to rely on sales of your shares of Common Stock after price appreciation, which may never occur, in order to realize a return on your investment.

Risks Related to Intellectual Property

Our inability to protect our confidential information and trade secrets would harm our business and competitive position.

In addition to seeking patents for some of our technology and products, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information to maintain our competitive position. Trade secrets can be difficult to protect. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our

employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors, and other third parties. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not obtain adequate remedies for such breaches. Misappropriation or unauthorized disclosure of our trade secrets could significantly affect our competitive position and may have a material adverse effect on our business. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. Some courts both within and outside the United States may be less willing or unwilling to protect trade secrets. Furthermore, trade secret protection does not prevent competitors from independently developing substantially equivalent information and techniques and we cannot guarantee that our competitors will not independently develop substantially equivalent information and techniques. If a competitor lawfully obtained or independently developed any of our trade secrets, we would have no right to prevent such competitor from using that technology or information to compete with us. Failure on our part to adequately protect our trade secrets and our confidential information would harm our business and our competitive position.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees, and various other government fees on any issued patent or patent application are due to be paid to the USPTO and various government patent agencies outside of the United States in several stages over the lifetime of our owned or licensed patents and applications. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. While an inadvertent lapse can, in some cases, be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents. If we or our current and future licensors fail to maintain the patents and patent applications covering our products, our patent protection could be reduced or eliminated and our competitors might be better able to enter the market with competing products or technology, which could have a material adverse effect on our business, financial condition, results of operation, and prospects.

We have permitted certain of our foreign patents/patent applications (in Russia and Eurasia) to lapse. For clarity, our current owned foreign patent portfolio consists of the following:

PCT application	US Priority document(s) (filing date)	Foreign patents/ *patent applications
WO2016/089751A1 (PCT/US2015/062950)	14/559,080 (3 December 2014) 14/559,123 (3 December 2014) 14/559,118 (3 December 2014) 14/559,105 (3 December 2014)	AU2015355211B2 AU2017218934B2 AU2017276270B2 AU2018204184B2 AU2018247259B2 CA2969729C EP3226962B1 EP3662969B1 IL252648B
Title: Systems and Methods for Providing Non-Invasive Neurorehabilitation of a Patient		
WO2016/089752A1 (PCT/US2015/062953)	14/557,787 (3 December 2014) 14/557,789 (3 December 2014) 14/559,045 (3 December 2014)	AU2015355212B2 AU2017228517B2 AU2019200175B2 AU2019246836B2

<u>PCT application</u>	<u>US Priority document(s) (filing date)</u>	<u>Foreign patents/ *patent applications</u>
Title: Devices for Delivering Non-Invasive Neuromodulation to a Patient		CA2969731C EP3226961B1 EP19190373.1A* IL252649A0
WO2016/089795A1 (PCT/US2015/063059)	14/559,080 (3 December 2014) 14/559,123 (3 December 2014) 14/559,118 (3 December 2014) 14/559,105 (3 December 2014)	N/A
Title: Methods of Manufacturing Devices for the Neurorehabilitation of a Patient		
WO2020/176954 (PCT/US2020/019853)	62/812,185 (28 February 2019)	AU2020228618A1* CA3131684A1* CN113728393A* EP20712806.7A* IL285901A* UK2596678B
Title: Computer Systems and Methods for Enhancing Neurorehabilitation		

If we are unable to obtain, maintain or protect intellectual property rights in any products we develop or if the scope of the intellectual property protection obtained is not sufficiently broad, third parties could develop and commercialize products and technology similar or identical to ours, and we may not compete effectively in our market.

The patent prosecution process is expensive, time-consuming, and complex, and we and our current or future licensors may not prepare, file, prosecute, maintain, and enforce all necessary or desirable patent applications at a reasonable cost or in a timely manner. Patents may be invalidated and patent applications may not be granted for a number of reasons, including known and unknown prior art, deficiencies in the patent applications or the lack of novelty of the underlying inventions or technology. It is also possible that we or our current and future licensors will fail to identify patentable aspects of inventions made in the course of research, development and commercialization activities in time to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research, development, and commercialization activities, such as our employees, collaborators, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such activities before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, publications of discoveries in the scientific literature often lag behind actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our current or future licensors were the first to make the inventions claimed in our owned or any licensed patents or patent applications, or that we or our current or future licensors were the first to file for patent protection of such inventions.

Additionally, the scope of patent protection can be reinterpreted after issuance. Even if our or our current or future licensors' pending and future patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we hold or in-license may be challenged, narrowed, circumvented, or invalidated by third parties in court or in patent offices in the United States and abroad. Our and our current or future licensors' patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications, and then only to the extent the issued claims cover the technology. Our competitors or other third parties may also circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner.

Even if our patents do issue and even if such patents cover our product or future product candidates, third parties may initiate oppositions, interferences, re-examinations, post-grant reviews, *inter partes* reviews,

nullification or derivation actions in court or before patent offices, or similar proceedings challenging the inventorship, validity, enforceability or scope of such patents, which may result in the patent claims being narrowed or invalidated. An adverse determination in any such proceeding or litigation could reduce the scope of, or invalidate, the patent rights we own or license, allow third parties to commercialize our technology or products and compete directly with us, without payment to us.

Intellectual property discovered through government funded programs may be subject to federal regulations such as “march-in” rights, certain reporting requirements and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights and limit our ability to contract with non-U.S. manufacturers.

Certain in-licensed patents in our patent portfolio (i.e. those from ANR) were supported through the use of U.S. government funding (i.e. U.S. patent number 8,849,407 and its progeny were developed in connection with funding provided by the National Institutes of Health under Grant NS048903). Pursuant to the Bayh-Dole Act of 1980, the U.S. government has certain rights in inventions developed with government funding. These U.S. government rights include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right, under certain limited circumstances, to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (1) adequate steps have not been taken to commercialize the invention; (2) government action is necessary to meet public health or safety needs; or (3) government action is necessary to meet requirements for public use under federal regulations (also referred to as march-in rights). If the U.S. government exercised its march-in rights in our current or future intellectual property rights that are generated through the use of U.S. government funding or grants, we could be forced to license or sublicense intellectual property developed by us or that we license on terms unfavorable to us, and there can be no assurance that we would receive compensation from the U.S. government for the exercise of such rights. The U.S. government also has the right to take title to these inventions if the grant recipient fails to disclose the invention to the government or fails to file an application to register the intellectual property within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us to expend substantial resources. In addition, the U.S. government requires that any products embodying any of these inventions or produced through the use of any of these inventions be manufactured substantially in the United States. This preference for U.S. industry may be waived by the federal agency that provided the funding if the owner or assignee of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for U.S. industry may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property.

If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose the ability to continue the development and commercialization of our product.

We are a party to a certain intellectual property sublicense that is important to our business. ANR granted HMI a worldwide, exclusive sublicense to make, have made, use, lease and sell devices covered by certain patent applications (see the Second Amended and Restated Patent Sub-License, or the Sublicense Agreement, dated June 6, 2014). If we fail to comply with our obligations under this sublicense agreement, including payment terms, or other specified events occur such as our insolvency, our current and, in the event we enter into other license agreements, future licensors may have the right to terminate these agreements, in which event we may not develop, manufacture, market or sell any product that is covered by these agreements or we may face other penalties under the agreements. Such an occurrence could adversely affect the value of our product or future product candidates being developed or licensed under any such agreement. Termination of such agreements or reduction or elimination of our rights under such agreements may result in our having to negotiate new or restated agreements, which may not be available to us on equally favorable terms, or at all, or cause us to lose our rights under such agreements, including our rights to intellectual property or technology important to our development programs.

Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues, including as to royalty amounts due;
- the extent to which our technology and processes infringe on intellectual property of the sublicensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our existing collaborative development relationships and any collaboration relationships we might enter into in the future;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our current and future licensors and us; and
- the priority of invention of patented technology.

The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, result of operations, and prospects.

If our trademark and tradenames are not adequately protected, then we may not build name recognition in our markets and our business may be adversely affected.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed, or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition with potential customers. In addition, third parties may file for registration of trademarks similar or identical to our trademarks, thereby impeding our ability to build brand identity and possibly leading to market confusion. If they succeed in registering or developing common law rights in such trademarks, and if we are not successful in challenging such third-party rights, we may not be able to use these trademarks to develop brand recognition of our solutions. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively, which could adversely impact our business, financial condition and results of operations.

For clarity, we have active trademark registrations or pending trademark applications in for the following:

Mark	Country	Registration Number	Application Number
PONS	U.S.	4,998,391	86978547
PONS	U.S.	5,845,725	86440699
PONS THERAPY	U.S.	7,219,613	97124824
HELIUS	U.S.	7,231,015	88443662
HELIUS MEDICAL	U.S.	pending	88443664
PONS	Australia	1923122	1923122
HELIUS	Canada	pending	1996550
PONS	Europe	15004799	15004799
PONS	Israel	306606	306606
PONS	New Zealand	1091833	1091833
PONS	Russia	634298	2015712398
PONS	Russia	674026	2010729117
PONS	Russia	653065	2017727589

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus, including the documents that we incorporate by reference, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but are not always, made through the use of words or phrases such as “may,” “will,” “should,” “could,” “anticipates,” “estimates,” “plans,” “projects,” “potential,” “continuing,” “ongoing,” “expects,” “believes,” “intends,” “targets,” “predicts,” and similar words or phrases. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from those expressed in them.

The forward-looking statements included or incorporated by reference in this prospectus include but are not limited to statements relating to: our future growth and operational progress, including manufacturing activities for the PoNS device, receipt of prescriptions and progress of commercialization of the PoNS device in the U.S., our ability to receive reimbursement coverage under Medicare, Medicaid or under other insurance plans, clinical development plans, product development activities, plans for U.S. Food and Drug Administration, or FDA, filings and their subsequent approvals, other foreign or domestic regulatory filings, the safety and effectiveness of our product, our market awareness, our ability to compete effectively, the ability and limitation of our manufacturing sources, our distribution network, the adequacy of our intellectual property protection, our future patent approvals, our future expenses and cash flow, our ability to become profitable, our future financing arrangements, our accountants’ future perspective including any going concerns, any future stock price, and our ability to build commercial infrastructure.

Such forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Helius, are inherently subject to significant business, economic, competitive political and social uncertainties and contingencies. The factors and assumptions used by our management to develop such forward-looking statements include, but are not limited to, uncertainties associated with our capital requirements to achieve our business objectives, availability of funds, the ability to find additional sources of funding, manufacturing, labor shortage and supply chain risks, including risks related to manufacturing delays, our ability to obtain national Medicare insurance coverage and to obtain a reimbursement code, our ability to continue to build internal commercial infrastructure, secure state distribution licenses, market awareness of the PoNS device, future clinical trials and the clinical development process, the product development process and FDA regulatory submission review and approval process, other development activities, ongoing government regulation and other factors included in the sections entitled “*Risk Factors*” in this prospectus and in the documents incorporated herein by reference.

Although we believe the expectations expressed in such forward-looking statements are based on reasonable assumptions at the time they were made, they are subject to risks and uncertainties, known and unknown, which could cause actual results and developments to differ materially from those expressed or implied in such statements. Forward-looking statements are not guarantees of future performance and actual results may differ significantly from such forward-looking statements.

You should carefully read this prospectus, any prospectus supplement and any related free writing prospectus and with the understanding that our actual future results may materially differ from what we expect.

Except as required by law, forward-looking statements speak only as of the date they are made, and we assume no obligation to update any forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in any forward-looking statements, even if new information becomes available.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$5.6 million based on a public offering price of \$2.25 per share of Common Stock and accompanying Series A Warrant and Series B Warrant and a public offering price of \$2.249 per Pre-Funded Warrant and accompanying Series A and Series B Warrant, after deducting estimated Placement Agent fees and estimated offering expenses payable by us and excluding the proceeds, if any, from the exercise of the Series A Warrants and Series B Warrants issued in this offering.

We currently intend to use the net proceeds from this offering for funding operations, working capital and general corporate purposes. We may use a portion of the net proceeds for the acquisitions of businesses, products, technologies or licenses that are complementary to our business, although we have no present commitments or agreements to do so.

The allocation of the net proceeds of the offering represents our estimates based upon our current plans and assumptions regarding industry and general economic conditions, our future revenues and expenditures.

The amounts and timing of our actual expenditures may vary significantly and will depend on numerous factors, including market conditions, cash generated or used by our operations, business developments and opportunities that may arise and related rate of growth. We may find it necessary or advisable to use portions of the proceeds from this offering for other purposes.

Circumstances that may give rise to a change in the use of proceeds and the alternate purposes for which the proceeds may be used include:

- the existence of other opportunities or the need to take advantage of changes in timing of our existing activities;
- the need or desire on our part to accelerate, increase or eliminate existing initiatives due to, among other things, changing market conditions and competitive developments; and/or
- if strategic opportunities present themselves (including acquisitions, joint ventures, licensing and other similar transactions).

From time to time, we evaluate these factors and other factors and we anticipate continuing to make such evaluations to determine if the existing allocation of resources, including the proceeds of this offering, is being optimized. Pending the application of the net proceeds as described above, we will hold the net proceeds from this offering in short-term, interest-bearing, securities.

Additional capital may not be available on terms favorable to us, or at all. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Debt financing, if available, may involve restrictive covenants or additional security interests in our assets. Any additional debt or equity financing that we complete may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or products or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to delay, reduce the scope of, or eliminate some or all of, our development programs or liquidate some or all of our assets.

CAPITALIZATION

The following table sets forth our cash and cash equivalents, debt obligations, and capitalization as of December 31, 2023 (i) on an actual basis, and (ii) on an as adjusted basis to give effect to the issuance and sale of shares of our Common Stock and Public Warrants in this offering at a combined public offering price of \$2.25 per share and accompanying Series A Warrant and Series B Warrant, for total net proceeds of approximately \$5.6 million (assuming no sale of Pre-Funded Warrants).

	As of December 31, 2023 (in thousands)	
	Actual	As adjusted
Cash and cash equivalents	\$ 5,182	\$ 10,820
Stockholders' (deficit) equity:		
Preferred Stock, \$0.001 par value; 10,000,000 shares authorized; no shares issued and outstanding as of December 31, 2023	—	—
Class A Common Stock, \$0.001 par value, 150,000,000 shares authorized; actual 714,590 shares issued and outstanding as of December 31, 2023; as adjusted 3,740,640 shares issued and outstanding as of December 31, 2023	1	4
Additional paid-in capital	162,979	168,614
Accumulated other comprehensive loss	(673)	(673)
Accumulated deficit	(159,957)	(159,957)
Total stockholders' equity	\$ 2,350	\$ 7,988

The above discussion and table is based on 714,590 shares of Common Stock outstanding on December 31, 2023, and excludes the shares of Common Stock issuable upon exercise of the Public Warrants and Placement Agent Warrants being offered by this prospectus and also excludes the following:

- 245,830 shares of Common Stock issuable upon the exercise of stock options outstanding as of December 31, 2023, at a weighted-average exercise price of \$76.28 per share;
- 637,059 shares of Common Stock issuable upon the exercise of warrants (comprised of 627,090 shares of Common Stock issuable upon the exercise of warrants issued in connection with our public offering in August 2022 with an exercise price of \$6.9135 per share and 9,969 shares of Common Stock issuable upon the exercise of warrants outstanding as of December 31, 2023, at a weighted-average exercise price of \$819.77);
- an aggregate 2,228 shares of unvested restricted stock units granted as of December 31, 2023;
- 9,240 shares of Common Stock reserved for future issuance under our 2021 Inducement Plan as of December 31, 2023; and
- 14,121 shares of Common Stock reserved for future issuance under our 2022 Equity Incentive Plan.

DIVIDEND POLICY

Holders of our shares of Common Stock are entitled to dividends when, as and if declared by our board of directors out of legally available funds.

We have not declared or paid any dividends in the past to the holders of our Common Stock and do not currently anticipate declaring or paying any dividends in the foreseeable future. We intend to retain earnings, if any, to finance the development and expansion of our business. Future dividend policy will be subject to the discretion of our board of directors and will be contingent upon future earnings, if any, our financial condition, capital requirements, general business conditions, and other factors. Therefore, we can give no assurance that any dividends of any kind will ever be paid to holders of our Common Stock.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our Certificate of Incorporation and Second Amended and Restated Bylaws are summaries. You should also refer to the Certificate of Incorporation and the Second Amended and Restated Bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part.

General

Our Certificate of Incorporation authorizes us to issue up to 150,000,000 shares of Common Stock and 10,000,000 shares of preferred stock, par value \$0.001 per share, all of which shares of preferred stock are currently undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time.

As of December 31, 2023, there were (i) 714,590 shares of Common Stock outstanding; (ii) no outstanding shares of preferred stock; (iii) 245,830 shares of Common Stock issuable upon the exercise of outstanding stock options; (iv) 637,059 shares of Common Stock issuable upon the exercise of outstanding warrants; and (v) 2,228 restricted stock units.

Common Stock

Voting

Each holder of our Common Stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights. Because of this, the holders of a majority of the shares of Common Stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of our Common Stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Rights and Preferences

Holders of our Common Stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the Common Stock. The rights, preferences and privileges of the holders of our Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

Our board of directors has the authority under our Certificate of Incorporation, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our Common Stock. The purpose

of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of us and may adversely affect the market price of our Common Stock and the voting and other rights of the holders of our Common Stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of Common Stock until the board of directors determines the specific rights attached to that preferred stock.

Description of Outstanding Warrants

As of December 31, 2023, there were warrants outstanding to purchase 637,059 shares of Common Stock (comprised of (i) warrants outstanding to purchase 627,090 shares of Common Stock issued in connection with our public offering in August 2022 with an exercise price of \$6.9135 per share and (ii) 9,969 shares of Common Stock issuable upon the exercise of warrants at a weighted-average exercise price of \$819.77). Certain of these warrants have a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our Common Stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Each of these warrants also contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrant in the event of dividends, share splits, reorganizations and reclassifications and consolidations. Certain of these warrants provide that, subject to limited exceptions, a holder will not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own over 4.99% of our then outstanding Common Stock following such exercise; provided, however, that upon prior notice to us, the warrant holder may increase its ownership, provided that in no event will the ownership exceed 9.99%.

Anti-Takeover Provisions

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 $\frac{2}{3}$ % of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

- merger or consolidation involving the corporation or any direct or indirect majority-owned subsidiary of the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder (in one transaction or a series of transactions);
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation or by any direct or indirect majority-owned subsidiary of the corporation of any stock of the corporation or of such subsidiary to the interested stockholder;

- any transaction involving the corporation or any direct or indirect majority-owned subsidiary of the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Certificate of Incorporation and the Second Amended and Restated Bylaws

Our Certificate of Incorporation provides that the authorized number of directors may be changed only by resolution of the board of directors, and vacancies and newly created directorships on the board of directors may, except as otherwise required by law or determined by the board of directors, only be filled by a majority vote of the directors then serving on the board of directors, even though less than a quorum.

Our Second Amended and Restated Bylaws provide that all stockholder actions must be effected at a duly called meeting of stockholders and eliminate the right of stockholders to act by written consent without a meeting. Our Second Amended and Restated Bylaws also provide that only our Chairman of the board of directors, Chief Executive Officer or the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors may call a special meeting of stockholders.

Our Second Amended and Restated Bylaws also provide that stockholders seeking to present proposals before a meeting of stockholders to nominate candidates for election as directors at a meeting of stockholders must provide timely advance notice in writing, and specify requirements as to the form and content of a stockholder’s notice. At any meeting of stockholders for the election of directors at which a quorum is present, the election will be determined by a plurality of the votes cast by the stockholders entitled to vote at the election.

Our Certificate of Incorporation and the Second Amended and Restated Bylaws provide that the stockholders cannot amend many of the provisions described above except by a vote of 66²/₃% or more of our outstanding Common Stock. As described above, our Certificate of Incorporation gives our board of directors the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our Company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our Certificate of Incorporation provides that the Court of Chancery of the State of Delaware will be the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our Certificate of Incorporation or our Second Amended and Restated Bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

The provision does not apply to suits brought to enforce a duty or liability created by the Exchange Act.

The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any action, a court could find the choice of forum provisions contained in our Certificate of Incorporation to be inapplicable or unenforceable in such action. Our Certificate of Incorporation further provides that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, subject to and contingent upon a final adjudication in the State of Delaware of the enforceability of such exclusive forum provision.

Registration Rights

Pursuant to the terms of convertible notes issued to A&B (HK) Company Limited in October 2015 and December 2015, we agreed to register any shares issued upon the conversion of such convertible notes upon the request of A&B (HK) Company Limited. As of December 31, 2023, A&B (HK) Company Limited beneficially owned 1,426 shares of Common Stock that were issued upon the conversion of such convertible notes.

Transfer Agent and Registrar

Our transfer agent and the registrar is Equiniti Trust Company, LLC (formerly, American Stock Transfer & Trust Company, LLC), 6201 15th Avenue, Brooklyn, New York 11219; Telephone: 800-937-5449.

Common Stock Listing

Our Common Stock is listed on the Nasdaq Capital Market under the symbol "HSDT".

DESCRIPTION OF SECURITIES WE ARE OFFERING

Common Stock. The material terms and provisions of our Common Stock are described under the caption “*Description of Capital Stock*”.

Public Warrants. Upon completion of this offering we will have outstanding 2,852,221 Series A Warrants and 2,852,221 Series B Warrants. Each Series A Warrant is exercisable for one share of Common Stock at an exercise price of \$2.25 per share (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering) and is immediately exercisable for a period of five years following the date of issuance. Each Series B Warrant is exercisable for one share of Common Stock at an exercise price of \$2.25 per share (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering) and is immediately exercisable for a period of twelve months following the date of issuance.

Public Warrants

The Series A Warrants and Series B Warrants will be issued in the respective forms filed as exhibits to the registration statement of which this prospectus is a part and the following summary is subject to and qualified in its entirety by the filed exhibits. You should review a copy of the forms of the Series A Warrants and the Series B Warrants for a complete description of the terms and conditions applicable to the Public Warrants.

Duration and Exercise Price

Each Series A Warrant offered hereby has an initial exercise price per share equal to \$2.25 (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering). Each Series B Warrant offered hereby has an initial exercise price per share equal to \$2.25 (100% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering). The respective initial exercise prices of the Series A Warrants and the Series B Warrants will be determined at the time of pricing based on negotiations with potential investors.

The exercise price and number of shares of Common Stock issuable upon exercise of the Series A Warrants and the Series B Warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our Common Stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

The Series A Warrants and the Series B Warrants will be issued separately from the Common Stock and, if applicable, Pre-Funded Warrants included in this offering. Each share of our Common Stock or Pre-Funded Warrant purchased in this offering will include (i) a Series A Warrant to purchase one share of Common Stock and (ii) a Series B Warrant to purchase one share of our Common Stock.

The Series A Warrants and the Series B Warrants will be issued in certificated form only.

Exercisability

The Series A Warrants are immediately exercisable and will expire five years following the date of issuance. The Series B Warrants are immediately exercisable and will expire twelve months following the date of issuance. The Series A Warrants and the Series B Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full of the exercise price in immediately available funds for the number of shares of Common Stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

Cashless Exercise

If at the time a holder exercises its Series A Warrant or Series B Warrant, a registration statement registering the issuance of Common Stock underlying the Series A Warrant or Series B Warrants under the Securities Act is not then effective or available, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead

to receive upon such exercise (either in whole or in part) the number of shares of Common Stock determined according to a formula set forth in the Series A Warrants or Series B Warrants.

Certain Adjustments

The exercise price and the number of shares issuable upon exercise of the Series A Warrants and Series B Warrants is subject to appropriate adjustment in the event of stock splits, stock dividends, recapitalizations, reorganizations, schemes, arrangements or similar events affecting our Common Stock. Holders must pay the exercise price in cash or wire transfer of immediately available funds upon exercise of the Series A Warrants or Series B Warrants, unless such holders are utilizing the cashless exercise provision of the Series A Warrants or Series B Warrants, which is only available in certain circumstances such as if the underlying shares are not registered with the SEC pursuant to an effective registration statement. We intend to use commercially reasonable best efforts to have the registration statement of which this prospectus forms a part, effective when the Series A Warrants and Series B Warrants are exercised.

Fundamental Transactions

In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our Common Stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of Common Stock, then following such event, the holders of the Series A Warrants and Series B Warrants will be entitled to receive upon exercise of these warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised their Series A Warrants or Series B Warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Series A Warrants and Series B Warrants. Additionally, as more fully described in the Series A Warrants and Series B Warrants, in the event of certain fundamental transactions, the holders of the Series A Warrants and Series B Warrants will be entitled to receive consideration in an amount equal to the Black Scholes value of such warrants on the date of consummation of such transaction.

Mandatory Exercise

We will have the right to require the holders of the Series B Warrants to exercise their Series B Warrants (the "Mandatory Exercise") if the trading price of the Common Stock (which, for the avoidance of doubt, may be an intraday price) exceeds \$2.25 per share (the "Mandatory Exercise Trigger Price") on each of five (5) consecutive trading days within the thirty (30) trading days beginning on the date that the Company publicly announces that it has received reimbursement benefits in the United States of its PoNS device by the Centers for Medicare & Medicaid Service.

Transferability

Subject to applicable laws, a Series A Warrant and a Series B Warrant may be transferred at the option of the holder upon surrender of the Series A Warrant or Series B Warrant to us together with the appropriate instruments of transfer.

Exchange Listing

There is no established trading market for the Series A Warrants or the Series B Warrants. In addition, we do not intend to apply for the listing of the Series A Warrants or the Series B Warrants on any national securities exchange. Without an active trading market, the liquidity of the Series A Warrants and the Series B Warrants will be limited.

No Rights as a Stockholder

Except as otherwise provided in the Series A Warrants and the Series B Warrants or by virtue of such holder's ownership of shares of our Common Stock, the holders of the Series A Warrants and the Series B Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Series A Warrants or Series B Warrants.

Waivers and Adjustments

Subject to certain exceptions, any terms of the Series A Warrants or Series B Warrants may be amended or waived with our written consent and the written consent of the respective holders thereof.

Pre-Funded Warrants

The Pre-Funded Warrants will be issued in a form filed as an exhibit to the registration statement of which this prospectus is a part and the following summary is subject to and qualified in its entirety by the filed exhibit. You should review a copy of the form of Pre-Funded Warrant for a complete description of the terms and conditions applicable to the Pre-Funded Warrants.

Duration and Exercise Price

The Pre-Funded Warrants offered hereby will have an exercise price of \$0.001 per share. The Pre-Funded Warrants will be immediately exercisable upon issuance and may be exercised at any time until the Pre-Funded Warrants are exercised in full. The exercise prices and numbers of shares of Common Stock issuable upon exercise are subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock. The Pre-Funded Warrants will be issued in certificated form only.

Exercisability

The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our Common Stock purchased upon such exercise. A holder (together with its affiliates) may not exercise any portion of such holder's Pre-Funded Warrants to the extent that the holder would own more than 4.99% (or 9.99%, at the holder's election) of our outstanding Common Stock immediately after exercise, except that upon notice from the holder to us, the holder may decrease or increase the limitation of ownership of outstanding stock after exercising the holder's Pre-Funded Warrants up to 9.99% of the number of shares of our Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants, provided that any increase in such limitation shall not be effective until 61 days following notice to us.

Fundamental Transactions

In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our Common Stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of Common Stock, then following such event, the holders of the Pre-Funded Warrants will be entitled to receive upon exercise of the Pre-Funded Warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the Pre-Funded Warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Pre-Funded Warrants.

Transferability

Subject to applicable laws and the restriction on transfer set forth in the Pre-Funded Warrant, the Pre-Funded Warrant may be transferred at the option of the holder upon surrender of the Pre-Funded Warrant to us together with the appropriate instruments of transfer.

Exchange Listing

There is no established trading market for the Pre-Funded Warrants. In addition, we do not intend to apply for the listing of the Pre-Funded Warrants on any national securities exchange. Without an active trading market, the liquidity of the Pre-Funded Warrants will be limited.

No Right as a Stockholder

Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder's ownership of shares of our Common Stock, the holders of the Pre-Funded Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Pre-Funded Warrants.

Waivers and Adjustments

Subject to certain exceptions, any terms of the Pre-Funded Warrants may be amended or waived with our written consent and the written consent of the holder.

Placement Agent Warrants. Each Placement Agent Warrant issued will have an initial exercise price equal to 110% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering issued in this offering. The Placement Agent Warrants will be immediately exercisable and will expire five years from the commencement of sales in this offering. The exercise price and number of shares of Common Stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock and the exercise price.

The Placement Agent Warrants and the shares underlying the Placement Agent Warrants have been deemed compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(e)(1) of FINRA. The Placement Agent (or permitted assignees under the Rule) may not sell, transfer, assign, pledge or hypothecate the warrants or the shares underlying the warrants, nor will they be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the warrants or the underlying shares for a period of 180 days from the commencement sale in this offering, except to any FINRA member participating in the offering and their bona fide officers or partners or as otherwise permitted under FINRA Rule 5110(e)(2). The Placement Agent Warrants will provide for adjustment in the number and price of such warrants (and the shares underlying such warrants) in the event of recapitalization, merger or other structural transaction to prevent mechanical dilution or in the event of a future financing undertaken by us.

PLAN OF DISTRIBUTION

Craig-Hallum Capital Group LLC (“Craig-Hallum”), which we refer to as the Placement Agent, has agreed to act as the exclusive placement agent in connection with this offering. The Placement Agent is not purchasing or selling securities offered by this prospectus, nor is the Placement Agent required to arrange the purchase or sale of any specific number or dollar amount of securities, but has agreed to use its best efforts to arrange for the sale of all of the securities offered hereby. We will sell to the investors up to 704,999 shares of Common Stock and up to 2,147,222 Pre-Funded Warrants with each share of Common Stock accompanied with one Series A Warrant and Series B Warrant and each Pre-Funded Warrant accompanied with one Series A Warrant and one Series B Warrant. We negotiated the price for the securities offered in this offering with the investors. The factors considered in determining the price included the recent market price of our Common Stock, the general condition of the securities market at the time of this offering, the history of, and the prospects, for the industry in which we compete, our past and present operations, and our prospects for future revenues.

The Placement Agent is not purchasing or selling any securities, nor are they required to arrange for the purchase and sale of any specific number or dollar amount of securities, other than to use their “reasonable best efforts” to arrange for the sale of the securities by us. Therefore, we may not sell the entire amount of securities being offered. Investors shall rely solely on this prospectus in connection with the purchase of our securities in this offering. The Placement Agent may engage one or more subagents or selected dealers in connection with this offering.

The placement agency agreement provides that the Placement Agent’s obligations are subject to conditions contained in the placement agency agreement.

We will deliver the securities being issued to the investors upon receipt of investor funds for the purchase of the securities offered pursuant to this prospectus. We expect to deliver the securities being offered pursuant to this prospectus on May 9, 2024.

Placement Agent Fees, Commissions and Expenses

Upon the closing of this offering, we will pay the Placement Agent a cash transaction fee equal to 7% of the aggregate gross cash proceeds to us from the sale of the securities in the offering. In addition, we will reimburse the placement agent for its out-of-pocket expenses incurred in connection with this offering, including the fees and expenses of the counsel for the Placement Agent, up to \$110,000.

The following table shows the public offering price, placement agent fees and proceeds, before expenses, to us, assuming the purchase of all the securities we are offering.

	Per Share and accompanying Public Warrants	Per Pre-Funded Warrant and accompanying Public Warrants	Total
Public Offering Price	\$ 2.25	\$2.249	\$6,417,497
Placement agent fees	\$0.158	\$0.158	\$ 559,225
Proceeds, before expenses, to us	\$2.092	\$2.091	\$5,858,272

We estimate that the total expenses of the offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding placement agent fees, will be approximately \$330,000, all of which are payable by us.

Lock-Up Agreements

Pursuant to certain “lock-up” agreements, (a) our executive officers and directors, as of the pricing date of the offering, have agreed, subject to certain exceptions, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any securities of the Company without the prior written consent of the Placement Agent, for a period of ninety (90) days from the date of the pricing of the offering, and (b) we, and any successor, agree, subject to certain exceptions, not to for a period of ninety (90) days from the date of the pricing of the offering (1) offer, sell or otherwise transfer or dispose of,

directly or indirectly, any shares of capital stock of the Company or (2) file or caused to be filed any registration statement with the SEC relating to the offering of any shares of our capital stock or any securities convertible into or exercisable or exchangeable for shares of our capital stock.

This lock-up provision applies to Common Stock and to securities convertible into or exchangeable or exercisable for Common Stock. It also applies to Common Stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The exceptions permit, among other things and subject to restrictions, the issuance of Common Stock upon the exercise of outstanding stock options and warrants or other outstanding convertible securities.

In addition, from the date of this prospectus until one hundred and eighty (180) days, we will be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its subsidiaries of common stock or common stock equivalent involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which we (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional common stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the common stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to our business or the market for the common stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or at-the-market offering facility, whereby we may issue securities at a future determined price, except that if the aggregate gross proceeds of this offering are less than \$7 million, beginning ninety one (91) days after the date of this prospectus, we may enter into transactions under our existing at-the-market at sales prices equal to or in excess of the public offering price. Any purchaser shall be entitled to obtain injunctive relief against us to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

Placement Agent Warrants

We have also agreed to issue to the Placement Agent warrants (the "Placement Agent Warrants"), for a total price of \$50, to purchase a number of Common Stock equal to 5.0% of the shares of Common Stock and the Pre-Funded Warrants sold in this offering. The Placement Agent Warrants will have an exercise price equal to 110% of the public offering price per share of Common Stock and accompanying Public Warrants in this offering and may be exercised on a cashless basis. The Placement Agent Warrants are exercisable from the commencement of sale in this offering and will terminate five (5) years from the commencement of sale in this offering. The Placement Agent Warrants are not redeemable by us. We have agreed to one demand registration at our expense, an additional demand registration at the warrant holders' expense, and unlimited "piggyback" registration rights of the Common Stock underlying the Placement Agent Warrants at our expense for a period of five (5) years after the closing of this offering. The Placement Agent Warrants and the shares underlying the Placement Agent Warrants have been deemed compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(e)(1) of FINRA. The Placement Agent (or permitted assignees under the Rule) may not sell, transfer, assign, pledge or hypothecate the warrants or the shares underlying the warrants, nor will they be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the warrants or the underlying shares for a period of 180 days from the commencement sale in this offering, except to any FINRA member participating in the offering and their bona fide officers or partners or as otherwise permitted under FINRA Rule 5110(e)(2). The Placement Agent Warrants will provide for adjustment in the number and price of such warrants (and the shares underlying such warrants) in the event of recapitalization, merger or other structural transaction to prevent mechanical dilution or in the event of a future financing undertaken by us.

Tail Fee

If within six (6) months following closing of this offering (the "Term"), we sell any securities to investors with whom or which the Placement Agent had contact, either verbal or by email, during the Term

in its capacity as sole Placement Agent, then we shall pay to the Placement Agent at the time of each such sale of the securities to such investors, a cash fee equal to 7.0% of the aggregate gross proceeds of such offering, a warrant to purchase securities which represent 5% of the number of securities sold in such offering exercisable at a price equal to 110% of the offering price, and a warrant solicitation fee of five percent (5%) of the gross proceeds received by us to be paid to the Placement Agent for each exercise of warrant sold in such offering.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the placement agent may be required to make for these liabilities.

Determination of Offering Price and Exercise Price

The actual public offering price of the securities we are offering, and the exercise price of the Public Warrants and Pre-Funded Warrants that we are offering, were negotiated between us and the investors in the offering based on the trading of our Common Stock prior to the offering, among other things. Other factors considered in determining the public offering price of the securities we are offering, as well as the exercise price of the Public Warrants and Pre-Funded Warrants that we are offering include our history and prospects, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, the general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Regulation M

The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, each placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent acting as principal. Under these rules and regulations, the placement agent (i) may not engage in any stabilization activity in connection with our securities and (ii) may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the placement agent. In connection with the offering, the placement agent or selected dealers may distribute prospectuses electronically. No forms of electronic prospectus other than prospectuses that are printable as Adobe® PDF will be used in connection with this offering.

Other than the prospectus in electronic format, the information on each of the placement agent's websites and any information contained in any other website maintained by the placement agent is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or either placement agent in its capacity as placement agent and should not be relied upon by investors.

Certain Relationships

The Placement Agent and its affiliates have and may in the future provide, from time to time, investment banking and financial advisory services to us in the ordinary course of business, for which they may receive customary fees and commissions.

Determination of Offering Price

The actual offering price of the securities were negotiated between us, the Placement Agent and the investors in the offering based on the trading of our Common Stock prior to the offering, among other

things. Other factors considered in determining the public offering price of the securities we are offering, include our history and prospects, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, the general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the Placement Agent. In connection with the offering, the Placement Agent or selected dealers may distribute prospectuses electronically. No forms of electronic prospectus other than prospectuses that are printable as Adobe® PDF will be used in connection with this offering.

Other than the prospectus in electronic format, the information on the Placement Agent's website and any information contained in any other website maintained by the Placement Agent is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the Placement Agent in its capacity as placement agent and should not be relied upon by investors.

Selling Restrictions

Other than in the United States of America, no action has been taken by us or the Placement Agent that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

United Kingdom

No shares have been offered or will be offered pursuant to this offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

- (a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000, or FSMA;

provided that no such offer of the shares shall require the us or any placement agent to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an "offer to the public" in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or

subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the placement agent are not required to comply with the disclosure requirements of NI 33-105 regarding placement agent conflicts of interest in connection with this offering.

LEGAL MATTERS

Honigman LLP, Kalamazoo, Michigan, will issue a legal opinion as to the validity of the securities offered by this prospectus. Loeb & Loeb LLP, New York, New York is acting as counsel to the Placement Agent.

EXPERTS

The consolidated financial statements as of December 31, 2023 and 2022, and for the years then ended, incorporated by reference in this Prospectus and in the Registration Statement have been so incorporated in reliance on the reports of Baker Tilly US, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The report on the consolidated financial statements contains an explanatory paragraph regarding our ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC in accordance with the Exchange Act. Our reports, proxy statements and other information filed with the SEC are available free of charge to the public over the Internet at the SEC's website at <http://www.sec.gov>. These documents may also be accessed on our website at www.heliusmedical.com. We are not including the information on our website as a part of, nor incorporating it by reference into, this prospectus or the registration statement of which it forms a part.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" in this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information we incorporate by reference is an important part of this prospectus, and certain information that we will later file with the SEC will automatically update and supersede this information. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed.

We incorporate by reference into this prospectus and the registration statement of which this prospectus forms a part the information or documents listed below that we have filed with the SEC, and any future filings we will make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act (other than information furnished under Item 2.02 or Item 7.01 of Form 8-K or Schedule 14A), including all filings filed pursuant to the Exchange Act after the date of the registration statement and prior to effectiveness of the registration statement, and following effectiveness of the registration statement and until the termination or completion of the offering of the securities covered by this prospectus:

- [Our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 28, 2024;](#)
- Our Current Reports on Form 8-K filed with the SEC on [February 9, 2024](#), [March 4, 2024](#), [March 15, 2024](#), [April 4, 2024](#) and [May 6, 2024](#); and
- The [description of our Common Stock in Exhibit 4.7 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed with the SEC on March 10, 2021](#), and including any further amendment or report filed or to be filed for the purpose of updating such description.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus including exhibits to these documents. You should direct any requests for documents to Helius Medical Technologies, Inc., Attn: Chief Financial Officer, 642 Newtown Yardley Road, Suite 100, Newtown, PA 18940, or via e-mail at inquiry@heliusmedical.com. Our phone number is (215) 944-6104. You also may access these filings on our website at <http://www.heliusmedical.com>. We do not incorporate the information on our website into this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus).



**704,999 SHARES OF COMMON STOCK
SERIES A WARRANTS TO PURCHASE UP TO 2,852,221 SHARES OF
COMMON STOCK
SERIES B WARRANTS TO PURCHASE UP TO 2,852,221 SHARES OF
COMMON STOCK
PRE-FUNDED WARRANTS TO PURCHASE UP TO 2,147,222 SHARES OF
COMMON STOCK**

PROSPECTUS

Craig-Hallum

May 6, 2024
