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**Registration No. 333-270433**

**PROSPECTUS SUPPLEMENT**
**(To Prospectus dated May 26, 2023)**

# Helius Medical Technologies, Inc.

## Up to $92,800,000 of Class A Common Stock

We entered into a Sales Agreement, dated September 15, 2025 (the "Sales Agreement"), with Clear Street LLC ("Clear Street") and Maxim Group LLC ("Maxim," and together with Clear Street, the "Sales Agents"), relating to shares of our Class A common stock, par value $0.001 per share (the "common stock"), offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having a maximum aggregate offering price of up to $92,800,000 from time to time through the Sales Agents.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol "HSDT." On September 12, 2025, the last reported sale price of our common stock on Nasdaq was $7.56 per share.

Sales of shares of our common stock, if any, made through the Sales Agents, or directly to the Sales Agents, as principals, as contemplated in this prospectus supplement and the accompanying prospectus, may be made in negotiated transactions or transactions that are deemed to be "at the market offerings" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. The Sales Agents are not required to sell any specific amount of shares of common stock, but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations, on mutually agreed terms between the Sales Agents and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement. The compensation to the Sales Agents for sales of common stock sold pursuant to the Sales Agreement will be in an amount up to 3.0% of the gross proceeds of any shares of common stock sold under the Sales Agreement. In connection with the sale of the common stock on our behalf, the Sales Agents may be deemed to be "underwriters" within the meaning of the Securities Act, and the compensation of the Sales Agents may be deemed to be underwriting commissions or discounts. See "Plan of Distribution" beginning on page S-19 for additional information regarding the compensation to be paid to the Sales Agents. We have also agreed to provide indemnification and contribution to the Sales Agents with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Under the terms of the Sales Agreement, we also may sell our common stock to the Sales Agents, as principals for their own accounts, at a price agreed upon at the time of sale. If we sell our common stock to the Sales Agents, as principals, we will enter into a separate agreement with the Sales Agents, setting forth the terms of such transaction, and we will describe the agreement in a separate prospectus supplement or pricing supplement.

**Investing in our common stock involves a high degree of risk. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein before you make your investment decision. See "Risk Factors" beginning on page S-9 of this prospectus supplement and page 5 of the accompanying prospectus, and under similar headings in the other documents incorporated by reference herein, to read about risks that you should consider before making a decision to purchase shares of our common stock.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.**

**Clear Street** **Maxim Group LLC**

**The date of this prospectus supplement is September 15, 2025.**

**Prospectus Supplement**


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**Prospectus**


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## ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC"). This document is in two parts. This first part is this prospectus supplement, which describes the specific terms of the common stock we are offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference therein. The second part is the accompanying prospectus, which provides more general information about securities we may offer from time to time, some of which does not apply to this offering. Generally, when we refer to this prospectus supplement, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference herein or therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement, the accompanying prospectus or in any other prospectus supplement or free writing prospectus that we may authorize for use in connection with this offering. We have not, and the Sales Agents have not, authorized any other person to provide you with different or additional information. If anyone provides you with different, additional or inconsistent information, you should not rely on it. We are not, and the Sales Agents are not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference herein and therein, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference herein and therein, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled "Incorporation of Certain Documents by Reference" and "Where You Can Find More Information."

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context indicates otherwise, as used in this prospectus supplement, references to "Helius," "HSDT," "our Company," "the Company," "we," "our," "ours" and "us" refer to Helius Medical Technologies, Inc., a Delaware corporation.

We obtained the industry and market data in this prospectus supplement, including the information incorporated by reference herein, from our own research and management estimates as well as from industry and general publications, surveys and studies conducted by third parties. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Management estimates are derived from publicly available information, our knowledge of our industry, and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, while management is responsible for the accuracy of such information and believes that information contained in the industry

publications, surveys and studies has been obtained from reliable sources, the accuracy and completeness of such information is not guaranteed, and we have not independently verified any of the data contained in these third-party sources.

In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors" and elsewhere in this prospectus supplement and information incorporated by reference herein and therein. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us. You should read the information contained in, or incorporated by reference into, this prospectus supplement completely and with the understanding that future results may be materially different from and worse than what we expect. See the information included under the heading "Cautionary Note Regarding Forward-Looking Information."

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information contained in and incorporated by reference under the heading "Risk Factors" beginning on page S-9 of this prospectus supplement, and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.*

### Our Company

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. 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. 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.

### Recent Developments

#### *Securities Purchase Agreements*

On September 15, 2025, we entered into securities purchase agreements (the "Cash Securities Purchase Agreements") with certain accredited investors (the "Cash Purchasers") pursuant to which we agreed to sell and issue to the Cash Purchasers in a private placement offering (the "Cash Offering") an aggregate offering of (i) either shares (the "Cash Shares") of Class A common stock of the Company, par value $0.001 per share (the "common stock") at an offering price of $6.881 per Cash Share (the "Per Share Cash Purchase Price"); and/or pre-funded warrants (the "Cash Pre-Funded Warrants") to purchase shares of the common stock (the "Cash Pre-Funded Warrant Shares") at an offering price of the Per Share Cash Purchase Price less $0.001 per Cash Pre-Funded Warrant, and (ii) stapled warrants (the "Cash Stapled Warrants" and, together with the Cash Shares and the Cash Pre-Funded Warrants, the "Cash Securities") to purchase shares of the common stock (the "Cash Stapled Warrant Shares") at an exercise price of $10.134 per Cash Stapled Warrant. In the Cash Offering, the Cash Purchasers will tender any of U.S. dollars, USDC or USDT (or a combination thereof) to the Company as consideration for the Cash Shares, Cash Stapled Warrants and Cash Pre-Funded Warrants.

Each of the Cash Pre-Funded Warrants is exercisable for one share of common stock at the remaining exercise price of $0.001 per Cash Pre-Funded Warrant Share, immediately exercisable by the registered holder, and may be exercised at any time following registration until all of the Cash Pre-Funded Warrants issued

in the Cash Offering are exercised in full. Each Cash Purchaser's ability to exercise its Cash Pre-Funded Warrants in exchange for shares of common stock is subject to certain beneficial ownership limitations set forth therein. Each of the Cash Stapled Warrants is exercisable for one share of common stock at the exercise price of $10.134 per Cash Stapled Warrant Share, is immediately exercisable upon registration, and may be exercised at any time following registration until the earlier of (i) 36 months after the closing of the Cash Offering or (ii) all of the Cash Stapled Warrants issued in the Cash Offering are exercised in full. If the daily volume-weighted average price of the common stock is above 200% of the share offering price during any 20 trading days in a 30-trading day period (the "Measurement Period") and for each of the last five (5) consecutive trading days during the Measurement Period, at the election of the Company, the Company can require the Cash Stapled Warrants be exercised.

On September 15, 2025, we also entered into securities purchase agreements (the "Cryptocurrency Securities Purchase Agreements," and together with the Cash Securities Purchase Agreements, the "Securities Purchase Agreements") with certain accredited investors (the "Cryptocurrency Purchasers," and together with the Cash Purchasers, the "Purchasers") pursuant to which the Company agreed to sell and issue to the Cryptocurrency Purchasers in a private placement (the "Cryptocurrency Offering," and together with the Cash Offering, the "PIPE Transaction") (i) pre-funded warrants ("Cryptocurrency Pre-Funded Warrants" and, together with the Cash Pre-Funded Warrants, the "Pre-Funded Warrants") to purchase shares of common stock ("Cryptocurrency Pre-Funded Warrant Shares" and, together with the Cash Pre-Funded Warrant Shares, the "Pre-Funded Warrant Shares") at an offering price of $6.881 less $0.001 and (ii) stapled warrants (the "Cryptocurrency Stapled Warrants," and together with the Cash Stapled Warrants, the "Stapled Warrants") to purchase shares of common stock (the "Cryptocurrency Stapled Warrant Shares," and together with the Cash Stapled Warrant Shares, the "Stapled Warrant Shares") at an exercise price of $10.134 per Cryptocurrency Stapled Warrant. In the Cryptocurrency Offering, the Cryptocurrency Purchasers will tender either Unlocked SOL tokens or Locked SOL tokens to the Company as consideration for the Cryptocurrency Pre-Funded Warrants and the Cryptocurrency Stapled Warrants.

The exercise of the Cryptocurrency Pre-Funded Warrants and Cryptocurrency Stapled Warrants into Cryptocurrency Pre-Funded Warrant Shares and Cryptocurrency Stapled Warrant Shares, respectively, is subject to stockholder approval ("Stockholder Approval") and such warrants will not be exercisable for common stock until such Shareholder Approval is received. Pursuant to the Cryptocurrency Securities Purchase Agreement, the Company will hold a special meeting of stockholders to obtain Stockholder Approval as soon as practicable after the closing date of the PIPE Transaction.

Each of the Cryptocurrency Pre-Funded Warrants is exercisable for one share of common stock at the exercise price of $0.001 per share, is immediately exercisable following Stockholder Approval (the "Effective Date"), and may be exercised at any time on or after the Effective Date until all of the Cryptocurrency Pre-Funded Warrants issued in the PIPE Transaction are exercised in full. Each Cryptocurrency Purchaser's ability to exercise its Cryptocurrency Pre-Funded Warrants in exchange for shares of common stock is subject to certain beneficial ownership limitations set forth therein. Each of the Cryptocurrency Stapled Warrants is exercisable for one share of common stock at the exercise price of $10.134 per Cryptocurrency Stapled Warrant Share, immediately exercisable on or after the Effective Date, and may be exercised at any time on or after the Effective Date until the earlier of (i) 36 months after the closing of the Cryptocurrency Offering or (ii) all of the Cryptocurrency Stapled Warrants issued in the Cryptocurrency Offering are exercised in full. If the daily volume-weighted average price of the common stock is above 200% of the share offering price during the Measurement Period and for each of the last five (5) consecutive trading days during the Measurement Period, and subject to election and notice by the Company, the Company can require the Cryptocurrency Stapled Warrants be exercised.

The closing of the PIPE Transaction is expected to occur on or about September 18, 2025, subject to the satisfaction of customary closing conditions. The Company intends to use the net proceeds from the PIPE Transaction to fund the acquisition of SOL, the native cryptocurrency of the Solana Foundation blockchain, through open market purchases only and the establishment of the Company's Solana treasury operations, as well as for working capital, general corporate purposes and to pay all transaction fees and expenses related thereto. The Company will not use the net proceeds from the PIPE Transaction: (a) for the redemption of any outstanding common stock or common stock equivalents of the Company, (b) for the settlement of any outstanding litigation or (c) in violation of the Foreign Corrupt Practices Act of 1977, as amended or the Office of Foreign Assets Control of the U.S. Treasury Department regulations.

Pursuant to the Purchase Agreements, the Company agreed to use commercially reasonable efforts to file a registration statement with the U.S. Securities and Exchange Commission, within 30 days of the closing of the Offering registering the resale of the common stock sold in the PIPE Transaction, the Pre-Funded Warrants, the Pre-Funded Warrant Shares, the Stapled Warrants, the Stapled Warrant Shares, and certain securities to be issued to the Company's strategic advisor.

**The transactions contemplated by the Securities Purchase Agreements (including the related PIPE Transaction and ancillary documents) have not closed as of the date of this prospectus supplement. Completion remains subject to various conditions and uncertainties, including customary closing conditions, and there can be no assurance that these transactions will be consummated on the terms described herein or at all. These matters involve risks that could cause actual results to differ materially from current expectations. For additional information, see "Cautionary Note Regarding Forward-Looking Information" and "Risk Factors" in this prospectus supplement and the documents incorporated by reference.**

***Advisory Agreements***

On September 15, 2025, the Company entered into a Strategic Advisor Agreement (the "Strategic Advisor Agreement") with Pantera Capital Management LP, a Delaware limited partnership ("Pantera") and Summer Wisdom Holdings Limited ("Summer" and with Pantera, the "Advisors"), pursuant to which the Company engaged each of Pantera and Summer to provide strategic advice and guidance relating to the Company's business, operations, growth initiatives and industry trends in the crypto technology sector for an initial term of three (3) years, which automatically renewed for successive periods of one (1) year each, subject to the mutual agreement of the Company and Advisors. Either the Company or the Advisors may terminate the Strategic Advisor Agreement upon written notice of a material breach by the other party that has not been cured within thirty (30) days' of receipt of the written notice. Pursuant to the terms of the Strategic Advisor Agreement, the Company issued (i) to Pantera, the Strategic Advisor warrants (the "Strategic Advisor Warrants") to purchase shares of the Company's common stock (the "Strategic Advisor Base Warrant Shares") equal to 7% of the aggregate number of shares of Cash Shares and the Pre-Funded Warrant Shares and (ii) to Summer, Strategic Advisor Warrants to purchase shares of the Company's common stock equal to 3% of the aggregate number of shares of Cash Shares and the Pre-Funded Warrant Shares. Upon the exercise of each Stapled Warrant, each of Pantera and Summer shall receive an additional grant of Strategic Advisor Warrants to purchase an amount of shares of common stock equal to their respective portion of 5% of the Stapled Warrant Shares underlying such exercised Stapled Warrant (such shares of common stock underlying the Strategic Advisor Warrants, the "Strategic Advisor Performance Shares" and, together with the Strategic Advisor Base Warrant Shares, the "Strategic Advisor Warrant Shares"). The Performance Warrant shall (i) have an exercise price equal to $0.001 per Strategic Advisor Performance Share, (ii) a term ending on the fifth ($5^{th}$) anniversary of the issue date, and (iii) terminate automatically, without consideration, to the extent unvested upon the expiration of its term. The Performance Warrant will permit cashless exercise and will be settled solely in shares. The exercise price per share of the Strategic Advisor Warrants shall be equal to $0.001 per Strategic Advisor Warrant Share. The Strategic Advisor Warrants shall be exercisable, in whole or in part, at any time and from time to time, for a period of five (5) years from the date of stockholder approval.

The exercise of the Strategic Advisor Warrants is subject to stockholder approval and such warrants will not be exercisable for Common Stock until such stockholder approval is received. The exercise price per share of the Strategic Advisor Warrants shall be equal to $0.001 per Strategic Advisor Warrant Share. The Strategic Advisor Warrants shall be exercisable, in whole or in part, at any time and from time to time, for a period of five (5) years from the date of issuance. The Strategic Advisor Agreements also contain customary representations and warranties, confidentiality provisions and limitations on liability.

On September 15, 2025, the Company entered into a Trading Advisory Agreement (the "Trading Advisory Agreement") with Pantera, pursuant to which the Company engaged Pantera to manage the investment of substantially all of Company's digital assets, digital asset derivatives, cash and other assets for an initial term of ten (10) years, which automatically renewed for successive periods of one (1) year each, subject to the mutual agreement of the Company and Pantera. The management fees pursuant to the agreement shall be equal to: (a) 1.0%, if the Client's Assets Under Management is less than or equal to $1 billion, (b) 0.75% per annum of assets under management ("AUM") if AUM is more than $1 billion but less than or equal to $5 billion and (c) 0.50% per annum of AUM if AUM is more than $5 billion.

***Digital Asset Treasury Strategy***

***Solana-centric Digital Asset Treasury Strategy***

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, and integrating blockchain technology allows us to build a more secure, scalable, and efficient platform. Strategic digital asset reserves like Solana lay the groundwork for a future where global payments, credentialing, and personalized learning can be powered by decentralized infrastructure, enhancing how we grow our company. The Company believes that Solana represents a uniquely scalable, high-performance blockchain platform that aligns with its long-term vision of integrating innovative technologies into its services. By investing in and participating in the Solana ecosystem, the Company aims to both enhance its treasury strategy and create strategic optionality for product innovation in its core business.

Solana is a decentralized, open-source blockchain platform designed to support high-performance applications and financial transactions. The Solana blockchain operates through a decentralized ecosystem composed of multiple categories of participants. Validators are responsible for producing blocks, processing transactions, and securing the network. Token holders may participate in network security by staking or delegating their SOL to validators in exchange for protocol rewards. Developers contribute to the ecosystem by building decentralized applications and infrastructure on the Solana protocol, while end users engage in transactions and utilize those applications for financial, commercial, and social purposes. In addition, the Solana Foundation plays a supporting role by providing grants, funding, and resources intended to promote ecosystem growth, research, and adoption. Collectively, these participants contribute to the functionality, scalability, and sustainability of the Solana network

The Solana protocol utilizes a hybrid consensus mechanism that combines Proof-of-History ("PoH") with Proof-of-Stake ("PoS"), which is intended to deliver high throughput, low transaction fees, and rapid confirmation times relative to many other blockchain networks. Solana tokens (SOL) are the native tokens of the Solana blockchain, used for staking, governance, and transaction fees. Solana tokens are required to pay transaction and smart contract fees, may be staked or delegated to validators to help secure the network and earn protocol rewards, and are widely used across decentralized finance, digital asset, and payment applications built on Solana.

The lifecycle of Solana is defined by three core elements: (i) new issuance through inflationary staking rewards, (ii) ongoing utility-driven demand from applications and users, and (iii) deflationary effects from transaction fee burns and vesting releases. These factors collectively shape the long-term supply and demand dynamics of SOL and reinforce its central role as both a utility token and value-accruing asset within the Solana ecosystem. New tokens are created under an inflationary schedule that began at 8% annually and decreases by 15% each year until it reaches a long-term rate of 1.5%. To offset this growth, the network burns 50% of all transaction fees. The protocol includes a burn mechanism under which a portion of each transaction fee is permanently removed from circulation, providing a partial offset to inflationary token issuance. A portion of the Solana tokens were initially allocated to the Solana Foundation, ecosystem contributors, and early investors, subject to multi-year lock-ups and vesting schedules. Certain of the Company's expected future Solana holdings are fully liquid and not subject to contractual lock-ups. However, certain grant related allocations and foundation holdings remain subject to staged, multi-year vesting schedules. As of September 10, 2025, Solana.com reported a total supply of approximately 609 million SOL, of which roughly 542 million were circulating and approximately 67 million were non-circulating due to lock-ups, vesting, or other restrictions. Net supply therefore changes over time based on new issuance, fee burns, and scheduled unlocks. Overall, Solana's tokenomics combine declining inflation with deflationary burn mechanisms intended to balance validator incentives with long-term supply sustainability.

Our Solana-centric digital asset treasury strategy was adopted by us as part of our broader strategy to enhance our platform with capital efficiency, to diversify treasury management practices, and engage with emerging financial technologies. In addition, the Company may participate selectively in the Solana network through validator node operations and staking activities, which are intended to generate on-chain rewards and incremental yield on its digital asset holdings. The Company's staking policy is to stake a substantial portion of its Solana holdings (generally between 90% and 100% of the Solana holdings), typically shortly after acquisition, in order to generate protocol rewards and contribute to network security. The Company

currently utilizes multiple independent staking providers to diversify counterparty risk and avoid reliance on any single validator. While the validator initiative remains in the early stages, any future operations are intended to be complementary to the Company's digital asset treasury management strategy and are not expected to represent a core component of the Company's business model. Under the arrangements with the staking providers, such providers are solely responsible for the technical infrastructure, operation, and associated costs of any validator node. The Company does not operate any validator infrastructure directly and does not incur material capital expenditures in connection with such operations. Staking rewards are shared pursuant to commission terms negotiated with each provider, which generally provide for lower commission rates as the staked amounts increase. Accordingly, the Company does not anticipate incurring any material capital expenditures or ongoing operating costs related to such activities.

The strategy is designed to supplement the Company's capital allocation framework by integrating a forward-looking, technology-driven approach to treasury management. Over time, participation in blockchain ecosystems such as Solana may offer strategic advantages for product development and global expansion.

***Special Meeting of Stockholders***

At a special meeting of stockholders of the Company held on May 23, 2025 (the "Special Meeting"), the Company's stockholders: (i) approved an amendment to the Company's Certificate of Incorporation to effect a reverse split of common stock at a ratio of 1-to-2 to 1-to-250 to be determined at the discretion of the Company's Board of Directors, whereby each outstanding 2 to 250 shares would be combined, converted and changed into 1 share of common stock; (ii) approved an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of common stock to up to 800,000,000 shares; (iii) approved, pursuant to Nasdaq listing rules, the issuance of up to 148,621,326 shares of common stock in a potential financing; (iv) approved an amendment to the Helius Medical Technologies, Inc. 2022 Equity Incentive Plan to increase the number of shares available under the plan following this offering and the total dilution associated with this offering; and (v) approved authorization of one or more adjournments to the Special Meeting to solicit additional proxies in the event there were insufficient votes to approve any of the other proposals (collectively, the "Special Meeting Stockholder Approvals"). The Company intends to file an amendment to the Company's Certificate of Incorporation to increase the number of authorized shares of common stock to up to 800,000,000 shares.

***Reverse Stock Splits***

On April 21, 2025, the stockholders of the Company approved a potential reverse stock split in a ratio of 1-to-2 to 1-to-250. The Board subsequently approved a reverse stock split of 1-for-15, which became effective on May 2, 2025.

On May 23, 2025, the stockholders of the Company approved a potential reverse stock split in a ratio of 1-to-2 to 1-to-30. The Board subsequently approved a reverse stock split of 1-for-50, which became effective on June 30, 2025. All numbers herein have been adjusted to reflect these reverse stock splits.

***Private Placements***

On April 24, 2025, the Company entered into a securities purchase agreement (the "PIPE Purchase Agreement") with certain investors (the "Purchasers") pursuant to which the Company sold, in a private placement (the "April 2025 Private Placement"), unsecured 20% original issue discount promissory notes with an aggregate principal amount of $1,560,000 (the "Notes") with a maturity date of the earlier of (a) July 24, 2025, and (b) the closing date of the Company's next registered offering of securities on Form S-1. The PIPE Purchase Agreement also provided for the issuance of an aggregate of 88,010 shares of common stock of the Company to the Purchasers. The transaction closed on April 25, 2025.

***Warrant Inducement***

On January 21, 2025, we entered into warrant exercise inducement offer letters (the "Inducement Letters") with certain holders (the "Holders") of our then-existing Series A warrants and Series B warrants to purchase shares of the Company's Class A common stock (the "Public Warrants"), pursuant to which

the Holders agreed to exercise for cash their Public Warrants to purchase an aggregate of 331,407 shares of our common stock, in the aggregate, at a reduced exercise price of $11.265 per share, in exchange for our agreement to issue new Series C Warrants and Series D Warrants (the "Inducement Warrants") on substantially the same terms as the Public Warrants except that such Inducement Warrants are not exercisable unless and until approved by the Company's stockholders, to purchase up to 414,254 shares of common stock. We received aggregate gross proceeds of approximately $3.7 million from the exercise of the Public Warrants by the Holders. We engaged Roth Capital Partners, LLC ("Roth") to act as our financial advisor with the transactions summarized above and paid Roth $0.2 million for its services, in addition to reimbursement for certain expenses.

We have agreed to hold an annual or special meeting of stockholders on or prior to the date that is ninety (90) calendar days following the date of the Inducement Letters for the purpose of obtaining stockholder approval for the exercise of the Inducement Warrants, with the recommendation of the Company's board of directors that such proposal is approved. If we do not obtain stockholder approval at the first meeting, we have agreed to call a meeting to seek stockholder approval every ninety (90) calendar days until the date that the Inducement Warrants are no longer outstanding.

***Nasdaq Matters***

On August 9, 2024, we received a Notification Letter from the Listing Qualifications Staff (the "Staff") of Nasdaq notifying us that because the closing bid price of our common stock was below $1.00 per share for the prior 30 consecutive business days, we are not in compliance with the minimum bid price requirement for continued listing on The Nasdaq Capital Market, as set forth in Nasdaq Marketplace Rule 5550(a)(2) (the "Minimum Bid Price Requirement").

In accordance with Nasdaq Marketplace Rule 5810(c)(3)(A), we had a period of 180 calendar days from August 9, 2024, or until February 5, 2025, to regain compliance with the Minimum Bid Price Requirement.

On February 7, 2025, we received a letter from the Staff indicating the Company's continued non-compliance with the Minimum Bid Price Requirement. The letter further informed the Company that the Company's common stock would be delisted from The Nasdaq Capital Market unless the Company appeals the Staff's delisting determination by requesting a hearing before the Nasdaq Hearings Panel (the "Panel"). The Company had a hearing with the Nasdaq Hearing Panel on March 18, 2025. At the hearing, we presented our plan for regaining compliance with the Minimum Bid Price Requirement and requested a further extension so that we may complete the execution of our plan. On March 31, 2025, we received written notice Staff stating that the Company no longer complies with the minimum stockholders' equity requirement under Nasdaq Listing Rule 5550(b)(1) (the "Stockholders' Equity Requirement") for continued listing on The Nasdaq Stock Market LLC because the Company's stockholders' equity, as reported in the Company's Annual Report on Form 10-K for the fourth quarter and year ended December 31, 2024, has fallen below $2.5 million. The notice also indicates that the Company does not meet the alternative compliance standards.

On April 1, 2025, the Company received an additional letter (the "Extension Notice") from Nasdaq notifying the Company that, following the hearing process with respect to the Company's deficiency with the Minimum Bid Price Requirement, Nasdaq has granted the Company an extension, until June 30, 2025 to regain compliance with the Minimum Bid Price Requirement as well as the Stockholders' Equity Requirement.

On June 3, 2025, the Company received formal notification from Nasdaq confirming that we had regained compliance with the Minimum Bid Price Requirement following the May 2025 Reverse Stock Split.

On July 7, 2025, the Company received formal notification from Nasdaq that, following the completion of the 2025 Offering, the Company has regained compliance with the Stockholders Equity Requirement. Consequently, following receipt of such notification, the Company is now in compliance with all applicable criteria for continued listing on the Nasdaq Capital Market, and pursuant to Nasdaq Listing Rule 5815(d)(4)(B), the Company will be subject to a Mandatory Panel Monitor until July 7, 2026.

**Corporate Information**

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 May 23, 2014, we changed our name to "Helius 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. 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 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.

**Implications of Being a Smaller Reporting Company**

We are a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act, meaning that the market value of our shares held by non-affiliates is less than $700 million and our annual revenue was less than $100 million during the most recently completed fiscal year. We will continue to be a smaller reporting company if either (i) the market value of our shares of common stock held by non-affiliates is less than $250 million or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our shares of common stock held by non-affiliates is less than $700 million. As a smaller reporting company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation. Additionally, as a smaller reporting company, we may continue to take advantage of the exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended. If investors consider our common stock less attractive as a result of our election to use the scaled-back disclosure permitted for smaller reporting companies, there may be a less active trading market for our common stock and the share price of our common stock may be more volatile.

**THE OFFERING**

| | |
|---|---|
| Common stock offered by us | Shares of our common stock having an aggregate offering price of up to $92,800,000. |
| Manner of offering | Sales of our common stock, if any, under this prospectus supplement and accompanying prospectus may be made in sales deemed to be "at the market offerings" as defined in Rule 415 promulgated under the Securities Act. See "Plan of Distribution" on page S-19 of this prospectus supplement for a more complete description of the manner of offering. |
| Shares Outstanding after this Offering | 12,955,641, based on an assumed offering price of $7.56 per share, the closing price of our common stock on Nasdaq on September 12, 2025. |
| Use of proceeds | Assuming the closing of the PIPE Transaction, we intend to use the net proceeds from this offering primarily to acquire Solana tokens. We also intend to use the proceeds from this offering for working capital needs, repurchases of shares of our common stock general corporate purposes and operating expenses, which may include funding acquisitions or investments in businesses, products or technologies that are complementary to our own. Please see "Use of Proceeds" on page S-17. |
| Risk factors | Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading "Risk Factors" beginning on page S-9 of this prospectus supplement, and under similar headings in other documents filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus. |
| Nasdaq Capital Market Symbol | HSDT (subject to change upon the closing of the PIPE Transaction) |

The number of shares of our common stock to be outstanding after this offering as shown above is based on 680,509 shares outstanding as of June 30, 2025, and excludes:

- 3,593 shares of our common stock issuable upon exercise of outstanding options at a weighted average exercise price of $3,283.72 per share;
- 27,427 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of $266.92 per share;
- 138,927 shares of our common stock to be reserved for potential future issuance pursuant to the Helius Medical Technologies, Inc. 2021 Inducement Plan (the "2021 Plan") and the Helius Medical Technologies, Inc. 2022 Equity Incentive Plan (the "2022 Plan");
- 124,200 shares of our common stock issuable upon exercise of stock options that were granted to the directors and employees of the Company on July 2, 2025; and
- Our planned issuance of shares and warrants to purchase shares in the PIPE Transaction.

Unless otherwise indicated, this prospectus reflects and assumes there have been no exercise of outstanding options or warrants after June 30, 2025.

## RISK FACTORS

Investing in our common stock involves a high degree of risk. Before you decide to invest in our common stock, you should carefully consider the risks described in the section captioned "Risk Factors" in our most recent Annual Report on Form 10-K and our most recent Quarterly Report on Form 10-Q, which are incorporated by reference herein in their entirety, and those risk factors set forth below, together with the other information in this prospectus supplement or any prospectus supplement and documents incorporated by reference in this prospectus or any prospectus supplement. The risks described in our most recent Annual Report on Form 10-K, as amended, our most recent Quarterly Report on Form 10-Q and below are not the only ones facing our company. Additional risks and uncertainties may also impair our business operations. If any of the risks described in our most recent Annual Report on Form 10-K, as amended, our most recent Quarterly Report on Form 10-Q and the other filings incorporated by reference herein, or below, occurs, our business, financial condition, results of operations and future growth prospects could be harmed. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

### Risks Related to this Offering

***We have broad discretion in the use of the net proceeds from this offering and our existing cash and may not use them effectively.***

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "Use of Proceeds," as well as our existing cash and cash equivalents, and you will be relying on the judgment of our management regarding such application. We intend to use the net proceeds from this offering primarily to acquire digital assets. We also intend to use the proceeds from this offering for working capital needs, general corporate purposes and operating expenses, which may include funding acquisitions or investments in businesses, products or technologies that are complementary to our own.

You will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply the net proceeds or our existing cash in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering or our existing cash and cash equivalents in ways that enhance stockholder value, we may fail to achieve expected business and financial results, which could cause our stock price to decline.

***Resales of our common stock in the public market during this offering by our stockholders may cause the market price of our common stock to fall.***

We may issue shares of common stock from time to time in connection with this offering. The issuance from time to time of these new shares of common stock, or our ability to issue new shares of common stock in this offering, could result in resales of our shares of common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

***An active trading market for our common stock may not be sustained and investors may not be able to resell their shares at or above the price at which they purchased them.***

An active trading market for our shares of common stock may not be sustained. In the absence of an active trading market for our common stock, investors may not be able to sell their common stock at or above the price they paid or at the time that they would like to sell. In addition, an inactive market could impair our ability to raise capital by selling shares and could impair our ability to acquire other companies or technologies by using our shares as consideration, which, in turn, could harm our business.

***Sales of a substantial number of shares of our common stock, or the perception that such sales may occur, may adversely impact the price of our common stock.***

Sales of a substantial number of shares of our common stock in the public markets could depress the market price of our common stock and impair our ability to raise capital through the sale of additional

equity securities. We cannot predict the effect that future sales of our common stock will have on the market price of our common stock.

***The common stock offered hereby will be sold in "at the market" offerings, and investors who buy shares at different times will likely pay different prices.***

Investors who purchase shares in this offering at different times will likely pay different prices and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold, and there is no minimum or maximum sales price. Investors may experience a decline in the value of their shares as a result of share sales made at prices lower than the prices they paid.

***The actual number of shares of common stock we will issue under the Sales Agreement, at any one time or in total, is uncertain.***

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver placement notices to the Sales Agents at any time throughout the term of the Sales Agreement. The number of shares that are sold by the Sales Agents after delivering a placement notice will fluctuate based on the market price of the common stock during the sales period and the limits we set with the Sales Agents. Because the price per share of each share of common stock sold will fluctuate based on the market price of our common stock during the sales period, it is not possible at this stage to predict the number of shares that will be ultimately issued.

***We may require additional funding through further issuances of our common stock or other securities, in which you may experience future dilution as a result of future equity offerings.***

To raise additional capital, we expect in the future to offer additional shares of common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. Future sales of such securities or our common stock could adversely affect the prevailing market price of our common stock and our ability to raise capital in the future and may cause you to incur additional dilution. We may sell common stock or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

***We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Accordingly, stockholders must rely on capital appreciation, if any, for any return on their investment.***

We have never declared or paid cash dividends on our common stock. We currently intend to use available cash to purchase additional digital assets and for other general corporate purposes, and we do not intend to pay cash dividends in respect of our common stock in the foreseeable future. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

***We may be subject to regulatory developments related to crypto assets and crypto asset markets, which could adversely affect our business, financial condition, and results of operations.***

As Solana and other digital assets are relatively novel and the application of state and federal securities laws and other laws and regulations to digital assets is unclear in certain respects, it is possible that regulators in the United States or foreign countries may interpret or apply existing laws and regulations in a manner that adversely affects the price of Solana. The U.S. federal government, states, regulatory agencies, and foreign countries may also enact new laws and regulations, or pursue regulatory, legislative, enforcement or judicial actions, that could materially impact the price of Solana or the ability of individuals or institutions such as us to own or transfer Solana.

If Solana is determined to constitute a security for purposes of the federal securities laws, the additional regulatory restrictions imposed by such a determination could adversely affect the market price of Solana

and in turn adversely affect the market price of our common stock. Moreover, the risks of us engaging in a Solana treasury strategy have created, and could continue to create complications due to the lack of experience that third parties have with companies engaging in such a strategy, such as increased costs of director and officer liability insurance or the potential inability to obtain such coverage on acceptable terms in the future.

***Regulatory change reclassifying Solana as a security could lead to our classification as an "investment company" under the Investment Company Act of 1940, as amended, or the 1940 Act, and could adversely affect the market price of Solana and the market price of our common stock.***

Under Sections 3(a)(1)(A) and (C) of the 1940 Act, a company generally will be deemed to be an "investment company" for purposes of the 1940 Act if (1) it is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities or (2) it engages, or proposes to engage, in the business of investing, reinvesting, owning, holding or trading in securities and it owns or proposes to acquire investment securities having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. We do not believe that we are an "investment company," as such term is defined in the 1940 Act, and are not registered as an "investment company" under the 1940 Act as of the date of this prospectus.

While senior SEC officials have not stated their view as to whether Solana is or is not a "security" for purposes of the federal securities laws, a contrary determination by the SEC could lead to our classification as an "investment company" under the 1940 Act, if the portion of our assets consists of investments in Solanas exceeds 40% safe harbor limits prescribed in the 1940 Act, which would subject us to significant additional regulatory controls that could have a material adverse effect on our business and operations and may also require us to change the manner in which we conduct our business.

We monitor our assets and income for compliance under the 1940 Act and seek to conduct our business activities in a manner such that we do not fall within its definitions of "investment company" or that we qualify under one of the exemptions or exclusions provided by the 1940 Act and corresponding SEC regulations. Furthermore, if Solana is determined to constitute a security for purposes of the federal securities laws, we would take steps to reduce the percentage of Solanas that constitute investment assets under the 1940 Act. These steps may include, among others, selling Solanas that we might otherwise hold for the long term and deploying our cash in non-investment assets, and we may be forced to sell our Solanas at unattractive prices. We may also seek to acquire additional non-investment assets to maintain compliance with the 1940 Act, and we may need to incur debt, issue additional equity or enter into other financing arrangements that are not otherwise attractive to our business. Any of these actions could have a material adverse effect on our results of operations and financial condition. Moreover, we can make no assurance that we would successfully be able to take the necessary steps to avoid being deemed to be an investment company in accordance with the safe harbor. If we were unsuccessful, and if Solana is determined to constitute a security for purposes of the federal securities laws, then we would have to register as an investment company, and the additional regulatory restrictions imposed by 1940 Act could adversely affect the market price of Solana and in turn adversely affect the market price of our common stock.

***Staking Solana may limit our liquidity and restrict our ability to access capital in a timely manner.***

As part of our digital asset treasury strategy, we may stake a portion of our Solana holdings with validators in order to earn staking rewards. Staked tokens are generally subject to "lock-up" or "unbonding" periods during which they cannot be transferred, traded, or otherwise used. Although such lock-up periods are intended to protect the stability of the protocol, they may materially reduce our immediate access to liquidity. If we need to liquidate our Solana holdings to meet operational requirements, satisfy obligations, or respond to adverse market conditions, the inability to rapidly access staked tokens could adversely affect our financial condition, results of operations, or cash flows. Furthermore, because staking rewards are paid in additional Solana tokens, rather than cash, our ability to convert those rewards into fiat currency may depend on prevailing market liquidity and trading volumes for Solana, which could be volatile or insufficient at times.

***Our financial results and the market price of our common stock may be affected by the prices of Solana.***

As part of our capital allocation strategy for assets that are not required to provide working capital for our ongoing operations, we intend to invest in Solana tokens. The price of Solana has historically been subject

to dramatic price fluctuations and is highly volatile. Moreover, digital assets, such as Solana, are relatively novel and the application of securities laws and other regulations to such assets is unclear in many respects. It is possible that regulators may interpret laws in a manner that adversely affects the liquidity or value of Solana.

Any decrease in the fair value of Solana below our carrying value for such assets could require us to incur a loss due to the decrease in fair market value, and such charge could be material to our financial results for the applicable reporting period, which may create significant volatility in our reported earnings. Any decrease in reported earnings or increased volatility of such earnings could have a material adverse effect on the market price of our common stock. In addition, the application of generally accepted accounting principles in the United States, with respect to Solana, may change in the future and could have a material adverse effect on our financial results and the market price of our common stock.

In addition, if investors view the value of our common stock as dependent upon or linked to the value or change in the value of our Solana holdings, the price of Solana may significantly influence the market price of our common stock. Additionally, if the price of Solana falls, and our common stock price falls as a result, then the Notes may not be converted and we may, in certain situations, need to repay them in cash. To the extent the value of the Notes exceeds the value of the Solana held as collateral, we may need to obtain additional financing, which might not be available on satisfactory terms or at all. Any deficiency could substantially exceed the value of our other assets and could be many multiples of our historical earnings.

***We face risks relating to the custody of our Solana tokens, including the loss or destruction of private keys required to access our Solana tokens and cyberattacks or other data loss relating to our Solana tokens, including smart contract related losses and vulnerabilities.***

We hold our Solana tokens with a single regulated custodian that has duties to safeguard our private keys. In light of the significant amount of Solana tokens we anticipate that we will hold, we may need to engage additional custodians to achieve a greater degree of diversification in the custody of our Solana tokens as the extent of potential risk of loss is dependent, in part, on the degree of diversification. However, multiple custodians may utilize similar wallet infrastructure, cloud service providers or software systems, which could increase systemic technology risk.

If there is a decrease in the availability of digital asset custodians that we believe can safely custody our Solana tokens, for example, due to regulatory developments or enforcement actions that cause custodians to discontinue or limit their services in the United States, we may need to enter into agreements that are less favorable than our current agreements or take other measures to custody our Solana tokens, and our ability to seek a greater degree of diversification in the use of custodial services would be materially adversely affected. While we will conduct due diligence on our custodians and any smart contract platforms we may use, there can be no assurance that such diligence will uncover all risks, including operational deficiencies, hidden vulnerabilities or legal noncompliance.

Currently, the insurance that covers losses of our Solana holdings may cover none or only a small fraction of the value of the entirety of our Solana holdings, and there can be no guarantee that such insurance will be maintained as part of the custodial services we have or that such coverage will cover losses with respect to our Solana. Moreover, our use of custodians exposes us to the risk that the Solana our custodians hold on our behalf could be subject to insolvency proceedings and we could be treated as a general unsecured creditor of the custodian, inhibiting our ability to exercise ownership rights with respect to such Solana. Any loss associated with such insolvency proceedings is unlikely to be covered by any insurance coverage we maintain related to our Solana. The legal framework governing digital asset ownership and rights in custodial or insolvency contexts remains uncertain and continues to evolve, which could result in unexpected losses, protracted recovery processes or adverse treatment in insolvency proceedings.

Solana tokens are controllable only by the possessor of both the unique public key and private key(s) relating to the local or online digital wallet in which the Solana is held. While the Solana blockchain ledger requires a public key relating to a digital wallet to be published when used in a transaction, private keys must be safeguarded and kept private in order to prevent a third party from accessing the Solana held in such wallet. To the extent the private key(s) for a digital wallet are lost, destroyed, or otherwise compromised and no backup of the private key(s) is accessible, neither we nor our custodians will be able to access the

Solana held in the related digital wallet. Furthermore, we cannot provide assurance that our digital wallets, nor the digital wallets of our custodians held on our behalf, will not be compromised as a result of a cyberattack. The Solana and blockchain ledger, as well as other digital assets and blockchain technologies, have been, and may in the future be, subject to security breaches, cyberattacks, or other malicious activities.

As part of our treasury management strategy, we may engage in staking, restaking, or other permitted activities that involve the use of "smart contracts" or decentralized applications. The use of smart contracts or decentralized applications entails certain risks including risks stemming from the existence of an "admin key" or coding flaws that could be exploited, potentially allowing a bad actor to issue or otherwise compromise the smart contract or decentralized application, potentially leading to a loss of our Solana tokens. Like all software code, smart contracts are exposed to risk that the code contains a bug or other security vulnerability, which can lead to loss of assets that are held on or transacted through the contract or decentralized application. Smart contracts and decentralized applications may contain bugs, security vulnerabilities or poorly designed permission structures that could result in the irreversible loss of Solana tokens or other digital assets. Exploits, including those stemming from admin key misuse, admin key compromise, or protocol flaws, have occurred in the past and may occur in the future.

***If we or our third-party service providers experience a security breach or cyberattack and unauthorized parties obtain access to our Solana, or if our private keys are lost or destroyed, or other similar circumstances or events occur, we may lose some or all of our Solana and our financial condition and results of operations could be materially adversely affected.***

Substantially all of the Solana we own is held in custody accounts at U.S.-based institutional-grade digital asset custodians. Security breaches and cyberattacks are of particular concern with respect to our Solana. Solana and other blockchain-based cryptocurrencies and the entities that provide services to participants in the Solana ecosystem have been, and may in the future be, subject to security breaches, cyberattacks, or other malicious activities. For example, in October 2021 it was reported that hackers exploited a flaw in the account recovery process and stole from the accounts of at least 6,000 customers of the Coinbase exchange, although the flaw was subsequently fixed and Coinbase reimbursed affected customers. Similarly, in November 2022, hackers exploited weaknesses in the security architecture of the FTX Trading digital asset exchange and reportedly stole over $400 million in digital assets from customers. A successful security breach or cyberattack could result in:

- a partial or total loss of our Solana in a manner that may not be covered by insurance or the liability provisions of the custody agreements with the custodians who hold our Solana;
- improper disclosure of data and violations of applicable data privacy and other laws; or
- significant regulatory scrutiny, investigations, fines, penalties, and other legal, regulatory, contractual and financial exposure.

Further, any actual or perceived data security breach or cybersecurity attack directed at other companies with digital assets or companies that operate digital asset networks, regardless of whether we are directly impacted, could lead to a general loss of confidence in the broader Solana ecosystem or in the use of the Solana network to conduct financial transactions, which could negatively impact the market price of Solana and in turn negatively impact our financial condition and results of operations and the market price of our common stock.

Attacks upon systems across a variety of industries, including industries related to Solana, are increasing in frequency, persistence, and sophistication, and, in many cases, are being conducted by sophisticated, well-funded and organized groups and individuals, including state actors. The techniques used to obtain unauthorized, improper or illegal access to systems and information (including personal data and digital assets), disable or degrade services, or sabotage systems are constantly evolving, may be difficult to detect quickly, and often are not recognized or detected until after they have been launched against a target. These attacks may occur on our systems or those of our third-party service providers or partners. We may experience breaches of our security measures due to human error, malfeasance, insider threats, system errors or vulnerabilities or other irregularities. In particular, we expect that unauthorized parties will attempt to gain access to our systems and facilities, as well as those of our partners and third-party service providers, through various means, such as hacking, social engineering, phishing and fraud. Threats

can come from a variety of sources, including criminal hackers, hacktivists, state-sponsored intrusions, industrial espionage, and insiders. In addition, certain types of attacks could harm us even if our systems are left undisturbed. For example, certain threats are designed to remain dormant or undetectable, sometimes for extended periods of time, or until launched against a target and we may not be able to implement adequate preventative measures. Further, there has been an increase in such activities due to the increase in work-from-home arrangements. The risk of cyberattacks could also be increased by cyberwarfare in connection with ongoing or future armed conflicts, including potential proliferation of malware into systems unrelated to such conflicts. Any future breach of our operations or those of others in the Solana industry, including third-party services on which we rely, could materially and adversely affect our financial condition and results of operations.

***We face other risks related to our Solana treasury reserve business model.***

Our Solana treasury reserve business model exposes us to various risks, including the following:

- Solana and other digital assets are subject to significant legal, commercial, regulatory, and technical uncertainty, and our Solana strategy subjects us to enhanced regulatory oversight;
- regulatory changes could impact our ability to operate validators or receive rewards;
- regulatory scrutiny of the Company's activities may increase, potentially limiting our operations;
- potential litigation risks exist related to smart contract vulnerabilities, validator operations, or our business activities;
- uncertainty around Solana's regulatory status may impact our ability to list on certain exchanges;
- changes in political administration may not guarantee a favorable regulatory environment for Solana; and
- increased regulatory focus on Layer-1 blockchains beyond Bitcoin and Ethereum could result in new compliance requirements.

The foregoing factors could lead to disruption in the market for Solana, which could adversely affect the market price of Solana and in turn adversely affect the market price of our common stock.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus supplement, 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: the closing of the PIPE Offering, the adoption of a Solana-centric Digital Asset Treasury, 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 adequate 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, our ability to build commercial infrastructure, failure to realize the anticipated benefits of the transactions and the proposed digital asset treasury strategy; changes in business, market, financial, political and regulatory conditions; risks relating to the Company's operations and business, including the highly volatile nature of the price of Solana and other cryptocurrencies; the risk that the price of the Company's common stock may be highly correlated to the price of the digital assets that it holds.

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 stay listed on the Nasdaq Capital Market, 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 supplement, the prospectus, any future prospectus supplement and any related free writing prospectus and with the understanding that our actual future results may materially differ from what we expect.

Neither the Sales Agents nor any of their affiliates have made or make any representation or warranty, express or implied, as to the accuracy or completeness of the information contained in this prospectus

supplement, the accompanying prospectus, or any documents incorporated herein by reference, and nothing contained herein is, or shall be relied upon as, a promise or representation by the Sales Agents or any of their affiliates.

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 may issue and sell shares of our common stock having aggregate gross sales proceeds of up to $92,800,000 from time to time. Because there is no minimum offering price for the shares that we may offer from time to time, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the Sales Agreement with the Sales Agents as a source of financing.

Assuming the closing of the PIPE Transaction, we intend to use the net proceeds from this offering primarily to acquire Solana tokens. Notwithstanding the foregoing, if it is determined that Solana tokens are considered to be "securities" by the Securities and Exchange Commission, we will review the makeup of our assets and will take such actions as are reasonably necessary to avoid being considered an investment company as defined in the Investment Company Act of 1940, as amended, including disposing of Solana tokens and refraining from purchasing Solana tokens otherwise permitted to be purchased. The Company will also not purchase Solana tokens that would result in any violation of any fiduciary obligations of the Company's board of directors or that would result in the Company becoming insolvent. We also intend to use the proceeds from this offering for working capital needs, repurchases of shares of our common stock general corporate purposes and operating expenses, which may include funding acquisitions or investments in businesses, products or technologies that are complementary to our own.

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business conditions. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds from this offering. The amounts and timing of our actual expenditures will depend on numerous factors, including factors described under "Risk Factors" in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering.

## DIVIDEND POLICY

We have never paid or declared any cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the operation of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

## PLAN OF DISTRIBUTION

We have entered into a Sales Agreement with the Sales Agents under which we may offer and sell up to $92,800,000 of our shares of our common stock from time to time through the Sales Agents. Sales of our common stock, if any, made through the Sales Agents, or directly to the Sales Agents, as principals, as contemplated by this prospectus supplement and the accompanying prospectus, may be made in negotiated transactions, block trades or any method that is deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on the principal market on which our common stock is listed or any other existing trading market for our common stock.

Each time we wish to issue and sell our shares of common stock under the Sales Agreement, we will notify one of the Sales Agents of the number of shares to be issued, the dates on which such sales are anticipated to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed the Sales Agents, unless the Sales Agents decline to accept the terms of such notice, the Sales Agents shall use their commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such shares up to the amount specified on such terms. The obligations of the Sales Agents under the Sales Agreement to sell our shares of common stock are subject to a number of conditions that we must meet.

The settlement of sales of shares between us and the executing Sales Agent is generally anticipated to occur on the first trading day following the date on which the sale was made. Sales of our shares of common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and the Sales Agents may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay the Sales Agents a commission of up to 3.0% of the aggregate gross proceeds we receive from each sale of our shares of common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse the Sales Agents for the fees and disbursements of their counsel, payable upon execution of the Sales Agreement, in an amount not to exceed $75,000, in addition to certain ongoing disbursements of its legal counsel, unless we and the Sales Agents otherwise agree. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to the Sales Agents under the terms of the Sales Agreement, will be approximately $250,000. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

The executing Sales Agent will provide written confirmation to us before the open on Nasdaq on the day following each day on which shares of common stock are sold under the Sales Agreement. Each confirmation will include the number of shares sold on that day, the aggregate gross proceeds of such sales and the proceeds to us.

Under the terms of the Sales Agreement, we also may sell our common stock to the Sales Agents as principals for their own accounts at a price agreed upon at the time of sale. The Sales Agents may offer our common stock sold to them as principal from time to time through public or private transactions at a price agreed upon at the time of sale. If we sell our common stock to the Sales Agents as principals, we will enter into a separate agreement setting forth the terms of such transaction, and, to the extent required by applicable law, we will describe that separate agreement in a separate prospectus supplement or pricing supplement.

In connection with the sale of our common stock on our behalf, the Sales Agents may be deemed to be "underwriters" within the meaning of the Securities Act, and the compensation of the Sales Agents may be deemed to be underwriting commissions or discounts. We have agreed to indemnify the Sales Agents against certain liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments the Sales Agents may be required to make in respect of such liabilities.

The Sales Agents are acting solely as agents in connection with the offering of the Company's common stock, except to the extent that the Company and the Sales Agents agree that such Sales Agents will act as a principal in connection with the sale of shares. The Sales Agent have not prepared, and are not responsible

for, any statement or disclosures in this Prospectus Supplement or the accompanying prospectus, except for those statements made with the express written consent of the Sales Agents.

The offering of shares of common stock pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the Sales Agreement and this prospectus supplement and (ii) the termination of the Sales Agreement according to its terms by either the Sales Agents or us.

This summary of the material provisions of the Sales Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Sales Agreement is filed with the SEC as an exhibit to a Current Report on Form 8-K filed under the Exchange Act and incorporated by reference in this prospectus supplement.

The Sales Agents and their affiliates have provided and may in the future provide various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they have received and, may in the future receive, customary fees. In the course of its business, the Sales Agents may actively trade our securities for their own accounts or for the accounts of customers, and, accordingly, the Sales Agents may at any time hold long or short positions in such securities. The Sales Agents acted as our placement agent in connection with the PIPE Transaction.

Other than in the United States, no action has been taken by us or the Sales Agents that would permit a public offering of the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement and the accompanying prospectus may not be offered or sold, directly or indirectly, nor may this prospectus supplement, the accompanying 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 supplement and the accompanying prospectus come are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

This Prospectus Supplement may be made available in electronic format on a website maintained by each of the Sales Agents, and each of the Sales Agent may distribute this Prospectus Supplement electronically.

## LEGAL MATTERS

The validity of the securities offered by this prospectus supplement have been passed upon for us by Honigman LLP. The Sales Agents are being represented in connection with this offering by Winston & Strawn LLP, Houston, TX.

## EXPERTS

The consolidated financial statements as of December 31, 2024 and 2023, 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.

Except as set forth under "Legal Matters", no expert or counsel named in this prospectus supplement as having prepared or certified any part of this prospectus supplement or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the securities was employed on a contingency basis, or had, or is to receive, any interest, directly or indirectly, in our Company or any of our parents or subsidiaries, nor was any such person connected with us or any of our parents or subsidiaries, if any, as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Exchange Act, and file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at http://www.sec.gov. Copies of certain information filed by us with the SEC are also available, free of charge, on our website at www.heliusmedical.com. Our website is not a part of this prospectus supplement and is not incorporated by reference in this prospectus.

This prospectus supplement is part of a registration statement that we filed with the SEC. This prospectus supplement omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our subsidiaries and the securities we are offering. Statements in this prospectus supplement concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus supplement the information in other documents that we file with it. This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement, and information in documents that we file later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus supplement.

We incorporate by reference in this prospectus supplement (i) the documents listed below, and (ii) all documents that we file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and prior to the termination of the offering under this prospectus supplement; provided, however, that we are not incorporating, in each case, any documents or information deemed to have been furnished and not filed in accordance with SEC rules (including Items 2.02 and 7.01 of Form 8-K):

- Our Quarterly Reports on Form 10-Q for the periods ended March 31, 2025 and June 30, 2025, filed with the SEC on May 1, 2025 and August 14, 2025, respectively;
- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on March 25, 2025;
- Our Current Reports on Form 8-K filed with the SEC on January 15, 2025, January 24, 2025, February 7, 2025, April 4, 2025, April 22, 2025, April 25, 2025, April 30, 2025, May 23, 2025, June 4, 2025, June 20, 2025, June 23, 2025, June 27, 2025, July 7, 2025, July 9, 2025, July 21, 2025 and September 15, 2025; 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.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus supplement is delivered, a copy of the documents incorporated by reference into this prospectus supplement but not delivered with the prospectus supplement. You may make a request for copies of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus supplement, at no cost by writing or by telephone. Requests should be directed 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 supplement, the accompanying prospectus, or any supplement to this prospectus supplement and you should not consider any information on, or that can be accessed through, our website as part of this prospectus supplement or any supplement to this prospectus supplement (other than those filings with the SEC that we specifically incorporate by reference into this prospectus supplement or any supplement to this prospectus). We have included our website address in this prospectus supplement solely as an inactive textual reference.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement, the accompanying prospectus, in any accompanying prospectus supplement, or in any free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different or additional information. We are not offering to sell or soliciting any offer to buy any securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus supplement, the accompanying prospectus, or in any document incorporated by reference is accurate as of any date other than the date on the front cover of the applicable document.

**PROSPECTUS**




# $100,000,000

## Common Stock
## Preferred Stock
## Debt Securities
## Warrants

From time to time, we may offer and sell an aggregate amount of up to $100,000,000 of any combination of the securities described in this prospectus, either individually or in combination, in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus describes some of the general terms that may apply to an offering of our securities that we may offer. Each time we offer securities, we will provide specific terms of the securities in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

**This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement**.

As of March 31, 2023, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately $7,335,478.28 million based on 28,213,378 shares of outstanding common stock, at a price of $0.26 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on March 31, 2023. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on this registration statement in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below $75.0 million.

The applicable prospectus supplement will contain information, where applicable, as to any other listing on Nasdaq or any securities market or other exchange of the securities, if any, covered by the applicable prospectus supplement.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled “Plan of Distribution” in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 5 of this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is May 26, 2023.

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## ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, utilizing a "shelf" registration process. Under this shelf registration statement, we may offer and sell, either individually or in any combination, the securities described in this prospectus in one or more offerings from time to time up to a total aggregate offering price of $100,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we offer securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Incorporation of Certain Information by Reference," before investing in any of the securities offered.

**THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.**

You should rely only on the information contained in, or incorporated by reference into, this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we may authorize for use in connection with a specific offering. We have not authorized anyone to provide you with different or additional information. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus, the accompanying prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or the time of any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus contains and/or incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe that these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and/or the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

This prospectus and the information incorporated herein by reference contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the section entitled "Where You Can Find More Information."

This prospectus contains references to trademarks belonging to us and other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate,

in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

## SUMMARY

*The following summary highlights information contained elsewhere in this prospectus or incorporated by reference into this prospectus. This summary is not complete and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.*

As used in this prospectus, unless otherwise indicated, the terms ***"we," "us," "our" "the Company"*** and ***"Helius"*** refer to Helius Medical Technologies, Inc. and its wholly owned subsidiaries.

### Business Overview

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

Our product, known as the Portable Neuromodulation Stimulator, or PoNS®, is an innovative non-implanted 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 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) for use 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, or PoNS Therapy™; (ii) for use 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) 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

NeuroHabilitation Corporation, or NHC, a Delaware corporation, incorporated on January 22, 2013, is involved in the medical device industry. In January 2013, HMI entered into an exclusive rights agreement whereby Advanced Neuro-Rehabilitation LLC, or ANR, granted NHC exclusive worldwide rights to ANR's trade secrets, knowhow and patent pending technology for a non-invasive means for delivering neurostimulation through the oral cavity, in exchange for a 50% equity investment in NHC and a 4% royalty of NHC's revenue collected from (a) the U.S. sales of products covered by any claim of the patent pending rights to end users and (b) services related to the therapy or use of such products in therapy services.

On June 13, 2014, we acquired a 100% interest in NHC pursuant to a plan of merger whereby our wholly-owned subsidiary was merged with and into NHC and all of the common shares in the capital of NHC were cancelled in consideration for the issuance of an aggregate of 7,060,016 shares of our Class A Common Stock to the shareholders of NHC. NHC, which changed its name to Helius Medical, Inc in December 2018, is now our wholly-owned subsidiary. Prior to the transaction we had no active business.

On January 31, 2019, we formed another wholly owned subsidiary, Helius NeuroRehab, Inc., a Delaware corporation, which will operate a clinical research site to collect data on the delivery of PoNS Treatment to patients with balance and gait disorders. On October 10, 2019, we formed Helius Canada Acquisition Ltd., a company incorporated under the federal laws of Canada and a wholly owned subsidiary

of Helius Medical Technologies (Canada), Inc., a company incorporated under the federal laws of Canada, which acquired Heuro Canada, Inc. from Health Tech Connex Inc. on October 30, 2019.

**Corporate Information**

We are incorporated in the state of Delaware under the name Helius Medical Technologies, Inc. Our principal executive offices are located at 642 Newtown Yardley Road, Suite 100, Newtown, Pennsylvania 18940, and our telephone number is (215) 944-6100. Our website address is www.heliusmedical.com. We have included our website address in this prospectus solely as an inactive textual reference. The information on, or that can be accessed through, our website is not part of this prospectus, and you should not rely on any such information in making the decision whether to purchase securities.

**The Securities We May Offer**

We may offer our Class A Common Stock and preferred stock, various series of debt securities and warrants to purchase any such securities, up to a total aggregate offering price of $100,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;
- ranking, if applicable;
- restrictive covenants, if any;
- voting or other rights, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and
- important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and

- the estimated net proceeds to us.

**This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.**

***Common Stock.*** Holders of our common stock are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval, as further set forth herein under the heading "Description of Common Stock." Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock, or any redemption rights. We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus) related to any common stock being offered.

***Preferred Stock.*** We may issue shares of our preferred stock from time to time, in one or more series. Under our Certificate of Incorporation, our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock, par value $0.001 per share. You should refer to our Certificate of Incorporation and our Amended and Restated Bylaws, both of which are included as exhibits to the registration statement of which this prospectus is a part.

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series, including voting rights, dividend rights and redemption and liquidation preferences. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of our Class A Common Stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our company before any payment is made to the holders of shares of our Class A Common Stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our Class A Common Stock.

If we offer a specific series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate of designation establishing the terms of the preferred stock with the SEC. We urge you to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

***Debt Securities.*** We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our Class A Common Stock. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

The debt securities will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities. A form of indenture has been filed as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

***Warrants.*** From time to time, we may issue warrants for the purchase of common stock, in one or more series, from time to time. We may issue warrants independently or in combination with common stock, and the warrants may be attached to or separate from these securities. In this prospectus, we have summarized certain general features of the warrants under the heading "Description of Warrants." We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. We have filed forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants that we may offer as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, the form of warrant or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Any warrants issued under this prospectus may be evidenced by warrant certificates. Warrants may be issued under a warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

## RISK FACTORS

*Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described under "Risk Factors" in the applicable prospectus supplement, together with all of the other information under similar headings appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. This prospectus and the incorporated documents also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned elsewhere in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent Annual Report on Form 10-K, which is on file with the SEC and incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future.*

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains 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 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 "anticipates," "could," "should," "will," "would," "may," "potential," "contemplates," "estimates," "plans," "projects," "predicts," "targets," "continuing," "ongoing," "expects," "management believes," "we believe," "we intend" 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. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus, and in particular those factors included in the sections entitled "Risk Factors" in this prospectus and our most recent Annual Report on Form 10-K, which is on file with the SEC and incorporated herein by reference.

Because the factors referred to in the preceding paragraph could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements we make, you should not place undue reliance on any such forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

You should carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein or therein by reference as described under the section titled "Incorporation of Certain Information by Reference," 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 will retain broad discretion over the use of the net proceeds from our sale of securities offered hereby. Except as described in any applicable prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you in connection with a specific offering, we currently anticipate using the net proceeds from our sale of securities offered hereby, if any, primarily for general corporate purposes. We may also use a portion of such net proceeds to in-license, acquire or invest in businesses or products that we believe are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus.

## DESCRIPTION OF CAPITAL STOCK

*The following description of our capital stock and provisions of our Certificate of Incorporation and Amended and Restated Bylaws are summaries. You should also refer to the Certificate of Incorporation and the 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 Class A 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 March 31, 2023, there were outstanding 28,213,378 shares of Class A Common Stock held by 53 stockholders of record. As of March 31, 2023, there were no outstanding shares of preferred stock.

### Class A Common Stock

#### *Voting*

Each holder of our Class A 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 Class A 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 Class A 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 Class A 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 Class A Common Stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the Class A Common Stock. The rights, preferences and privileges of the holders of our Class A 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.

### Warrants

As of March 31, 2023, we had warrants outstanding to purchase an aggregate of 36,593,924 shares of our Class A Common Stock with a weighted average exercise price of $1.00.

### 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.

**Stock Options**

As of March 31, 2023, we had options outstanding to purchase an aggregate of 11,122,299 shares of our Class A Common Stock with a weighted average exercise price of $1.70 per share. Many of these options are subject to vesting that generally occurs over a period of up to five years following the date of grant.

**Restricted Stock Units**

As of March 31, 2023, we had 2,016 unvested restricted stock units outstanding.

**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 66⅔% 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:

- any 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 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 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 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 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 Amended and Restated Bylaws provide that the stockholders cannot amend many of the provisions described above except by a vote of 66⅔% or more of our outstanding Class A 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 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 of A&B**

Pursuant to the terms of our $7,000,000 Credit Facility with A&B Company Limited, dated as of October 9, 2015, or the Credit Facility, we have agreed to register the shares of Class A Common Stock issued or issuable under the terms of the Credit Facility upon the request of A&B Company Limited. As of December 31, 2022, A&B Company Limited beneficially owned 71,306 shares of our Class A Common Stock.

**Incentive Plans**

We have filed Form S-8 registration statements under the Securities Act to register shares of our Class A Common Stock issued or reserved for issuance under our 2022 Equity Incentive Plan, or the 2022 Plan, our 2021 Inducement Plan, or the Inducement Plan, our 2018 Omnibus Incentive Plan, or the 2018 Plan, our 2016 Omnibus Incentive Plan, or the 2016 Plan, the predecessor incentive plan at the time of the adoption of the 2018 Plan, and our 2014 Stock Incentive Plan, or the 2014 Plan, the predecessor incentive plan at the time of the adoption of the 2016 Plan. We have ceased granting awards under the 2018 Plan, the 2016 Plan and the 2014 Plan. However, outstanding awards granted prior to the effective date of the 2022 Plan are still governed by the 2018 Plan, the 2016 Plan or the 2014 Plan, as applicable. Each Form S-8 registration statement became effective immediately upon filing, and shares covered by such registration statement are eligible for sale in the public markets, subject to vesting restrictions and Rule 144 limitations applicable to affiliates.

Pursuant to the terms of the 2022 Plan, we are authorized to grant stock options, as well as awards of stock appreciation rights, restricted stock, unrestricted shares, restricted stock units, stock equivalent units and performance-based cash awards. These awards may be granted to directors, officers, employees and eligible consultants. Vesting and the term of an award is determined at the discretion of the board of directors. As of January 1, 2023, 12,094,701 new shares were added to the 2022 Plan and there was an aggregate of 12,129,388 shares of Class A Common Stock remaining available for issuance under the 2022 Plan.

Pursuant to the terms of the Inducement Plan, we are authorized to grant non-statutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance stock and cash awards and other share-based awards. The Inducement Plan is used exclusively for grants of awards to individuals who were not previously employees or directors of the Company.

**Transfer Agent and Registrar**

The transfer agent and the registrar for the Company is American Stock Transfer & Trust Company, LLC.

**Listing**

Our Class A Common Stock is listed on Nasdaq under the symbol "HSDT".

## DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from, reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

**General**

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as "discount securities," which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with "original issue discount," or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;
- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of $1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;

- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

**Conversion or Exchange Rights**

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

**Consolidation, Merger or Sale**

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than any subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

**Events of Default under the Indenture**

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet

point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request,
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

**Modification of Indenture; Waiver**

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;
- to comply with the provisions described above under “Description of Debt Securities — Consolidation, Merger or Sale;”
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;

- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under "Description of Debt Securities — General" to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

**Discharge**

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

**Form, Exchange and Transfer**

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of $1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The

Depository Trust Company, or DTC, or another depositary named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

**Information Concerning the Trustee**

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

**Payment and Paying Agents**

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

**Governing Law**

The indenture and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

## DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock and may be issued in one or more series. Warrants may be issued independently or together with common stock offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We have filed forms of the warrant agreements as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, if any, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

### General

In the applicable prospectus supplement, we will describe the terms of the series of warrants being offered, including, to the extent applicable:

- the title of such securities;
- the offering price or prices and aggregate number of warrants offered;
- the currency or currencies for which the warrants may be purchased;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- the date on and after which the warrants and the related securities will be separately transferable;
- the minimum or maximum amount of such warrants which may be exercised at any one time;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- the terms of any rights to force the exercise of the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- a discussion of any material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase common stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

**Exercise of Warrants**

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent in connection with the exercise of the warrant.

On receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable on such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

**Governing Law**

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements, and any claim, controversy or dispute arising under or related to the warrants or warrant agreements, will be governed by and construed in accordance with the laws of the State of New York.

**Enforceability of Rights by Holders of Warrants**

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

## LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depositary maintain for this purpose as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as "indirect holders" of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

### Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depositary or its participants. Consequently, for global securities, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

### Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depositary will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depositary will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

### Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the legal holder, we have no further responsibility for the payment or notice even if that legal holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences

of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the legal holder, and not the indirect holders, of the securities. Whether and how the legal holders contact the indirect holders is up to the legal holders.

**Special Considerations for Indirect Holders**

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

**Global Securities**

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, DTC, New York, New York, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "— Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

**Special Considerations for Global Securities**

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only as global securities, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;

- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in the global security, nor will we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

**Special Situations When a Global Security Will Be Terminated**

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

## PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell equity securities covered by this registration statement in an "at the market offering" as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker other than on Nasdaq or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

## LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon for us by Honigman LLP, Kalamazoo, Michigan. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

## EXPERTS

The consolidated financial statements of the Company as of December 31, 2022, and for the year ended December 31, 2022 incorporated by reference in this prospectus have been so incorporated in reliance on the report 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 the Company's ability to continue as a going concern.

The consolidated financial statements of the Company as of December 31, 2021, and for the year ended December 31, 2021 incorporated by reference in this prospectus have been so incorporated in reliance on the report of BDO USA, 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 the Company's ability to continue as a going concern.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. We file reports, proxy statements and other information with the SEC in accordance with the Exchange Act. You may read and copy our reports, proxy statements and other information filed with the SEC on the SEC's website at http://www.sec.gov.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We "incorporate by reference" certain documents and information that we have filed with the SEC into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information contained directly in this prospectus. This prospectus incorporates by reference:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 9, 2023, including the information specifically incorporated by reference into such Annual Report on Form 10-K from our definitive proxy statement for our 2023 Annual Meeting of Stockholders filed with the SEC on April 21, 2023;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, filed with the SEC on May 11, 2023;
- our Current Report on Form 8-K filed with the SEC on March 24, 2023; 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, 2021, filed with the SEC on March 14, 2022.

All documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any report or document that is not deemed filed under such provisions, (i) on or after the date of filing of the registration statement containing this prospectus and prior to the effectiveness of the registration statement and (ii) on or after the date of this prospectus until the earlier of the date on which all of the securities registered hereunder have been sold or the registration statement of which this

prospectus is a part has been withdrawn, shall be deemed incorporated by reference in this prospectus and to be a part of this prospectus from the date of filing of those documents. Nothing in this prospectus shall be deemed to incorporate information furnished but not filed with the SEC pursuant to Item 2.02 or 7.01 of Form 8-K.

These documents may also be accessed on our website at www.heliusmedical.com. Information contained in, or accessible through, our website is not a part of this prospectus. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and information regarding issuers that file electronically with the SEC.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all reports or documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those reports or documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address:

**Helius Medical Technologies, Inc.**
**642 Newtown Yardley Road, Suite 100**
**Attn: Jeffrey Mathiesen**
**Phone: (215) 944-6100**

Any statements contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus (or in any other subsequently filed document which also is incorporated by reference in this prospectus) modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed to constitute a part of this prospectus except as so modified or superseded.




# Helius Medical Technologies, Inc.

## Up to $92,800,000

## Class A Common Stock

**PROSPECTUS SUPPLEMENT**

**Clear Street** **Maxim Group LLC**

**September 15, 2025**