

PROSPECTUS

QUANTUM SI™

Up to \$100,000,000

Class A Common Stock

We have entered into a Sales Agreement (the “Sales Agreement”) with Leerink Partners LLC (“Leerink Partners”) relating to our Class A common stock, par value \$0.0001 per share (“Class A common stock”), offered by this prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell our Class A common stock having an aggregate offering price of up to \$100,000,000 from time to time to or through Leerink, acting as sales agent or principal.

Our Class A common stock is listed on The Nasdaq Global Market (“Nasdaq”) under the symbol “QSI.” On October 28, 2025, the last reported sale price of our Class A common stock on Nasdaq was \$2.18 per share.

Sales of shares of our Class A common stock, if any, under this prospectus may be made in any method deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the “Securities Act”). Leerink Partners is not required to sell any specific number or dollar amount of securities, but will act as sales agent on a best efforts basis and use commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between us and Leerink Partners. We may also sell shares of our Class A common stock to Leerink Partners as principal. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Leerink Partners will be entitled to compensation at a commission rate of up to 3.0% of the gross offering proceeds received per share of Class A common stock sold under the Sales Agreement. In connection with the sale of Class A common stock on our behalf, Leerink Partners will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Leerink Partners will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Leerink Partners with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”). See “Plan of Distribution” beginning on page S-17 for additional information regarding the compensation to be paid to Leerink Partners.

Investing in our Class A common stock involves a high degree of risk. See the information contained under “Risk Factors” beginning on page S-7 of this prospectus and under similar headings in the documents incorporated by reference herein for a discussion of the factors you should carefully consider before deciding to purchase these securities.

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.

Leerink Partners

The date of this prospectus is October 29, 2025.

TABLE OF CONTENTS

	PAGE
PROSPECTUS	
ABOUT THIS PROSPECTUS	S-1
PROSPECTUS SUMMARY	S-3
THE OFFERING	S-5
RISK FACTORS	S-7
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	S-11
USE OF PROCEEDS	S-13
DIVIDEND POLICY	S-14
DILUTION	S-15
PLAN OF DISTRIBUTION	S-17
LEGAL MATTERS	S-18
EXPERTS	S-18
WHERE YOU CAN FIND MORE INFORMATION	S-18
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	S-19

ABOUT THIS PROSPECTUS

This prospectus is part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process under the Securities Act of 1933, as amended (the “Securities Act”). Under this registration statement, we may offer up to \$300,000,000 of our securities. Under this prospectus, we may offer shares of our Class A common stock having an aggregate offering price of up to \$100,000,000 from time to time at prices and on terms to be determined by market conditions at the time of the offering. The \$100,000,000 of shares of our Class A common stock that may be sold under this prospectus are included in the \$300,000,000 of our securities that may be sold under the registration statement.

We provide information to you about this offering of our Class A common stock in two separate documents that are bound together: (1) this prospectus, which describes the specific details regarding this offering; and (2) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this “prospectus,” we are referring to both documents combined. If information in this prospectus is inconsistent with the accompanying base prospectus, you should rely on this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference in this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date – for example, a document incorporated by reference in this prospectus – the statement in the document having the later date modifies or supersedes the earlier statement. You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the sales agent has not, authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus or contained in any permitted free writing prospectuses that we may authorize, if we are eligible, for use in connection with this offering. We and the sales agent take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide.

The information contained in this prospectus and the documents incorporated by reference herein is accurate only as of their respective dates, regardless of the time of delivery of any such document or the time of any sale of our Class A common stock. Our business, financial condition, results of operations and prospects may have changed since those dates. It is important for you to read and consider all information contained or incorporated by reference in this prospectus in making your investment decision. You should read this prospectus, as well as the documents incorporated by reference herein, the additional information described under the section titled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference” in this prospectus and any free writing prospectus that we may, if eligible, from time to time authorize for use in connection with this offering, before investing in our Class A common stock.

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

We are offering to sell, and seeking offers to buy, our Class A common stock only in jurisdictions where such offers and sales are permitted. The distribution of this prospectus and the offering of our Class A common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of our Class A common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell or the solicitation of an offer to buy any securities other than the Class A common stock to which it relates, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our industry and the markets in which we operate, including market opportunity, market position and competitive landscape, is based on information from our management’s estimates, as well as from industry publications, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry, and assumptions based on such information and knowledge,

TABLE OF CONTENTS

which we believe to be reasonable. In addition, while we believe 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.

This prospectus, including the documents incorporated by reference herein, includes statements that are based on various assumptions and estimates that are subject to numerous known and unknown risks and uncertainties. Some of these risks and uncertainties are described in the section entitled “Risk Factors” beginning on page S-7 of this prospectus and described in the section entitled “Risk Factors” in our most recent Annual Report on Form 10-K, as well as the other documents we will from time to time file with the SEC. These and other important factors could cause our future results to be materially different from the results expected as a result of, or implied by, these assumptions and estimates. You should read the information contained in, or incorporated by reference into, this prospectus 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 “Special Note Regarding Forward-Looking Information.”

As used in this prospectus, unless the context indicates or otherwise requires, “our Company,” “the Company,” “Quantum-Si,” “we,” “us,” and “our” refer to Quantum-Si Incorporated and its consolidated subsidiaries.

All trademarks, trade names and service marks included in this prospectus are the property of their respective owners. Use or display by us of other parties’ trademarks, trade dress or products is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owner.

PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information incorporated by reference from our other filings with the SEC. Investing in our securities involves risks. Therefore, carefully consider the risk factors set forth in this prospectus and in our most recent annual and quarterly filings with the SEC, as well as other information in this prospectus and the documents incorporated by reference herein, before purchasing our securities. 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.

Overview

We are a life sciences company focused on proteomics research, with the mission of transforming single-molecule analysis and democratizing its use by providing researchers and clinicians access to the proteome, the set of proteins expressed within a cell. We have developed a proprietary universal single-molecule detection platform that we are applying to proteomics to enable Next-Gen Protein Sequencing™ (“NGPS”), to sequence proteins in a massively parallel fashion (rather than sequentially, one at a time), which can also be used for the study of nucleic acids. We believe that the ability to sequence proteins in a massively parallel fashion and offer a fast analysis time provides NGPS with the potential to unlock significant biological information through improved resolution and unbiased access to the proteome at a speed and scale that is not available today. Traditionally, proteomic workflows to sequence proteins required days or weeks to complete. Our platform includes our Platinum NGPS instrument, Platinum Analysis Software, and consumable kits for use with our Platinum line of instruments. In 2021, we introduced our Platinum early access program to sites with participation from leading academic centers and key industry partners. The early access program introduced the Platinum single-molecule sequencing system to key opinion leaders across the globe for both expansion and development of applications and workflows. We began a controlled launch of the Platinum instrument and started to take orders in December 2022, and subsequently began a controlled commercial launch of Platinum in January 2023, and then moved to a full commercial launch of Platinum beginning the second quarter of 2024. In January 2025, we announced the launch of our Platinum Pro benchtop sequencer. First shipments of Platinum Pro occurred in March 2025.

Going forward, we intend to follow a systematic, phased approach to continue to successfully launch updates and enhancements to our platform which can include improvements to our hardware, software and chemistry that works together to produce the overall platform.

We believe that our platform offers a differentiated solution in a rapidly evolving proteomics tools market. Within our initial focus market of proteomics, our platform is designed to provide users a seamless opportunity to gain key insights into the immediate state of biological pathways and cell state. Our platform aims to address many of the key challenges and bottlenecks with legacy proteomic solutions, such as mass spectrometry, which include high instrument costs both in terms of acquisition and ownership, and complexity with data analysis, which together limit broad adoption. We believe our research use platform, which is designed to streamline sequencing and data analysis at a lower instrument cost and with greater automation than legacy proteomic solutions, could allow our product to have wide utility across the study of the proteome. For example, our platform could be used for biomarker discovery and disease detection, pathway analysis, immune response, vaccine development, quality assurance and quality control, among other applications.

Recent Developments

Effective as of July 3, 2025, we terminated our Equity Distribution Agreement with Canaccord Genuity LLC, dated December 11, 2024, related to our “at the market offering.” At the time of termination, we had sold 23,425,650 shares of our Class A common stock under the Equity Distribution Agreement for aggregate gross proceeds of \$36.2 million, with \$38.8 million left authorized for sale at the time of termination.

On July 3, 2025, we entered into a securities purchase agreement with a certain institutional investor pursuant to which we agreed to issue and sell, in a registered direct offering (the “July 2025 Registered Direct Offering”), an aggregate of (i) 18,200,000 shares of our Class A common stock at a price of \$1.67 per share and (ii) pre-funded warrants to purchase 11,740,119 shares of common stock (the “Pre-Funded Warrants”). Each of the Pre-Funded Warrants was exercisable for one share of Class A common stock at the exercise price of \$0.0001 per Pre-Funded Warrant. The gross proceeds to us from the July 2025 Registered Direct Offering were approximately \$50.0 million.

After deducting estimated placement agents' fees and other offering expenses payable by us, net proceeds were approximately \$46.9 million. The July 2025 Registered Direct Offering closed on July 8, 2025 and the Pre-Funded Warrants were fully exercised on August 1, 2025.

In connection with the July 2025 Registered Direct Offering, we entered into a placement agency agreement with A.G.P./Alliance Global Partners (the "Placement Agent"), pursuant to which the Placement Agent agreed to serve as the sole placement agent for us, on a reasonable best efforts basis. We agreed to pay the Placement Agent an aggregate cash fee equal to 6.0% of the gross proceeds received in the July 2025 Registered Direct Offering.

On September 23, 2025, we entered into a Settlement and Mutual Release Agreement (the "Mutual Release Agreement") with Winchester Office LLC ("Winchester"), pursuant to which Winchester agreed to terminate early a lease between us, as tenant, and Winchester, as landlord, for certain premises in the building located at 115 Munson Street, New Haven, CT, 06511, effective as of September 23, 2025 (the "Early Termination Date"). Pursuant to the Mutual Release Agreement, as consideration for Winchester's agreement to settle all disputes between the parties and terminate the lease as of the Early Termination Date, we agreed to pay as an additional fee, an aggregate sum in the amount of \$11,000,000.00 less a \$272,618.16 credit for the monthly recurring charges incurred under the lease agreement for September 1, 2025 and the surrender of a security deposit in the amount of \$573,214.50.

Corporate History and Information

We were originally incorporated as a Delaware corporation under the name HighCape Capital Acquisition LLC ("HighCape"). On June 10, 2021, we completed a business combination (the "Business Combination") with Quantum-Si Incorporated, a Delaware corporation incorporated in the State of Delaware in 2013, and changed our name to "Quantum-Si Incorporated."

Quantum-Si's principal executive offices are located at 29 Business Park Drive, Branford, Connecticut 06405, and its telephone number is (866) 688-7374.

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge through the investor relations page of our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

Controlled Company Exemption

Dr. Rothberg controls over 50% of the voting power of our outstanding capital stock. As a result, we are a "controlled company" within the meaning of Nasdaq rules and, as a result, qualify for exemptions from certain corporate governance requirements. Our stockholders do not have the same protections afforded to stockholders of companies that are subject to such requirements.

Implications of being a smaller reporting company

We are a "smaller reporting company" as defined under Rule 405 of the Securities Act. We may continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates was less than \$250 million on the last business day of our most recently completed second fiscal quarter or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates was less than \$700 million on the last business day of our most recently completed second fiscal quarter. For so long as we remain a smaller reporting company, we are permitted and plan to rely on exemptions from certain disclosure and other requirements that are applicable to other public companies that are not smaller reporting companies.

THE OFFERING

Class A common stock offered by us	Class A common stock having an aggregate offering price of up to \$100,000,000.
Common stock to be outstanding after this offering	210,229,093 shares of our Class A common stock, based on an assumed public offering price of \$2.18 per share, which was the last reported sale price of our common stock on Nasdaq on October 28, 2025, for aggregate proceeds of up to \$100.0 million. The actual number of shares we sell will vary depending on the sales price under this offering.
Plan of distribution	“At the market offering” that may be made from time to time through or to Leerink Partners, acting as sales agent. See “Plan of Distribution.”
Use of proceeds	Our management will retain broad discretion regarding the allocation and use of any net proceeds. We intend to use the net proceeds from this offering, if any, for our future product development objectives, including our Proteus™ platform, general commercialization, manufacturing development of our products, research and development, and for other general corporate purposes, including for working capital, capital expenditures and general and administrative expenses. See “Use of Proceeds.”
Risk factors	Investing in our common stock involves significant risks. See the disclosure under the heading “Risk Factors” on page S-7 in this prospectus and under similar headings in other documents incorporated by reference into this prospectus.
Voting Rights	<p>We have two classes of shares outstanding: Class A common stock and Class B common stock, each par value \$0.0001 per share. The rights of the holders of Class A common stock and Class B common stock are generally identical, except with respect to voting and conversion. See “Conversion Rights” for more detail on conversion rights.</p> <p>The Class A common stock has one vote per share, and the Class B common stock has 20 votes per share. See “Description of Shares—Class B Common Stock—Voting Rights” in the base prospectus.</p>
Conversion Rights	The Class A common stock is not convertible into any other class of shares, while the Class B common stock is convertible into Class A common stock on a one-to-one basis at the option of the holder and automatically upon the occurrence of certain events. See “Description of Shares—Class B Common Stock—Optional Conversion” and “—Mandatory Conversion” in the base prospectus.
Nasdaq symbol	“QSI”

The number of shares of our Class A common stock that will be outstanding immediately after this offering as shown above is based on 164,357,534 shares outstanding as of June 30, 2025, and excludes:

- 13,134,075 shares of Class A common stock reserved for future issuance under our 2021 Equity Incentive Plan as of June 30, 2025;
- 1,562,494 shares of Class A common stock reserved for future issuance under our 2023 Inducement Equity Incentive Plan as of June 30, 2025;
- 20,691,445 shares of Class A common stock reserved and issuable upon the exercise of options to purchase our Class A common stock that were outstanding as of June 30, 2025, with a weighted average exercise price of \$2.51 per share, 13,835,961 shares of Class A common stock reserved and issuable upon vesting of restricted stock units outstanding as of June 30, 2025 and 3,780,000 shares of Class A common stock reserved and issuable upon vesting of performance stock options outstanding as of June 30, 2025;
- 3,833,319 Public Warrants and 135,000 Private Warrants to purchase shares of Class A common stock issuable upon the exercise of such warrants outstanding as of June 30, 2025. See “Description of Shares—Warrants” in the accompanying prospectus;
- the issuance and sale of 18,200,000 shares of our Class A common stock, including the exercise of pre-funded warrants to purchase up to 11,740,119 shares of our Class A common stock, in connection with the July 2025 Registered Direct Offering; and
- 19,937,500 shares of Class A common stock reserved and issuable upon conversion of our Class B common stock outstanding as of June 30, 2025. See “Description of Shares—Class B Common Stock” in the accompanying prospectus.

Except as otherwise indicated, all information in this prospectus assumes no exercise of outstanding stock options or settlement of unvested restricted stock units described above, no exercise of outstanding warrants described above and no conversion of the Class B common stock described above.

RISK FACTORS

Investing in our Class A common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below and in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any amendments thereto reflected in subsequent filings with the SEC, each of which are incorporated by reference in this prospectus, and all of the other information in this prospectus, including our financial statements and related notes incorporated by reference herein. If any of these risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our Class A common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties that are not yet identified or that we currently believe to be immaterial may also materially harm our business, financial condition, results of operations and prospects and could result in a complete loss of your investment.

Risks Related to This Offering and Our Class A Common Stock

If you purchase shares of Class A common stock in this offering, you may suffer immediate and substantial dilution of your investment.

The shares sold in this offering will be sold from time to time at various prices. The price per share of our Class A common stock sold in this offering may, at the time of sale, exceed the net tangible book value per share of our Class A common stock outstanding prior to this offering. Therefore, if you purchase shares of our Class A common stock in this offering, you may pay a price per share that substantially exceeds our net tangible book value per share after this offering. To the extent shares are issued under outstanding options at exercise prices lower than the price of our Class A common stock in this offering, you will incur further dilution. Assuming that an aggregate of 42,735,042 shares of our Class A common stock are sold at a price of \$2.34 per share, the last reported sale price of our common stock on Nasdaq on October 27, 2025, for aggregate gross proceeds to us of \$100.0 million, and after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$0.92 per share, representing the difference between our as-adjusted net tangible book value per share as of June 30, 2025 after giving effect to this offering, and the assumed offering price. See the section entitled “Dilution” below for a more detailed illustration of the foregoing. Notwithstanding this illustration, because the price per share of our Class A common stock being offered may, at the time of sale, be higher than the net tangible book value per share of our Class A common stock outstanding prior to this offering, there is still a risk that you may experience immediate and substantial dilution.

The price of our Class A common stock has and may continue to fluctuate significantly, and this may make it difficult for you to resell shares of Class A common stock owned by you at times or at prices you find attractive.

The trading price of our Class A common stock has fluctuated widely and may continue to fluctuate widely as a result of a number of factors, many of which are outside our control. Since January 1, 2025 through October 28, 2025, our stock has traded at prices as low as \$0.95 per share and as high as \$5.77 per share. In addition, the stock market is subject to fluctuations in the share prices and trading volumes that affect the market prices of the shares of many companies. These broad market fluctuations have adversely affected and may continue to adversely affect the market price of our Class A common stock. Among the factors that could affect our stock price are:

- the timing and amount of expenditures that we may incur to develop, commercialize or acquire additional products and technologies or for other purposes, such as the expansion of our facilities;
- changes in governmental funding of life sciences research and development or changes that impact budgets or budget cycles;
- actual or anticipated quarterly fluctuations in our operating results and financial condition;
- changes in revenue or earnings estimates or publication of research reports and recommendations by financial analysts;
- failure to meet analysts’ revenue or earnings estimates;
- seasonal spending patterns of our customers;
- the timing of when we recognize any revenues;
- future accounting pronouncements or changes in our accounting policies;

TABLE OF CONTENTS

- the outcome of any future litigation or governmental investigations involving us, our industry or both;
- higher than anticipated service, replacement and warranty costs;
- the impact of past or future epidemics or pandemics on the economy, investment in life sciences and research industries, our business operations, and resources and operations of our suppliers, distributors and potential customers; and
- general industry, economic and market conditions and other factors, including global conflicts and factors unrelated to our operating performance or the operating performance of our competitors.

The cumulative effects of the factors discussed above could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful.

This variability and unpredictability could also result in us failing to meet the expectations of industry or financial analysts or investors for any period. If we are unable to realize our objectives associated with commercializing our products, or if our operating results fall below the expectations of analysts or investors or below any guidance we may provide, or if any guidance we provide is below the expectations of analysts or investors, it could cause the market price of our Class A common stock to decline.

Our management will have broad discretion over the use of the net proceeds from this offering, and you may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from this offering, if any, and could use them for purposes other than those contemplated at the time of this offering. Accordingly, you are relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds will be used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for Quantum-Si.

Because we do not anticipate paying any cash dividends on our Class A common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our Class A common stock. We anticipate that we will retain our earnings, if any, for future growth and therefore do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our Class A common stock will provide a return to shareholders.

We may incur significant costs from class action litigation due to share volatility.

Our share price may fluctuate for many reasons, including as a result of public announcements regarding the progress of our development efforts or the development efforts of our collaborators and/or competitors, the addition or departure of our key personnel, variations in our quarterly operating results and changes in market valuations of pharmaceutical and biotechnology companies. Holders of shares which have experienced significant price and trading volatility have occasionally brought securities class action litigation against the companies that issued the shares. If any of our shareholders were to bring a lawsuit of this type against us, even if the lawsuit is without merit, we could incur substantial costs defending the lawsuit. The lawsuit could also divert the time and attention of our management, which could harm our business.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our Class A common stock.

We are not restricted from issuing additional Class A common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, Class A common stock. The issuance of any additional shares of Class A common stock or preferred stock or securities convertible into, exchangeable for or that represent the right to receive Class A common stock or the conversion or exercise of such securities could be substantially dilutive to holders of our Class A common stock. Holders of our shares of Class A common stock have no preemptive rights that entitle them to purchase their pro rata share of any offering of shares of any class or series of our equity securities. Moreover, certain holders of shares of our common stock or securities convertible into, or exercisable for, shares of our common stock, have rights, subject to certain conditions, to require us to file registration statements

TABLE OF CONTENTS

covering such securities, or to include these securities in registration statements that we may file for ourselves or other stockholders. We cannot predict or estimate the amount, timing or nature of any such requests from holders of registration rights or when any sales by such stockholders may occur.

The market price of our Class A common stock could decline as a result of this offering as well as sales of shares of our Class A common stock made after this offering by us or stockholders with registration rights, or the perception that such sales could occur. Because our decision to issue securities in any future offering, or decisions by holders of registration rights to sell shares in any future offerings, will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of any future offerings. Thus, our stockholders bear the risk of future offerings reducing the market price of our Class A common stock and/or diluting their stock holdings in us. In addition, after giving effect to the issuance of Class A common stock in this offering, the receipt of the expected net proceeds and the use of those proceeds, the issuance of such shares in this offering will have a dilutive effect on our expected earnings per share.

The Class A common stock is equity and is subordinate to preferred stock.

Our board of directors is authorized to issue up to 1,000,000 shares of preferred stock in one or more series, without any action on the part of holders of our Class A common stock. Holders of our Class A common stock are subject to the prior dividend and liquidation rights of any holders of our preferred stock or depositary shares representing such preferred stock then outstanding. For more information, see “Description of Shares” in the accompanying prospectus.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our Class A common stock may depend in part on the research and reports that securities or industry analysts publish about us or our business. If too few securities or industry analysts cover our company, the trading price for our Class A common stock would likely be negatively impacted. If one or more of the analysts who cover us downgrade our Class A common stock or publish research about our business that is unfavorable or based on stale projections or other information or otherwise inaccurate, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our Class A common stock could decrease, which might cause our share price and trading volume to decline.

Because we are a “controlled company” within the meaning of the Nasdaq rules, our stockholders may not have certain corporate governance protections that are available to stockholders of companies that are not controlled companies.

So long as more than 50% of the voting power for the election of our directors is held by an individual, a group or another company, we will qualify as a “controlled company” within the meaning of the Nasdaq corporate governance standards. Dr. Rothberg currently controls over 50% of the voting power of our outstanding capital stock. As a result, we are a “controlled company” within the meaning of the Nasdaq corporate governance standards and are not subject to the requirements that would otherwise require us to have: (i) a majority of independent directors; (ii) a compensation committee comprised solely of independent directors; and (iii) director nominees selected, or recommended for our board of director’s selection, either by a majority of the independent directors or a nominating committee comprised solely of independent directors.

Dr. Rothberg may have his interest in the Company diluted due to future equity issuances or his own actions in selling shares of our Class B common stock, in each case, which could result in a loss of the “controlled company” exemption under the Nasdaq listing rules. We would then be required to comply with those provisions of the Nasdaq listing requirements.

Provisions in our charter documents and Delaware law could discourage, delay, or prevent a third party from acquiring us or limit the price that investors might be willing to pay for shares of our Class A common stock.

Provisions of the Delaware General Corporation Law, our certificate of incorporation, and our amended and restated bylaws could have the effect of making it more difficult for a third party to acquire, or discouraging a third party from attempting to acquire, control of us. These provisions could delay or prevent a change in control and could limit the price that investors are willing to pay in the future for shares of our Class A common stock.

TABLE OF CONTENTS

Our certificate of incorporation authorizes our board of directors to issue new series of preferred stock without stockholder approval. For more information, see “Description of Shares” in the accompanying prospectus. Depending on the rights and terms of any new series created, and the reaction of the market to the series, your rights or the value of your shares of Class A common stock could be negatively affected. The ability of our board of directors to issue new series of preferred stock could also prevent or delay a third party from acquiring us, even if doing so would be beneficial to our stockholders.

Our stock price may decline if our financial performance does not meet the guidance we have provided to the public, estimates published by research analysts or other investor expectations.

The guidance we provide as to our expected revenue is only an estimate of what we believe is realizable at the time we give such guidance. It is difficult to predict our revenue and our actual results may vary materially from our guidance. We may not meet our financial guidance or other investor expectations for other reasons, including those arising from the risks and uncertainties described in this prospectus and in our other public filings and public statements. Furthermore, research analysts publish estimates of our future revenue and earnings based on their own analysis. The revenue guidance we provide may be one factor they consider when determining their estimates.

The actual number of Class A 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 a placement notice to Leerink Partners at any time throughout the term of the Sales Agreement. The number of Class A common stock that are sold by Leerink Partners after delivering a placement notice will fluctuate based on the market price of our Class A common stock during the sales period and limits we set with Leerink Partners. Because the price per share of Class A common stock sold will fluctuate based on the market price of our Class A common stock during the sales period, it is not possible at this stage to predict the number of Class A common stock that will be ultimately issued, if any, and the gross proceeds (if any) that we would receive from such sales.

The Class A 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 subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice, there is no minimum or maximum sales price. Investors may experience a decline in the value of their shares as a result of sales made at prices lower than the prices they paid.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC that are incorporated by reference contain “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act that involve substantial risks and uncertainties. In some cases, forward-looking statements are identified by the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “future,” “goals,” “intend,” “likely,” “may,” “might,” “ongoing,” “objective,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “strategy,” “will” and “would” or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus and the documents that we have filed with the SEC that are incorporated by reference, such statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. Forward-looking statements include statements about:

- the impact of international conflicts, pandemics or epidemics on our business;
- the impact of general conditions in the global economy and in the global financial markets, including changes in inflation, interest rates, tariffs, retaliatory trade policies including limitations of shipments of products, and overall economic conditions and uncertainties;
- maintaining the listing of our Class A common stock on The Nasdaq Stock Market LLC;
- changes in applicable laws or regulations;
- our ability to raise financing in the future;
- the success, cost and timing of our product development and commercialization activities;
- the commercialization and adoption of our existing products, including our Platinum® line of instruments, our consumable kits and the success of any product we may offer in the future;
- our ability to obtain and maintain regulatory approval for our products, and any related restrictions and limitations of any approved product;
- our ability to identify, in-license or acquire additional technology;
- our ability to maintain our existing lease, license, manufacture and supply agreements;
- our ability to compete with other companies currently marketing or engaged in the development or commercialization of products and services that serve customers engaged in proteomic analysis, many of which have greater financial and marketing resources than us;
- the size and growth potential of the markets for our products and services, and our ability to serve those markets once commercialized, either alone or in partnership with others;
- our estimates regarding future expenses, future revenue, capital requirements and needs for additional financing; and
- our financial performance.

You should refer to the section titled “Risk Factors” of this prospectus and in our other filings with the SEC for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure that the forward-looking statements in this prospectus or the documents we have filed with the SEC that are incorporated by reference will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, these statements should not be regarded as representations or warranties by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we

[TABLE OF CONTENTS](#)

believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements as predictions of future events.

You should read this prospectus, the documents that we have incorporated by reference herein and the documents we have filed as exhibits to the registration statement, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We may issue and sell our Class A common stock under this prospectus having aggregate sales proceeds of up to \$100,000,000 from time to time. 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. There can be no assurance that we will sell any shares under or fully utilize our Sales Agreement with Leerink Partners as a source of financing.

We intend to use the net proceeds from this offering, if any, for our future product development objectives, including our Proteus™ platform, general commercialization, manufacturing development of our products, research and development, and for other general corporate purposes, including for working capital, capital expenditures and general and administrative expenses.

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business conditions. The amounts and timing of our actual use of net proceeds will vary depending on numerous factors, including the relative success and cost of our R&D programs and the development and commercialization of our products and services, and any unforeseen delays or cash needs and other factors described under “Risk Factors” in this prospectus and the documents incorporated by reference. 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. In addition, we might decide to postpone or not pursue these planned trials and activities or other development activities if the net proceeds from this offering and the other sources of cash are less than, or do not last as long as, expected.

Pending their use, we plan to invest the net proceeds from this offering, if any, in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have not paid any cash dividends on our Class A common stock to date. The payment of cash dividends in the future will be dependent upon our revenues and earnings, if any, capital requirements and general financial condition. The payment of any cash dividends will be within the discretion of the board of directors at such time.

DILUTION

If you invest in our Class A common stock in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share in this offering and the as adjusted net tangible book value per share immediately after this offering.

As of June 30, 2025 our historical net tangible book value was approximately \$221.0 million, or \$1.20 per share of common stock. Historical net tangible book value per share is equal to the amount of our total tangible assets less our total liabilities, divided by 184,295,034, the combined number of Class A common stock and Class B common stock outstanding as of June 30, 2025.

After giving effect to (i) the sale and issuance of 29,940,119 shares of our Class A common stock sold subsequent to June 30, 2025 in the July 2025 Registered Direct Offering, after deducting commissions and offering expenses paid by us and (ii) the assumed sale of our Class A common stock in the aggregate amount of \$100,000,000 at an assumed offering price of \$2.34 per share, the last reported sale price of our Class A common stock on Nasdaq on October 27, 2025, and after deducting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2025 would have been approximately \$364.4 million, or \$1.42 per share of Class A common stock. This amount does not represent a change in net tangible book value to our existing stockholders but this amount represents an immediate dilution in net tangible book value of approximately \$0.92 per share to new investors in this offering.

The following table illustrates this calculation on a per share basis. The as adjusted information is illustrative only and will adjust based on the actual price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our Class A common stock are sold pursuant to this prospectus. The shares sold in this offering, if any, will be sold from time to time at various prices.

Assumed public offering price per share	\$2.34
Historical net tangible book value per share as of June 30, 2025	\$1.20
Increase in net tangible book value per share attributable to the July 2025 Registered Direct Offering	\$0.05
Increase in net tangible book value per share attributable to the offering	\$0.17
Pro forma as adjusted net tangible book value per share, after the July 2025 Registered Direct Offering and giving effect to this offering	\$1.42
Dilution in net tangible book value per share to investors participating in this offering	\$0.92

The table above assumes for illustrative purposes that an aggregate of 42,735,042 shares of our Class A common stock are sold during the term of the sales agreement with Leerink Partners at a price of \$2.34 per share, the last reported sale price of our Class A common stock on Nasdaq on October 27, 2025, for aggregate net proceeds of \$96.6 million, after deducting placement agent fees and estimated offering expenses paid by us. The shares subject to the Sales Agreement with Leerink Partners are being sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$2.34 per share shown in the table above, assuming all of our Class A common stock in the aggregate amount of \$100,000,000 during the term of the Sales Agreement with Leerink Partners is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$1.49 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$1.85 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$2.34 per share shown in the table above, assuming all of our Class A common stock in the aggregate amount of \$100,000,000 during the term of the Sales Agreement with Leerink Partners is sold at that price, would decrease our adjusted net tangible book value per share after the offering to \$1.26 per share and would result in dilution of net tangible book value per share to new investors in this offering of \$0.08 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only. The information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

The number of shares of our Class A common stock that will be outstanding immediately after this offering as shown above is based on 164,357,534 shares outstanding as of June 30, 2025, and excludes:

- 13,134,075 shares of Class A common stock reserved for future issuance under our 2021 Equity Incentive Plan as of June 30, 2025;

TABLE OF CONTENTS

- 1,562,494 shares of Class A common stock reserved for future issuance under our 2023 Inducement Equity Incentive Plan as of June 30, 2025;
- 20,691,445 shares of Class A common stock reserved and issuable upon the exercise of options to purchase our Class A common stock that were outstanding as of June 30, 2025, with a weighted average exercise price of \$2.51 per share, 13,835,961 shares of Class A common stock reserved and issuable upon vesting of restricted stock units outstanding as of June 30, 2025 and 3,780,000 shares of Class A common stock reserved and issuable upon vesting of performance stock options outstanding as of June 30, 2025;
- 3,833,319 Public Warrants and 135,000 Private Warrants to purchase shares of Class A common stock issuable upon the exercise of such warrants outstanding as of June 30, 2025. See “Description of Shares—Warrants” in the accompanying prospectus;
- the issuance and sale of 18,200,000 shares of our Class A common stock, including the exercise of pre-funded warrants to purchase up to 11,740,119 shares of our Class A common stock, in connection with the July 2025 Registered Direct Offering; and
- 19,937,500 shares of Class A common stock reserved and issuable upon conversion of our Class B common stock outstanding as of June 30, 2025. See “Description of Shares—Class B Common Stock” in the accompanying prospectus.

Except as otherwise indicated, all information in this prospectus assumes no exercise of outstanding stock options or settlement of unvested restricted stock units described above and no exercise of outstanding warrants described above.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with Leerink Partners under which we may offer and sell from time to time shares of our Class A common stock. Pursuant to this prospectus, we may offer and sell shares of our Class A common stock having an aggregate offering price of up to \$100,000,000. Sales of our Class A common stock, if any, will be made at market prices by 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 Nasdaq or any other trading market for our Class A common stock. The below description of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. The sales agreement has been filed as an exhibit to our Registration Statement on Form S-3 of which this prospectus forms a part.

We will designate the maximum amount of Class A common stock to be sold through Leerink Partners on a daily basis or otherwise determine such maximum amount together with Leerink Partners. Subject to the terms and conditions of the sales agreement, Leerink Partners will offer our Class A common stock on a daily basis or as otherwise agreed upon by us and Leerink Partners and will use its commercially reasonable efforts to sell on our behalf all of the shares of Class A common stock requested to be sold by us. We may instruct Leerink Partners not to sell Class A common stock if the sales cannot be effected at or above the price designated by us in any such instruction. Leerink Partners or we may suspend the offering of our Class A common stock being made through Leerink Partners under the sales agreement upon proper notice to the other party. Leerink Partners and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party’s sole discretion at any time.

The aggregate compensation payable to Leerink Partners is an amount of up to 3.0% of the aggregate gross sales price of the shares sold through Leerink Partners pursuant to the sales agreement. We have also agreed to reimburse Leerink Partners up to an aggregate of \$75,000 of the actual outside legal expenses incurred by Leerink Partners in connection with the execution of the sales agreement, plus certain ongoing outside legal expenses. We estimate that the total expenses of the offering payable by us, excluding commissions payable to Leerink Partners under the sales agreement, will be approximately \$450,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such Class A common stock.

Leerink Partners will provide written confirmation to us following the close of trading on Nasdaq on each day in which Class A common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of Class A common stock sold through it as sales agent on that day and the net proceeds to us. We will report at least quarterly the number of shares of Class A common stock sold through Leerink Partners under the sales agreement, the net proceeds to us and the compensation paid by us to Leerink Partners in connection with the sales of Class A common stock.

Settlement for sales of Class A common stock will occur on the first business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our Class A common stock on our behalf, Leerink Partners will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation paid to Leerink Partners will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to Leerink Partners against certain liabilities, including liabilities under the Securities Act. As sales agent, Leerink Partners will not engage in any transactions that stabilize our Class A common stock.

Our Class A common stock is listed on Nasdaq and trades under the symbol “QSI.” The transfer agent of our Class A common stock is currently Continental Stock Transfer & Trust Company.

Leerink Partners and/or its affiliates may in the future provide various investment banking and other financial services for us for which services they may in the future receive customary fees.

LEGAL MATTERS

DLA Piper LLP (US), San Diego, California will pass upon the validity of the securities offered in this prospectus with respect to the Class A common stock on behalf of Quantum-Si Incorporated. Leerink Partners is being represented in this offering by Goodwin Procter LLP, New York, New York.

EXPERTS

The financial statements as of December 31, 2024 and for the year ended December 31, 2024 incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2024 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Quantum-Si Incorporated as of December 31, 2023, and for each of the two years in the period ended December 31, 2023, incorporated by reference in this Prospectus by reference to Quantum-Si Incorporated's annual report on Form 10-K for the year ended December 31, 2024, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

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. The SEC maintains an internet website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost.

This prospectus is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act of 1933, as amended, and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may obtain a copy of the registration statement, including the exhibits and schedules, from the SEC's website.

We also maintain a website at <http://www.quantum-si.com>, through which you can access our SEC filings free of charge. The information set forth on our website is not part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act with the SEC with respect to the securities we may offer pursuant to this prospectus. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities we may offer pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained from the SEC’s website at <http://www.sec.gov>. The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on [March 3, 2025](#);
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2025 and June 30, 2025, filed with the SEC on [May 15, 2025](#), and [August 5, 2025](#), respectively;
- our Definitive Proxy Statement on Schedule 14A, filed with the SEC on [March 20, 2025](#) (excluding those portions that are not incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2024);
- our Current Reports on Form 8-K, filed with the SEC on [January 6, 2025](#), [May 19, 2025](#), [July 7, 2025](#), [September 26, 2025](#), and [September 29, 2025](#);
- the description of our capital stock contained in our registration statement on Form 8-A (File No. 001-39486) filed with the SEC on [September 2, 2020](#), under the Exchange Act, including any amendments or reports filed for the purpose of updating such description, including the description of capital stock in Exhibit 4.1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on [March 3, 2025](#); and
- all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, other than information furnished and not filed with the SEC, after the date of this prospectus and prior to the termination or completion of the offering of securities under this prospectus shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing such reports and other documents.

In addition, all reports and other documents filed by us pursuant to the Exchange Act after the date of the registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting:

Quantum-Si Incorporated
29 Business Park Drive
Branford, Connecticut 06405
Attn: Jeffrey Keyes
Telephone: (866) 688-7374

You may also access these documents on our website, <http://www.quantum-si.com>. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

TABLE OF CONTENTS

You should rely only on information contained in, or incorporated by reference into, this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

QUANTUM SI™

Up to \$100,000,000

Class A Common Stock

PROSPECTUS

Leerink Partners

October 29, 2025
