UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Astera Labs, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

82-3437062 (I.R.S. Employer Identification No.)

2901 Tasman Drive, Suite 205 Santa Clara, CA (Address of Principal Executive Offices)

95054 (Zip Code)

Amended and Restated 2018 Equity Incentive Plan (Full titles of the plans)

Jitendra Mohan
Co-Founder and Chief Executive Officer
Astera Labs, Inc.
2901 Tasman Drive, Suite 205
Santa Clara, CA 95054
(Name and address of agent for service)

(408) 337-9056

(Telephone number, including area code, of agent for service)

Copies to:

Bradley C. Weber Julia R. White Goodwin Procter LLP 601 Marshall Street Redwood City, CA 94063 (650) 752-3100 Philip T. Mazzara General Counsel & Secretary Astera Labs, Inc. 2901 Tasman Drive, Suite 205 Santa Clara, CA 95054 (408) 337-9056

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EXPLANATORY NOTE

This registration statement contains two parts, Part I and Part II. The first part of this registration statement contains a "reoffer prospectus" prepared in accordance with Part I of Form S-3 (in accordance with Instruction C of the General Instructions to Form S-8). This reoffer prospectus may be used for reoffers and resales on a continuous or delayed basis of certain of those shares of common stock of Astera Labs, Inc. ("us," "we," or the "Registrant") referred to above that constitute "restricted securities," within the meaning of the Securities Act, by certain stockholders that are current employees or service providers of the Registrant (the "Selling Stockholders") for their own accounts. As specified in General Instruction C of Form S-8, the amount of securities to be reoffered or resold under the reoffer prospectus by each Selling Stockholder and any other person with whom such Selling Stockholder is acting in concert for the purpose of selling the Registrant's securities, may not exceed, during any three-month period, the amount specified in Rule 144(e) under the Securities Act. The second part contains information required to be set forth in the Registration Statement pursuant to Part II of Form S-8.



Astera Labs, Inc.

2,938,898 Shares of Common Stock

This prospectus relates to 2,938,898 shares of common stock, \$0.0001 par value per share (the "Shares"), of Astera Labs, Inc., which may be offered from time to time by certain stockholders that are our current employees and service providers (the "Selling Stockholders") for their own accounts. We will not receive any of the proceeds from the sale of Shares by the Selling Stockholders made hereunder. The Shares were acquired by the Selling Stockholders pursuant to our Amended and Restated 2018 Equity Incentive Plan, as amended (the "2018 Plan").

The Selling Stockholders may sell the securities described in this prospectus in a number of different ways and at varying prices, including sales in the open market, sales in negotiated transactions and sales by a combination of these methods. The Selling Stockholders may sell any, all, or none of the Shares and we do not know when or in what amount the Selling Stockholders may sell their Shares hereunder following the effective date of this registration statement. The price at which any of the Shares may be sold, and the commissions, if any, paid in connection with any such sale, are unknown and may vary from transaction to transaction. The Shares may be sold at the market price of the common stock at the time of a sale, at prices relating to the market price over a period of time, or at prices negotiated with the buyers of shares. The Shares may be sold through underwriters or dealers which the Selling Stockholders may select. If underwriters or dealers are used to sell the Shares, we will name them and describe their compensation in a prospectus supplement. We provide more information about how the Selling Stockholders may sell their Shares in the section titled "Plan of Distribution." The Selling Stockholders will bear all sales commissions and similar expenses. Any other expenses incurred by us in connection with the registration and offering that are not borne by the Selling Stockholders will be borne by us.

Our common stock is listed on the Nasdaq Global Select Market ("Nasdaq") under the symbol "ALAB." On May 8, 2024, the last reported sale price of our common stock was \$69.26 per share.

The amount of securities to be offered or resold under this reoffer prospectus by each Selling Stockholder or other person with whom he or she is acting in concert for the purpose of selling our securities, may not exceed, during any three-month period, the amount specified in Rule 144(e) under the Securities Act.

We are an "emerging growth company" as defined under the federal securities laws and, as such, we have elected to comply with certain reduced reporting requirements for this prospectus and may elect to do so in future filings.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in "Risk Factors" beginning on page 2 of this prospectus.

The Securities and Exchange Commission (the "SEC") may take the view that, under certain circumstances, the Selling Stockholders and any broker-dealers or agents that participate with the Selling Stockholders in the distribution of the Shares may be deemed to be "underwriters" within the meaning of the Securities Act. Commissions, discounts or concessions received by any such broker-dealer or agent may be deemed to be underwriting commissions under the Securities Act. See the section titled "Plan of Distribution."

Neither the SEC nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 8, 2024.

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You should rely only on the information contained in this prospectus or in any supplement to this prospectus filed by us with the SEC. Neither we nor the selling stockholders have authorized anyone to provide any information or make any representations other than those contained in this prospectus. We and the selling stockholders take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the selling stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted.

The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock. Our business, financial condition, results of operations, and prospects may have changed since that date.

"Astera Labs" is our registered trademark in the United States. Other trademarks and trade names referred to in this prospectus are the property of their respective owners.

Unless the context otherwise requires, the terms "Astera," "the Company," "we," "us," and "our" in this prospectus refer to Astera Labs, Inc. and its consolidated subsidiaries.

THE COMPANY

Our mission is to innovate, design, and deliver semiconductor-based connectivity solutions that are purpose-built to unleash the full potential of cloud and AI infrastructure.

Building on years of experience with a singular focus on addressing connectivity challenges in data-centric systems, we have developed and deployed our leading Intelligent Connectivity Platform built from the ground up for cloud and AI infrastructure. Our Intelligent Connectivity Platform comprises:

- i) Semiconductor-based, high-speed, mixed-signal connectivity products that integrate a matrix of microcontrollers and sensors; and
 - ii) COSMOS, our software suite which is embedded in our connectivity products and integrated into our customers' systems.

Our Intelligent Connectivity Platform provides our customers with the ability to deploy and operate high-performance cloud and AI infrastructure at scale, addressing an increasingly diverse set of requirements. We provide our connectivity products in various form factors including ICs, boards, and modules.

Corporate Information

We were incorporated in Delaware in October 2017 under the name Astera Labs, Inc. Our principal executive offices are located at 2901 Tasman Drive, Suite 205, Santa Clara, CA 95054, and our telephone number is (408) 337-9056. Our website address is www.asteralabs.com. Information contained on or that can be accessed through our website does not constitute part of this prospectus and the inclusion of our website address in this prospectus is intended to be an inactive textual reference only. You should not consider information contained on our website to be part of this prospectus or in deciding whether to purchase shares of our common stock.

We use various trademarks and trade names in connection with the operation of our business, including, without limitation, our corporate name and logo. This prospectus may also contain trademarks, service marks, and trade names of third parties, which are the property of their respective owners. Our use or display of third parties' trademarks, service marks, trade names, or products in this prospectus is not intended to, and does not imply, a relationship with, or endorsement or sponsorship by us. Solely for convenience, the trademarks, service marks, and trade names referred to in this prospectus may appear without the *, *, or *sm symbols, but the omission of such references is not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable owner of these trademarks, service marks, and trade names.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should carefully consider the risks set forth in the section titled "Risk Factors" in our Quarterly Report on Form 10-Q (File No. 001-41979), filed with the SEC on May 8, 2024, which are incorporated by reference herein, and subsequent reports filed with the SEC, together with the financial and other information contained or incorporated by reference in this prospectus. If any of the risks actually occur, our business, results of operations, financial condition and prospects could be harmed. In that event, the trading price of our common stock could decline, and you could lose part or all of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of the federal securities laws, which are statements that involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. All statements other than statements of historical fact included in this prospectus, including statements regarding our strategy, future operations, financial position, estimated revenue and losses, projected costs, prospects, plans, and objectives of management are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "shall," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- our expectations regarding our revenue, expenses, and other operating results;
- our ability to acquire new customers and grow our customer base;
- our ability to successfully retain existing customers and expand sales within our existing customer base;
- launching new products and adding new product capabilities;
- future investments in developing and enhancing our business;
- our expectations regarding our ability to expand;
- our anticipated capital expenditures and our estimates regarding our capital requirements;
- the estimated size of our total addressable market opportunity;
- investments in our selling and marketing efforts;
- our ability to compete effectively with existing competitors and new market entrants;
- our reliance on our senior management team and our ability to identify, recruit, and retain skilled personnel;
- our ability to effectively manage our growth;
- · economic and industry trends and other macroeconomic factors, such as fluctuating interest rates and rising inflation; and
- the impact of global pandemics, health crises, political conflicts and other global financial, economic, and political events on our industry, business, and results of operations.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this prospectus.

We have based the forward-looking statements contained in this prospectus primarily on management's current beliefs and our current expectations and projections about future events and trends that we believe may affect our business, results of operations, financial condition, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the section titled "Risk Factors" and elsewhere in this prospectus. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus. The results, events and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this prospectus relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this prospectus to reflect events or circumstances after the date of this prospectus or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

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 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 you are cautioned not to unduly rely upon these statements.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the Shares. All proceeds from the sale of the Shares will be for the account of the Selling Stockholders, as described below. See the sections titled "Selling Stockholders" and "Plan of Distribution" described below.

SELLING STOCKHOLDERS

The following table sets forth information regarding beneficial ownership of our common stock as of April 30, 2024, as adjusted to reflect the Shares that may be sold from time to time pursuant to this prospectus, for all Selling Stockholders, consisting of the individuals shown as having shares listed in the column entitled "Shares Being Offered."

The Shares offered by the Selling Stockholders hereunder include an aggregate of 2,938,898 outstanding Shares acquired by certain of our current employees and service providers upon the exercise of stock options and the vesting and settlement of restricted stock units ("RSUs") pursuant to the 2018 Plan, as described in this prospectus. The Selling Stockholders may sell any, all, or none of the Shares and we do not know when or in what amount the Selling Stockholders may sell their Shares, if they were to sell any, hereunder following the effective date of this registration statement.

We have determined beneficial ownership in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially owned, subject to community property laws where applicable. We have deemed shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of April 30, 2024 and shares of common stock underlying RSUs that will vest based on time-based vesting conditions within 60 days of April 30, 2024 to be beneficially owned by the person holding the options or RSUs for the purpose of computing the percentage ownership of that person, but have not treated such shares as outstanding for the purpose of computing the percentage ownership of any other person.

We have based percentage ownership of our common stock before this offering on 155,701,301 shares of our common stock outstanding as of April 30, 2024.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Astera Labs, Inc., 2901 Tasman Drive, Suite 205, Santa Clara, CA 95054.

	Shares Beneficially Owned Prior to this Offering		Shares Being Offered ⁽¹⁾	Shares Beneficially Owned Following this Offering ⁽²⁾		
Selling Stockholders:	Shares	%	Number	Shares	0/0	
Named Selling Stockholders ⁽³⁾	17,430,648	10.6	2,938,343	14,486,671	8.8	
Other Selling Stockholders ⁽⁴⁾	5,634	*	555	5,079	*	

^{*} Represents beneficial ownership of less than 1% of our common stock.

⁽¹⁾ Reflects shares of our common stock offered under this prospectus

⁽²⁾ Assumes that all of the Shares held by each Selling Stockholder and being offered under this prospectus are sold, and that no Selling Stockholder will acquire additional shares of common stock before the completion of this offering.

⁽³⁾ Includes the following 150 named non-affiliate persons, each of whom holds at least 1,000 Shares: Derek Adams, Venkatarama Sesha Satya Prasad Anumula, Harisankar Aravindakshan, Guru Bachchu, John Banks, Jonathan Bender, Kurtis Bohlen, Eyal Brandstein, Chichalux Bunmasu, Xuemin Cai, David Cananzi, Craig Carlson, Shayne Casey, Geoffrey Chang, Yuchung Chen, Peter Chen, Patrick Chen, Alan Chen, Joyce Chou, Yen Ting Chu, Kung-Hsien Chu, Adam Stephen Church, Ahmad Danesh, Sandeep Dattaprasad, Shaileshkumar Dave, La Rosa Edith De, Graden Anthony Edgar Deasey, Xiaoxing Deng, Philip Dilk, Michael Dimitrov, Shantanu Divekar, Connor Doherty, Ramakrishna Dorairaju, Lam Duong, Shady Elbassiouny, Alexander Franck, Mohamed Haggag, Keqin Han, Xing Han, CS Hsieh, Adrian Hui, Albert Hwang, Srimai Inapurapu, Nitish Jain, Darren Johnson, Ramneek Singh Kakkar, Michael Kakulphimp, Ramy Kamal, Po-Lung Kan, Pulkit Khandelwal, Wilson Wai Ho Kwong, Manish Govindbhai Ladani, Christopher Lee, Victoria Lee, Kaisen Lin, Andy Lin, Dennis Lin, Debra Lypen, Ilya Lyubomirsky, Shruti Malhotra, Anubhav Mangla, Maruthi Vara Prasad Maram, Vineet Mathur, Bruce McLoughlin, Ahmed Medhioub, Abhinaya Easwari Mohan, Bhagavathi Mula, Enrique Musoll, Gaurav Narula, David Nelson, Tu Anh Nguyen, Alan Ocampo, Michael Ocampo, Sam Pan, Chirag Panchal, Sunil Pandey, Harsh Parikh, Jay Patel, Nirav Ishwarbhai Patel, Kinjalkumar C Patel, Daniel Peerson, Frederick Peng, Svetlana Perets, Isaac Peterson, Hemasundar Pethakamsetty, Rohan Poundarik, Justina Kavitha Provine, Mengping Qi, Abdul Rafay, Karthik Raghavan, Karthik Shivanand Rajamane, Malavikka Ramesh, Vikram Ganesh Rao, Don Rhodes, Daniel Roll, Suryansh Sahota, Suresh Sankaralingam, Sagar Satish, Donald Schelle, Vilesh Shah, Avinash Sharma, Aanchal Sharma, Robert Shaw, Gaurav Kumar Singh, Yashveer Singh, Matt Sirtak, Sandeep Solanki, Mackenzie Spykerman, Priya Srivastava, Jagadish Kumaran Subramonian, Changyu Sun, Vilvakumar Sundaramoorthy, Yiqi Tang, Neal Tatum, Anh Thien Tran, Oscar Trevino, Aditya Trive

⁽⁴⁾ Includes 6 unnamed non-affiliate persons, each of whom beneficially owns less than 1,000 Shares. Each of these persons beneficially owns less than 1% of our common stock.

PLAN OF DISTRIBUTION

We are registering the Shares covered by this prospectus to permit the Selling Stockholders to conduct public secondary trading of these Shares from time to time after the date of this prospectus. We will not receive any of the proceeds of the sale of the Shares offered by this prospectus. The aggregate proceeds to the Selling Stockholders from the sale of the Shares will be the purchase price of the Shares less any discounts and commissions. We will not pay any brokers' or underwriters' discounts and commissions in connection with the registration and sale of the Shares covered by this prospectus. The Selling Stockholders reserve the right to accept and, together with their respective agents, to reject, any proposed purchases of Shares to be made directly or through agents.

The Shares offered by this prospectus may be sold from time to time to purchasers:

- · directly by the Selling Stockholders, or
- through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, commissions or agent's commissions from the Selling Stockholders or the purchasers of the Shares.

Any underwriters, broker-dealers or agents who participate in the sale or distribution of the Shares may be deemed to be "underwriters" within the meaning of the Securities Act. As a result, any discounts, commissions or concessions received by any such broker-dealer or agents who are deemed to be underwriters will be deemed to be underwriting discounts and commissions under the Securities Act. Underwriters are subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities under the Securities Act and the Securities Exchange Act of 1934, as amended (the "Exchange Act"). We will make copies of this prospectus available to the Selling Stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. To our knowledge, there are currently no plans, arrangements or understandings between the Selling Stockholders and any underwriter, broker-dealer or agent regarding the sale of the Shares by the Selling Stockholders.

The Shares may be sold in one or more transactions at:

- · fixed prices;
- prevailing market prices at the time of sale;
- prices related to such prevailing market prices;
- varying prices determined at the time of sale; or
- · negotiated prices.

These sales may be effected in one or more transactions:

- on any national securities exchange or quotation service on which the Shares may be listed or quoted at the time of sale, including the Nasdaq;
- in the over-the-counter market;
- in transactions otherwise than on such exchanges or services or in the over-the-counter market;
- · any other method permitted by applicable law; or
- through any combination of the foregoing.

These transactions may include block transactions or crosses. Crosses are transactions in which the same broker acts as an agent on both sides of the trade.

At the time a particular offering of the Shares is made, a prospectus supplement, if required, will be distributed, which will set forth the name of the Selling Stockholders, the aggregate amount of Shares being offered and the terms of the offering, including, to the extent required, (1) the name or names of any underwriters, broker-dealers or agents, (2) any discounts, commissions and other terms constituting compensation from the Selling Stockholders and (3) any discounts, commissions or concessions allowed or reallowed to be paid to broker-dealers.

The Selling Stockholders will act independently of us in making decisions with respect to the timing, manner and size of each resale or other transfer. There can be no assurance that the Selling Stockholders will sell any or all of the Shares under this prospectus. Further, we cannot assure you that the Selling Stockholders will not transfer, distribute, devise or gift the Shares by other means not described in this prospectus. In addition, any Shares covered by this prospectus that qualify for sale under Rule 144 of the Securities Act may be sold under Rule 144 rather than under this prospectus. The Shares may be sold in some states only through registered or licensed brokers or dealers. In addition, in some states the Shares may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification is available and complied with.

The Selling Stockholders and any other person participating in the sale of the Shares will be subject to the Exchange Act. The Exchange Act rules include, without limitation, Regulation M, which may limit the timing of purchases and sales of any of the Shares by the Selling Stockholders and any other person. In addition, Regulation M may restrict the ability of any person engaged in the distribution of the Shares to engage in market-making activities with respect to the particular Shares being distributed. This may affect the marketability of the Shares and the ability of any person or entity to engage in market-making activities with respect to the Shares.

The Selling Stockholders may indemnify any broker or underwriter that participates in transactions involving the sale of the Shares against certain liabilities, including liabilities arising under the Securities Act.

LEGAL MATTERS

The validity of the Shares offered hereby has been passed upon by Goodwin Procter LLP, Redwood City, California.

EXPERTS

The financial statements as of December 31, 2023 and 2022 and for each of the two years in the period ended December 31, 2023, incorporated in this Registration Statement by reference from the Company's prospectus, dated March 19, 2024, filed pursuant to Rule 424(b) under the Securities Act, relating to the Registration Statement on Form S-1, as amended (File No. 333-277205) have been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

INFORMATION INCORPORATED BY REFERENCE

The following documents filed with the SEC are hereby incorporated by reference in this prospectus:

- (a) The Company's prospectus, dated March 19, 2024, filed pursuant to Rule 424(b) under the Securities Act, relating to the Registration Statement on Form S-1, as amended (File No. 333-277205), which contains the Company's audited financial statements for the latest fiscal year for which such statements have been filed.
- (b) The Company's Quarterly Report on Form 10-Q, filed with the SEC on May 8, 2024 (File No. 001-41979).
- (c) The Company's Current Reports on Form 8-K filed with the SEC on March 28, 2024 and May 3, 2024 (File No. 001-41979).
- (d) The description of the Company's common stock contained in the Company's Registration Statement on Form 8-A (File No. 001-41979) filed with the Commission on March 15, 2024 under Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the filing of a post-effective amendment to the Registration Statement which indicates that all of the shares registered hereunder have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the respective dates of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with Commission rules shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein, or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein, modifies or supersedes such earlier statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

ADDITIONAL INFORMATION

We file annual, quarterly and other 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. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge by linking directly from our website at www.asteralabs.com. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on our website is not part of this prospectus.

The Registrant hereby undertakes to provide without charge to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, upon written or oral request of any such person, a copy of any and all of the information that has been incorporated by reference in this prospectus but not delivered with the prospectus other than the exhibits to those documents, unless the exhibits are specifically incorporated by reference into the information that this prospectus incorporates. Requests for documents should be directed to Astera Labs, Inc., Attention: General Counsel, 2901 Tasman Drive, Suite 205, Santa Clara, CA 95054, (408) 337-9056.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information called for in Part I of Form S-8 to be contained in the Section 10(a) prospectus is not being filed with or included in this Registration Statement (by incorporation by reference or otherwise) in accordance with the rules and regulations of the SEC. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the SEC by the Registrant are incorporated by reference into this Registration Statement:

- (a) The Company's prospectus, dated March 19, 2024, filed pursuant to Rule 424(b) under the Securities Act, relating to the Registration Statement on Form S-1, as amended (File No. 333-277205), which contains the Company's audited financial statements for the latest fiscal year for which such statements have been filed.
- (b) The Company's Quarterly Report on Form 10-O, filed with the SEC on May 8, 2024 (File No. 001-41979).
- (c) The Company's Current Reports on Form 8-K filed with the SEC on March 28, 2024 and May 3, 2024 (File No. 001-41979).
- (d) The description of the Company's common stock contained in the Company's Registration Statement on Form 8-A (File No. 001-41979) filed with the Commission on March 15, 2024 under Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the filing of a post-effective amendment to the Registration Statement which indicates that all of the shares registered hereunder have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the respective dates of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with Commission rules shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein, or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein, modifies or supersedes such earlier statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors, and other corporate agents.

The Registrant has adopted an amended and restated certificate of incorporation that contain provisions that limit the liability of the Registrant's directors and officers for monetary damages to the fullest extent permitted by Delaware law. Consequently, the Registrant's directors and officers will not be personally liable to the Registrant or its stockholders for monetary damages for any breach of fiduciary duties as directors and officers, except liability for the following:

- any breach of their duty of loyalty to the Registrant's or its stockholders;
- · any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for the Registrant's directors, unlawful payments of dividends or unlawful stock repurchases, or redemptions as provided in Section 174 of the DGCL:
- · any transaction from which they derived an improper personal benefit; or

for the Registrant's officers, any derivative action by or in the right of the corporation.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors and officers of corporations, then the personal liability of the Registrant's directors and officers will be further limited to the greatest extent permitted by the DGCL.

In addition, the Registrant has adopted its second amended and restated bylaws, which provide that the Registrant will indemnify, to the fullest extent permitted by law, any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of its directors or officers or is or was serving at its request as a director or officer of another corporation, partnership, joint venture, trust or other enterprise. The Registrant's second amended and restated bylaws provide that it may indemnify to the fullest extent permitted by law any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of its employees or agents or is or was serving at its request as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise. The Registrant's second amended and restated bylaws also provide that the Registrant must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to very limited exceptions.

Further, the Registrant has entered into indemnification agreements with each of its directors and executive officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements require the Registrant, among other things, to indemnify its directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require the Registrant to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit, or proceeding. The Registrant believes that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions that are included in the Registrant's amended and restated certificate of incorporation, the Registrant's second amended and restated bylaws and in indemnification agreements that it has entered into with its directors and executive officers may discourage stockholders from bringing a lawsuit against its directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against its directors and executive officers, even though an action, if successful, might benefit the Registrant and other stockholders. Further, a stockholder's investment may be harmed to the extent that the Registrant pays the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions. At present, the Registrant is not aware of any pending litigation or proceeding involving any person who is or was one of the Registrant's directors, officers, employees or other agents or is or was serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, for which indemnification is sought, and it is not aware of any threatened litigation that may result in claims for indemnification.

The Registrant has obtained insurance policies under which, subject to the limitations of the policies, coverage is provided to the Registrant's directors and executive officers against losses arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to the Registrant with respect to payments that may be made by it to these directors and executive officers pursuant to its indemnification obligations or otherwise as a matter of law.

See also the Undertakings set forth in the response to Item 9 herein.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

		Incorporated by Reference					
Exhibit Number	Exhibit Title	Form	File No.	Exhibit	Filing Date	Filed Herewith	
4.1	Amended and Restated Certificate of Incorporation of the Registrant.	8-K	001-41979	3.1	3/28/2024		
4.2	Second Amended and Restated Bylaws of the Registrant.	8-K	001-41979	3.2	3/28/2024		
4.3	Form of common stock certificate of the Registrant.	S-1/A	333-277205	4.1	3/8/2024		
5.1	Opinion of Goodwin Procter LLP.					X	
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.					X	
23.2	Consent of Goodwin Procter LLP (included in Exhibit 5.1).					X	
24.1	Power of Attorney (contained on signature page hereto).					X	
99.1	Amended and Restated 2018 Equity Incentive Plan, as amended, and forms of agreements thereunder.	S-1/A	333-277205	10.2	3/1/2024		
107	Filing Fee Table					X	

Item 9. Undertakings.

- (a) The undersigned Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Santa Clara, California, on May 8, 2024.

ASTERA LABS, INC.

Date: May 8, 2024 By: /s/ Jitendra Mohan

Name: Jitendra Mohan

Title: Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jitendra Mohan, Michael Tate, and Philip Mazzara, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign the Registration Statement on Form S-8 of Astera Labs, Inc., and any or all amendments (including post-effective amendments), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in connection therewith and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Jitendra Mohan	Co-Founder, Chief Executive Officer, and Director	May 8, 2024
Jitendra Mohan	(Principal Executive Officer)	
/s/ Michael Tate	Chief Financial Officer	May 8, 2024
Michael Tate	(Principal Financial and Accounting Officer)	
/s/ Manuel Alba	Chair of the Board	May 8, 2024
Manuel Alba		
/s/ Stefan Dyckerhoff	Director	May 8, 2024
Stefan Dyckerhoff		
/s/ Sanjay Gajendra	Co-Founder, President, Chief Operating Officer, and Director	May 8, 2024
Sanjay Gajendra		
/s/ Michael Hurlston	Director	May 8, 2024
Michael Hurlston		
/s/ Jack Lazar	Director	May 8, 2024
Jack Lazar		

Calculation of Filing Fee Tables

Form S-8 (Form Type)

Astera Labs, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit ⁽²⁾	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.0001 par value per share	Rule 457(h)	2,938,898(2)	\$70.15	\$206,163,695	0.0001476	\$30,429.76
Total Offering Amounts				\$206,163,695		\$30,429.76	
Total Fees Previously Paid							
Total Fee Offsets							_
Net Fee Due							\$30,429.76

Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the Registrant's common stock, par value \$0.0001 per share ("Common Stock") that become issuable under the stock option awards set forth herein Astera Labs, Inc. Amended and Restated 2018 Equity Incentive Plan ("2018 Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of Common Stock.

Estimated in accordance with Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee on the basis of \$70.15 per share, which is the average of the high and low prices of the Registrant's Common Stock on May 8, 2024, as reported on the Nasdaq Global Select Market. Represents shares of Common Stock issued or issuable pursuant to the exercise of stock options granted under the 2018 Plan and shares of Common Stock issued pursuant to restricted stock awards granted under the 2018 Plan, in each case issued to current employees and service providers of the Registrant.



Goodwin Procter LLP 601 Marshall Street Redwood City, CA 94063

goodwinlaw.com +1 650 752 3100

May 8, 2024

Astera Labs, Inc. 2901 Tasman Drive, Suite 205 Santa Clara, CA 95054

Re: Securities Being Registered under Registration Statement on Form S-8

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to the registration of the offering of up to an aggregate of 2,938,898 shares (the "Shares") of Common Stock, \$0.0001 par value per share ("Common Stock"), of Astera Labs, Inc., a Delaware corporation (the "Company"), to be sold by the selling stockholders listed in the Registration Statement under "Selling Stockholders."

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and validly issued and are fully paid and nonassessable.

This opinion letter and the opinion it contains shall be interpreted in accordance with the Core Opinion Principles as published in 74 *Business Lawyer* 815 (Summer 2019).

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm under the caption "Legal Matters" in the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Goodwin Procter LLP

GOODWIN PROCTER LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Astera Labs, Inc. of our report dated February 20, 2024 relating to the financial statements, which appears in the prospectus dated March 19, 2024, filed by Astera Labs, Inc. pursuant to Rule 424(b) under the Securities Act of 1933, relating to the Registration Statement on Form S-1, as amended (File No. 333-277205). We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP Seattle, Washington May 8, 2024