

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO
FORM S-1

REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

AELUMA, INC.
(Exact name of registrant as specified in its charter)

Delaware

3674

85-2807351

(State or other jurisdiction of
incorporation or organization)

(Primary Standard Industrial
Classification Code Number)

(I.R.S. Employer
Identification Number)

27 Castilian Drive
Goleta, California 93117
(805) 351-2707

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Mr. Jonathan Klamkin
Chief Executive Officer
27 Castilian Drive
Goleta, California 93117
(805) 351-2707

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:

Hunter Taubman Fischer & Li LLC
950 Third Ave., 19th Floor
New York, New York 10022
+ (212) 530-2206
Louis Taubman, Esq.

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after this registration statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. Neither we nor the Selling Stockholders may sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 9, 2024

AELUMA, INC.

2,017,498 shares of Common Stock
85,653 shares of Common Stock underlying Placement Agent Warrants

This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” of up to 2,103,151 shares of Common Stock of Aeluma, Inc., a Delaware corporation (the “Company”), \$0.0001 par value per share (the “Common Stock”), which includes 85,653 shares of Common Stock underlying placement agent warrants. Our common stock is currently quoted on the OTCQB under the symbol “ALMU.” Accordingly, the selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices at the time of sale or at privately negotiated prices through the means described in this prospectus under the section titled, “Plan of Distribution.” As of October 7, 2024, the closing sales price for our Common Stock as quoted on the OTCQB was \$3.25 per share. Quotes of stock trading prices on an over-the-counter marketplace may not be indicative of the market price on a national securities exchange. There is a limited public trading market for our Common Stock.

For the details about the selling stockholder, please see “Selling Stockholders.” The selling stockholders may sell the shares of our common stock offered by this prospectus from time to time through the means described in this prospectus under the section titled “Plan of Distribution.” Any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The maximum amount of any compensation to be received by any FINRA member will not be greater than an amount that is considered fair and reasonable for the sale of any securities being registered. Each selling stockholder has informed us that it does not as of the date hereof have any agreement or understanding, directly or indirectly, with any person to distribute the common stock. The Selling Stockholders are subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

The shares are being registered to permit the selling stockholder, or its respective pledgees, donees, transferees or other successors-in-interest, to sell the shares from time to time in the public market. We do not know when or in what amount the selling stockholder may offer the securities for sale. The selling stockholder may sell some, all or none of the securities offered by this prospectus.

We will pay the expenses of registering these shares. We will not receive proceeds from the sale of our shares by the selling stockholder that are covered by this prospectus.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

You should read this prospectus, together with additional information described under the headings “Incorporation of Certain Information by Reference” and “Where You Can Find More Information”, carefully before you invest in any of our securities.

Investing in our securities involves a high degree of risk. See “Risk Factors” starting on page 6 of this prospectus.

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

The date of this prospectus is October 9, 2024

Explanatory Note

This Post-Effective Amendment No. 1 (this “Post-Effective Amendment No. 1”) to the Registration Statement on [Form S-1](#) (File No. 333-273149), initially filed on July 6, 2023, as amended and declared effective on September 28, 2023 (collectively, the “Registration Statement”), is being filed to include information from the Company’s Annual Report on [Form 10-K](#) that was filed with the Securities Exchange Commission on September 27, 2024.

No additional securities are being registered under this Post-Effective Amendment No. 1. All applicable registration fees were previously paid.

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You should rely only on the information contained in this prospectus or in any free writing prospectus that we may specifically authorize to be delivered or made available to you. We have not authorized anyone to provide you with any information other than that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus may only be used where it is legal to offer and sell our securities. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date. We are not making an offer of these securities in any jurisdiction where the offer is not permitted.

Unless the context otherwise requires, the terms “Aeluma,” “the Company,” “we,” “us,” “our” and similar terms in this prospectus refer to Aeluma, Inc. and its subsidiary, and “this offering” refers to the offering contemplated in this prospectus.

PROSPECTUS CONVENTIONS & DEFINITIONS

Except where the context otherwise requires and for purposes of this prospectus only:

“CMOS” refers to complementary metal oxide semiconductor, a widely used semiconductor transistor architecture;

“Common Stock” is the Common Stock of Aeluma, Inc., \$.0001 par value;

“InGaAs” refers to indium gallium arsenide, a compound semiconductor material commonly used for detectors and lasers;

“InP” is to indium phosphide, a compound semiconductor material and substrate for InGaAs and other related compound semiconductors;

“Lidar” refers to light detection and ranging, a remote sensing technique for measuring distance to an object and to generate 3D images;

“MOCVD” refers to metalorganic chemical vapor deposition;

“NIR” refers to near infrared;

“Optoelectronic” refers to electronic devices and systems that source, detect or control electromagnetic radiation (light);

“Silicon” refers to semiconductor material widely used for microelectronics;

“SPAD” refers to single photon avalanche diode, a photodetector capable of detecting low intensity signals;

The terms “we,” “us,” “our,” “the Company,” “our Company” or “Aeluma” refers to Aeluma, Inc., a Delaware corporation, and all of the Subsidiaries as defined herein unless the context specifies, after the merger that occurred on June 22, 2021, as further described below;

“Subsidiary” or “Subsidiaries,” refer to Aeluma Operating Co., sometimes referred to as “Biond”;

“SWIR” refers to shortwave infrared; and,

“VCSEL” refers to vertical cavity surface emitting laser, a laser utilized for communications and sensing applications.

All references to “U.S. dollars”, “dollars”, and “\$” are to the legal currency of the U.S.

INDUSTRY AND MARKET DATA

This prospectus includes information with respect to market and industry conditions and market share from third-party sources or based upon estimates using such sources when available. We have not, directly or indirectly, sponsored or participated in the publication of any of such materials. We believe that such information and estimates are reasonable and reliable. We also assume the information extracted from publications of third-party sources has been accurately reproduced. We understand that the Company would be liable for the information included in this prospectus if any part of the information was incorrect, misleading or imprecise to a material extent.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including our financial statements and the related notes and the information set forth under the headings “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in each case included elsewhere in this prospectus.

Company Overview

Aeluma develops novel optoelectronic devices for sensing and communications applications. Aeluma has pioneered a technique to manufacture devices using high performance compound semiconductor materials on large diameter substrates that are commonly used to manufacture mass market microelectronics. This enables cost effective manufacturing of high-performance photodetector array circuits for imaging applications in mobile devices, as well as other technologies. This technology has the potential to enhance the performance and capability of camera image sensors, LiDAR (Light Detection and Ranging), AR/VR (augmented reality/virtual reality), AI (artificial intelligence) facial recognition, and other applications.

Our Mission

Aeluma aims to disrupt the image sensors markets with proprietary sensors that seek to have higher performance and added capability. The sensors that are being

developed by us are based on high performance nanomaterials and large diameter silicon wafer manufacturing that lends itself to larger volumes and low cost, both of which are important for mass market applications. Our technology may become enabling for applications including 3D imaging, LiDAR, AR/VR, industrial vision, defense and aerospace, and advanced camera.

Corporate Structure

We were incorporated as Parc Investments, Inc. in the State of Delaware on August 21, 2020. Prior to the Merger (as defined below), we were a “shell company” (as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

On June 22, 2021, our board of directors and all of our pre-Merger stockholders approved a restated certificate of incorporation, which was effective upon its filing with the Secretary of State of the State of Delaware on June 22, 2021 and through which we changed our name to “Aeluma, Inc.” On June 22, 2021, our board of directors also adopted restated bylaws.

On June 22, 2021, Biond Photonics, Inc., a privately held California corporation (“Biond Photonics”) merged with and into our wholly-owned subsidiary, Aeluma Operating Co., a corporation formed in the State of Delaware on June 22, 2021 (“Acquisition Sub”). Pursuant to this transaction (the “Merger”), Acquisition Sub was the surviving corporation and remained our wholly owned subsidiary, and all of the outstanding stock of Biond Photonics was converted into shares of our common stock.

As a result of the Merger, we acquired the business of Biond Photonics and will continue the existing business operations of Biond Photonics as a public reporting company under the name Aeluma, Inc.

In accordance with “reverse merger” or “reverse acquisition” accounting treatment, our historical financial statements as of period ends, and for periods ended, prior to the Merger will be replaced with the historical financial statements of Biond Photonics prior to the Merger, in all future filings with the U.S. Securities and Exchange Commission (the “SEC”).

Stock Symbol

As of October 9, 2024, our common stock trades on the OTCQB, under the symbol ALMU.

Merger and Name Change

On June 22, 2021, Parc Investments, Inc., Acquisition Sub and Biond Photonics, Inc. entered into an Agreement and Plan of Merger and Reorganization (the “Merger Agreement”). Pursuant to the terms of the Merger Agreement, on June 22, 2021, Biond Photonics merged with and into Acquisition Sub, with Acquisition Sub continuing as the surviving corporation and our wholly owned subsidiary.

As a result of the Merger, we acquired the business of Biond Photonics, a California corporation, doing business as Aeluma. See “*Description of Business*” below. At the time the certificates of merger reflecting the Merger were filed with the Secretaries of State of California and Delaware, each of Biond Photonics’ shares of capital stock issued and outstanding immediately prior to the closing of the Merger was converted into the right to receive (a) 1.299135853 shares of our common stock (the “Common Share Conversion Ratio”), with the maximum number of shares of our common stock issuable to the former holders of Biond Photonics’ capital stock equal to 4,100,002 after adjustments due to rounding for fractional shares. Immediately prior to the effectiveness of the Merger, an aggregate of 2,500,000 shares of our common stock owned by our stockholders prior to the Merger were forfeited and cancelled (the “Stock Forfeiture”).

On June 22, 2021, our board of directors and all of our pre-Merger stockholders approved a restated certificate of incorporation, which was effective upon its filing with the Secretary of State of the State of Delaware on June 22, 2021 and through which we changed our name to “Aeluma, Inc.” On June 22, 2021, our board of directors also adopted restated bylaws.

See “*Description of Securities*” below for more information. The issuance of shares of our common stock to Biond Photonics’ former security holders are collectively referred to as the “Share Conversion.”

The Merger Agreement contained customary representations and warranties and pre- and post-closing covenants of each party and customary closing conditions.

As a condition to the Merger, we entered into an indemnity agreement with our former officer and directors (the “Pre-Merger Indemnity Agreement”), pursuant to which we agreed to indemnify such former officer and directors for actions taken by them in their official capacities relating to the consideration, approval and consummation of the Merger and certain related transactions.

The Merger was treated as a recapitalization and reverse acquisition for us for financial reporting purposes. Biond Photonics is considered the acquirer for accounting purposes, and our historical financial statements before the Merger will be replaced with the historical financial statements of Biond Photonics before the Merger in future filings with the SEC. The Merger is intended to be treated as a tax-free reorganization under Section 368(a) of the Internal Revenue Code of 1986, as amended.

The Private Placement Following the Merger

Immediately following the Merger, we sold 3,482,500 shares of our common stock pursuant to an initial closing of a private placement offering at a purchase price of \$2.00 per share (the “Offering Price”). We held a second closing on June 28, 2021 for an additional 402,500 shares of our common stock and a third and final close on July 1, 2021 for an additional 115,000. Accordingly, we sold a total of 4,000,000 shares of our common stock. This private placement offering is referred to herein as the “Merger Offering.”

The aggregate gross proceeds from the Merger Offering are \$8,000,000 (before deducting placement agent fees and expenses of the Merger Offering of \$1,082,575).

The closings of the Merger Offering were exempt from registration under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated by the SEC thereunder. The common stock in the Merger Offering was sold to “accredited investors,” as defined in Regulation D, and was conducted on a “reasonable best efforts” basis.

In connection with the Merger Offering and subject to the closing of the Merger Offering, we agreed to pay the placement agent, GP Nurmenkari Inc. (the “Placement Agent”), a U.S. registered broker-dealer, a cash placement fee of 10% of the gross proceeds raised from investors in the Merger Offering (or 3% of the first \$800,000 of gross proceeds raised from pre-Merger Biond Photonics shareholders and their friends and family) and to issue to it 50,000 shares of our common stock and warrants to purchase a number of shares of our common stock equal to 10% of the number of shares of common stock sold in the Merger Offering (other than the first \$630,000 of common stock sold to pre-Merger Biond Photonics shareholders and their friends and family for which the Placement Agent received a 3% cash fee, and \$170,000 of

common stock sold to pre-Merger Biond Photonics friends and family for which the Placement Agent received no cash fee), with a term of five years and an exercise price of \$2.00 per share (the "Placement Agent Warrants"). We also agreed to pay certain expenses of the Placement Agent in connection with the Merger Offering.

As a result of the foregoing, we paid the Placement Agent and its sub-agents an aggregate commission of \$748,900 and issued to it 50,000 shares of our common stock and Placement Agent Warrants to purchase 360,000 shares of our common stock in connection with the two closings of the Merger Offering. We have also reimbursed the Placement Agent for approximately \$265,000 of legal and other expenses incurred in connection with the Merger Offering.

We also entered into a Registration Rights Agreement with the investors of the Merger Offering and previously registered such shares.

Additional Private Placement

Between December 2022 and May 2023, we entered into subscription agreements (the "Subscription Agreement") with certain accredited investors, pursuant to which we issued an aggregate of 2,017,498 shares of our common stock, par value \$0.0001 per share, at a per share purchase price of \$3.00, for aggregate gross proceeds of \$6,052,500 (the "Offering").

In connection with the Subscription Agreement, the Company also entered into a Registration Rights Agreement with the Investors, pursuant to which the Company agreed to register all of the shares of common stock issued in the Offering, including the shares of common stock underlying the warrant issued to the placement agent in this registration statement. (See, Description of Securities – Registration Rights Agreement)

Pursuant to the Offering, the Company paid a cash placement agent fee in the amount of \$389,200 and issued placement agent warrants ("Placement Agent Warrants") to purchase up to an aggregate of 85,653 shares of common stock at an exercise price of \$3.00 per share.

The Subscription Agreement also contains customary representation and warranties of the Company and the Investors, indemnification obligations of the Company, termination provisions, and other obligations and rights of the parties.

The foregoing description of the Subscription Agreement, Registration Rights Agreement and form of Placement Agent Warrants is qualified by reference to the full text of the forms of Subscription Agreement, Registration Rights Agreement and form of Placement Agent Warrants, which are filed as Exhibits hereto and incorporated herein by reference.

Between August 5, 2024 and August 27, 2024, we issued convertible promissory notes in the aggregate principal amount of \$3,145,000 to 10 accredited investors, pursuant to a private note financing. The Notes mature in June 2026 and do not carry any interest. The Notes are convertible into shares of the Company's common stock par value \$0.0001 per share upon the occurrence of certain events, (i.e., qualified financing resulting in at least \$5,000,000 to the Company, if the Common Stock is uplisted to a national securities exchange or if neither of those such events occur prior to the maturity date, (together with Sale of the Company (as hereinafter defined), a "Conversion Event")). The Note also provides that if there is a Sale of the Company, as defined in the Note, the Holder may elect to receive a cash payment equal to the aggregate amount of principal then outstanding under such Holder's Note or convert the Note into shares of Common Stock equal to 85% of the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to the Sale of the Company. Although the conversion price is dependent upon the type of Conversion Event that occurs, the Note does carry a ceiling and floor price: the applicable conversion price will not be lower than 85% of the 5-day VWAP on the applicable Closing Date (the "Floor Price") nor will the applicable conversion price be higher than \$3.50 per share (the "Ceiling Price"); the Floor Price and Ceiling Price shall automatically adjust in the event of a stock split or consolidation by the Company. The Floor Price for the investors who participated in this initial closing is equal to \$2.68 per share. Since the Floor Price is tied to the Closing Date, the Floor Price may be different for investors that are part of a different closing, should the Company hold additional closings. The Investors were granted piggyback registration rights for the shares of Common Stock underlying the Note.

Our Strategy

We will continue to develop our technology that includes novel materials and devices based on our core intellectual property. Our primary focus is to manufacture high-performance photodetector array circuits for image sensors and other optoelectronic devices. Initial efforts aim to penetrate the 3D imaging and sensing (mobile and consumer, defense and aerospace, industrial, medical, auto), LiDAR (robotic vehicles, autonomous driving (AD), advanced driver assistance systems (ADAS), topography, wind, industrial), and communications (telecommunications, data center communication, artificial intelligence (AI) communications, and quantum processing and communications) markets.

Summary Risk Factors and Challenges

We face substantial competition from a great many established and emerging technology companies that develop, distribute or sell products similar to ours. Our current and potential competitors include large technology companies. Many of our current and potential competitors have substantially greater financial, technical and human resources than we do and significantly more experience in the marketing, commercialization, discovery, development and regulatory approvals of products, which could place us at a significant competitive disadvantage or deny our marketing exclusivity rights. Typically, our competitors will most likely have more capital resources to support their products than we do. In addition, you should carefully consider the risks described under the "Risk Factors" section beginning on page 6 before investing in us.

The below is a summary of principal risks to our business and risks associated with this offering. It is only a summary. You should read the more detailed discussion of risks set forth below and elsewhere in this prospectus for a more complete discussion of the risks listed below and other risks.

- Risk associated with our profitability including, but not limited to:
 - We have never generated revenue and will continue to be unprofitable in the foreseeable future.
 - Our business, operations and plans and timelines could be adversely affected by the effects of health epidemics, including the COVID-19 pandemic.
- Risk associated with the development of our products, including but not limited to:
 - Biond Photonics, now Aeluma, was formed in 2019 and therefore, we are subject to the risks involved with any speculative early-stage enterprise. There is no assurance that we will successfully offer, market and distribute its products or service.

- Our customers may require our products to undergo a lengthy and expensive qualification process without any assurance of product sales.
- We will rely on limited sources of wafer fabrication, packaged products fabrication and product testing, the loss of which could delay and limit our product shipments.
- Because we will depend on third-party manufacturers to build portions of our products, we will be susceptible to manufacturing delays and pricing fluctuations that could prevent us from shipping customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales, income and customers.
- Rapid innovation and short product life cycles in the semiconductor industry can result in price erosion of older products, which may materially adversely affect our business and results of operations.
- Risks associated with intellectual property including but not limited to:
 - We may not be successful in obtaining or maintaining patent or other relating rights necessary to the development of our products;
 - The intellectual property rights underlying our exclusive licensing rights may expire or be terminated due to lack of maintenance;
- Risks associated with competition and manufacturing including, but not limited to:
 - We face competition from entities that have developed or are developing products similar to ours; and
 - The semiconductor industry is highly competitive, and our inability to compete effectively could materially adversely affect our business and results of operations.
- Risks associated with government regulations including without limitation:
 - If we do not obtain the necessary governmental approvals, the import and export of our products outside the U.S. may be negatively impacted; and
 - Special authorizations, permits, licenses may be required for our operations, which if delayed or denied could materially adversely affect our results of operations and financial condition.
- Risk associated with our Common Stock including without limitation:
 - The market prices and trading volumes of the Common may be volatile and may be affected by economic conditions beyond our control; and,
 - Shares of our Common Stock are sporadically and thinly traded.

These and other risks described in this prospectus could materially and adversely impact our business, financial condition, operating results and cash flow, which could cause the trading price of our Common Stock to decline and could result in a loss of your investment. In addition, you should carefully consider the risks described under "Risk Factors" beginning on page 6.

Corporate Information

Our principal executive office is located at 27 Castilian Dr., Goleta, CA 93117. Our telephone number at our principal executive office is (805)-351-2707. Our corporate website is www.aeluma.com. The information on our corporate website is not part of, and is not incorporated by reference into, this prospectus.

THE OFFERING

Common Stock being offered by Selling Stockholders

Up to 2,103,151, including:

- (i) 2,017,498 shares of our common stock issued in the Offering; and
- (ii) Up to 85,653 shares of common stock issuable upon exercise of the Placement Agent Warrants;

Our common stock is currently quoted on the OTCQB under the symbol "ALMU". The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices through the means described in this prospectus under the section titled "Plan of Distribution." We will not receive any proceeds from the sales by the Selling Stockholders.

Use of Proceeds

We will not receive any proceeds from the sale of common stock by the selling shareholders. We will, however, receive the proceeds of any Placement Agent Warrants exercised for cash in the future. Such gross proceeds will be up to \$256,959 if all such warrants are exercised. See "Use of Proceeds" in this prospectus.

Risk Factors

The securities offered by this prospectus are speculative and involve a high degree of risk and investors purchasing securities should not purchase the securities unless they can afford the loss of their entire investment. You should read "Risk Factors," beginning on page 6 for a discussion of factors to consider before deciding to invest in our securities.

RISK FACTORS

Investing in our securities includes a high degree of risk. Prior to making a decision about investing in our securities, you should consider carefully the specific factors discussed below, together with all of the other information contained in this prospectus. If any of the following risks actually occurs, our business, financial condition, results of operations and future prospects would likely be materially and adversely affected. This could cause the market price of our Common Stock to decline and could cause you to lose all or part of your investment.

Risks Relating to Our Business, Growth Prospects and Operating Results

We are recently formed and only in the initial development stages, we have generated no revenue and have never been profitable. Our lack of operating history makes it difficult to evaluate our business and prospects and may increase the risks associated with an investment in our Shares.

Biond Photonics, now Aeluma, was formed in 2019 and has generated no revenue. Therefore, the Company is subject to the risks involved with any speculative early-stage enterprise. There is no assurance that the Company will successfully offer, market and distribute its products or services. The Company may experience continuing net losses and negative cash flows from operations. The extent of continuing losses and negative cash flows from operations and the time required to reach profitability are highly uncertain. There is no assurance that the Company will be able to achieve profitability or that profitability, if achieved, can be sustained on an ongoing basis. There is no assurance that actual cash requirements will not exceed our estimates. Such risks for the Company include, but are not limited to:

- an evolving, unpredictable and unproven business model;
- an intensely competitive developing market;
- rapidly changing technology;
- managing development and growth;
- dependence on key personnel;
- dependence on outsourced resourced, materials and equipment;
- limited operating capital and limited access to credit; and
- other unforeseen changes and developments in operations, the product and markets.

In order to address these risks, the Company must, among other things:

- implement and successfully execute its business strategy;
- provide superior customer service;
- respond to competitive developments;
- attract, retain and motivate qualified personnel; and
- respond to unforeseen and changing circumstances.

The Company cannot make the assurance that it will succeed in addressing these risks.

If we do not have access to capital on favorable terms, on the timeline we anticipate, or at all, our financial condition and results of operations could be materially adversely affected.

We will require a substantial amount of capital to meet our operating requirements and remain competitive. We anticipate to routinely incur significant costs to conduct research and development, implement new manufacturing and information technologies, to increase our productivity and efficiency, to upgrade equipment and to expand production capacity, and there can be no assurance that we will realize a return on the capital expended. We also anticipate incurring material amounts of debt to fund these requirements in the future. Significant volatility or disruption in the global financial markets may result in us not being able to obtain additional financing on favorable terms, on the timeline we anticipate, or at all, and we may not be able to refinance, if necessary, any outstanding debt when due, all of which could have a material adverse effect on our financial condition. Any inability to obtain additional funding on favorable terms, on the timeline we anticipate, or at all, may cause us to curtail our operations significantly, reduce planned capital expenditures and research and development, or obtain funds through arrangements that management does not currently anticipate, including disposing of our assets and relinquishing rights to certain technologies, the occurrence of any of which may significantly impair our ability to remain competitive. If our operating results falter, our cash flow or capital resources prove inadequate, or if interest rates increase significantly, we could face liquidity problems that could materially and adversely affect our results of operations and financial condition.

Our cash resources are insufficient to meet our planned business objectives without additional financing. These and other factors raise substantial doubt about our ability to continue as a going concern, and our independent auditor has included a qualification to that effect in its audit opinion relating to our financial statements for the fiscal years ended June 30, 2024 and 2023.

Because we are a company with a very limited operating history, without revenues and are only minimally capitalized, we have a lack of liquidity and may need additional financing in the future. Additional financing may not be available when needed, which could delay our development or indefinitely postpone it. Our investors could lose some or all of their investment.

We are only minimally capitalized. Therefore, we expect to experience a lack of liquidity for the near future in our operations. We expect to adjust our expenses as necessary to prevent cash flow or liquidity problems. However, we expect we may need additional financing, which we do not now possess, to fully develop our products and operations. We expect to rely principally upon our ability to raise additional financing, the success of which cannot be guaranteed. If we require additional capital, we may need to identify alternate sources of capital for working capital purposes. To the extent that we experience a substantial lack of liquidity, our development in accordance with our proposed plan may be delayed or indefinitely postponed, our operations could be impaired, we may never become profitable, fail as an organization, and our investors could lose some or all of their investment.

We rely on our management team and other key employees and will need additional personnel to grow our business. The loss of one or more key employees or our inability to attract and retain qualified personnel could harm our business.

Our future success is substantially dependent on our ability to attract, retain and motivate the members of our management team and other key employees throughout our organization. The loss of one or more members of our management team or other key employees could materially impact our sales or our research and development programs and materially harm our business, financial condition, results of operations and prospects. We do not maintain key person life insurance policies on any of our management team members or key employees. Competition for highly skilled personnel is intense. We may not be successful in attracting or retaining qualified personnel to fulfill our current or future needs. For positions in our offices near Santa Barbara in particular, we may experience challenges hiring new and mid-level employees in part due to the high local housing costs. Our competitors may be successful in recruiting and hiring members of our management team or other key employees, and it may be difficult for us to find suitable replacements on a timely basis, on competitive terms, or at all.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operations could fall below the expectations of investors, resulting in a decline in the market price of our common stock.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States (“GAAP”) requires management to make estimates and assumptions that affect the amounts reported in our financial statements. Significant assumptions and estimates used in preparing our financial statements include those related to assets, liabilities, revenue, expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of investors, resulting in a decline in the market price of our common stock.

Changes in accounting rules and regulations, or interpretations thereof, could result in unfavorable accounting charges or require us to change our compensation policies.

Accounting methods and policies for companies such as ours, including policies governing revenue recognition, leases, research and development and related expenses, and accounting for stock-based compensation, are subject to review, interpretation and guidance from our auditors and relevant accounting authorities, including the SEC. Changes to accounting methods or policies, or interpretations thereof, may require us to reclassify, restate or otherwise change or revise our historical financial statements, including those contained in this Report.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

We do not expect to become profitable in the near future and may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an “ownership change,” generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation’s ability to use its pre-change net operating loss carryforwards (“NOLs”), and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. The merger, our prior equity offerings and other changes in our stock ownership may have resulted in ownership changes. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership, some of which are outside of our control. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

We will depend on a limited number of customers and the loss of one or more of these customers could have a material adverse effect on our business, financial condition and results of operations.

Currently, Aeluma has customer engagements that involve development of wafers and delivery of engineering samples for evaluation. There is no assurance that any of these potential customers will purchase our product after they complete their analysis. Since we cannot predict how many of these evaluations turn into sales, if any, we cannot guarantee that we will generate sufficient revenue to be profitable.

In addition, we cannot assure that any of our future customers will not cease purchasing products from us in favor of products produced by other suppliers, significantly reduce orders or seek price reductions in the future, and any such event could have a material adverse effect on our revenue, profitability, and results of operations.

Furthermore, if a significant portion of our revenue is derived from customers in certain industries, a downturn or lower sales to customers in such industries could materially adversely affect our business and results of operations. If we cannot successfully market our products, we will not have receive revenue.

Uncertainties regarding the timing and amount of customer orders could lead to excess inventory and write-downs of inventory that could materially adversely affect our financial condition and results of operations.

We expect that our sales will be typically made pursuant to individual purchase orders or customer agreements, and we do not expect to have long-term supply arrangements with our customers requiring a commitment to purchase. We expect that the agreements with our customers may allow them to cancel orders prior to shipment for standard products and, generally prior to start of production for custom products without incurring a penalty. We anticipate to routinely generate inventory based on customers’ estimates of end-user demand for their products, which is difficult to predict. In times of under supply for certain products, some customers could respond by inflating their demand signals. As markets level off and supply capacity begins to match actual market demands, we could experience an increased risk of inventory write-downs, which may materially adversely affect our results of operations and our financial condition. In addition, our customers may change their inventory practices on short notice for any reason. Furthermore, short customer lead times are standard in the industry due to overcapacity. The cancellation or deferral of product orders, the return of previously sold products, or overproduction of products due to the failure of anticipated orders to materialize could result in excess obsolete inventory, which could result in write-downs of inventory or the incurrence of significant cancellation penalties under our arrangements with our raw materials and equipment suppliers. Unsold inventory, canceled orders and cancellation penalties may materially adversely affect our results of operations, and inventory write-downs, which may materially adversely affect our financial condition.

Our customers may require our products to undergo a lengthy and expensive qualification process without any assurance of product sales.

Prior to purchasing our products, our customers may require that our products undergo an extensive qualification process, which involves testing of the products in the customer's system, as well as rigorous reliability testing. This qualification process may continue for a few months or longer, and we cannot guarantee that products will pass the required tests. However, qualification of a product by a customer does not ensure any sales of the product to that customer. Even after successful qualification and sales of a product to a customer, a subsequent revision to the product or software, changes in the product's manufacturing process or the selection of a new supplier by us may require a new qualification process, which may result in delays and in us holding excess or obsolete inventory. After our products are qualified, additional time may be required before the customer commences volume production of components or devices that incorporate our products. Despite these uncertainties, we will devote substantial resources, including design, engineering, sales, marketing and management efforts, toward qualifying our products with customers in anticipation of sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, such failure or delay would preclude or delay sales of such product to the customer, which may impede our growth and cause our business to suffer.

If the Company cannot effectively manage growth by implementing and improving its operational and financial systems, the Company's business, prospects, financial condition and results of operations could be materially adversely affected.

In order to maximize the potential growth in the Company's market opportunities, the Company may have to expand rapidly and significantly. The impetus for expansion could place a significant strain on the management, operational and financial resources of the Company. In order to manage growth, the Company will be required to implement and continually improve its operational and financial systems, expand operations, attract and retain superior management and train, manage and expand its employee base. The Company can give no assurance that it will effectively manage its operations, that its system, procedures, or controls will adequately support operations or that management of the Company will successfully implement its business plan. If the Company cannot effectively manage growth, the Company's business, prospects, financial condition and results of operations could be materially adversely affected.

If our estimates related to expenditures are inaccurate, our business may fail.

Our success is dependent in part upon the accuracy of our management's estimates of expenditures for the next twelve months and beyond. If such estimates are inaccurate, or we encounter unforeseen expenses and delays, we may not be able to carry out our business plan, which could result in the failure of our business.

We may not obtain insurance coverage to adequately cover all significant risk exposures.

We will be exposed to liabilities that are unique to the products we provide. There can be no assurance that we will acquire or maintain insurance for certain risks, that the amount of our insurance coverage will be adequate to cover all claims or liabilities, or that we will not be forced to bear substantial costs resulting from risks and uncertainties of business. It also may not be possible to obtain insurance to protect against all operational risks and liabilities. The failure to obtain adequate insurance coverage on terms favorable to us, or at all, could have a material adverse effect on our business, financial condition and results of operations.

If product liability lawsuits are brought against us, we may incur substantial liabilities.

We face a potential risk of product liability as a result of any of the products that we develop, manufacture and/or offer for sale. For example, we may be sued if any product we develop, manufacture and/or sell allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for products that we may offer for sale;
- injury to our reputation;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients; and
- product recalls, withdrawals or labeling, marketing or promotional restrictions.

We currently do not maintain any product liability insurance. We may obtain insurance when we commence commercial operations. However, there is no guarantee that we will be able to obtain product liability insurance or that such insurance will be affordable or sufficient. If we are unable to obtain or retain sufficient product liability insurance coverage, it could prevent or inhibit the commercialization of products we develop. Even if we obtain product liability insurance in the future, we may have to pay amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

Warranty claims, product liability claims and product recalls could harm our business, results of operations and financial condition.

Manufacturing semiconductors is a highly complex and precise process, requiring production in a tightly controlled, clean environment. Minute impurities in our manufacturing materials, contaminants in the manufacturing environment, manufacturing equipment failures, and other defects can cause our products to be non-compliant with customer requirements or otherwise nonfunctional. We face an inherent business risk of exposure to warranty and product liability claims in the event that our products fail to perform as expected or such failure of our products results, or is alleged to result in bodily injury or property damage (or both). In addition, if any of our designed products are or are alleged to be defective, we may be required to participate in their recall. A successful warranty or product liability claim against us in excess of our available insurance coverage, if any, and established reserves, or a requirement that we participate in a product recall, could have material adverse effects on our business, results of operations and financial condition. Additionally, in the event that our products fail to perform as expected or such failure of our products results in a recall, our reputation may be damaged, which could make it more difficult for us to sell our products to existing and prospective customers and could materially adversely affect our business, results of operations and financial condition.

Since a defect or failure in our product could give rise to failures in the goods that incorporate them (and claims for consequential damages against our customers from their customers), we may face claims for damages that are disproportionate to the revenue and profits we receive from the products involved. We plan to attempt to limit our

liability through our standard terms and conditions of sale and other customer contracts in certain instances; however, there is no assurance that such limitations will be effective. To the extent that we are liable for damages in excess of the revenue and profits we received from the products involved, our results of operations and financial condition could be materially adversely affected.

We may be subject to litigation from time to time during the normal course of business, which may adversely affect our business, financial condition and results of operations.

From time to time in the normal course of business or otherwise, we may become subject to litigation that may result in liability material to our financial statements as a whole or may negatively affect our operating results if changes to business operation are required. The cost to defend such litigation may be significant and may require a diversion of our resources. There also may be adverse publicity associated with litigation that could negatively affect customer perception of our products and business, regardless of whether the allegations are valid or whether we are ultimately found liable. As a result, litigation may adversely affect our business, financial condition and results of operations.

Natural disasters and other business disruptions could cause significant harm to our business operations and facilities and could adversely affect our supply chain and our customer base, any of which may materially adversely affect our business, results of operation, and financial condition.

We expect that our manufacturing and other facilities, as well as the operations of our third-party suppliers, are susceptible to losses and interruptions caused by floods, fires, hurricanes, earthquakes, typhoons, and similar natural disasters, as well as power outages, telecommunications failures, industrial accidents, pandemics and similar events. The occurrence of natural disasters in any of the regions in which we or our suppliers will operate could severely disrupt the operations of our businesses by negatively impacting our supply chain, our ability to deliver products, and the cost of our products. Such events can negatively impact revenue and earnings and can significantly impact cash flow, both from decreased revenue and from increased costs associated with the event. In addition, these events could cause consumer confidence and spending to decrease. We may carry insurance to generally compensate for losses of the type noted above, however, even if we obtain such insurance it may not be adequate to cover all losses that may be incurred or continue to be available in the affected area at commercially reasonable rates and terms. To the extent any losses from natural disasters or other business disruptions are not covered by insurance, any costs, write-downs, impairments and decreased revenue can materially adversely affect our business, our results of operations and our financial condition.

There is no assurance on the future successful completion of strategic transactions by us to successfully implement our business strategies.

Our ability to complete future strategic transactions could be important to the successful implementation of our business strategies, including our strategies to strengthen our geographic diversity and broaden its customer base. Successful completion of a strategic manufacturing partnership agreement or other similar transaction depends on a number of factors that are not entirely within our control, including our ability to negotiate acceptable terms, conclude satisfactory agreements and obtain all necessary regulatory approvals. In seeking to partner with another company, we may require capital investment, funding for operations, or dedicated personnel with special skills. If we need to finance this activity, we may not be able to obtain the necessary financing on satisfactory terms and within the timeframe that would permit the transaction to proceed. If any of these factors prevents us from completing one or more strategic transactions, we may not be able to expand our business in the manner and on the schedule that we plan. In addition, we may incur significant costs arising from our efforts to engage in strategic transactions. These costs may exceed the returns that we realize from a given transaction. Moreover, these expenditures may not result in the successful completion of a transaction.

Even if we complete one or more strategic partnership agreements, we may be unable to work effectively with the partner company which may impact our ability to reach the goals of the partnership. Further, such a partnership could disrupt ongoing business, distract management and employees or lead to increased expenses.

We face risks related to health epidemics and other outbreaks, which could significantly disrupt our operations and could have a material adverse impact on us. The recent coronavirus outbreak could materially and adversely affect our business.

The coronavirus outbreak (“COVID-19”) has resulted in millions of infections and hundreds of thousands of deaths worldwide as of the date hereof, and continues to spread across the globe, including within the United States. The outbreak of COVID-19 or by other epidemics could materially and adversely affect our business, financial condition and results of operations. If the spread of the virus worsens in regions in which we have material operations or sales, our business activities originating from affected areas, including sales, manufacturing and supply chain related activities, could be adversely affected. Disruptive activities could include the temporary closure of our facilities and those used in our supply chain processes, restrictions on the shipment of our products, business closures in impacted areas, and restrictions on our employees’ and consultants’ ability to travel and to meet with customers. If workers at one or more of our offices or the offices of our suppliers or manufacturers become ill or are quarantined and in either or both events are therefore unable to work, our operations could be subject to disruption. Further, if our manufacturers become unable to obtain necessary raw materials or components, we may incur higher supply costs or our manufacturers may be required to reduce production levels, either of which may negatively affect our financial condition or results of operations.

Further upticks in infection, and the related enforcement of governmental restrictions would materially hinder our ability to grow, as it would make it could interrupt our supply chain, as well as the financial condition of our intended customer base.

There have been reports of a global semiconductor shortage, including supply chain shortages and delays in this industry, which could delay our ability to obtain equipment and raw materials, as well as our ability to partner with foundries. To the extent that this shortage persists, it could have a material adverse effect on our business, financial conditions and results of operations. We will continue to closely monitor updates regarding the continuing impact of COVID-19 and the semiconductor industry and adjust our operations according to guidelines from local, state and federal officials. In light of the foregoing, we may take actions that alter our business operations or that we determine are in the best interests of our employees, customers, suppliers and shareholders.

Despite our efforts to manage the impacts, the degree to which COVID-19 and related actions ultimately impact our business, financial position, results of operations and cash flows will depend on factors beyond our control including the duration, spread and severity of the outbreak, the actions taken to contain COVID-19 and mitigate its public health effects, the impact on the U.S. and global economies and demand for our products, and how quickly and to what extent normal economic and operating conditions resume. Continued disruption to the global economy, as well as to the end markets our businesses serve, could result in material adverse effects on our business, financial position, results of operations and cash flows.

Our current operations are concentrated in one location and in the event of an earthquake, terrorist attack or other disaster affecting this location or those of our major suppliers, our operations may be interrupted and our business may be harmed.

Our principal executive offices and primary epiwafer operating facilities are situated near Santa Barbara, California, and most of our major suppliers, are located in areas that have been subject to severe earthquakes and are susceptible to other disasters such as tropical storms, typhoons or tsunamis. In the event of a disaster, we or one or more of our major suppliers may be temporarily unable to continue operations and may suffer significant property damage. Any interruption in our ability, or that of our major suppliers, to continue operations could delay the development and shipment of our products and have a substantial negative impact on our financial results. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business. However, in the event of an accident or incident at these facilities, we cannot assure you that the amounts or coverage of insurance will be sufficient to satisfy any damages and losses.

Our officers and directors allocate their time to other businesses thereby causing conflicts of interest in their determination as to how much time to devote to our affairs.

This conflict of interest could have a negative impact on our ability to carry out all of our operations and goals.

Our officers and directors are not required to, and will not, commit their full time to our affairs, which may result in a conflict of interest in allocating their time between our operations and their other occupations. Each of our officers is engaged in other business endeavors for which he may be entitled to substantial compensation and our officers are not obligated to contribute any specific number of hours per week to our affairs. Our directors also serve or may serve as officers or board members for other entities. If our officers' or directors' other business affairs require them to devote substantial amounts of time to such affairs in excess of their current commitment levels, it could limit their ability to devote time to our affairs, which may have a negative impact on our ability to carry out our operations and goals. For a complete discussion of our officers' and directors' other business affairs, please see the section of this prospectus entitled "Management."

Risks Relating to the Semiconductor Industry

We will rely on limited sources of wafer fabrication, packaged products fabrication and product testing, the loss of which could delay and limit our product shipments.

We expect to subcontract wafer fabrication services to third party suppliers.

These suppliers also offer such services to other companies, which may lead to us not having access to adequate capacity for our needs and our customers' needs. We may have less control over delivery schedules and overall support versus other customers and users of those facilities. If the wafer foundries we use are unable or unwilling to manufacture our products in our required volumes, or at specified times, we may have to identify and qualify acceptable additional or alternative foundries. This qualification process could typically take three to six months and we may not find sufficient capacity in a timely manner or at an acceptable cost to satisfy our production requirements.

Some companies that supply products to our customers are similarly dependent on a limited number of suppliers. These other companies' products may represent important components of camera systems or sensor assemblies and other products into which our products are designed. If these companies are unable to produce the volumes demanded by our customers, our customers may be forced to slow down or halt production on the equipment for which our products are designed, which could materially impact our order levels.

Because we will depend on third-party manufacturers to build portions of our products, we will be susceptible to manufacturing delays and pricing fluctuations that could prevent us from shipping customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales, income and customers.

We will depend on third-party manufacturers to build several stages of our products. Our reliance on these third-party manufacturers reduces our control over the manufacturing process and exposes us to risks, including reduced control over quality assurance, product costs, and product supply and timing. Any manufacturing disruption by these third-party manufacturers could severely impair our ability to fulfill orders. Our reliance on third-party manufacturers also creates the potential for infringement or misappropriation of our intellectual property. If we are unable to manage our relationships with third-party manufacturers effectively, or if our third-party manufacturers experience delays or disruptions for any reason, increased manufacturing lead-times, capacity constraints or quality control problems in their manufacturing operations, or if they otherwise fail to meet our future requirements for timely delivery, our ability to ship products to our customers would be severely impaired, and our business and results of operations would be seriously harmed.

Downturns or volatility in general economic conditions could have a material adverse effect on our business and results of operations.

In recent years, worldwide semiconductor industry sales have tracked the impact of the financial crisis, subsequent recovery and persistent economic uncertainty. We believe that the state of economic conditions in the United States is particularly uncertain due to recent and expected shifts in legislative and regulatory conditions concerning, among other matters, international trade and taxation, and that an uneven recovery or a renewed global downturn may put pressure on our sales due to reductions in customer demand as well as customers deferring purchases. Volatile and/or uncertain economic conditions, including inflation and interest rate fluctuations, can adversely impact sales and profitability and make it difficult for us and our competitors to accurately forecast and plan our future business activities. To the extent we incorrectly plan for favorable economic conditions that do not materialize or take longer to materialize than expected, we may face oversupply of our products relative to customer demand. Reduced customer spending may in the future drive us and our competitors, to reduce product pricing, which will result in a negative effect on gross profit. Moreover, volatility in revenue as a result of unpredictable economic conditions may alter our anticipated working capital needs and interfere with our short-term and long-term strategies. To the extent that our sales, profitability and strategies are negatively affected by downturns or volatility in general economic conditions, our business and results of operations may be materially adversely affected.

The semiconductor industry is highly cyclical, and significant downturns or upturns in customer demand can materially adversely affect our business and results of operations.

The semiconductor industry is highly cyclical and, as a result, is subject to significant downturns and upturns in customer demand for semiconductors and related products. We cannot accurately predict the timing of future downturns and upturns in the semiconductor industry or how severe and prolonged these conditions might be. Significant downturns often occur in connection with, or in anticipation of, maturing product cycles (for semiconductors and for the end-user products in which they are used) or declines in general economic conditions and can result in reduced product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices, any of which could materially adversely affect our operating results as a result of increased operating expenses outpacing decreased revenue, reduced margins, underutilization of our manufacturing capacity and/or asset impairment charges. On the other hand, significant upturns can cause us to be unable to satisfy demand in a timely and cost-efficient manner. In the event of such an upturn, we may not be able to expand our workforce and operations in a sufficiently timely manner, procure adequate resources and raw materials, or locate suitable third-party suppliers to respond effectively to changes in demand for our existing products or to the demand for new products requested by our customers, and our business and results of operations could be materially and adversely affected.

Rapid innovation and short product life cycles in the semiconductor industry can result in price erosion of older products, which may materially adversely affect our business and results of operations.

The semiconductor industry is characterized by rapid innovation and short product life cycles, which often results in price erosion, especially with respect to products containing older technology. Products are frequently replaced by more technologically advanced substitutes and, as demand for older technology falls, the price at which such products can be sold drops, in some cases precipitously. In addition, our and our competitors' excess inventory levels can accelerate general price erosion.

Shortages or increased prices of raw materials could materially adversely affect our results of operations.

Our manufacturing processes will rely on many raw materials. Generally, we expect that our agreements with suppliers of raw materials will impose no minimum or continuing supply obligations, and we will obtain our raw materials and supplies from a large number of sources on a just-in-time basis. From time to time, suppliers of raw

materials may extend lead times, limit supplies or increase prices due to capacity constraints or other factors beyond our control. Shortages could occur in various essential raw materials due to interruption of supply or increased demand. If we are unable to obtain adequate supplies of raw materials in a timely manner, the costs of our raw materials increase significantly, their quality deteriorates or they give rise to compatibility or performance issues in our products, our results of operations could be materially adversely affected.

Our facilities and processes may be interdependent and an operational disruption at any particular facility could have a material adverse effect on our ability to produce our products, which would materially adversely affect our business and results of operations.

We may utilize an integrated manufacturing platform in which multiple facilities may each produce one or more components necessary for the assembly of a single product. If we do, an operational disruption at a facility toward the front-end of our manufacturing process may have a disproportionate impact on our ability to produce our products. For example, if our multiple facilities rely predominantly on one third-party for manufacturing at the front-end of its manufacturing process, in the event of any operational disruption, natural or man-made disaster or other extraordinary event at such third-party facility, we may be unable to effectively source replacement components on acceptable terms from qualified third parties, in which case our ability to produce our products could be materially disrupted or delayed.

Conversely, if our facilities are single source facilities that only produce one of our end-products, a disruption at any such facility would materially delay or cease production of the related product. In the event of any such operational disruption, we may experience difficulty in beginning production of replacement components or products at new facilities (for example, due to construction delays) or transferring production to other existing facilities (for example, due to capacity constraints or difficulty in transitioning to new manufacturing processes), any of which could result in a loss of future revenues and materially adversely affect our business and results of operations.

We may be unable to maintain manufacturing efficiency, which could have a material adverse effect on our results of operations.

We believe that our success will materially depend on our ability to maintain or improve our margin levels related to manufacturing. Semiconductor manufacturing requires advanced equipment and significant capital investment, leading to high fixed costs, which include depreciation expenses. Manufacturing semiconductor components also involves highly complex processes that we and our competitors are continuously modifying to improve yields and product performance. In addition, impurities, waste or other difficulties in the manufacturing process can lower production yields. Our manufacturing efficiency will be an important factor in our future profitability, and we cannot assure you that we will be able to manufacture efficiently, increase manufacturing efficiency to the same extent as our competitors, or be successful in our manufacturing rationalization plans. If we are unable to utilize manufacturing and testing facilities at expected levels, or if production capacity increases while revenue does not, the fixed costs and other operating expenses associated with these facilities will not be fully absorbed, resulting in higher average unit costs and lower gross profits, which could have a material adverse effect on our results of operations.

The failure to successfully implement cost reduction initiatives, including through restructuring activities, could materially adversely affect our business and results of operations.

From time to time, we may implement cost reduction initiatives in response to significant downturns in our industry, including relocating manufacturing to lower cost regions, transitioning higher-cost external supply to internal manufacturing, working with our material suppliers to lower costs, implementing personnel reductions and voluntary retirement programs, reducing employee compensation, temporary shutdowns of facilities with mandatory vacation and aggressively streamlining our overhead.

We cannot assure you that any cost reduction initiatives will be successfully or timely implemented or that they will materially and positively impact profitability.

If we are unable to identify and make the substantial research and development investments required to remain competitive in our business, our business, financial condition and results of operations may be materially adversely affected.

The semiconductor industry requires substantial investment in research and development in order to develop and bring to market new and enhanced technologies and products. The development of new products is a complex and time-consuming process and often requires significant capital investment and lead time for development and testing. We cannot assure you that we will have sufficient resources to maintain the level of investment in research and development that is required to remain competitive.

In addition, the lengthy development cycle for our products will limit our ability to adapt quickly to changes affecting the product markets and requirements of our customers and end-users. There can be no assurance that we will win competitive bid selection processes, known as “design wins,” for new products. In addition, design wins do not guarantee that we will make customer sales or that we will generate sufficient revenue to recover design and development investments, as expenditures for technology and product development are generally made before the commercial viability for such developments can be assured. There is no assurance that we will realize a return on the capital expended to develop new products, that a significant investment in new products will be profitable or that we will have margins as high as we anticipate at the time of investment or have experienced historically. To the extent that we underinvest in our research and development efforts, or that our investments and capital expenditures in research and development do not lead to sales of new products, we may be unable to bring to market technologies and products that are attractive to our customers, and as a result our business, financial condition and results of operations may be materially adversely affected.

We may be unable to develop new products to satisfy changing customer demands or regulatory requirements, which may materially adversely affect our business and results of operations.

The semiconductor industry is characterized by rapidly changing technologies, evolving regulatory and industry standards and certifications, changing customer needs and frequent new product introductions. Our success will be largely dependent on our ability to accurately predict, identify and adapt to changes affecting the requirements of our customers in a timely and cost-effective manner. Additionally, the emergence of new industry or regulatory standards and certification requirements may adversely affect the demand for our products. We plan to focus our new product development efforts on market segments and applications that we anticipate will experience growth, but there can be no assurance that we will be successful in identifying high-growth areas or develop products that meet industry standards or certification requirements in a timely manner. A fundamental shift in technologies, the regulatory climate or consumption patterns and preferences in our existing product markets or the product markets of our customers or end-users could make our current products obsolete, prevent or delay the introduction of new products that we planned to make or render our current or new products irrelevant to our customers’ needs. If our new product development efforts fail to align with the needs of our customers, including due to circumstances outside of our control like a fundamental shift in the product markets of our customers and end users or regulatory changes, our business and results of operations could be materially adversely affected.

The semiconductor industry is highly competitive, and our inability to compete effectively could materially adversely affect our business and results of operations.

The semiconductor industry is highly competitive, and our ability to compete successfully depends on elements both within and outside of our control. We will face significant competition from major global semiconductor companies as well as smaller companies focused on specific market niches. In addition, companies not currently in direct

competition with us may introduce competing products in the future.

Our inability to compete effectively could materially adversely affect our business and results of operations. Products or technologies developed by competitors that are larger and have more substantial research and development budgets, or that are smaller and more targeted in their development efforts, may render our products or technologies obsolete or noncompetitive. We also may be unable to market and sell our products if they are not competitive on the basis of price, quality, technical performance, features, system compatibility, customized design, innovation, availability, delivery timing and reliability. If we fail to compete effectively on developing strategic relationships with customers and customer sales and technical support, our sales and revenue may be materially adversely affected. Competitive pressures may limit our ability to raise prices, and any inability to maintain revenue or raise prices to offset increases in costs could have a significant adverse effect on our gross margin. Reduced sales and lower gross margins would materially adversely affect our business and results of operations.

The semiconductor industry has experienced rapid consolidation and our inability to compete with large competitors or failure to identify attractive opportunities to consolidate may materially adversely affect our business.

The semiconductor industry is characterized by the high costs associated with developing marketable products and manufacturing technologies as well as high levels of investment in production capabilities. As a result, the semiconductor industry has experienced, and may continue to experience, significant consolidation among companies and vertical integration among customers. Larger competitors resulting from consolidations may have certain advantages over us, including, but not limited to: substantially greater financial and other resources with which to withstand adverse economic or market conditions and pursue development, engineering, manufacturing, marketing and distribution of their products; longer independent operating histories; presence in key markets; patent protection; and greater name recognition. In addition, we may be at a competitive disadvantage to our peers if we fail to identify attractive opportunities to acquire companies to expand our business. Consolidation among our competitors and integration among our customers could erode our market share, negatively impact our capacity to compete and require us to restructure our operations, any of which would have a material adverse effect on our business.

We will be dependent on the services of third-party suppliers and contract manufacturers, and any disruption in or deterioration of the quality of the services delivered by such third parties could materially adversely affect our business and results of operations.

We plan to use third-party contractors for certain of our manufacturing activities. Our agreements with these manufacturers may require us to commit to purchase services based on forecasted product needs, which may be inaccurate, and, in some cases, require longer-term commitments. We will be also dependent upon a limited number of highly specialized third-party suppliers for required components and materials for certain of our key technologies. Arranging for replacement manufacturers and suppliers can be time consuming and costly, and the number of qualified alternative providers can be extremely limited. Our business operations, productivity and customer relations could be materially adversely affected if these contractual relationships were disrupted or terminated, the cost of such services increased significantly, the quality of the services provided deteriorated or our forecasted needs proved to be materially incorrect.

Sales through distributors and other third parties will expose us to risks that, if realized, could have a material adverse effect on our results of operations.

We may sell a significant portion of our products through distributors. Distributors may sell products that compete with our products, and we may need to provide financial and other incentives to focus distributors on the sale of our products. We may rely on one or more key distributors for a product, and the loss of these distributors could reduce our revenue. Distributors may face financial difficulties, including bankruptcy, which could harm our collection of accounts receivable and financial results. Violations of the Foreign Corrupt Practices Act ("FCPA") or similar laws by distributors or other third-party intermediaries could have a material impact on our business. Failure to manage risks related to our use of distributors may reduce sales, increase expenses, and weaken our competitive position, any of which could have a material adverse effect on our results of operations.

Our potential future global operations may subject us to risks inherent in doing business on a global level that could adversely impact our business, financial condition and results of operations.

If our long-term expansion plans are realized, we anticipate that a certain amount of our total revenue may be derived from countries outside of the United States in the future, and we might maintain certain operations in these regions. In addition, we may rely on a number of contract manufacturers whose operations are primarily located outside of the United States. Risks inherent in doing business on a global level include, among others, the following:

- economic and geopolitical instability (including as a result of the threat or occurrence of armed international conflict or terrorist attacks);
- changes in regulatory requirements, international trade agreements, tariffs, customs, duties and other trade barriers;
- licensing requirements for the import or export of certain products;
- exposure to different legal standards, customs, business practices, tariffs, duties and other trade barriers, including changes with respect to price protection, competition practices, IP, anti-corruption and environmental compliance, trade and travel restrictions, pandemics, import and export license requirements and restrictions, and accounts receivable collections;
- transportation and other supply chain delays and disruptions;
- power supply shortages and shutdowns;
- difficulties in staffing and managing foreign operations, including collective bargaining agreements and workers councils, exposure to foreign labor laws and other employment and labor issues;

- currency fluctuations;
- currency convertibility and repatriation;
- taxation of our earnings and the earnings of our personnel;
- limitations on the repatriation of earnings and potential additional taxation of foreign profits in the U.S.;

- potential violations by our international employees or third-party agents of international or U.S. laws relevant to foreign operations (e.g., FCPA);
- difficulty in enforcing intellectual property rights; and
- other risks relating to the administration of or changes in, or new interpretations of, the laws, regulations and policies of the jurisdictions in which we conduct our business.

We cannot assure you that we will be successful in overcoming the risks that relate to or arise from operating in international markets, the materialization of any of which could materially adversely affect our business, financial condition and results of operations.

Special authorizations, permits, licenses may be required for our operations, which if delayed or denied could materially adversely affect our results of operations and financial condition

The semiconductor industry commonly uses various hazardous materials in the manufacture of products. These materials may be incorporated in end products, be waste products of the manufacturing process, or be released accidentally. Such hazardous materials are regulated by state, local, and federal law and applicable policies, regulations or other requirements. Furthermore, the semiconductor industry commonly utilizes equipment that can increase the risk of fire, water damage, electric shock to personnel, in addition to other risks. Semiconductor operations generally require permits, licenses and other authorizations from government agencies. Since we have not yet commenced any of these operations, no permits or other authorizations have been obtained. Any delay or denial of such authorizations could have a material adverse effect on our operations and financial condition.

Environmental and health and safety liabilities and expenditures could materially adversely affect our results of operations and financial condition.

Our future manufacturing operations may be subject to various environmental laws and regulations relating to the management, disposal and remediation of hazardous substances and the emission and discharge of pollutants into the air, water and ground, and we may be identified as either a primary responsible party or a potentially responsible party at sites where we or our predecessors operated or disposed of waste in the past. Our operations may also be subject to laws and regulations relating to workplace safety and worker health, which, among other requirements, regulate employee exposure to various hazards including hazardous substances. We do not currently maintain environmental insurance to cover certain claims related to historical contamination and future releases of hazardous substances. Moreover, we cannot assure you that even if such insurance is purchased, that it will cover any or all of our material environmental costs. In addition, the nature of our future operations may expose us to the continuing risk of environmental and health and safety liabilities including:

- changes in U.S. state and federal, and international environmental or health and safety laws or regulations, including, but not limited to, future laws or regulations imposed in response to climate change concerns;
- the manner in which environmental or health and safety laws or regulations will be enforced, administered or interpreted;
- our ability to enforce and collect under indemnity agreements and insurance policies relating to environmental liabilities;
- the cost of compliance with future environmental or health and safety laws or regulations or the costs associated with any future environmental claims, including the cost of clean-up of currently unknown environmental conditions; or
- the cost of fines, penalties or other legal liability, should we fail to comply with environmental or health and safety laws or regulations.

To the extent that we face unforeseen environmental or health and safety compliance costs or remediation expenses or liabilities that are not covered by insurance, we may bear the full effect of such costs, expenses and liabilities, which could materially adversely affect our results of operations and financial condition.

We may be subject to disruptions or breaches of our secured network that could irreparably damage our reputation and our business, expose us to liability and materially adversely affect our results of operations.

We may routinely collect and store sensitive data, including IP and other proprietary information about our business and our customers, suppliers and business partners. The secure processing, maintenance and transmission of this information will be critical to our operations and business strategy. We may be subject to disruptions or breaches of our secured network caused by computer viruses, illegal hacking, criminal fraud or impersonation, acts of vandalism or terrorism or employee error. Our security measures and/or those of our third-party service providers and/or customers may not detect or prevent such security breaches. The costs to us to reduce the risk of or alleviate cyber security breaches and vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in interruptions and delays that may materially impede our sales, manufacturing, distribution or other critical functions. Any such compromise of our information security could result in the misappropriation or unauthorized publication of our confidential business or proprietary information or that of other parties with which we do business, an interruption in our operations, the unauthorized transfer of cash or other of our assets, the unauthorized release of customer or employee data or a violation of privacy or other laws. In addition, computer programmers and hackers also may be able to develop and deploy viruses, worms and other malicious software programs that attack our systems, or that otherwise exploit any security vulnerabilities, and any such attack, if successful, could expose us to liability to customer claims. Any of the foregoing could irreparably damage our reputation and business, which could have a material adverse effect on our results of operations.

The failure to comply with the terms and conditions of our contracts could result in, among other things, damages, fines or other liabilities.

We expect to have a diverse customer base consisting of both private sector clients and public sector clients, including the U.S. government. Sales to our private sector clients are generally expected to be based on stated contractual terms, the terms and conditions on our website or terms contained in purchase orders on a transaction-by-transaction basis. Sales to our public sector clients are generally expected to be derived from sales to federal, state and local governmental departments and agencies through various contracts and programs, which may require compliance with regulations covering many areas of our operations, including, but not limited to, accounting practices, IP rights, information handling, and security. Noncompliance with contract terms, particularly with respect to highly-regulated public sector clients, or with government procurement regulations could result in fines or penalties against us, termination of such contracts or civil, criminal and administrative liability to the Company. With respect to public sector clients, the government's remedies may also include suspension or debarment from future government business. The effect of any of these possible actions or the adoption of new or modified procurement regulations or practices could materially adversely affect our business, financial position and results of operations.

Risks Relating to Intellectual Property

If we are unable to protect the intellectual property we use, our business, results of operations and financial condition could be materially adversely affected.

We do not currently own or license any patents to our technology. While we have several pending patent applications in various stages of progress, there can be no assurance that any of them will be issued. The enforceability of any patents, trademarks, copyrights, software licenses and other IP we own or may own may be uncertain in certain circumstances. Effective IP protection may be unavailable, limited or not applied for in the U.S. and internationally. The various laws and regulations governing registered

and unregistered IP assets, patents, trade secrets, trademarks, mask works and copyrights to protect products and technologies are subject to legislative and regulatory change and interpretation by courts. With respect to our IP generally, we cannot assure you that:

- any of the U.S. or foreign patents and pending patent applications that we may employ in our business will not lapse or be invalidated, circumvented, challenged, abandoned or licensed to others;
- any of our pending or future patent applications will be issued, have the coverage originally sought or be enforceable against third party infringers;
- any of the trademarks, copyrights, trade secrets, know-how or mask works that we employ or will employ in our business will not lapse or be invalidated, circumvented, challenged, abandoned or licensed to others; or
- any of our pending or future trademark, copyright, or mask work applications will be issued or have the coverage originally sought.

If we seek to enforce our rights, we may be subject to claims that the IP right is invalid, is otherwise not enforceable or is licensed to the party against whom we are asserting a claim. In addition, our assertion of IP rights may result in the other party seeking to assert alleged IP rights of its own against us, which may materially adversely impact our business. An unfavorable ruling in these sorts of matters could include money damages or an injunction prohibiting us from manufacturing or selling one or more products, which could in turn negatively affect our business, results of operations or cash flows.

In addition, some of our products and technologies may not be covered by any patents or pending patent applications. We intend to protect our proprietary technologies, including technologies that may not be patented or patentable, in part by confidentiality agreements and, if applicable, inventors' rights agreements with our collaborators, advisors, employees and consultants. We cannot assure you that these agreements will not be breached, that we will have adequate remedies for any breach or that persons or institutions will not assert rights to IP arising out of our research. Should we be unable to protect our IP, competitors may develop products or technologies that duplicate our products or technologies, benefit financially from innovations for which we bore the costs of development and undercut the sales and marketing of our products, all of which could have a material adverse effect on our business, results of operations and financial condition.

If our technologies are subject to claims of infringement on the intellectual property rights of third parties, efforts to address such claims could have a material adverse effect on our results of operations.

We may from time to time be subject to claims that we may be infringing third-party intellectual property ("IP") rights. If necessary or desirable, we may seek licenses under such IP rights. However, we cannot assure you that we will obtain such licenses or that the terms of any offered licenses will be acceptable to us. The failure to obtain a license from a third-party for IP we use could cause us to incur substantial liabilities or to suspend the manufacture or shipment of products or our use of processes requiring such technologies. Further, we may be subject to IP litigation, which could cause us to incur significant expense, materially adversely affect sales of the challenged product or technologies and divert the efforts of our technical and management personnel, whether or not such litigation is resolved in our favor. In the event of an adverse outcome in any such litigation, we may be required to:

- pay substantial damages;
- indemnify customers or distributors;
- cease the manufacture, use, sale or importation of infringing products;
- expend significant resources to develop or acquire non-infringing technologies;
- discontinue the use of processes; or
- obtain licenses, which may not be available on reasonable terms, to the infringing technologies.

The outcome of IP litigation is inherently uncertain and, if not resolved in our favor, could materially and adversely affect our business, financial condition and results of operations.

Risk Relating to Our Common Stock and the Offering

We are an "emerging growth company," and will be able take advantage of reduced disclosure requirements applicable to "emerging growth companies," which could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or JOBS Act, and, for as long as we continue to be an "emerging growth company," we intend to take advantage of certain exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies," including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an "emerging growth company" for up to five years, or until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed \$1.070 billion, (ii) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our Common Stock that is held by non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter, or (iii) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three year period. We cannot predict if investors will find our Common Stock less attractive if we choose to rely on these exemptions. If some investors find our Common Stock less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our Common Stock and our stock price may be more volatile.

We are a smaller reporting company, and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors.

We are currently a "smaller reporting company," meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and we have a public float of less than \$250 million and annual revenues of less than \$100 million during our most recently completed fiscal year. In the event that we are still considered a smaller reporting company at such time as we cease being an "emerging growth company," we will be

required to provide additional disclosure in our SEC filings. However, similar to emerging growth companies, smaller reporting companies are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports and in a registration statement under the Exchange Act on Form 10. Decreased disclosures in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.

We have identified material weaknesses in our internal control over financial reporting that, if not properly remediated, could result in material misstatements in our consolidated financial statements in future periods.

Our management identified a material weakness in our internal control over financial reporting as of June 30, 2024, and concluded that our disclosure controls and procedures were ineffective as of June 30, 2024. Management concluded that there was a material weakness in our internal controls because there was an insufficient number of personnel with appropriate technical accounting and SEC reporting expertise to adhere to certain control disciplines and to evaluate and properly record certain non-routine and complex transactions.

A material weakness in internal control over financial reporting is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements would not be prevented or detected on a timely basis. If we fail to (1) remediate the significant deficiencies identified in the Company's internal control over financial reporting, (2) maintain the adequacy of internal control over our financial reporting with regard to the financial condition and results of operations of the Company, or (3) remediate the material weakness identified in our internal controls over financial reporting, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 of Sarbanes Oxley, as such standards are modified, supplemented or amended from time to time. Also, such ineffective controls could impair our ability to report quarterly and annual financial results, or other information required to be disclosed, in a timely and accurate manner and could cause our financial reporting to be unreliable, leading to misinformation being disseminated to the public. In addition, other material weaknesses may be identified in the future. If we are unable to correct deficiencies in internal controls in a timely manner, our ability to record, process, summarize and report financial information accurately and within the time periods specified in SEC rules and forms will be adversely affected. This failure could negatively affect the market price and trading liquidity of our common stock, cause investors to lose confidence in our reported financial information, subject us to civil and criminal investigations and penalties, and generally materially and adversely impact our business and financial condition.

There may be limitations on the effectiveness of our internal controls, and a failure of our control systems to prevent error or fraud may materially harm our company.

Proper systems of internal controls over financial accounting and disclosure are critical to the operation of a public company. As we are a start-up company, we are at the very early stages of establishing, and we may be unable to effectively establish such systems, especially in light of the fact that we expect to operate as a publicly reporting company. This would leave us without the ability to reliably assimilate and compile financial information about the Company and significantly impair our ability to prevent error and detect fraud, all of which would have a negative impact on the Company from many perspectives.

Moreover, we do not expect that disclosure controls or internal control over financial reporting, even if established, will prevent all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Failure of our control systems to prevent error or fraud could materially adversely impact us.

Our officers and directors own a significant percentage of our outstanding voting securities which could reduce the ability of minority stockholders to effect certain corporate actions.

Collectively, our officers and directors own an aggregate of 2,385,571 shares of our common stock, or approximately 19.5% of our outstanding voting securities. As a result, currently, and after this offering, may exert a substantial influence on actions requiring a shareholder vote, potentially in a manner that you do not support, including amendments to our amended and restated certificate of incorporation and approval of major corporate transactions. They are expected to have significant influence over a decision to enter into any corporate transaction. Such concentration of voting power could have the effect of delaying, deterring, or preventing a change of control or other business combination, which could, in turn, have an adverse effect on the market price of our Common Stock or prevent our shareholders from realizing a premium over the then-prevailing market price for their Common Stock.

In addition, our board of directors is and will be divided into three classes, each of which will generally serve for a term of three years with only one class of directors being elected in each year. As a consequence of our "staggered" board of directors, only a minority of the board of directors will be considered for election and our officers and directors, because of their ownership position, will have considerable influence regarding the outcome.

We do not currently intend to pay dividends on our Common Stock in the foreseeable future, and consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our Common Stock.

We have never declared or paid cash dividends on our Common Stock and do not anticipate paying any cash dividends to holders of our Common Stock in the foreseeable future. Consequently, investors must rely on sales of their shares after price appreciation, which may never occur, as the only way to realize any future gains on their investments. There is no guarantee that shares of our Common Stock will appreciate in value or even maintain the price at which our stockholders have purchased their shares.

We are currently subject to penny stock regulations and restrictions and if we continue to be subject to such regulations and restrictions you may have difficulty selling shares of our Common Stock.

The Commission has adopted regulations which generally define so-called "penny stocks" as an equity security that has a market price of less than \$5.00 per share or an exercise price of less than \$5.00 per share, subject to certain exemptions. Our Common Stock is a "penny stock", and we are subject to Rule 15g-9 under the Exchange Act, or the Penny Stock Rule. This rule imposes additional sales practice requirements on broker-dealers that sell such securities to persons other than established customers and "accredited investors" (generally, individuals with a net worth in excess of \$1,000,000 or annual income exceeding \$200,000, or \$300,000 together with their spouses). For transactions covered by Rule 15g-9, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to sale. As a result, this rule affects the ability of broker-dealers to sell our securities and affects the ability of purchasers to sell any of our securities in the secondary market.

For any transaction involving a penny stock, unless exempt, the rules require delivery, prior to any transaction in a penny stock, of a disclosure schedule prepared by the Commission relating to the penny stock market. Disclosure is also required to be made about sales commissions payable to both the broker-dealer and the registered representative and current quotations for the securities. Finally, monthly statements are required to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stock.

There can be no assurance if and when our shares of Common Stock will not be considered a “penny stock” because of its price or qualification for exemption from the Penny Stock Rule. In any event, even if our Common Stock were exempt from the Penny Stock Rule, we would remain subject to Section 15(b)(6) of the Exchange Act, which gives the Commission the authority to restrict any person from participating in a distribution of penny stock if the Commission finds that such a restriction would be in the public interest.

In addition to the “penny stock” rules described above, the Financial Industry Regulatory Authority (“FINRA”) has adopted similar rules that may also limit a stockholder’s ability to buy and sell our Common Stock. FINRA rules require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for such customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer’s financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low-priced securities will not be suitable for at least some customers. The FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our Common Stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our shares.

An investment in our company should be considered illiquid.

There is currently a limited market for our Common Stock. An investment in the Company requires a long-term commitment, with no certainty of return. Because we did not become an SEC reporting company by the traditional means of conducting an initial public offering of our Common Stock, we may be unable to establish a liquid market for our Common Stock. Moreover, we do not expect security analysts of brokerage firms to provide coverage of the Company in the near future. In addition, investment banks may be less likely to agree to underwrite primary or secondary offerings on behalf of the Company or its stockholders in the future than they would if we were to become a public reporting company by means of an initial public offering of common stock. If all or any of the foregoing risks occur, it would have a material adverse effect on the Company. We cannot predict whether an active market for our Common Stock will ever develop in the future. The lack of an active market impairs purchasers of the Company’s Common Stock at the time they wish to sell their shares or at a price that they consider reasonable. The lack of an active market may also reduce the fair market value of the Company’s Common Stock.

We have agreed to register the shares of common stock issued in the Offering.

We cannot assure you, however, that the SEC will declare the registration statement effective, thereby enabling the shares of common stock issued in the Offering to be freely tradable. In addition, Rule 144 under the Securities Act, which generally permits the resale, subject to various terms and conditions, of limited amounts of restricted securities after they have been held for six months will not immediately apply to our common stock because we were at one time designated as a “shell company” under SEC regulations. Pursuant to Rule 144(i), securities issued by a current or former shell company that otherwise meet the holding period and other requirements of Rule 144 nevertheless cannot be sold in reliance on Rule 144 until one year after the date on which the issuer filed current “Form 10 information” (as defined in Rule 144(i)) with the SEC reflecting that it ceased being a shell company, and provided that at the time of a proposed sale pursuant to Rule 144, the issuer has satisfied certain reporting requirements under the Exchange Act. We believe this requirement to file Form 10 information was satisfied by the filing of the report on Form 8-K that we filed on June 28, 2021. Because, as a former shell company, the reporting requirements of Rule 144(i) will apply regardless of holding period, the restrictive legends on certificates for the shares of common stock issued in the Offering cannot be removed except in connection with an actual sale that is subject to an effective registration statement under, or an applicable exemption from the registration requirements of, the Securities Act. If we are unable to timely register the shares of common stock issued to stockholders in the Offering, then the ability to re-sell shares of such common stock will be delayed.

We have agreed, at our expense, to prepare and file this registration statement with the SEC registering the resale of up to (1) 2,017,498 shares of our common stock issued in connection with the Offering; and (2) up to approximately 85,653 shares reserved for issuance pursuant to Placement Agent Warrants. To the extent this registration statement is not declared effective by the SEC, or there are delays resulting from the SEC review process and comments raised by the SEC during that process, the shares of common stock proposed to be covered by such registration statement will not be eligible for resale until the registration statement is effective or an exemption from registration, such as Rule 144, becomes available. If (i) this registration statement is not declared effective by October 6, 2023 or (ii) this registration statement ceases to remain continuously effective or the holders described above are otherwise not permitted to utilize the prospectus therein to resell their registrable securities for a specified period of time, or (iii) following the listing or inclusion on the OTC Markets Group, the Nasdaq Stock Market, the New York Stock Exchange or the NYSE American (an “Approved Market”), trading of our common stock is suspended or halted on such Approved Market for more than three full, consecutive trading days, then we may be subject to certain liquidated damages pursuant to the registration rights agreement we entered into with the holders described above.

Substantial future sales of shares of our common stock could cause the market price of our common stock to decline.

We have agreed, at our expense, to prepare and file this registration statement with the SEC registering the resale of up to (1) 2,017,498 shares of our common stock issued in connection with the Offering; and (2) up to approximately 85,653 shares reserved for issuance pursuant to Placement Agent Warrants. After it is effective, the registration statement will permit the resale of these shares at any time for up to three years following the effective date of such registration statement. The resale, or expected or potential resale, of a substantial number of shares of our common stock in the public market could adversely affect the market price for our common stock and make it more difficult for you to sell shares of our common stock at times and prices that you feel are appropriate. Furthermore, we expect that, because there will be a large number of shares registered pursuant to a registration statement, selling stockholders will continue to offer shares covered by such registration statement for a significant period of time, the precise duration of which cannot be predicted. Accordingly, the adverse market and price pressures resulting from an offering pursuant to a registration statement may continue for an extended period of time and continued negative pressure on the market price of our common stock could have a material adverse effect on our ability to raise additional equity capital.

Because our management will have broad discretion over the use of the net proceeds from the Offering, you may not agree with how we use them and the proceeds may not be invested successfully.

We intend to use the net proceeds from the Offering, as well as any cash exercises of the Placement Agent Warrants, if any for working capital and general corporate purposes, and therefore, our management will have broad discretion as to the use of the Offering proceeds. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for our company.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. In addition, because we did not become a reporting company by conducting an underwritten initial public offering of our common stock, and because we will not be listed on a national securities exchange, security analysts of brokerage firms may not provide coverage of our company. We cannot assure you that brokerage firms will provide analyst coverage of our company in the future, or continue such coverage if started. In addition, investment banks may be less likely to agree to underwrite secondary offerings on our behalf than they might if we became a public reporting company by means of an underwritten initial public offering, because they may be less familiar with our company as a result of more limited coverage by analysts and the media, which could harm our ability to raise additional funding in the future. The failure to receive research coverage or support in the market for our shares will have an adverse effect on our ability to develop a liquid market for our common stock, which will negatively impact the trading price of our common stock.

In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, or if our operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law may inhibit a takeover of us, which could limit the price investors might be willing to pay in the future for our common stock.

Our certificate of incorporation and bylaws contains provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. These provisions include the ability of the board of directors to designate the terms of and issue new series of preferred shares, which may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities and the division of our board of directors into three classes, serving staggered terms of three years each.

We are also subject to anti-takeover provisions under Delaware law, which could delay or prevent a change of control. Together these provisions may make the removal of management more difficult and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities.

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Our bylaws requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against our directors, officers, other employees or stockholders for breach of fiduciary duty and certain other actions may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will, subject to certain exceptions, be deemed to have consented to service of process on such stockholder's counsel, which may have the effect of discouraging lawsuits against our directors, officers, other employees or stockholders.

Our bylaws will require, to the fullest extent permitted by law, that derivative actions brought in our name, actions against our directors, officers, other employees or stockholders for breach of fiduciary duty and certain other actions may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder's counsel except any action (A) as to which the Court of Chancery in the State of Delaware determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), (B) which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery or (C) for which the Court of Chancery does not have subject matter jurisdiction. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our amended and restated bylaws. This choice of forum provision may limit or make more costly a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

Our bylaws will provide that the exclusive forum provision will be applicable to the fullest extent permitted by applicable law, subject to certain exceptions. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the exclusive forum provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. In addition, our bylaws provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, or the rules and regulations promulgated thereunder. We note, however, that there is uncertainty as to whether a court would enforce this provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Section 22 of the Securities Act creates concurrent jurisdiction for state and federal courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

Upon dissolution of the Company, you may not recoup all or any portion of your investment.

In the event of a liquidation, dissolution or winding-up of our company, whether voluntary or involuntary, the proceeds and/or assets of the Company remaining after giving effect to such transaction, and the payment of all of our debts and liabilities will be distributed to the stockholders of Common Stock on a pro rata basis. There can be no assurance that we will have available assets to pay to the holders of Common Stock, or any amounts, upon such a liquidation, dissolution or winding-up of our Company. In this event, you could lose some or all of your investment.

The market price and trading volume of our common stock may be volatile and could decline significantly following the Merger.

The quotation systems, including the OTC Markets QB tier, on which our common stock are quoted, or stock exchanges, including Nasdaq, have from time to time experienced significant price and volume fluctuations. Even if our common stock is quoted on the OTCQB, the market price of our common stock may be volatile and could decline significantly. In addition, the trading volume in our common stock may fluctuate and cause significant price variations to occur. If the market price of our common stock declines significantly, you may be unable to resell your shares at or above the market price of our common stock as of the date of the consummation of the Merger. We cannot assure you that the market price of common stock will not fluctuate widely or decline significantly in the future in response to a number of factors, including, among others, the following:

- the realization of any of the risk factors presented in this Report;
- actual or anticipated differences in our estimates, or in the estimates of analysts, for our revenues, results of operations, level of indebtedness, liquidity or financial condition;
- additions and departures of key personnel;

- failure to comply with the requirements of the OTCQB market, or following our potential up listing on Nasdaq;
- failure to comply with the Sarbanes-Oxley Act or other laws or regulations;
- future issuances, sales, resales or repurchases or anticipated issuances, sales, resales or repurchases, of our common stock;
- publication of research reports about us, or the semiconductor and sensors industries generally;
- the performance and market valuations of other similar companies;
- broad disruptions in the financial markets, including sudden disruptions in the credit markets;
- speculation in the press or investment community;
- actual, potential or perceived control, accounting or reporting problems; and
- changes in accounting principles, policies and guidelines.

In the past, securities class-action litigation has often been instituted against companies following periods of volatility in the market price of their shares. This type of litigation could result in substantial costs and divert our management’s attention and resources, which could have a material adverse effect on us.

We are obligated to develop and maintain proper and effective internal control over financial reporting. If we fail to develop and maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable laws and regulations could be impaired. In addition, the presence of material weaknesses increases the risk of material misstatement of the consolidated financial statements.

We are currently a public company and are required, pursuant to Section 404(a) of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting on its annual report on Form 10-K. Effective internal control over financial reporting is necessary for reliable financial reports and, together with adequate disclosure controls and procedures, such internal controls are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet its reporting obligations. Ineffective internal controls could also cause investors to lose confidence in reported financial information, which could have a negative effect on the trading price of our common stock.

The report by management will need to include disclosure of any material weaknesses identified in internal control over financial reporting. However, for as long as we are an “emerging growth company” under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of internal control over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act. Management’s assessment of internal controls, when implemented, could detect problems with internal controls, and an independent assessment of the effectiveness of internal controls by our auditors could detect further problems that management’s assessment might not, and could result in the identification of material weaknesses that were not otherwise identified. Undetected material weaknesses in internal controls could lead to financial statement restatements and require us to incur the expense of remediation. We are required to disclose changes made in internal control and procedures on a quarterly basis. To comply with the public company requirements, we may need to undertake various actions, such as implementing new internal controls and procedures and hiring accounting or internal audit staff.

We are in the early stages of developing the system and processing documentation necessary to perform the evaluation needed to comply with Section 404. We may not be able to complete its evaluation, testing, and any required remediation in a timely fashion. During the evaluation and testing process, if we identify material weaknesses in internal control over financial reporting, we will be unable to assert that internal control over financial reporting is effective.

If we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of its internal control, including as a result of the material weaknesses described above, we could lose investor confidence in the accuracy and completeness of financial reports, which would cause the price of our common stock to decline, and we may be subject to investigation or sanctions by the SEC. In addition, if we are unable to continue to meet these requirements following the consummation of the Merger, we may not be able to remain quoted on the OTC Markets QB or, following our potential up listing, Nasdaq.

We may need to raise additional capital by sales of our securities, which may adversely affect the market price of our Common Stock and your rights in us may be reduced.

We expect to continue to incur product development and selling, general and administrative costs, and in order to satisfy our funding requirements, we will need to continue to raise additional capital above and beyond the anticipated proceeds of this offering. The sale or the proposed sale of substantial amounts of our Common Stock or other securities in the public markets may adversely affect the market price of our Common Stock and our stock price may decline substantially. Our stockholders may experience substantial dilution and a reduction in the price that they are able to obtain upon sale of their shares. Also, new equity securities issued may have greater rights, preferences or privileges than our existing Common Stock. Furthermore, additional capital may not be available in sufficient amounts or on reasonable terms, if at all, and our ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the recent disruptions to and volatility in the credit and financial markets in the United States and worldwide resulting from the COVID-19 pandemic.

We are an emerging growth company and a smaller reporting company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies and smaller reporting companies could make our common stock less attractive to investors.

We are an “emerging growth company,” as defined in the JOBS Act, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to emerging growth companies, including:

- not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports and annual report on Form 10-K; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We could be an emerging growth company for up to five years following the completion of our initial public offering. Our status as an emerging growth company will end as

soon as any of the following takes place:

- the last day of the fiscal year in which we have more than \$1.07 billion in annual revenues;
- the date we qualify as a “large accelerated filer,” with at least \$700 million of equity securities held by non-affiliates;
- the date on which we have issued, in any three-year period, more than \$1.0 billion in non-convertible debt securities; or
- the last day of the fiscal year ending after the fifth anniversary of the completion of this Offering.

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We cannot predict if investors will find our common stock less attractive if we choose to rely on any of the exemptions afforded emerging growth companies. If some investors find our common stock less attractive because we rely on any of these exemptions, there may be a less active trading market for our common stock and the market price of our common stock may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this provision of the JOBS Act. As a result, we will not be subject to new or revised accounting standards at the same time as other public companies that are not emerging growth companies. Therefore, our consolidated financial statements may not be comparable to those of companies that comply with new or revised accounting pronouncements as of public company effective dates.

We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a “smaller reporting company” even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenues is less than \$100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

We may face risks related to securities litigation that could result in significant legal expenses and settlement or damage awards.

We may in the future become subject to claims and litigation alleging violations of the securities laws or other related claims, which could harm our business and require us to incur significant costs. Significant litigation costs could impact our ability to comply with certain financial covenants under our credit agreement. We are generally obliged, to the extent permitted by law, to indemnify our current and former directors and officers who are named as defendants in these types of lawsuits. Regardless of the outcome, litigation may require significant attention from management and could result in significant legal expenses, settlement costs or damage awards that could have a material impact on our financial position, results of operations and cash flows.

FINRA sales practice requirements may limit a stockholder’s ability to buy and sell our stock.

The Financial Industry Regulatory Authority (“FINRA”) has adopted rules requiring that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer.

Prior to recommending speculative or low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer’s financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that speculative or low-priced securities will not be suitable for at least some customers. If these FINRA requirements are applicable to us or our securities, they may make it more difficult for broker-dealers to recommend that at least some of their customers buy our common stock, which may limit the ability of our stockholders to buy and sell our common stock and could have an adverse effect on the market for and price of our common stock.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties, including statements based on our current expectations, assumptions, estimates and projections about us, our industry and the regulatory environment in which we and companies integral to our ecosystem operate. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Use of Proceeds,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. In some cases, these forward-looking statements can be identified by words or phrases such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “potential,” “continue,” “is/are likely to” or other similar expressions. The forward-looking statements included in this prospectus relate to, among others:

- our ability to protect and enforce our intellectual property protection and the scope and duration of such protection;
- our reliance on vendors;
- our ability to attract and retain key personnel;
- anticipated trends, growth rates and challenges in our business and in the markets in which we operate;
- our estimates regarding the use of proceeds from the Offering, expenses, future revenues, capital requirements and our need for or ability to obtain additional financing to fund our operations;
- developments and projections relating to our competitors and our industry, including market projections, estimated product pricing, market adoption of new technologies and changing industry trends;
- the impact of current and future laws and regulations;
- the impact of the COVID-19 crisis on our business, results of operations and future growth prospects;
- our intended use of proceeds from the Offering (as defined below); and

- the implementation of our business model and strategic plans for our business and products;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our products and our ability to operate our business without infringing the intellectual property rights of others;
- the performance of our third-party suppliers and manufacturers;
- our ability to maintain and establish collaborations or obtain additional funding;
- the success of competing products that are currently or may become available;
- our ability to continue as a going concern;
- the effect of the COVID-19 pandemic;
- our financial performance;
- developments and projections relating to our competitors and our industry; and,
- other risks and uncertainties, including those listed under the caption “*Risk Factors.*”

We caution you that the forward-looking statements highlighted above do not encompass all of the forward-looking statements made in this prospectus or in the documents incorporated by reference in this prospectus.

There are important factors that could cause actual results to vary materially from those described in this registration statement, of which this prospectus is a part, as anticipated, estimated or expected, including, but not limited to: the effects of the COVID-19 outbreak, including on the demand for our products; the pace of recovery following the COVID-19 pandemic; our ability to implement cost containment and business recovery strategies; the adverse effects of the COVID-19 outbreak on our business or the market price of our ordinary shares; competition in the industry in which we operate and the impact of such competition on pricing, revenues and margins, volatility in the securities market due to the general economic downturn; SEC regulations which affect trading in the securities of “penny stocks,” and other risks and uncertainties described herein and elsewhere in the documents incorporated by reference into this prospectus. Moreover, we operate in a very competitive and challenging 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 and in the documents incorporated by reference in this prospectus. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements. Except as required by law, we assume no obligation to update any forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, even if new information becomes available in the future. Depending on the market for our stock and other conditional tests, a specific safe harbor under the Private Securities Litigation Reform Act of 1995 may be available. Notwithstanding the above, Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) expressly state that the safe harbor for forward-looking statements does not apply to companies that issue penny stock. Because we may from time to time be considered to be an issuer of penny stock, the safe harbor for forward-looking statements may not apply to us at certain times.

The forward-looking statements contained in this prospectus and in the documents incorporated by reference in this prospectus relate only to events as of the date on which the statements are made. We do not undertake any obligation to release publicly any revisions to such forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events. 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, other strategic transactions or investments we may make.

USE OF PROCEEDS

We are filing this registration statement of which this prospectus is a part to permit holders of the shares of our common stock described in the section titled “Selling Stockholders” to resell such shares. We will not receive any proceeds from the sale of the shares of Common Stock by the selling stockholders pursuant to this prospectus. We will, however, receive the proceeds of any warrants exercised for cash in the future. Such gross proceeds will be up to \$256,959 if all such warrants are exercised, of which there can be no guarantee.

If the placement agent warrants are exercised, then we intend to use any proceeds for working capital and other general corporate purposes. We may use a portion of any proceeds we might receive for acquisitions of complementary businesses, technologies, or other assets. However, we have no commitments to use any proceeds we might receive from this offering for any such acquisitions or investments at this time.

DETERMINATION OF OFFERING PRICE

Our common stock is currently quoted on the OTCQB under the symbol “ALMU”. The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices. Except to the extent that we are involved in an underwritten secondary offering of common stock, if any, by the selling stockholders, all shares being offered pursuant to this prospectus will be sold by the selling stockholders without our involvement.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read together with our financial statements and the related notes appearing elsewhere in this prospectus. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. See "Cautionary Note Regarding Forward-Looking Statements and Industry Data" for a discussion of the uncertainties, risks and assumptions associated with these statements. Actual results and the timing of events could differ materially from those discussed in our forward-looking statements as a result of many factors, including those set forth under "Risk Factors" and elsewhere in this prospectus.

Overview

On June 22, 2021, we, Acquisition Sub and Biond Photonics, entered into an Agreement and Plan of Merger and Reorganization (the "Merger Agreement"). Pursuant to the terms of the Merger Agreement, on June 22, 2021, Biond Photonics merged with and into Acquisition Sub, with Acquisition Sub continuing as the surviving corporation and our wholly owned subsidiary.

As a result of the Merger, we acquired the business of Biond Photonics, a California corporation, doing business as Aeluma. See "Description of Business" above. At the time the certificates of merger reflecting the Merger were filed with the Secretaries of State of California and Delaware, each of Biond Photonics' shares of capital stock issued and outstanding immediately prior to the closing of the Merger was converted into the right to receive (a) 1,299,135,853 shares of our common stock (the "Common Share Conversion Ratio"), with the maximum number of shares of our common stock issuable to the former holders of Biond Photonics' capital stock equal to 4,100,002 after adjustments due to rounding for fractional shares. Immediately prior to the effectiveness of the Merger, an aggregate of 2,500,000 shares of our common stock owned by the stockholders of Parc Investments, Inc. prior to the Merger were forfeited and cancelled (the "Stock Forfeiture").

The issuance of shares of our common stock to Biond Photonics' former security holders are collectively referred to as the "Share Conversion."

The Merger Agreement contained customary representations and warranties and pre- and post-closing covenants of each party and customary closing conditions.

As a condition to the Merger, we entered into an indemnity agreement with our former officer and directors (the "Pre-Merger Indemnity Agreement"), pursuant to which we agreed to indemnify such former officer and directors for actions taken by them in their official capacities relating to the consideration, approval and consummation of the Merger and certain related transactions.

The Merger was treated as a recapitalization and reverse acquisition for us for financial reporting purposes. Biond Photonics is considered the acquirer for accounting purposes, and our historical financial statements before the Merger were replaced with the historical financial statements of Biond Photonics before the Merger in filings with the SEC. The Merger is intended to be treated as a tax-free reorganization under Section 368(a) of the Internal Revenue Code of 1986, as amended.

The issuance of securities pursuant to the Share Conversion was not registered under the Securities Act, in reliance upon the exemption from registration provided by Section 4(a)(2) of the Securities Act, which exempts transactions by an issuer not involving any public offering, and Rule 506 of Regulation D promulgated by the SEC thereunder. These securities may not be offered or sold in the U.S. absent registration or an applicable exemption from the registration requirement and are subject to further contractual restrictions on transfer.

Prior to the Merger, our sole business purpose was to seek the acquisition of or merger with, an existing company.

As a result of the consummation of the Merger, on June 22, 2021, Biond Photonics, Inc. became our wholly owned subsidiary and the business of Biond Photonics, Inc. became our business going forward. Accordingly, at the closing, we ceased to be a shell company.

Aeluma develops novel optoelectronic devices for sensing and communications applications. Aeluma has pioneered a technique to manufacture devices using high performance compound semiconductor materials on large diameter silicon wafers that are commonly used to manufacture mass market microelectronics. This enables cost effective manufacturing of high-performance photodetector array circuits for imaging applications in mobile devices. These devices may be used as image sensors that generate an image by detecting light, in a manner similar to a digital camera taking a picture. Our devices may incorporate additional functionality and enhanced performance to enable 3D image capture when integrated into various system architectures. This technology has the potential to greatly enhance the performance and capability of camera image sensors, Lidar, augmented reality, facial recognition, and other applications. Aeluma has acquired a key piece of manufacturing equipment and has headquarter in Goleta, California with a manufacturing cleanroom to house this equipment.

The Private Placement Following the Merger

Immediately following the Merger, we sold 3,482,500 shares of our common stock pursuant to an initial closing of a private placement offering at a purchase price of \$2.00 per share (the "Offering Price"). We held a second closing on June 28, 2021 for an additional 402,500 shares of our common stock and a third and final closing on July 1, 2021 for an additional 115,000. Accordingly, we sold a total of 4,000,000 shares of our common stock. This private placement offering is referred to herein as the "Merger Offering."

The aggregate gross proceeds from the three closings of the Merger Offering were \$8,000,000 (before deducting placement agent fees and expenses of the Merger Offering).

The three closings of the Merger Offering were exempt from registration under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated by the SEC thereunder. The common stock in the Merger Offering was sold to "accredited investors," as defined in Regulation D, and was conducted on a "reasonable best efforts" basis.

In connection with the Merger Offering and subject to the closing of the Merger Offering, we agreed to pay the placement agent, GP Nurmenkari Inc. (the "Placement Agent"), a U.S. registered broker-dealer, a cash placement fee of 10% of the gross proceeds raised from investors in the Merger Offering (other than the first \$630,000 of common stock sold to pre-Merger Biond Photonics shareholders and their friends and family, for which the Placement Agent received a 3% cash fee, and \$170,000 of common stock sold to pre-Merger Biond Photonics friends and family for which the Placement Agent received no cash fee) and to issue to it 50,000 shares of our common stock and warrants to purchase a number of shares of our common stock equal to 10% of the number of shares of common stock sold in the Merger Offering (other than the first \$800,000 of common stock sold to pre-Merger Biond Photonics shareholders and their friends and family), with a term of five years and an exercise price of \$2.00 per share (the "Placement Agent Warrants"). We also agreed to pay certain expenses of the Placement Agent in connection with the Merger Offering.

As a result of the foregoing, we paid the Placement Agent an aggregate commission of \$748,900 and issued to it 50,000 shares of our common stock and Placement Agent Warrants to purchase 360,000 shares of our common stock in connection with the two closings of the Merger Offering. We have also reimbursed the Placement Agent for approximately \$265,000 for legal and other expenses incurred in connection with the Merger Offering.

A note payable to an officer of Parc Investments, Inc. in the amount of \$50,000 was repaid directly from the proceeds from the Merger Offering.

Subject to certain customary exceptions, we have agreed to indemnify the Placement Agent to the fullest extent permitted by law against certain liabilities that may be incurred in connection with the Offering, including certain civil liabilities under the Securities Act, and, where such indemnification is not available, to contribute to the

payments the Placement Agent and their sub-agents may be required to make in respect of such liabilities.

Recent Private Placement

Between December 2022 and May 2023, we entered into subscription agreements (the “Subscription Agreement”) with certain accredited investors, pursuant to which we issued an aggregate of 2,017,498 shares of our common stock, par value \$0.0001 per share, at a per share purchase price of \$3.00, for aggregate gross proceeds of \$6,052,500 (the “Offering”).

In connection with the Subscription Agreement, we also entered into a Registration Rights Agreement with the Investors, pursuant to which we agreed to register all of the shares of common stock issued in the Offering, including the shares of common stock underlying the warrant issued to the placement agent in this registration statement. (See, Description of Securities – Registration Rights Agreement)

Pursuant to the Offering, we paid a cash placement agent fee and expenses in the amount of \$411,015 and issued placement agent warrants (“Placement Agent Warrants”) to purchase up to an aggregate of 85,653 shares of common stock at an exercise price of \$3.00 per share.

The Subscription Agreement also contains customary representation and warranties of us and the Investors, indemnification obligations of us, termination provisions, and other obligations and rights of the parties.

The foregoing description of the Subscription Agreement, Registration Rights Agreement and form of Placement Agent Warrants is qualified by reference to the full text of the forms of Subscription Agreement, Registration Rights Agreement and form of Placement Agent Warrants, which are filed as Exhibits hereto and incorporated herein by reference.

Between August 5, 2024 and August 27, 2024, we issued convertible promissory notes in the aggregate principal amount of \$3,145,000 to 10 accredited investors, pursuant to a private note financing. The Notes mature in June 2026 and do not carry any interest. The Notes are convertible into shares of the Company’s common stock par value \$0.0001 per share upon the occurrence of certain events, (i.e., qualified financing resulting in at least \$5,000,000 to the Company, if the Common Stock is uplisted to a national securities exchange or if neither of those such events occur prior to the maturity date, (together with Sale of the Company (as hereinafter defined), a “Conversion Event”). The Note also provides that if there is a Sale of the Company, as defined in the Note, the Holder may elect to receive a cash payment equal to the aggregate amount of principal then outstanding under such Holder’s Note or convert the Note into shares of Common Stock equal to 85% of the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to the Sale of the Company. Although the conversion price is dependent upon the type of Conversion Event that occurs, the Note does carry a ceiling and floor price: the applicable conversion price will not be lower than 85% of the 5-day VWAP on the applicable Closing Date (the “Floor Price”) nor will the applicable conversion price be higher than \$3.50 per share (the “Ceiling Price”); the Floor Price and Ceiling Price shall automatically adjust in the event of a stock split or consolidation by the Company. The Floor Price for the investors who participated in this initial closing is equal to \$2.68 per share. Since the Floor Price is tied to the Closing Date, the Floor Price may be different for investors that are part of a different closing, should the Company hold additional closings. The Investors were granted piggyback registration rights for the shares of Common Stock underlying the Note.

Departure and Appointment of Directors and Officers

Our board of directors is authorized to have five members. As of the effectiveness of the Merger, Mr. Ian Jacobs and Mr. Mark Tompkins resigned from our board of directors, and Mr. Jonathan Klamkin, Mr. Lee McCarthy and Mr. Steven DenBaars were appointed to our board of directors. Mr. DenBaars is a Class I director.

Also, as of the effectiveness of the Merger, Mr. Jacobs resigned from all officer positions with us, and Jonathan Klamkin was appointed as our President and Chief Executive Officer, Lee McCarthy was appointed as our interim Chief Financial Officer and Chief Operating Officer.

Mr. McCarthy resigned from his position as interim Chief Financial Officer on August 18, 2021 and from his directorship on December 1, 2021. To fill Mr. McCarthy’s vacancy on the board, we appointed Ms. Palvi Mehta. Ms. Mehta is a Class II director.

On December 1, 2021, we also appointed Mr. John Paglia to the board of directors; Mr. Paglia is a Class I director.

On November 8, 2022, Lee McCarthy provided notice of his resignation as our Chief Operating Officer effective November 17, 2022. Mr. McCarthy’s decision to resign was not the result of any disagreements with us on any matter related to the operations, policies, or practices of us.

Mrs. Mehta decided not run for re-election in 2023; such decision was not the result of any disagreements with us on any matter related to the operations, policies, or practices of us. The Board nominated Mr. Craig Ensley to fill the vacancy on the Board; on December 14, 2023, the shareholders voted to elect Mr. Ensley to the board.

Plan of Operations

We have been developing our materials and characterization capabilities at our headquarters in Goleta, California, in connection with the further development of our business and the implementation of our plan of operations. We have installed some key manufacturing equipment at our headquarters and will continue to develop relationships with manufacturing partners to carry out certain steps of our manufacturing processes externally. We have gained access to a rapid prototyping facility and are leveraging this access to fabricate early-stage prototypes. In the future, we intend to implement appropriate quality and manufacturing controls. Some equipment was procured previously, and other equipment is being procured through purchase orders with equipment vendors.

The primary sources of funding for equipment procurement and installation are the seed funding raised prior to becoming a public company and the funding raised from our financings. We have also leveraged funds to continue strengthening our intellectual property including patent applications, trademarks, and development of trade secrets and manufacturing process recipes. We will continue to develop our manufacturing and product development strategy by further engaging customers and strategic partners.

Limited Operating History

We cannot guarantee that the proceeds from the Offering will be sufficient to carry out all of our business plans. Our business is subject to risks inherent in growing an enterprise, including limited capital resources, risks inherent in the research and development process and possible rejection of our products in development.

If financing is not available on satisfactory terms, we may be unable to carry out all of our operations. Equity financing will result in dilution to existing stockholders.

Components of Results of Operations

Revenue

Our revenue currently consists of commercial product sales and government contracts.

Operating Expenses

The cost of revenue consists of costs of materials, as well as direct compensation and expenses incurred to provide deliverables that resulted in payment of our success fee and wafers delivered. We anticipate that our cost of revenue will vary substantially depending on the nature of products and/or services delivered in each customer engagement. Research and development expenses consist primarily of compensation and related costs for personnel, including stock-based compensation and employee benefits, costs associated with design, fabrication, packaging and testing of our devices, and facility lease and utility expenses. We expense research and development expenses as incurred.

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General and administrative expenses consist primarily of compensation and related costs for personnel, including stock-based compensation and employee benefits. In addition, general and administrative expenses include third-party consulting, legal, insurance, audit and accounting services.

Other Income

Other income, net of other expenses, consists primarily of interest income and income generated from subleasing a portion of our research and development facility.

Income Tax Expense

Income tax expense consists primarily of income taxes in certain state jurisdictions in which we conduct business.

Results of Operations

Year ended June 30, 2024 compared to the year ended June 30, 2023

Our results of operations for the year ended June 30, 2024, as compared to the year ended June 30, 2023, were as follows:

	Year Ended June 30,			
	2024	2023	\$ Change	% Change
Revenue	\$ 918,554	\$ 193,339	\$ 725,215	375.1%
Operating expenses	(5,481,862)	(5,703,024)	221,162	-3.9%
Other income	1,013	130,103	(129,090)	-99.2%
Loss before income tax expense	(4,562,295)	(5,379,582)	817,287	-15.2%
Income tax expense	-	-	-	-
Net loss	\$ (4,562,295)	\$ (5,379,582)	\$ 817,287	-15.2%

Revenue: Revenue increased \$725,215, or 375.1 %, to \$918,554, of which \$64,756 was from commercial product and service contracts and \$853,798 was from government contracts, for the year ended June 30, 2024 from \$193,339, of which \$15,000 was from commercial product and service contracts and \$178,339 was from government contracts, for the same period in 2023.

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Operating expenses: Operating expense decreased \$221,162, or 3.9%, to \$5,481,862 for the year ended June 30, 2024 from \$5,703,024 for the same period in 2023, due primarily to a reduction in consulting expenses, offset partially by increased salaries and stock-based compensation expenses.

Other income: Other income decreased \$129,090, 99.2%, to \$1,013 for the year ended June 30, 2024 from \$130,103 for the same period in 2023. The decrease was due primarily to a \$128,921 decrease in sub-lease income as the sublease ended in March 2023.

Income tax expense: We did not record income tax expense for either of the years ended June 30, 2024 and 2023.

Capital Resources and Liquidity

Our financial statements have been presented on the basis that are a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. As presented in the financial statements, we incurred a net loss of \$4,562,295 and \$5,379,582 for the years ended June 30, 2024 and 2023, respectively, and losses are expected to continue in the near term. The accumulated deficit was \$13,624,361 at June 30, 2024. We have been funding our operations through the sale of common stock in private placement transactions.

Management anticipates that significant additional expenditures will be necessary to develop and expand our business before significant positive operating cash flows can be achieved. Our ability to continue as a going concern is dependent upon our ability to raise additional capital and to ultimately achieve sustainable revenues and profitable operations. At June 30, 2024, we had \$1,291,072 of cash and cash equivalents. These funds are insufficient to complete our business plan and as a consequence, we will need to seek additional funds, primarily through the issuance of debt or equity securities for cash to operate our business. No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to us. Even if we are able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing or cause substantial dilution for our stockholders, in the case of equity financing.

Management has undertaken steps as part of a plan to improve operations with the goal of sustaining our operations for the next twelve months and beyond. These steps include (a) raising additional capital and/or obtaining financing; (b) controlling overhead and expenses; (c) executing material sales or research contracts; and (d) pursuing additional sales and contracts. There can be no assurance that we can successfully accomplish these steps and it is uncertain that we will achieve a profitable level of operations and obtain additional financing. There can be no assurance that any additional financing will be available to us on satisfactory terms and conditions, if at all. As of the date of this prospectus, we have not entered into any formal agreements regarding the above.

In the event we are unable to continue as a going concern, the Company may elect or be required to seek protection from its creditors by filing a voluntary petition in bankruptcy or may be subject to an involuntary petition in bankruptcy. To date, management has not considered this alternative, nor does management view it as a likely occurrence.

We had working capital of \$766,160 and \$4,576,807 at June 30, 2024 and 2023, respectively. Current assets decreased \$3,941,060 to \$1,392,846 at June 30, 2024 from \$5,333,906 at June 30, 2023, primarily due to a \$3,780,618 decrease in cash. Current liabilities decreased \$130,413 to \$626,686 at June 30, 2024 from \$757,099 at June 30, 2023, due primarily to decreases in accounts payable.

The following table shows a summary of our cash flows for the periods presented:

	Year Ended June 30,			
	2024	2023	\$ Change	% Change
Net cash provided by (used in)				
Operating activities	\$ (3,454,779)	\$ (3,637,972)	\$ 183,193	-5.0%
Investing activities	(321,838)	(672,545)	350,707	-52.1%
Financing activities	(4,001)	5,641,485	(5,645,486)	-100.1%
Increase (decrease) in cash	\$ (3,780,618)	\$ 1,330,968	\$ (5,111,586)	-384.1%

Net cash used in our operating activities were \$3,454,779 and \$3,637,972 for the years ended June 30, 2024 and 2023, respectively, due primarily to net losses of \$4,562,295 and \$5,379,582 for the years ended June 30, 2024 and 2023, respectively.

Net cash used in our investing activities was \$321,838 and \$672,545 for the years ended June 30, 2024 and 2023, respectively. Investing activities include purchase of equipment and payment for leasehold improvements.

Net cash used in our financing activities was \$4,001 for the year ended June 30, 2024 and net cash provided by our financing activities was \$5,641,485 for the year ended June 30, 2023. We paid \$4,001 to purchase Lee McCarthy's unvested restricted shares for the year ended June 30, 2024 and received \$5,641,284 from Private Placements, net of \$411,015 offering cost.

Recent Accounting Pronouncements

The Company has evaluated all issued but not yet effective accounting pronouncements and determined that they are either immaterial or not relevant to the Company.

BUSINESS

The Company was formed as a vehicle to seek the acquisition of, or merger with, an existing operating company.

As a result of the consummation of the Merger, on June 22, 2021, Biond Photonics merged into our wholly owned subsidiary, and the business of Biond Photonics became the business of the Company going forward. Accordingly, at the closing of the Merger, the Company ceased to be a shell company.

We develop novel optoelectronic devices for sensing and communications applications. Aeluma has pioneered a technique to manufacture devices using high performance compound semiconductor materials on large-diameter substrates that are commonly used to manufacture mass market microelectronics. This enables cost effective manufacturing of high-performance photodetector array circuits for imaging applications in mobile devices, as well as other technologies. Photodetector devices may be used as image sensors that generate an image by detecting light, in a manner similar to a digital camera taking pictures. Our devices may incorporate additional functionality for 3D image capture when integrated into various system architectures. This technology has the potential to enhance the performance and capability of camera image sensors, light detection and ranging (LiDAR), augmented reality/virtual reality (AR/VR), facial recognition, and other applications. Aeluma has acquired key manufacturing equipment and has its headquarters in Goleta, California with a manufacturing cleanroom to house this equipment.

Because we will leverage compound semiconductor materials, our devices may operate out to longer wavelengths, up to at least 1600 nm, which is advantageous for a number of reasons including eye safety. Beyond 1400 nm is considered eye safe at significantly higher optical power levels relative to that at shorter wavelengths. Therefore, for Lidar sensing systems, the range (the detectable object distance) can be increased significantly. Operating at specific longer wavelengths (for example, near 1550 nm) also enables imaging both in low light (dark) conditions, as well as in direct sunlight. Therefore, images could be captured outdoors and in various conditions.

Additionally, Aeluma's technology may be used to manufacture other electronic and optoelectronic devices in the future including lasers, transistors, and solar cells.

Aeluma has acquired key manufacturing equipment, and has headquarters in Goleta, California with a manufacturing cleanroom to house this equipment.

Our Strategy

We will continue to develop our technology that includes novel materials and devices based on our core intellectual property. Our primary focus is to manufacture high-performance photodetector array circuits for image sensors and other optoelectronic devices. Initial efforts aim to penetrate the 3D imaging and sensing (mobile and consumer, defense and aerospace, industrial, medical, auto), LiDAR (robotic vehicles, autonomous driving (AD), advanced driver assistance systems (ADAS), topography, wind, industrial), and communications (telecommunications, data center communication, artificial intelligence (AI) communications, and quantum processing and communications) markets.

Our Technology

Our technology is based on heterogeneous integration of compound semiconductor materials on large-diameter substrates such as silicon. This heterogeneous integration enables the subsequent device fabrication and manufacturing in large-scale manufacturing environments that are suited to mass markets.

Competition

There are two primary classes of image sensors currently on the market, low cost silicon sensors for mass market applications, and high-performance compound semiconductor (ex. InGaAs) sensors deployed primarily in specialty applications. The major suppliers of silicon CMOS image sensors include Sony, Samsung, Omnivision, On Semi, STM, Panasonic, Canon, SK Hynix, and others (Source: Yole Development, www.yole.fr). The major suppliers of InGaAs sensors include Hamamatsu, Sumitomo, Teledyne/FLIR, Excelitas, and others (Source: Markets and Markets, www.marketsandmarkets.com).

We believe that our technology will be able to compete effectively because we are uniquely positioned to outperform silicon CMOS image sensors while achieving a cost of manufacturing that is lower than that for traditional InGaAs sensors. Compared to silicon, InGaAs demonstrates higher detection sensitivity and a broader wavelength absorption spectrum. Silicon absorbs or detects light in the visible spectral region (400-750 nm) and partially in the near infrared (NIR) spectral region (greater than 750 nm),

cutting off near 940 nm. InGaAs not only demonstrates higher absorption in the NIR, but also extends well into the shortwave infrared (SWIR) spectrum (900-1700 nm), cutting off near 1700 nm, with the ability to extend beyond to near 2500 nm.

We believe that we are also positioned to win on price in competing with current InGaAs sensors while having the ability to realize much larger area photodetector arrays because of our ability to manufacture on 12-inch silicon substrates, whereas competing InGaAs photodetectors are manufactured on indium phosphide (InP) substrates that are typically 2-4 inches in size. Therefore, in addition to realizing many more sensor chips per wafer, we have the ability to realize array sizes that are larger than what is possible with traditional InGaAs manufacturing on InP wafers.

Existing and potential competitors have or could have advantages such as greater name recognition, longer operating histories, broader and deeper product portfolios, larger customer bases, substantially greater financial and other resources, and larger scale manufacturing operations. However, we believe that our products will have the potential to compete because of our unique ability to manufacture high performance devices at scale and low cost.

Customers

Aeluma has customer engagements that involve development of wafers, delivery of engineering samples for evaluation, and delivery of small volumes of chips. Aeluma also performs on government-funded R&D projects. Aeluma's technology is broadly applicable. Potential markets include automotive LiDAR, industrial LiDAR, robotics, mobile, AR/VR, AI, communications, and defense and aerospace. Our current strategy is to pursue partnerships with system integrators, including mobile and consumer electronics manufacturers, LiDAR companies and Tier 1 automotive suppliers, module manufacturers, component suppliers, or semiconductor manufacturing companies. Aeluma is pursuing direct sales relationships and strategic partnerships.

Potential customers include those in the mobile market (both mobile phone manufacturers and companies that sell integrated solutions to them), LiDAR for cars and other vehicles, robotics, AR/VR, AI, and defense and aerospace.

See, Risk Factors - *"Our customers may require our products to undergo a lengthy and expensive qualification process without any assurance of product sales."*

Markets

The CMOS image sensors market is projected to be \$30B in 2026 (Source: Yole Development). Manufacturers of mobile phones, tablets, and LiDAR for automotive vehicles may be prospective customers for Aeluma. In the mobile market, Apple arguably leads in terms of deploying advanced capabilities such as LiDAR sensing in their devices; Apple does not currently use our technology in any of their products. Apple leverages vertical cavity surface emitting lasers (VCSEL) emitters in conjunction with single photon avalanche diode (SPAD) detectors for a LiDAR scanner in smartphones and tablets and such technology "helps to deliver faster, more realistic augmented reality experiences and improves autofocus in low-light scenes in photos and videos" (<https://www.apple.com/newsroom/2021/05/apple-awards-an-additional-410-million-from-its-advanced-manufacturing-fund-to-ii-vi/>). Other major smartphone suppliers include Samsung, Xiaomi, OPPO, vivo, Huawei, and realme (Source: www.counterpointresearch.com). The automotive LiDAR market is projected to be between \$5-80B in 2030 (<https://www.bloomberg.com/press-releases/2022-05-31/lidar-market-size-to-be-worth-4-71-billion-by-2030-grand-view-research-inc>); AEye Presentation, LD Micro Invitational 2022; Estimate by Velodyne).

Our Intellectual Property Approach

Our strategy for the protection of our proprietary technology is to seek worldwide patent protection with a focus on jurisdictions that represent significant global semiconductor markets. However, we will assess on a case-by-case basis whether it is strategically more favorable to maintain trade secret protection for our inventions and "know-how" rather than pursue patent protection. Generally, patents have a term of twenty years from the earliest priority date, assuming that all maintenance fees are paid, no portion of the patent has been terminally disclaimed and the patent has not been invalidated. In certain jurisdictions, and in certain circumstances, patent terms can be extended or shortened.

Intellectual Property

Aeluma has filed several patent applications with the United States Patent and Trademark Office (USPTO), and several patents have been issued. We have filed trademarks for the name "Aeluma" and the slogan "Sensing Reimagined" with the USPTO. We maintain protection of trade secrets that include "know-how" and process recipes.

Governmental & Environmental Regulations

Our primary products are anticipated to be compound semiconductor optoelectronic devices manufactured on silicon substrates, including InGaAs photodetectors and photodetector arrays. To the extent that our products are or become subject to U.S. export controls and regulations, these regulations may limit the export of our products and technology, and provision of our services outside of the United States, or may require export authorizations, including by license, a license exception, or other appropriate government authorizations and conditions, including annual or semi-annual reporting. Export control and economic sanctions laws may also include prohibitions on the sale or supply of certain of our products to embargoed or sanctioned countries, regions, governments, persons, and entities. In addition, various countries regulate the importation of certain products, through import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our products. The exportation, re-exportation, and importation of our products and technology and the provision of services, including by our partners, must comply with these laws or else we may be adversely affected, through reputational harm, government investigations, penalties, and a denial or curtailment of our ability to export our products and technology. Complying with export control and sanctions laws may be time-consuming and may result in the delay or loss of sales opportunities. Although we take precautions to prevent our products and technology from being provided in violation of such laws, our products and technology may have previously been, and could in the future be, provided inadvertently in violation of such laws, despite the precautions we take. If we are found to be in violation of U.S. sanctions or export control laws, it could result in substantial fines and penalties for us and for the individuals working for us. Export or import laws or sanctions policies are subject to rapid change and have been the subject of recent U.S. and non-U.S. government actions. Changes in export or import laws or sanctions policies, may adversely impact our operations, delay the introduction and sale of our products in international markets, or, in some cases, prevent the export or import of our products and technology to certain countries, regions, governments, persons, or entities altogether, which could adversely affect our business, financial condition and results of operations.

We seek to comply with all applicable statutory and administrative requirements concerning environmental quality. Expenditures for compliance with federal state and local environmental laws have not had, and are not expected to have, a material effect on our capital expenditures, results of operations or competitive position.

In addition, to the extent that our facilities and operations are or become subject to the plant and laboratory safety requirements of various environmental and occupational safety and health laws in the U.S., we believe we are in compliance with all such laws and regulations, and to date, those regulations have not materially restricted or impeded operations. Further, we believe our processes to be highly efficient, generating very low levels of waste and emissions. For this reason, we do not view issues surrounding

climate change and any currently foreseeable related regulations as materially impacting our business and financial statements, beyond any inestimable impact on the macro-economic environment.

We are also generally subject to other industry and environmental regulations for electronic and semiconductor products such as the Restriction of Hazardous Substances Directive 2002/95/EC. See “Risk Factors-Environmental and health and safety liabilities and expenditures could materially adversely affect our results of operations and financial condition” for additional information.

Manufacturing

We have established a manufacturing and research and development facility at our headquarters in Goleta, California. We have installed key equipment and we plan to control our core materials manufacturing and development. In addition to our facility, we work with a variety of vendors and are establishing relationships with industrial foundries to build out our manufacturing supply chain.

Sales

We are now delivering wafers and chips to some customers, primarily for research and development and sampling purposes. However, we cannot predict whether or not these persons, if any, will ultimately purchase our product. See Risk Factor, “*We will depend on a limited number of customers and the loss of one or more of these customers could have a material adverse effect on our business, financial condition and results of operations.*”

Marketing

Marketing activities include direct relationships with potential customers and partners. We are under nondisclosure agreement (NDA) with a number of potential customers and partners, several of which have either visited Aeluma or hosted a visit by Aeluma representatives at their sites.

Properties

Our principal executive office is located at 27 Castilian Dr., Goleta, California. Effective February 22, 2021, we entered into a triple-net lease agreement with SBR Associates LP for the commercial building at 27 Castilian Dr. Goleta, California for a term of five years, which began on April 1, 2021. The current rent for this property is \$13,673 per month, with a CPI escalation over the initial base rent over the term of the lease. The lease expires on March 31, 2026, with the option to renew the lease with reasonable notice.

Employees

As of June 30, 2024, Aeluma had 11 full-time employees, 2 part-time employees, and consultants. The majority of employees work in engineering. None of our employees are represented by a labor union. We have not experienced any work stoppages, and we consider our relations with our employees to be very good. We plan to hire additional persons on an as-needed basis. On a case-by-case basis, Aeluma may offer stock options to employees for attraction and retention.

Litigation

There is no material litigation, arbitration, governmental proceeding or any other legal proceeding currently pending or known to be contemplated against us or any members of our management team in their capacity as such, and we and the members of our management team have not been subject to any such proceeding in the 10 years preceding the date of this prospectus. We may however be involved, from time to time, in claims and lawsuits incidental to the conduct of our business in the ordinary course. We carry insurance coverage in such amounts as we believe to be reasonable under the circumstances and that may or may not cover any or all of our liabilities in respect of these matters. We do not believe that the ultimate resolution of these matters will have a material adverse impact on our consolidated financial position, cash flows or results of operations, but cannot guarantee same.

MANAGEMENT

Executive Officers and Directors

At the closing of the Merger, Messrs. Klamkin, McCarthy and DenBaars were appointed to our board of directors, and Mr. Ian Jacobs and Mr. Mark Tompkins resigned from our board of directors. Our executive management team was also reconstituted immediately following the closing by the appointment of Mr. Klamkin as our Chief Executive Officer and Mr. McCarthy as our interim Chief Financial Officer and Chief Operating Officer, and the resignation of Mr. Jacobs from all positions with us. Mr. McCarthy resigned from his position as interim Chief Financial Officer on August 18, 2021.

As per our amended and restated bylaws, our board of directors is divided into three classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the class whose terms are then expiring, to serve from the time of election and qualification until the third annual meeting following their election or until their earlier death, resignation or removal.

The Class I directors consist of Mr. DenBaars and Mr. Paglia, whose term will expire at the 2025 annual shareholder meeting.

Our prior Class II director, Ms. Mehta did not stand for re-election at our 2023 annual shareholder meeting; our Board nominated and our shareholders elected Mr. Craig Ensley to be the Class II director, to serve until the 2026 annual meeting or until his earlier death, resignation or removal.

The Class III director is Mr. Klamkin and his term will expire at the 2024 annual shareholder meeting.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control. See the section of this prospectus captioned “Description of Securities-Anti-Takeover Provisions” for a discussion of these and other anti-takeover provisions found in our amended and restated certificate of incorporation and amended and restated bylaws.

A majority of the authorized number of directors constitutes a quorum of the Board of Directors for the transaction of business. The directors must be present at the meeting to constitute a quorum. However, any action required or permitted to be taken by the Board of Directors may be taken without a meeting if all members of the Board of Directors individually or collectively consent in writing to the action.

On November 15, 2021, we accepted the resignation of Mr. McCarthy as one of our directors, which was effective December 1, 2021; Mr. McCarthy informed us that he wanted to resign from his position as a member of the Board of Directors to permit the appointment of an independent director to our three-person Board and not as a result from any disagreement regarding any matter related to the Company’s operations, policies or practices.

On November 15, 2021, the Board also approved the appointment of Ms. Palvi Mehta to fill the vacancy created by Mr. McCarthy’s resignation for the remainder of his term,

and her independent director agreement, which sets her compensation and establishes other terms and conditions governing her service on the Board. Ms. Mehta has served as an independent director since December 1, 2021.

On December 1, 2021, we also appointed Mr. John Paglia to the board of directors.

On November 8, 2022, Lee McCarthy provided notice of his resignation as our Chief Operating Officer effective November 17, 2022. Mr. McCarthy's decision to resign was not the result of any disagreements with the Company on any matter related to the operations, policies, or practices of the Company.

Mrs. Mehta decided not run for re-election in 2023; such decision was not the result of any disagreements with us on any matter related to the operations, policies, or practices of us. The Board nominated Mr. Craig Ensley to fill the vacancy on the Board; on December 14, 2023, the shareholders voted to elect Mr. Ensley to the board.

The following table provides information regarding our executive officers and directors as of the date hereof:

Name	Age	Positions	Directors Class, if applicable	Expiration of Director Term
Executive Officers				
Jonathan Klamkin	44	Chief Executive Officer & Chief Financial Officer & President & Chairman	Class III	2024
Non-Employee Directors				
Craig Ensley	73	Director	Class II	2026
Steven P. DenBaars	62	Director	Class I	2025
John Paglia	56	Director	Class I	2025

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Background of Officers and Directors

Jonathan Klamkin serves as President and Chief Executive Officer and is one of our directors. Mr. Klamkin has been the CEO and Director of Biond Photonics (now Aeluma) since February 28, 2019. He is a Professor of Electrical and Computer Engineering at the University of California, Santa Barbara (2015-present), where his group conducts pioneering research in integrated photonics and optoelectronics for communications and sensing applications. Mr. Klamkin was with BinOptics Corp. (2001-2002), a laser diode manufacturer that was acquired by Macom in 2015. Jonathan is the recipient of numerous awards including the NASA Young Faculty Award, the DARPA Young Faculty Award, and the DARPA Director's Fellowship. He has published more than 200 papers, holds several patents, and has given more than 100 invited presentations to industry, government and the academic community. Mr. Klamkin holds a Bachelor of Science in Electrical and Computer Engineering from Cornell University and a Master of Science in Electrical and Computer Engineering and a Ph.D. in Materials from the University of California, Santa Barbara.

Steven P. DenBaars serves as one of our directors. Steven has been on Biond Photonics' (now Aeluma's) Board of Directors since June 5, 2021. He is a Professor of Materials and Electrical and Computer Engineering at the University of California Santa Barbara (1991-pres). Prof. DenBaars has been very active in entrepreneurship, having helped co-found several start-up companies in the field of photonics and electronics. In 1996, he Co-founded Nitres Inc., which was acquired by Cree Inc. in May 2000. In 2013, he Co-Founded SLD Laser, and helped build the company to over 150 employees before being acquired by Kyocera Corporation in 2021. In 2014, he assisted Dr. Jeffry Shealy in the founding of Akoustis Technologies Inc. (AKTS) for commercialization of RF Filters, and he is currently on the Board of Directors. In 2022 he joined the Board of Directors of SmartKem Ltd., a high performance organic semiconductor company. He received the IEEE Fellow award in 2005, member of the National Academy of Engineers in 2012, and National Academy of Inventors in 2014. He has authored or co-authored over 980 technical publications, 360 conference presentations, and over 185 patents. Mr. DenBaars has a Bachelor of Science in Metallurgical Engineering from the University of Arizona and a Master of Science and a Ph.D. in Material Science and Electrical Engineering, respectively from the University of Southern California. We believe the Mr. DenBaars qualifies as our director because of his entrepreneurial and start-up experience, as well as his engineering knowledge.

Craig Ensley serves as one of our directors and chairs compensation committee. Craig Ensley has built and led global semiconductor businesses in Analog & DSP, MEMS & Sensors, Communications (RF/Wireless, Optical, and Wired), and Consumer. Most recently he has been the CEO or President of three venture-backed companies which he repositioned to drive growth, create first profitability, and deliver superior shareholder returns. Previously, he served as SVP of a public firm where he helped lead a successful \$1 billion turnaround & restructuring. Prior, he was an executive helping build two businesses from pre-revenue to \$300-400 million in sales. Mr. Ensley serves as a Board Director of Mentium Technologies, which delivers mission-critical Artificial Intelligence (AI) capabilities to Edge Devices. He also serves on the Governing Council (aka Board of Directors) of the MEMS & Sensors Industry Group, the WW supplier ecosystem. He is an active investor with the Santa Barbara Angel Investor Alliance and an advisor at the Silicon Catalyst incubator. Previously, Mr. Ensley was CEO of Atomica (formerly IMT), where he and the team grew it to become the largest MEMS & Sensor manufacturing foundry in the U.S. Prior to Atomica, he was CEO of DisplayLink, creating an enterprise video networking firm with global leadership. He was President of Peregrine, which built high-volume RF & Wireless devices leading the world's transitions to 3G & 4G wireless. Peregrine invented high volume SOI (Silicon on Insulator) process technology, and took over markets previously served by GaAs. Mr. Ensley's earlier roles were leading strategy, development, and marketing. As SVP, he was on the team to restructure Cirrus Logic from massive losses to profitability and growth. He previously helped start Crystal Semiconductor, which became the world's highest growth analog & mixed signal DSP company. At Rockwell International, Mr. Ensley started and built the communications semiconductor business, which subsequently spun out as 3 public companies: Conexant, Mindspeed, and Jazz. He served on the Boards of Directors of the Consumer Electronics Association Home Networking Division and Audio Division, and the KLRU Austin PBS Television Station. Mr. Ensley holds a Master of Business Administration from Stanford University. He also holds a Bachelor of Science in Applied Physics and a Bachelor of Arts in Economics, both from the University of California at San Diego. We believe Mr. Ensley qualifies as our director because of his entrepreneurial and start-up experience, as well as his engineering knowledge.

John Paglia serves as one of our directors and chairs the audit committee. Mr. Paglia is a Professor of Finance at Pepperdine University where his specialty areas are venture capital, private equity, corporate finance, business valuations, and mergers and acquisitions. He has been on the faculty since 2000 and is a recipient of several prestigious honors for his work in the financing and capital markets space. Additionally, he is an independent director for Simulations Plus, Inc., Splash Beverage Inc., and Impossible Kicks Inc.; and advises venture capital funds and startup companies. Mr. Paglia holds a Ph.D. in business administration (finance) from the University of Kentucky, an MBA from Gannon University, a B.S. in finance from Gannon University, and is a Certified Public Accountant, Chartered Financial Analyst, and is NACD Directorship Certified™. We believe his knowledge of technical accounting issues and business experience qualify him as an expert in financial matters and as a qualified candidate for the Board.

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Corporate Social Responsibility

We believe that social responsibility is essential for a healthy and equitable corporate culture; one that balances the interests of its various worldwide stakeholders, including employees, shareholders, and our potential partners and customers. We are committed to sound corporate citizenship in the way we manage our people, our business and our impact on society and the environment. Furthermore, we acknowledge our responsibility to ensure our products will be designed, developed, and supplied in an

environmentally safe and sound manner. We believe that we obey and comply with all laws and regulations that apply to us in the communities where we do business. Last but not least, we value our shareholders' governance view and seek to solicit feedback from our shareholders on a regular basis relating to matters that are important to them, including the compensation of our executive officers and directors and environmental, social and governance ("ESG") topics.

Involvement in Certain Legal Proceedings

To the best of the Company's knowledge, none of the following events occurred during the past ten years that are material to an evaluation of the ability or integrity of any of our executive officers, directors, Director Nominees or promoters:

- (1) A petition under the Federal bankruptcy laws or any state insolvency law was filed by or against, or a receiver, fiscal agent or similar officer was appointed by a court for the business or property of such person, or any partnership in which he was a general partner at or within two years before the time of such filing, or any corporation or business association of which he was an executive officer at or within two years before the time of such filing;
- (2) Convicted in a criminal proceeding or is a named subject of a pending criminal proceeding (excluding traffic violations and other minor offenses);
- (3) Subject of any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from, or otherwise limiting, the following activities:
 - (i) Acting as a futures commission merchant, introducing broker, commodity trading advisor, commodity pool operator, floor broker, leverage transaction merchant, any other person regulated by the Commodity Futures Trading Commission, or an associated person of any of the foregoing, or as an investment adviser, underwriter, broker or dealer in securities, or as an affiliated person, director or employee of any investment company, bank, savings and loan association or insurance company, or engaging in or continuing any conduct or practice in connection with such activity;
 - (ii) Engaging in any type of business practice; or
 - (iii) Engaging in any activity in connection with the purchase or sale of any security or commodity or in connection with any violation of Federal or State securities laws or Federal commodities laws;
- (4) Subject of any order, judgment or decree, not subsequently reversed, suspended or vacated, of any Federal or State authority barring, suspending or otherwise limiting for more than 60 days the right of such person to engage in any activity described by such activity;
- (5) Found by a court of competent jurisdiction in a civil action or by the Commission to have violated any Federal or State securities law, and the judgment in such civil action or finding by the Commission has not been subsequently reversed, suspended, or vacated;
- (6) Found by a court of competent jurisdiction in a civil action or by the Commodity Futures Trading Commission to have violated any Federal commodities law, and the judgment in such civil action or finding by the Commodity Futures Trading Commission has not been subsequently reversed, suspended or vacated;
- (7) Subject of, or a party to, any Federal or State judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of:
 - (i) Any Federal or State securities or commodities law or regulation; or
 - (ii) Any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order; or
 - (iii) Any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- (8) Subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act (15 U.S.C. 78c(a)(26))), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act (7 U.S.C. 1(a)(29))), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Director Independence and Board Committees

We are not currently required under the Securities and Exchange Act to maintain any committees of our Board. We are not currently subject to listing requirements of any national securities exchange or inter-dealer quotation system which has requirements that a majority of the board of directors be "independent" or maintain any committees of our Board and, as a result, we are not at this time required to have our Board of Directors comprised of a majority of "independent directors" or have any committees. However, as of the date hereof, we currently have two independent directors on our board and are operating with three board committees.

Our board of directors shall determine which directors qualify as "independent" directors in accordance with listing requirements of The NASDAQ Stock Market, or NASDAQ. The NASDAQ independence definition includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us.

Our Board of Directors has determined that Mr. Ensley and Mr. Paglia shall be considered independent directors in accordance with the definition of independence applied by the NASDAQ Stock Market.

Although it is not required, we established three standing committees: an audit committee in compliance with Section 3(a)(58)(A) of the Exchange Act, a compensation committee and a nominating and governance committee. We will add independent directors, as needed to each committee at the necessary time as per the applicable exchange's rules.

Copies of the charters for each of our three committees can be obtained from our website, www.aeluma.com.

Audit committee. Under the national exchange listing standards and applicable SEC rules, we are required to have at least three members of the audit committee, all of whom must be independent, subject to certain phase-in provisions. At this time, Mr. Ensley and Mr. Paglia are the only directors who meet the independent director standard under national exchange listing standards and under Rule 10-A-3(b)(1) of the Exchange Act; Mr. DenBaars also serves on the Audit committee, although he is not considered "independent". Mr. Paglia was selected to serve as chairman of our audit committee. Each member of the audit committee is financially literate and our Board has determined that Mr. Paglia qualifies as an "audit committee financial expert" as defined in applicable SEC rules.

We adopted an audit committee charter, which will detail the purpose and principal functions of the audit committee, including:

- appoint, compensate, and oversee the work of any registered public accounting firm employed by us;
- resolve any disagreements between management and the auditor regarding financial reporting;
- pre-approve all auditing and non-audit services;
- retain independent counsel, accountants, or others to advise the audit committee or assist in the conduct of an investigation;
- seek any information it requires from employees—all of whom are directed to cooperate with the audit committee’s requests—or external parties;
- meet with our officers, external auditors, or outside counsel, as necessary; and
- oversee that management has established and maintained processes to assure our compliance with all applicable laws, regulations and corporate policy.

Compensation Committee. The compensation committee consists of Mr. Ensley (Chair), Mr. Paglia and Mr. DenBaars. Under the national exchange listing standards and applicable SEC rules, we are required to have at least two members of the compensation committee, all of whom must be independent, subject to certain phase-in provisions. Mr. Ensley and Mr. Paglia meet the independent director standard under national exchange listing standards applicable to members of the compensation committee

We adopted a compensation committee charter, which will detail the purpose and responsibility of the compensation committee, including:

- discharge the responsibilities of the Board relating to compensation of our directors, executive officers and key employees;
- assist the Board in establishing appropriate incentive compensation and equity-based plans and to administer such plans;
- oversee the annual process of evaluation of the performance of our management; and
- perform such other duties and responsibilities as enumerated in and consistent with compensation committee’s charter.

The charter permits the committee to retain or receive advice from a compensation consultant and will outline certain requirements to ensure the consultants independence or certain circumstances under which the consultant need not be independent. However, as of the date hereof, the Company has not retained such a consultant.

Nominating and Governance Committee. The nominating and governance committee consists of Mr. DenBaars (Chair), Mr. Ensley and Mr. Paglia. We adopted a nominating and governance committee charter, which will detail the purpose and responsibilities of the nominating and governance committee, including:

- assist the Board by identifying qualified candidates for director nominees, and to recommend to the board of directors the director nominees for the next annual meeting of stockholders;
- lead the Board in its annual review of its performance;
- recommend to the board director nominees for each committee of the Board; and
- develop and recommend to the Board corporate governance guidelines applicable to us.

Meetings of the Board of Directors

During the year ended June 30, 2024, Board meetings were held on September 20, 2023, November 3, 2023, February 9, 2024 and May 9, 2024. The Board also transacted business by unanimous written consent throughout the year.

Family Relationships

There are no family relationships by between or among the members of the Board or other executive officers of the Company.

Indemnification

Our articles of incorporation and bylaws include provisions limiting the liability of directors and officers and indemnifying them under certain circumstances. See “Indemnification Agreements” for further information. We intend to secure directors’ and officers’ liability insurance following the completion of this offering.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the Company pursuant to Delaware law, we are informed that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Board Leadership Structure and Role in Risk Oversight

Mr. Klamkin serves as our Chief Executive Officer and our Chairman. Although the roles of our Chief Executive Officer and Chairman of our board of directors are currently performed by the same person, we do not have a policy regarding the separation of these roles, as our board of directors believes that it is in the best interests of the Company and our shareholders to make that determination from time to time based upon the position and direction of the Company and the membership of our board of directors.

Our board of directors has determined that our leadership structure is appropriate for the Company and our shareholders as it helps to ensure that the board of directors and management act with a common purpose and provides a single, clear chain of command to execute our strategic initiatives and business plans. In addition, our board of directors believes that a combined role of Chief Executive Officer and Chairman is better positioned to act as a bridge between management and our board of directors, facilitating the regular flow of information. Our board of directors also believes that it is advantageous to have a Chairman with an extensive knowledge of our industry.

Code of Ethics

Our Board of Directors adopted a Code of Ethics, a copy of which is attached herein as Exhibit 14.1, that applies to all of directors and employees, pursuant to rules described in Regulation S-K. The code provides fundamental ethical principles to which these individuals are expected to adhere to and will operate as a tool to help our directors, officers and employees understand the high ethical standards required for employment by, or association with, our Company. This Code constitutes a “code of ethics” as defined by the rules of the SEC. You can review the Code of Ethics by accessing our public filings at the SEC’s web site at www.sec.gov. Copies of the code can be also obtained from our website, www.aeluma.com. Any amendments to, or waivers from, a provision of our code of ethics that applies to any of our executive officers will be

EXECUTIVE COMPENSATION

As an “emerging growth company” as defined in the JOBS Act and a smaller reporting company we are not required to include a Compensation Discussion and Analysis section and have elected to comply with the scaled disclosure requirements applicable to emerging growth companies and smaller reporting companies.

Summary Compensation Table

The following summary compensation table sets forth all compensation awarded to, earned by, or paid to the named executive officer during the years ended June 30, 2024 and 2023 in all capacities for the accounts of our executive, including the Chief Executive Officer (CEO), Chief Financial Officer (CFO) and Chief Operations Officer (COO):

Name and principal position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
Jonathan Klamkin	2024	\$ 255,000(1)	-	-	-	-	-	-	255,000
CEO, CFO and Director	2023	\$ 215,000(1)	-	-	259,660(2)	-	-	-	474,660
Lee McCarthy,	2024	-	-	-	-	-	-	-	-
Previous Interim CFO, COO, Director(3)	2023	77,292	-	-	-	-	-	-	77,292

- (1) The Board of Directors approved an annual base compensation of \$230,000 for Mr. Klamkin effective July 1, 2021. On October 14, 2022, the Board of Directors approved the adjustment of Mr. Klamkin’s compensation to \$10,000.00 per month for the period from October 1, 2022 to December 31, 2022, and then back to \$19,166.67 per month (\$230,000 per year) as of January 1, 2023. On November 30, 2022, the Board of Directors approved an increase in Mr. Klamkin’s annual salary to \$255,000 and also approved issuing him 100,000 options with a 4-year vesting schedule, with an exercise price of \$2.10 per share, subject to continued service as of each such vesting date.
- (2) The dollar amounts in this column reflect the grant date fair value of stock option awards granted during the year ended June 30, 2023. These amounts have been calculated in accordance with FASB Accounting Standards Codification Topic 718.
- (3) Mr. McCarthy served as interim Chief Financial Officer and Chief Operating Officer from the Merger until November 2022; he also served as a director from the Merger until November 2021. However, he received five (5) months of his annual salary in the fiscal year ending June 30, 2023.

Employment and Change in Control Agreements

We do not have an employment agreement with any of our officers. However, pursuant to our advisor agreement with Mr. Denbaars, if there is a change of control, other than the Merger, while he is still retained by the Company as an advisor, all of his unvested shares, per his amended advisor agreement, will vest at the closing of such change in control transaction. Additionally, as per the restricted stock purchase agreements we maintain with Mr. Klamkin and Mr. McCarthy, if either of their respective employment with the Company is terminated by the Company, other than for cause, or is terminated by the individual for Good Reason (as defined in the related agreement), within a year after the Merger, then, effective as of such termination, 100% of such terminated person’s unvested shares will vest.

Outstanding Equity Awards at Fiscal Year End

The following table presents information regarding certain outstanding shares held by each of our named executive officer as of June 30, 2024. These shares were converted into shares of our common stock in connection with the Merger, and the table below reflects all outstanding shares as of June 30, 2024 as if they had been granted by us.

Outstanding Equity Awards at June 30, 2024

Name	Stock Options			Stock Awards					Equity Incentive Plan Awards: Markey or Payout Value of Unearned Shares, Units or Other Rights That Have Not Been Issued (\$)
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Securities Underlying Unexercised Options (#)	Option Exercise Prices (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Units of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Shares, Units or Other Rights That Have Not Been Issued (#)	
Jonathan Klamkin	37,500(1)	62,500(1)	-	2.10	11/30/2032	108,261	\$ 388,657(2)	-	-

- (1) On November 30, 2022, we granted to Mr. Klamkin a stock option to purchase 100,000 shares of our common stock. The shares will vest in equal quarterly installments over the following four years, subject to continued service as of each such vesting date.

- (2) These shares were purchased pursuant to Founder’s Restricted Stock Purchase Agreement between Mr. Klamkin and the Company on October 27, 2020. Mr. Klamkin purchased a total of 1,623,920 shares (represented 1,250,000 shares of Biond prior to the Merger) pursuant to the agreement. Pursuant to the agreement, 20% of the shares vested on the date the agreement was signed and starting on November 30, 2020 and for every month thereafter until employment termination, 1/48th of the remaining shares shall vest on the last day of each succeeding calendar month. The agreement also provides that if there is a change of control, like the Merger, and if Mr. Klamkin is terminated, other than for cause, during the period starting 90 days before the Merger and for a year thereafter, all unvested shares shall vest at the date of termination. Accordingly, as of June 30, 2024, 1,515,659 shares have vested. The market value of the unvested shares was based on \$3.59 per share, which was the closing price of our common stock on June 30, 2024.

Compensation Paid to Directors

The following table provides a summary of compensation paid to directors, who are not also executive officers, during the fiscal year ended June 30, 2024. The only director who is also an executive director is Mr. Klamkin, whose compensation is included in the Summary Compensation table above.

Director	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards \$(1)(2)	All Other Compensation (\$)	Total (\$)
Steven P. DenBaars	-	-	109,020	-	109,020
Craig Ensley	-	-	111,066(3)	-	111,066
John Paglia	-	-	34,170(4)	-	34,170
Palvi Mehta	-	-	35,890(5)	-	35,890

- (1) The dollar amounts in this column reflect the grant date fair value of stock option awards granted during the year ended June 30, 2024. These amounts have been calculated in accordance with FASB Accounting Standards Codification Topic 718.
- (2) On March 1, 2024, we granted Mr. DenBaars, Mr. Ensley and Mr. Paglia stock options to purchase 43,279 shares, 44,004 shares and 13,538 shares, respectively, of our common stock at a price of \$2.99. One quarter of the shares vested immediately and the remaining shares vest quarterly over nine months, subject to continued service as of each such vesting date.
- (3) We entered into an independent director agreement with Mr. Ensley, pursuant to which we issued him 29,014 stock options at a price of \$2.99 per share and provided him with standard indemnification. The terms of the option grants are as follows: 6,514 of the stock options shall vest on February 29, 2024, 7,500 stock options vested on May 31, 2024, 7,500 vested on August 31, 2024 and 7,500 shall vest on November 30, 2024; if Mr. Ensley resigns or is otherwise terminated, any unvested options will be immediately cancelled and he will have 90 days to exercise any earned, vested options. For each year of committee service, Mr. Ensley will receive an additional 15,500 options with vesting in equal quarterly increments. The agreement became effective as of December 14, 2023, and committee service commenced on February 10, 2022. As of June 30, 2024, 20,902 options have vested for Mr. Ensley pursuant to his independent director agreement.
- (4) We entered into an independent director agreement with Mr. Paglia, pursuant to which we issued him 125,000 stock options at a price of \$2.00 per share and provided him with standard indemnification. The terms of the option grants are as follows: 50,000 of the stock options shall vest in equal quarterly increments during the first year of directorship; an additional 37,500 shall vest in equal quarterly increments over the second and third year of the directorship, if re-elected; if the director is not re-elected, any unvested options are cancelled. For each year of committee service, Mr. Paglia will receive an additional 16,750 options with vesting in equal quarterly increments. The agreement became effective as of December 1, 2021, and committee service commenced on February 10, 2022. As of June 30, 2024, 154,912 options have vested for Mr. Paglia pursuant to his independent director agreement.
- (5) Palvi Mehta served as a Class II director since December 1, 2021 and her term expired at the 2023 annual shareholder meeting. Ms. Mehta did not stand for re-election at our 2023 Annual Shareholder Meeting.

Our 2021 Equity Incentive Plan

Pursuant to the Merger Agreement and upon the closing of the Merger, we adopted our 2021 Equity Incentive Plan (the “2021 Plan”), which provides for the issuance of incentive awards of stock options, restricted stock awards, restricted stock units, stock appreciation rights, performance awards, cash awards, and stock bonus awards. We initially reserved 980,000 shares of our common stock for issuance pursuant to awards granted under our 2021 Plan. The number of shares reserved for issuance under our 2021 Plan will increase automatically on January 1 of each of 2022 through 2031 by the number of shares equal to the lesser of 5% of the total number of outstanding shares of our common stock as of the immediately preceding December 31, or a number as may be determined by our board of directors. On January 1, 2023 and 2024, the number of shares reserved for issuance was increased by 565,850 shares and 608,396 shares, respectively. As of June 30, 2024, the number of shares available for future issuance under our 2021 Plan was 1,732,925.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of our common stock as of the date hereof (i) each person (or group of affiliated persons) who is known by us to own more than five percent (5%) of the outstanding shares of our Common Stock, (ii) each director, executive officer and director nominee, and (iii) all of our directors, executive officers and director nominees as a group.

Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to securities. For purposes of this table, a person or group of persons is deemed to have “beneficial ownership” of any shares of common stock that such person has the right to acquire within 60 days of the date of the respective table. For purposes of computing the percentage of outstanding shares of our common stock held by each person or group of persons named above, any shares that such person or persons has the right to acquire within 60 days of the date of the respective table is deemed to be outstanding for such person, but is not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. The inclusion herein of any shares listed as beneficially owned does not constitute an admission of beneficial ownership.

Except as otherwise indicated, the persons listed below have sole voting and investment power with respect to all shares of our common stock owned by them, except to the extent that power may be shared with a spouse.

The percentage of shares beneficially owned is computed on the basis of 12,178,424 shares of common stock outstanding as of October 7, 2024. Shares of common stock that

a person has the right to acquire within 60 days of October 7, 2024 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated, the address of each beneficial owner in the table below is c/o Aeluma, 27 Castilian Drive, Goleta, California 93117.

	Shares of Common Stock Beneficially Owned	Percentage of Common Stock Beneficially Owned
Directors and Named Executive Officers		
Jonathan Klamkin, CEO, CFO and Director	1,676,995(1)	13.7%
Steven P. DenBaars, Director	453,367(2)	3.7%
Craig Ensley, Director	60,671(3)	*
John Paglia, Director	194,538(4)	1.6%
All directors and executive officers as a group (4 persons)	2,385,571	19.5%
5% Stockholders		
Mark Tompkins	2,715,833	22.3%
Lee McCarthy	977,425	8.0%

* less than 1%.

- (1) Represents 1,626,995 shares held by Mr. Klamkin and 43,750 shares that vested pursuant to his stock options agreement through the date hereof and 6,250 shares that shall vest within 60 days pursuant to the terms of his stock options per director agreement.
- (2) Represents 410,088 shares held by Mr. DenBaars and 32,090 that vested pursuant to Mr DenBaars' stock options and director agreement through the date hereof and 11,189 shares that shall vest within 60 days pursuant to the terms of his stock options director agreement.
- (3) Represents 16,667 shares held by Mr. Ensley and 32,629 that vested pursuant to Mr Ensley's stock options and director agreement through the date hereof and 11,375 shares that shall vest within 60 days pursuant to the terms of his stock options director agreement.
- (4) Represents 12,500 shares held by Mr. Paglia, 168,475 shares that vested pursuant to his stock options and director agreement through the date hereof and 13,563 shares that shall vest within 60 days pursuant to the terms of his stock options director agreement.

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RELATED PARTY TRANSACTIONS OF DIRECTORS AND EXECUTIVE OFFICERS

We describe below transactions since January 1, 2020, in which the amounts involved exceeded or will exceed the lesser of \$120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years and any of our directors, executive officers, or beneficial holders of more than 5% had or will have a direct or indirect material interest. Other than as described below, there have not been transactions to which we have been a party other than compensation arrangements, which are described under "*Executive Compensation*." The following description is historical and has not been adjusted to give effect to the Merger.

On October 27, 2020, the Company entered into a Stock Purchase Agreement with each of Mr. Klamkin and Mr. McCarthy, pursuant to which they each purchased 1,623,920 shares of common stock (represented 1,250,000 shares of Biond prior to the Merger) for an aggregate sum of \$10,000 each. The stock purchase agreement contains a vesting schedule such that 324,784 shares were fully vested as of October 27, 2020 and the remaining 1,299,136 shares vest monthly over the next 4 years. The unvested shares may be repurchased by the Company, at the Company's option, within 90 days after the individual is terminated from his position with the Company at the original purchase price.

On February 5, 2021, we entered into a Simple Agreement for Future Equity Agreement (the "SAFE Agreement") with each of Mr. Klamkin, our CEO, Mr. McCarthy, our former COO and Mr. DenBaars, one of our directors (each of whom is referred to as a "SAFE Holder"), pursuant to which each of them loaned us \$5,000, \$5,000 and \$50,000, respectively. Pursuant to the SAFE Agreement, the SAFE Holder's loan will convert into shares of preferred stock if we complete a preferred stock private financing before the SAFE Agreement is terminated or the SAFE Holder shall be entitled to a certain portion of the proceeds from a Dissolution Event or Liquidity Event, as such terms are defined in the SAFE Agreement. Upon the earlier of the conversion to preferred stock or the payment to the SAFE Holder pursuant to Dissolution Event or Liquidity Event, the SAFE Agreement shall automatically terminate. On June 10, 2021, the parties agreed to convert the loans under the SAFE Agreement into shares of our common stock.

The Company is party to that certain Advisory Agreement with Mr. DenBaars, one of our directors, dated as of December 31, 2020, pursuant to which Mr. DenBaars shall serve as an advisor to the Company. Under the agreement, as partial compensation for his advisory services, the Company granted Mr. DenBaars the right to purchase 32,805 shares of common stock (represents 25,252 shares of Biond common stock prior to the Merger) at a price \$0.008 per share; the shares have a four-year vesting schedule and Mr. DenBaars purchased such shares on February 4, 2021, prior to being appointed as one of our directors. The Advisory Agreement with Mr. DenBaars was amended on June 10, 2021 to reflect additional advisory services. Under this agreement, as partial compensation for his advisory service, the Company granted Mr. DenBaars the right to purchase an additional 213,198 shares of the Company's common stock (represents 164,108 shares of Biond common stock prior to the Merger) at a price of \$0.015 per share; the shares have a two-year vesting schedule. Pursuant to the terms of his advisory agreement, 241,903 of the shares have vested through the date hereof.

Participation in the Merger Offering

Certain of our existing investors, including investors affiliated with certain of our directors and prior directors, purchased an aggregate of 400,000 shares of our common stock in the Merger Offering, for an aggregate gross purchase price of \$800,000. Such purchases were made on the same terms as the shares that were sold to other investors in the Merger Offering and not pursuant to any pre-existing contractual rights or obligations.

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Indemnification Agreements

We maintain indemnification agreements with each of our current executive officers. The indemnification agreements, our restated articles of incorporation and our restated bylaws will require us to indemnify our directors to the fullest extent not prohibited by Delaware's General Corporation Law ("DGCL"). Subject to very limited exceptions, our restated bylaws will also require us to advance expenses incurred by our directors and officers.

Promoters and Certain Control Persons

As per the definition of a “promoter” under the Securities Act, generally defined as anyone involved in the formation of the issuer, each of Mr. Tompkins and Mr. Jacobs may be deemed a “promoter.” Mr. Tompkins received 4,750,000 shares of the Company’s common stock at the time it was incorporated and Mr. Jacobs held 250,000 shares. Immediately prior to the Merger and in connection therewith, Tompkins forfeited 2,450,000 of those shares, which were then cancelled. Mr. Tompkins’ shares are currently subject to a lock-up agreement with Aeluma pursuant to which he is restricted from selling or transferring his shares for a period of 18 months from the date shares of our common stock commence trading on the OTCQB or OTCQX market maintained by OTC Markets Group, the Nasdaq Stock Market, the New York Stock Exchange or the NYSE American.

The term “promoter” includes: i) any person who, acting alone or in conjunction with one or more persons, directly or indirectly takes initiative in founding and organizing the business or enterprise of an issuer; or ii) any person who, in connection with the founding and organizing of the business or enterprise of an issuer, directly or indirectly receives in consideration of services or property, or both services and property, 10 percent or more of any class securities of the issuer or 10 percent or more of the proceeds from the sale of any class of such securities. However, a person who receives such securities or proceeds either solely as underwriting commissions or solely in consideration of property shall not be deemed a promoter within the meaning of this paragraph, if such person does not otherwise take part in founding and organizing the enterprise.

Other than Mr. Tompkins, there are no promoters being used in relation with this offering. No persons who may, in the future, be considered a promoter will receive or expect to receive any assets, services or other consideration from the Company. No assets will be or are expected to be acquired from any promoter on behalf of the Company.

DESCRIPTION OF SECURITIES

The following description summarizes the most important terms of our capital stock following the Merger and Offering. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our restated certificate of incorporation and restated bylaws, which are included as exhibits hereto, and to the applicable provisions of Delaware law.

We have authorized capital stock consisting of 50,000,000 shares of common stock and 10,000,000 shares of preferred stock. Except as otherwise provided in the certificate of designation of any series of preferred stock we may issue, the number of authorized shares of common stock or preferred stock may from time to time be increased or decreased (but not below the number of shares of such class outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of our capital stock.

As of the date of this Registration Statement, we had 12,178,424 shares of common stock issued and outstanding (assuming the buyback of 649,570 shares from Mr. McCarthy), and no shares of preferred stock issued and outstanding. Unless stated otherwise, the following discussion summarizes the term and provisions of our restated certificate of incorporation and our restated bylaws.

Common Stock

Dividend Rights

Subject to preferences that may apply to any shares of redeemable convertible preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

Voting Rights

Holders of our common stock are entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our restated certificate of incorporation. Except as otherwise required by law, the restated and amended certificate of incorporation, the restated and amended bylaws or the rules of any applicable stock exchange, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at a meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the amended and restated certificate of incorporation or the amended and restated bylaws, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Accordingly, even if a director receives 1% of the votes cast, he or she will be elected assuming there is no opposition candidate; where there is an opposition candidate, the candidate receiving the most votes wins, without regard to whether those votes constitute a majority of the votes at the meeting. Our restated bylaws establish a classified board of directors, to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights, and is not subject to redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

Upon our liquidation, dissolution, or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating redeemable convertible preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of redeemable convertible preferred stock.

Preferred Stock

Our board of directors will be authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, powers, preferences, and rights of the shares of each series and any of its qualifications, limitations, or restrictions, in each case without further vote or action by our stockholders. Our board of directors can also increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring, or preventing a change in our control and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Warrants and Options

As of the date hereof, other than the Placement Agent Warrants described below, we have no warrant outstanding and 941,962 stock options outstanding. We are not registering shares of common stock underlying any options in this registration statement.

Placement Agent Warrants

As of the date of this prospectus, we have Placement Agent Warrants outstanding that allow the placement agent and its assigns to purchase up to a total of 445,653 shares of our common stock. The following is a summary of material terms of the Placement Agent Warrants; such summary does not purport to be a complete description of the terms of the Placement Agent Warrants and you are urged to read the warrant agreement in its entirety.

Pursuant to the Offering, we issued Placement Agent Warrants to purchase up to an aggregate of 445,653 shares of common stock. The exercise price of the Placement Agent Warrants is \$3.00 per share, subject to adjustment as set forth in the warrant agreement, and are also exercisable on a cashless basis. The Placement Agent Warrants are exercisable, at any time, and from time to time, in whole or in part, within five years commencing on or after the closing of this Offering; however, the shares underlying the Placement Agent Warrants may not be sold or transferred for a period of six months from the date on which this Offering closes.

Registration Rights Agreement

In connection with the Offering, we entered into a registration rights agreement (the "Registration Rights Agreement"), pursuant to which we have agreed that promptly, but no later than 60 calendar days from the final closing of the Offering, we will file this registration statement with the SEC (the "Registration Statement"), covering (i) the shares of our common stock issued in the Offering and (ii) 85,653 shares of common stock issuable upon exercise of the Placement Agent Warrants ((i) and (ii) collectively, the "Registrable Shares"). We will use our commercially reasonable efforts to ensure that this Registration Statement is declared effective within 150 calendar days after the final closing of the Offering (which 150 day period shall be extended for each day of a U.S. government shut down that results in the SEC temporarily discontinuing review of, or acceleration of the effectiveness of, registration statements, if any).

We must use commercially reasonable efforts to keep the Registration Statement effective for period of five (5) years after the date it is declared effective or for such shorter period as such securities no longer constitute registrable securities, as such term is defined in the Registration Rights Agreement.

We will pay all expenses in connection with the registration obligations provided in the Registration Rights Agreement, including, without limitation, all registration, filing, and stock exchange fees, printing expenses, all fees and expenses of complying with applicable securities laws, the fees and disbursements of our counsel and of our independent accountants, and the reasonable fees and disbursements of a single counsel to the holders of the Registrable Securities, not to exceed \$10,000. Each holder will be responsible for its own sales commissions, if any, transfer taxes and the expenses of any other attorney or advisor such holder decides to employ.

All descriptions of the Registration Rights Agreement herein are qualified in their entirety by reference to the text thereof filed as Exhibit 10.16 hereto and incorporated herein by reference.

Anti-Takeover Provisions

The provisions of the DGCL, our restated certificate of incorporation, and our restated bylaws following the Offering could have the effect of delaying, deferring, or discouraging another person from acquiring control of our Company. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and encourage persons seeking to acquire control of our Company to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms. See the section, "*Restated Certificate of Incorporation and Restated Bylaw Provisions*" below.

Section 203 of the DGCL

As per our amended and restated certificate of incorporation, we are not subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. As per our amended and restated certificate of incorporation, the Company shall not engage in any business combination (as defined in the amended and restated certificate of incorporation), at any point in time at which the Common Stock is registered under Section 12(b) or 12(g) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), with any interested stockholder (as defined amended and restated certificate of incorporation) for a period of three (3) years following the time that such stockholder became an interested stockholder, except under certain circumstances, such as if the board of directors approved the transaction before the stockholder became an interested stockholder, if at least 66 and 2/3 of the Company's outstanding voting stock voted in favor (not by written consent) of the combination or if the stockholder, at the time it consummated the transaction pursuant to which it became an interested stockholder, owned at least 85% of the Company's voting stock (not including stock held by officers, directors or employee stock plans).

The amended and restated certificate of incorporation includes the definition of the terms used in this section, including that an interested stockholder is any person (other than the Company and any direct or indirect majority-owned subsidiary of the Company) that (i) is the owner of 15% or more of the outstanding voting stock of the Company, or (ii) is an affiliate or associate of the Company and was the owner of 15% or more of the outstanding voting stock of the Company at any time within the 3-year period immediately prior to the date on which it is sought to be determined whether such person is an interested stockholder, and the affiliates and associates of such person; provided, however, that the term "interested stockholder" shall not include any person whose ownership of shares in excess of the 15% limitation set forth herein is the result of action taken solely by the Company; provided that such person shall be an interested stockholder if thereafter such person acquires additional shares of voting stock of the Company, except as a result of further corporate action not caused, directly or indirectly, by such person. For the purpose of determining whether a person is an interested stockholder, the voting stock of the Company deemed to be outstanding shall include stock deemed to be owned by the person through application of the definition of "owner" included in the amended and restated certificate of incorporation, but shall not include any other unissued stock of such Company which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

Transfer Agent

The transfer agent and registrar for our common stock will be VStock Transfer, LLC. The transfer agent's address is 18 Lafayette Place, Woodmere, New York 11598, and its telephone number is (212) 828-8436.

SELLING STOCKHOLDERS

This prospectus relates to the offering and sale, from time to time, of up to 2,103,151 shares of our common stock held by the stockholders named in the table below. We are registering the shares to permit the selling stockholders and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a selling stockholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares when and as they deem appropriate in the manner described in the “Plan of Distribution.” As of October 9, 2024, there were 12,178,424 shares of common stock issued and outstanding (assuming the buyback of 649,570 shares from Mr. McCarthy).

The following table sets forth:

- the name of the selling stockholders,
- the number of shares of our Common Stock that the selling stockholders beneficially owned prior to the offering for resale of the shares under this prospectus,
- the maximum number of shares of our Common Stock that may be offered for resale for the account of the selling stockholders under this prospectus, and
- the number and percentage of shares of our Common Stock beneficially owned by the selling stockholders after the offering of the shares (assuming all of the offered shares are sold by the selling stockholders).

Unless set forth below, the selling stockholders received their securities in a private transaction with the Company.

Each selling stockholder may offer for sale all or part of the Shares from time to time. The table below assumes that the selling stockholders will sell all of the Shares offered for sale. A selling stockholder is under no obligation, however, to sell any Shares pursuant to this prospectus.

Name of selling stockholder	Shares of Common Stock Beneficially Owned Prior To offering	Maximum Number of Shares of Common Stock To Be Sold	Number of Shares of Common Stock Owned After offering (1)	Percentage Ownership After offering (2)
The Steven and Kaye Yost Family Trust ⁽¹⁾	0	8,000	0	*
Larry A. Coldren	0	8,333	0	*
OHB Family Trust ⁽²⁾	0	12,000	0	*
Dr. Shuji Nakamura	0	16,667	0	*
Steven Denbaars	0	33,333	0	*
Kevin York	0	33,333	0	*
Christian Felipe	0	33,333	0	*
Mark Tompkins	0	83,333	0	*
H Investment Company LLC ⁽³⁾	0	16,667	0	*
Northlea Partners LLLP ⁽⁴⁾	0	5,000	0	*
DeLoach LS Investments LLC ⁽⁵⁾	0	16,667	0	*
ACNYC LLC ⁽⁶⁾	0	50,000	0	*
Sundarrajan Family Trust ⁽⁷⁾	0	8,333	0	*
Stephan Stefurak & Anne Stefurak	0	16,667	0	*
Raymond J Bonanno TTE U/A DTD 12/05/2002(8)	0	37,500	0	*
Joan L Bonanno TTE U/A DTD 12/05/2002(9)	0	37,500	0	*
John E. Gerngross, Jr. Rev Trust DTD 3/31/2009 ⁽¹⁰⁾	0	16,667	0	*
Robert Caione	0	30,000	0	*
Tofu Properties, LLC ⁽¹¹⁾	0	8,333	0	*
Jeffrey Shealy	0	33,333	0	*
Ian Wood	0	12,000	0	*
Daniel Michael	0	10,000	0	*
Regents Park Securities Ltd. ⁽¹²⁾	0	16,666	0	*
John Petote	0	16,667	0	*
Thanat Khamlua	0	10,000	0	*
Navigo Capital Group, L.P. ⁽¹³⁾	0	30,000	0	*
Walter Wohlmuth	0	10,000	0	*
CN Investment Trust ⁽¹⁴⁾	0	10,000	0	*
David Dwelley	0	8,333	0	*
Lawrence Altman	0	8,333	0	*
Craig H. Ensley	0	16,667	0	*
Loren L. McFarland	0	8,334	0	*
John V. Wagner Jr.	0	25,000	0	*
James Ferolie	0	8,000	0	*
James McGonigle	0	20,000	0	*
GoodHombre Family Trust ⁽¹⁵⁾	0	16,667	0	*
Hay and KDY Trust ⁽¹⁶⁾	0	8,333	0	*
Robert Caione	0	20,000	0	*

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Name of selling stockholder	Shares of Common Stock Beneficially Owned Prior To offering	Maximum Number of Shares of Common Stock To Be Sold	Number of Shares of Common Stock Owned After offering (1)	Percentage Ownership After offering (2)
McDonough Family 1996 Trust R. Emmett McDonough and Jadwiga McDonough, Trustees ⁽¹⁷⁾	0	8,333	0	*
Christian Felipe	0	33,333	0	*
Chris McGowan ⁽¹⁸⁾	0	8,333	0	*
MP Stewart LLC ⁽¹⁹⁾	0	116,667	0	*

McDonough Family Revocable Trust ⁽²⁰⁾	0	8,333	0	*
Steven and Adriana Yamshon Living Trust ⁽²¹⁾	0	8,333	0	*
Ludovico Megalini	0	3,333	0	*
Thesseling Family Investors LLC ⁽²²⁾	0	16,667	0	*
The Raring Family Trust, dated January 20, 2021 ⁽²³⁾	32,500	11,667	32,500	*
Gregory Taxin	0	33,333	0	*
Anthony Abenante	0	50,000	0	*
JP Armenio	0	66,667	0	*
Eliezer Lubitch ⁽¹⁸⁾	25,000	10,000	25,000	*
Rigel Asset Holdings Family LP ⁽²⁴⁾	0	16,667	0	*
Kirby Frank	0	5,000	0	*
Gubbay Investments, LLC ⁽²⁵⁾	20,000	10,000	20,000	*
The Sonic Fund II, L.P. ⁽²⁶⁾	0	166,667	0	*
Philip Broenniman	0	66,667	0	*
Leaf Cap Corp.	0	9,000	0	*
Ligi Investments, LLP ⁽²⁷⁾	0	30,000	0	*
Michael Wiley	0	8,333	0	*
Michael M. Mainero	0	8,333	0	*
Robert Hanna	0	16,667	0	*
Romel Fermano	0	20,000	0	*
Guy G. Rutherford Jr.	0	8,333	0	*
Daniel James Amori & Shannon Amori JTIC	0	8,500	0	*
Michael J. Santini	0	8,333	0	*
E. Jeffrey Peierls	0	50,000	0	*
The Peierls Foundation, Inc. ⁽²⁸⁾	0	205,000	0	*
Brian Eliot Peierls	0	50,000	0	*
UD E.F. Peierls for Brian E. Peierls ⁽²⁹⁾	0	21,000	0	*
UD E.F. Peierls for E. Jeffrey Peierls	0	21,000	0	*
UD J.N. Peierls for Brian E. Peierls ⁽²⁹⁾	0	28,000	0	*
UD J.N. Peierls for E. Jeffrey Peierls	0	28,000	0	*
UD J.N. Peierls for Brian E. Peierls ⁽²⁹⁾	0	25,000	0	*
UD J.N. Peierls for E. Jeffrey Peierls	0	25,000	0	*
UD Ethel F. Peierls Charitable Lead Trust ⁽²⁹⁾	0	28,000	0	*
UW E.S. Peierls for Brian E. Peierls – Accumulation ⁽²⁹⁾	0	19,000	0	*
David Landskowsky ⁽³⁰⁾	0	36,460	0	*
Eric Rubenstein ⁽³⁰⁾	0	36,461	0	*
Network 1 Financial Securities, Inc. ^{(30) (31)}	0	2,808	0	*
Vincent Labarbara ⁽³⁰⁾	0	2,809	0	*
Scott Cardone ⁽³⁰⁾	0	520	0	*
Sydney Nelson ⁽³⁰⁾	0	762	0	*
Tim Hermann ⁽³⁰⁾	0	2,983	0	*
Albert Pezone ⁽³⁰⁾	0	2,850	0	*

* Represents Beneficial Ownership of Less Than One Percent of Our Outstanding Shares

+ Since we do not have the ability to control how many, if any, of their shares each of the selling stockholders listed above will sell, we have assumed that the selling stockholders will sell all of the shares offered herein for purposes of determining how many shares they will own after the offering and their percentage of ownership following the offering.

++ All percentages have been rounded up to the nearest one hundredth of one percent.

- (1) Investment and voting control held by Steven Yost, Trustee
- (2) Investment and voting control held by Lisa O'Connell, Trustee
- (3) Investment and voting control held by Pamela Baker, Manager

- (4) Investment and voting control held by Dr. John Abeles, Manager of the General Partner
- (5) Investment and voting control held by Dennis R. DeLoach, Jr., Manager
- (6) Investment and voting control held by Andrew Cader, Single Member
- (7) Investment and voting control held by Prabakar Sundararajan, Trustee
- (8) Investment and voting control held by Raymond BonAnno, Trustee
- (9) Investment and voting control held by Joan L. Bonanno, Trustee
- (10) Investment and voting control held by John Gerngross, Trustee
- (11) Investment and voting control held by William Chen and Chris Miao, Managers
- (12) Investment and voting control held by Matthew Hocker, CEO
- (13) Investment and voting control held by NCG Holdings, LLC, a California limited liability company, the general partner of Navigo Capital Group, L.P. and Michael Probstel is the manager of NCG and is also a limited partner of Navigo.
- (14) Investment and voting control held by Collin Nugent, Trustee
- (15) Investment and voting control held by Greg Goodman, Trustee
- (16) Investment and voting control held by Hugh A. Yamshon and Karen Yamshon – beneficial owners
- (17) Investment and voting control held by R. Emmett McDonough & Jadwiga McDonough, Trustees
- (18) Includes 10,000 shares purchased in the Offering and 25,000 shares previously owned
- (19) Investment and voting control held by Michael Stewart, Manager/single owner LLC
- (20) Investment and voting control held by John McDonough & Iga McDonough, Trustees
- (21) Investment and voting control held by Steven and Adriana Yamshon, Trustees
- (22) Investment and voting control held by Joost Thesseling, Manager
- (23) Investment and voting control held by James Raring and Natalie Raring, Trustees; the Trust also owns 24,000 options that vest over a 2 year period
- (24) Investment and voting control held by Pierrick Vullie, Manager
- (25) Includes 10,000 shares purchased in the Offering and 20,000 shares previously owned. Investment and voting control held by David Gubbay, Manager

- (26) Investment and voting control held by Lawrence Kam, Managing Member of Sonic GP LLC, the general partner of the fund.
- (27) Investment and voting control held by Jennifer P. Ligeti, Manager of GP
- (28) E. Jeffrey and Brian Peierls are officers of the Foundation and therefore, share voting and investment power of the shares. As the “Investment Direction Advisor” of the trusts, E. Jeffrey Peierls holds those powers over the trusts’ shares
- (29) As the “Investment Direction Advisor” of the trusts, E. Jeffrey Peierls has the voting and dispositive power over the securities held in the trust.
- (30) Represents shares underlying placement agent warrants issued in the Offering.
- (31) William R. Hunt, Jr has voting, dispositive control over the shares held by Network 1.

PLAN OF DISTRIBUTION

The selling stockholders, which as defined herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership or other distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits the purchaser;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal;
- facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately-negotiated transactions;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing of options on the shares;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 of the Securities Act of 1933, as amended (the “Securities Act”), if available, rather than under this prospectus. The selling stockholders shall have the sole and absolute discretion not to accept any purchase offer or make any sale of shares if it deems the purchase price to be unsatisfactory at any particular time.

The selling stockholders or their respective pledgees, donees, transferees or other successors in interest, may also sell the shares directly to market makers acting as principals and/or broker-dealers acting as agents for themselves or their customers. Such broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling stockholders and/or the purchasers of shares for whom such broker-dealers may act as agents or to whom they sell as principal or both, which compensation as to a particular broker-dealer might be in excess of customary commissions. Market makers and block purchasers purchasing the shares will do so for their own account and at their own risk. It is possible that a selling stockholder will attempt to sell shares of common stock in block transactions to market makers or other purchasers at a price per share which may be below the then existing market price. We cannot assure that all or any of the shares offered in this prospectus will be issued to, or sold by, the selling stockholders. The selling stockholders and any brokers, dealers or agents, upon effecting the sale of any of the shares offered in this prospectus, may be deemed to be “underwriters” as that term is defined under the Securities Act, the Exchange Act and the rules and regulations of such acts. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We are required to pay all fees and expenses incident to the registration of the shares, including fees and disbursements of counsel to the selling stockholders, but excluding brokerage commissions or underwriter discounts.

The selling stockholders, alternatively, may sell all or any part of the shares offered in this prospectus through an underwriter. The selling stockholders have not entered into any agreement with a prospective underwriter and there is no assurance that any such agreement will be entered into.

The selling stockholders may pledge their shares to their brokers under the margin provisions of customer agreements. If a selling stockholder defaults on a margin loan, the broker may, from time to time, offer and sell the pledged shares. The selling stockholders and any other persons participating in the sale or distribution of the shares will be subject to applicable provisions of the Exchange Act, and the rules and regulations under such act, including, without limitation, Regulation M. These provisions may restrict certain activities of, and limit the timing of purchases and sales of any of the shares by, the selling stockholders or any other such person. In the event that any of the selling stockholders are deemed an affiliated purchaser or distribution participant within the meaning of Regulation M, then the selling stockholders will not be permitted to engage in short sales of common stock. Furthermore, under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distributions, subject to specified exceptions or exemptions. In addition, if a short sale is deemed to be a stabilizing activity, then the selling stockholders will not be permitted to engage in a short sale of our common stock. All of these limitations may affect the marketability of the shares.

If a selling stockholder notifies us that it has a material arrangement with a broker-dealer for the resale of the common stock, then we would be required to amend the registration statement of which this prospectus is a part, and file a prospectus supplement to describe the agreements between the selling stockholder and the broker-dealer.

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc., or FINRA, the maximum consideration or discount to be received by any member of the FINRA may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus.

Our common stock trades on the OTCQB system under the symbol “ALMU.” Our CUSIP number is 00776X.

As of October 3, 2024, the last reported sale price of our Common Stock on the OTCQB was \$3.25 per share. As of October 7, 2024, we had 12,178,424 shares of our common stock outstanding held by approximately 99 stockholders of record.

Dividend Policy

We have never paid any cash dividends on our capital stock and do not anticipate paying any cash dividends on our common stock in the foreseeable future. We intend to retain future earnings to fund ongoing operations and future capital requirements. Any future determination to pay cash dividends will be at the discretion of our board of directors and will be dependent upon financial condition, results of operations, capital requirements and such other factors as the board of directors deems relevant.

Shares Eligible for Future Sale

Prior to the Merger, there has been a limited public market for our common stock. Future sales of our common stock, including shares issued upon the exercise of options or warrants that we may issue, in the public market after the Merger, or the perception that those sales may occur, could cause the prevailing price for our common stock to fall or impair our ability to raise equity capital in the future. As described below, only a limited number of shares of our common stock will be available for sale in the public market for a period of several months after consummation of the Merger due to contractual and legal restrictions on resale described below. Future sales of our common stock in the public market either before (to the extent permitted) or after restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing price of our common stock at such time and our ability to raise equity capital at a time and price we deem appropriate.

As of the date hereof, we have 12,178,424 shares of common stock outstanding (assumes a buyback of 649,570 unvested shares from Mr. McCarthy after his resignation), of which our directors and executive officers beneficially own an aggregate of 2,311,104 shares. Of those outstanding shares, no shares of common stock are freely tradable, without restriction, as of the date hereof.

Sale of Restricted Shares

Of the approximately 12,178,424 shares of common stock outstanding, all of such shares will be “restricted securities” as such term is defined in Rule 144. These restricted securities were issued and sold by us, or will be issued and sold by us, in private transactions and are eligible for public sale only if registered under the Securities Act or if they qualify for an exemption from registration under the Securities Act, including the exemptions provided by Rule 144 or Rule 701, which rules are summarized below.

Lock-Up Agreements

In connection with the Merger, all of Biond Photonic’s shareholders prior to the Merger holding immediately following the closing of the Merger an aggregate of approximately 4.1 million shares of our common stock, entered into lock-up agreements, pursuant to which they agreed, subject to certain exceptions, not to dispose of or hedge any shares of common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of the lock-up agreement continuing through the date eighteen months after the first date on which Aeluma’s Common Stock is first traded on the OTCQB or OTCQX market maintained by OTC Markets Group, the Nasdaq Stock Market, the New York Stock Exchange or the NYSE American, except with our prior written consent.

Following the lock-up periods set forth in the agreements described above, and assuming that no parties are released from these agreements and that there is no extension of the lock-up period, shares of our common stock will be eligible for sale in the public market in compliance with Rule 144 under the Securities Act.

Rule 144

Pursuant to Rule 144 promulgated under the Securities Act, sales of the securities of a former shell company, such as us, under that rule are not permitted (i) until at least 12 months have elapsed from the date on which the Form 8-K, reflecting our status as a non-shell company, was filed with the SEC and (ii) unless at the time of a proposed sale, we are subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act and have filed all reports and other materials required to be filed by Section 13 or 15(d) of the Exchange Act, as applicable, during the preceding 12 months, other than Current Reports on Form 8-K. We intend to register such shares for sale under the Securities Act but are currently a “voluntary filer” and are not subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. As a result, unless we register such shares for sale under the Securities Act, most of our stockholders will be forced to hold their shares of our common stock for at least that 12-month period before they are eligible to sell those shares, and even after that 12-month period, sales may not be made under Rule 144 unless we and the selling stockholders are in compliance with other requirements of Rule 144.

In general, Rule 144 provides that (i) any of our non-affiliates that has held restricted common stock for at least 12 months is thereafter entitled to sell its restricted stock freely and without restriction, provided that we remain compliant and current with our SEC reporting obligations, and (ii) any of our affiliates, which includes our directors, executive officers and other person in control of us, that has held restricted common stock for at least 12 months is thereafter entitled to sell its restricted stock subject to the following restrictions: (a) we are compliant and current with our SEC reporting obligations, (b) certain manner of sale provisions are satisfied, (c) a Form 144 is filed with the SEC, and (d) certain volume limitations are satisfied, which limit the sale of shares within any three-month period to a number of shares that does not exceed 1% of the total number of outstanding shares or, if our common stock is then listed or quoted for trading on a national securities exchange, then the greater of 1% of the total number of outstanding shares and the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of the Form 144 with respect to the sale. A person who has ceased to be an affiliate at least three months immediately preceding the sale and who has owned such shares of common stock for at least one year is entitled to sell the shares under Rule 144 without regard to any of the limitations described above.

Regulation S

Regulation S under the Securities Act provides that shares owned by any person may be sold without registration in the U.S., provided that the sale is effected in an offshore transaction and no directed selling efforts are made in the U.S. (as these terms are defined in Regulation S), subject to certain other conditions. In general, this means that our shares of common stock may be sold in some other manner outside the United States without requiring registration in the United States.

Rule 701

In general, under Rule 701 as currently in effect, any of our employees, directors, officers, consultants or advisors who acquired common stock from us in connection with a written compensatory stock or option plan or other written agreement, in compliance with Rule 701 under the Securities Act, before the effective date of the Merger (to the extent such common stock is not subject to a lock-up agreement) is entitled to rely on Rule 701 to resell such shares beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act in reliance on Rule 144, but without compliance with the holding period requirements contained in Rule 144. Accordingly, subject to any applicable lock-up agreements, beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act, under Rule 701 persons who are not our “affiliates,” as defined in Rule 144, may resell those shares without complying with the minimum holding period or public information requirements of Rule 144, and persons who are our “affiliates” may resell those shares without compliance with Rule 144’s minimum holding period requirements (subject to the terms of the lock-up agreements described above, if applicable).

Registration Rights

We granted registration rights in connection with the Offering. See, Description of Securities - Registration Rights Agreement.

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Stock Plans

We have a registration statement on Form S-8 (File No. 333-268526), which covers the shares of common stock underlying our 2021 Equity Incentive Plan. Accordingly, shares registered under such registration statement are available for sale in the open market, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

Securities Authorized for Issuance under Equity Compensation Plans

The following table discloses information as of the date of this prospectus, with respect to compensation plans (including individual compensation arrangements) under which our equity securities are authorized for issuance, aggregated as follows:

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Shares of common stock remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	953,821	\$ 2.45	1,732,925(1)
Equity compensation plans not approved by security holders	-	-	-
Total	953,821	\$ 2.31	1,732,925

(1) The number of shares reserved for issuance under our 2021 Plan (as defined below) was initially 980,000; such amount will increase automatically on January 1 of each of 2022 through 2031 by the number of shares equal to the lesser of 5% of the total number of outstanding shares of our common stock as of the immediately preceding December 31, or a number as may be determined by our board of directors. On January 1, 2023 and 2024, the number of shares reserved for issuance was increased by 565,850 shares and 608,396 shares, respectively. As of June 30, 2024, the number of shares available for future issuance under our 2021 Plan was 1,732,925.

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LEGAL MATTERS

The validity of the securities being offered by this prospectus been passed upon for us by Hunter Taubman Fischer & Li LLC.

EXPERTS

The consolidated financial statements of Aeluma, Inc. as of June 30, 2024 and June 30, 2023 included elsewhere in this registration statement, of which this prospectus is a part, have been audited by Rose, Snyder & Jacobs LLP, independent registered public accounting firm, as set forth in their report appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and special reports, and other information with the SEC. Copies of the reports and other information may be read and copied at the SEC's Public Reference Room at 100 F Street N.E., Washington, D.C. 20549. You can request copies of such documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a web site at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules and regulations of the SEC. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus. For further information, you may:

- read a copy of the registration statement, including the exhibits and schedules, without charge at the SEC's Public Reference Room; or
- obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

We file periodic reports, proxy statements, and other information with the SEC. These periodic reports, proxy statements, and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. After the closing of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference into this prospectus.

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DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC 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 us of expenses incurred or paid by one of our directors, officers or controlling persons in the successful defense of any action, suit or proceeding) is asserted by that director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether that indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of that issue.

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AELUMA, INC.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Aeluma, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Aeluma, Inc. and Subsidiary (the Company) as of June 30, 2024 and 2023, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the two-year period ended June 30, 2024, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of June 30, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the two-year period ended June 30, 2024, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph – Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has incurred significant operating losses and negative cash flows from operations, and has generated limited revenue. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) "PCAOB" and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Rose, Snyder & Jacobs LLP
Rose, Snyder & Jacobs LLP

We have served as the Company's auditor since 2021

Encino, California
September 27, 2024

**Aeluma, Inc. and Subsidiary
Consolidated Balance Sheets**

	June 30,	
	2024	2023
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,291,072	\$ 5,071,690
Accounts receivable	60,004	189,239
Deferred compensation	20,133	53,034
Prepays and other current assets	21,637	19,943
Total current assets	1,392,846	5,333,906
Property and equipment:		
Equipment	1,531,494	1,209,656
Leasehold improvements	546,864	546,864
Accumulated depreciation	(608,630)	(300,445)
Property and equipment, net	1,469,728	1,456,075
Intangible assets, net	6,833	9,833
Right of use asset - operating	961,626	351,013
Other assets	13,014	13,014
Total assets	\$ 3,844,047	\$ 7,163,841
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 317,237	\$ 461,797
Accrued expenses and other current liabilities	180,706	133,092
Lease liability, current portion	128,743	162,210
Total current liabilities	626,686	757,099
Lease liability, long term portion	941,200	296,452
Total liabilities	1,567,886	1,053,551
Commitments and contingencies		
	-	-
Stockholders' equity:		
Preferred stock, \$0.0001 par value: 10,000,000 authorized, and none issued and outstanding at June 30, 2024 and 2023	-	-
Common stock, \$0.0001 par value: 50,000,000 shares authorized, and 12,178,424 and 12,817,500 shares issued and outstanding at June 30, 2024 and 2023, respectively	1,218	1,282
Additional paid-in capital	15,899,304	15,171,074
Accumulated deficit	(13,624,361)	(9,062,066)
Total stockholders' equity	2,276,161	6,110,290
Total liabilities and stockholders' equity	\$ 3,844,047	\$ 7,163,841

The accompanying notes are an integral part of these financial statements

**Aeluma, Inc. and Subsidiary
Consolidated Statements of Operations**

	June 30,	
	2024	2023
Revenue (Note 2)	\$ 918,554	\$ 193,339
Operating expenses:		
Cost of revenue	619,249	109,395
Research and development	2,506,507	2,531,624
General and administrative	2,356,106	3,062,005
Total operating expenses	5,481,862	5,703,024
Loss from operations	(4,563,308)	(5,509,685)
Other income:		
Sub-lease rental income and other income	-	128,913
Interest income	1,013	1,190
Total other income, net	1,013	130,103
Loss before income tax expense	(4,562,295)	(5,379,582)
Income tax expense	-	-
Net loss	\$ (4,562,295)	\$ (5,379,582)
Loss per share - basic and diluted	\$ (0.37)	\$ (0.47)
Weighted average common shares outstanding - basic and diluted	12,298,355	11,379,480

The accompanying notes are an integral part of these financial statements

Aeluma, Inc. and Subsidiary
Consolidated Statement of Stockholders' Equity

	<u>Common Stock</u>		<u>Additional paid-in capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Equity</u>
	<u>Shares</u>	<u>Amount</u>			
Balance, July 1, 2022	10,650,002	\$ 1,066	\$ 8,781,361	\$ (3,682,484)	\$ 5,099,943
Issuance of common stock, net of offering costs of \$411,015 (Note 3)	2,017,498	201	5,641,284	-	5,641,485
Issuance of common stock for services (Note 4)	150,000	15	299,985	-	300,000
Stock-based compensation	-	-	448,444	-	448,444
Net loss	-	-	-	(5,379,582)	(5,379,582)
Balance, June 30, 2023	12,817,500	\$ 1,282	\$ 15,171,074	\$ (9,062,066)	\$ 6,110,290
Repurchase of common stock (Note 3)	(649,570)	(65)	(3,936)	-	(4,001)
Stock warrant exercised	10,494	1	(1)	-	-
Stock-based compensation	-	-	732,167	-	732,167
Net loss	-	-	-	(4,562,295)	(4,562,295)
Balance, June 30, 2024	12,178,424	\$ 1,218	\$ 15,899,304	\$ (13,624,361)	\$ 2,276,161

The accompanying notes are an integral part of these financial statements

Aeluma, Inc. and Subsidiary
Consolidated Statements of Cash Flows

	<u>Year Ended June 30,</u>	
	<u>2024</u>	<u>2023</u>
Operating activities:		
Net loss	\$ (4,562,295)	\$ (5,379,582)
Adjustments to reconcile net loss to net cash used in operating activities:		
Issuance of shares for services	-	258,000
Amortization of deferred compensation	32,901	662,464
Stock-based compensation expense	732,167	448,444
Depreciation and amortization expense	311,185	206,458
Change in accounts receivable	129,235	(189,239)
Change in prepaids and other current assets	(1,694)	7,719
Change in accounts payable	(144,560)	347,697
Change in accrued expenses and other current liabilities	48,282	67
Net cash used in operating activities	(3,454,779)	(3,637,972)
Investing activities:		
Purchase of equipment	(321,838)	(590,043)
Payment for leasehold improvements	-	(82,502)
Net cash used in investing activities	(321,838)	(672,545)
Financing activities:		
Repurchase of common stock	(4,001)	-
Proceeds from Private Placement, net of offering costs	-	5,641,485
Net cash (used in) provided by financing activities	(4,001)	5,641,485
Net change in cash	(3,780,618)	1,330,968
Cash, beginning of period	5,071,690	3,740,722
Cash, end of period	\$ 1,291,072	\$ 5,071,690

The accompanying notes are an integral part of these financial statements

Aeluma, Inc. and Subsidiary
Notes to Consolidated Financial Statements

Note 1 – The Company

Aeluma, Inc., headquartered in Goleta, California, is engaged in the research and development of infrared (IR) optical sensors to disrupt the market for IR sensors, and using its proprietary technology aims to produce a much higher performance alternative to today's low-cost sensors at much lower prices than would otherwise be possible. The focus of Aeluma, Inc. ("the Company") will be the image sensor market. Initial efforts hope to penetrate the 3D imaging and sensing (mobile and consumer, defense and aerospace, industrial, medical, auto) and LiDAR (robotic vehicles, advanced driver assistance systems vehicles (ADAS), topography, wind, industrial) markets.

Going Concern

The Company incurred a net loss of \$4,562,295 and \$5,379,582 for the years ended June 30, 2024 and 2023, respectively, and has accumulated deficit of \$13,624,361 at June 30, 2024. In addition, the Company is in the research and development stage and has generated limited revenue to date. In order to support its operations, the Company will require additional infusions of cash from the sale of equity instruments or the issuance of debt instruments, or the commencement of profitable revenue generating activities. If adequate funds are not available or are not available on acceptable terms, the Company's ability to fund its operations, develop or enhance its sensors in the future or respond to competitive pressures would be significantly limited. Such limitations could require the Company to curtail, suspend or discontinue parts of its business plan.

These conditions raise doubt about the Company's ability to continue as a going concern. The accompanying financial statements have been prepared in conformity with U.S. Generally Accepted Accounting Principles ("GAAP"), which contemplate continuation of the Company as a going concern. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that could result from the outcome of this uncertainty. The financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

Note 2 – Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been presented in accordance with GAAP. The summary of significant accounting policies presented below is designed to assist in understanding the Company's financial statements. Such financial statements and accompanying notes are the representations of the Company's management, who is responsible for the Company's integrity and objectivity.

Use of Estimates and Assumptions

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates and assumptions on current facts, historical experience and various other factors that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. The actual results experienced by the Company may differ materially and adversely from the Company's estimates. To the extent there are material differences between the estimates and the actual results, future results of operations will be affected.

Reclassification of Prior Year Presentation

Certain prior year amounts have been reclassified for consistency with the current year presentation. These reclassifications had no effect on the reported consolidated financial statements.

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Cash and Cash Equivalents

The Company considers cash in banks, deposits in transit, and highly liquid debt instruments purchased with original maturities of three months or less to be cash and cash equivalents.

Concentration of Risk

The Company maintains its cash in bank deposit accounts which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company's accounts are insured by the FDIC but at times may exceed federally insured limits.

Fair Value of Financial Instruments

As defined in Financial Accounting Standards Board ("FASB") ASC Topic No. 820, "Fair Value Measurements and Disclosures" ("ASC 820"), fair value is the price that would be received to sell an asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses the market or income approach. Based on this approach, the Company utilizes certain assumptions about the risk inherent in the inputs to the valuation technique. These inputs can be readily observable, market-corroborated or generally unobservable inputs. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based on the observability of the inputs used in the valuation techniques, the Company is required to provide the following information according to the fair value hierarchy. The fair value hierarchy ranks the quality and the reliability of the information used to determine fair values. As a basis for considering these assumptions, ASC 820 defines a three-tier value hierarchy that prioritizes the inputs used in the valuation methodologies in measuring fair value.

Level 1 – Unadjusted quoted prices in active, accessible market for identical assets or liabilities

Level 2 – Other inputs that are directly or indirectly observable in the marketplace

Level 3 – Unobservable inputs which are supported by little or no market activity

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The carrying values of the Company's cash, accounts receivable, accounts payable, accrued expenses and other current liabilities approximate their fair value due to the relatively short maturity of these items.

Property and Equipment

Property, equipment and leasehold improvements are reported at historical cost, net of accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the less of the remaining lease term or the estimated useful life of the improvements. Repairs and maintenance to these assets are charged to expenses as incurred; major improvements enhancing the function and/or the asset's useful life are capitalized. When items are sold or retired, the related cost and accumulated depreciation are removed from the accounts and any gains or losses arising from such transactions are recognized.

Intangible Assets

Intangible assets are associated with the Aeluma.com domain name and are amortized on a straight-line basis over 10 years.

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Revenue Recognition

The Company follows a five-step approach for recognizing revenue, consisting of the following: (1) identifying the contract with a customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when, or as, the entity satisfies a performance obligation. Sales and other taxes the Company collects concurrent with revenue-producing activities are excluded from revenue. Incidental items that are immaterial in the context of the contract are recognized as expenses. The Company does not have any significant financing components associated with its revenue contracts, as payment is received within one year.

- Commercial product and service contracts: Revenue is currently generated from multiple customers for research and development related services and small-volume orders
- Government contracts: Revenue is principally generated under research and development contracts with agencies of the U.S. government or with prime contractors. These contracts may include cost reimbursement and fixed firm price terms.

For the year ended June 30, 2024, the Company was awarded six government contracts of \$,323,237 for providing services and delivering materials. The awards are firm fixed contracts that shall be paid upon completion of performance and recognized as revenue over an expected term of 12 months.

For the year ended June 30, 2024, the Company recognized its revenue of \$918,554, of which \$853,798 was from government contracts and \$64,756 was from product sales for sampling purchases. As of June 30, 2024, the aggregate amount to remaining performance obligations for the government contracts was \$690,825.

Loss Per Share

Basic loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common shares outstanding during the period. Diluted loss per share is computed by dividing the net loss attributable to common stockholders by the sum of the weighted average number of common shares outstanding plus potential dilutive common shares outstanding during the period. Potential dilutive securities, comprised of stock warrants and stock options, are not reflected in diluted loss per share because such shares are anti-dilutive. Dilutive impact of potential common shares resulting from common stock equivalents is determined by applying the treasury stock method.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements in accordance with guidance issued by the FASB, which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees, consultants, and directors based on estimated fair values.

The Company estimates the fair value of stock-based compensation awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company's consolidated statements of operations. The Company estimates the fair value of stock-based compensation awards using the Black-Scholes model. This model requires the Company to estimate the expected volatility and value of its common stock and the expected term of the stock options, all of which are highly complex and subjective variables. For employees and directors, the expected life was calculated based on the simplified method as described by the SEC Staff Accounting Bulletin No. 110, Share-Based Payment. For other service providers, the expected life was calculated using the contractual term of the award. The Company's estimate of expected volatility was based on the volatility of peers. The Company has selected a risk-free rate based on the implied yield available on U.S. Treasury securities with a maturity equivalent to the expected term of the options. The Company accounts for forfeitures upon occurrence.

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Income Taxes

The Company is expected to have net operating loss carryforwards that it can use to offset a certain amount of taxable income in the future. The Company is currently analyzing the amount of loss carryforwards that will be available to reduce future taxable income. The resulting deferred tax assets will be offset by a valuation allowance due to the uncertainty of its realization. The primary difference between income tax expense attributable to continuing operations and the amount of income tax expense that would result from applying domestic federal statutory rates to income before income taxes relates to the recognition of a valuation allowance for deferred income tax assets.

The Company has adopted FASB ASC 740-10, "Income Taxes" which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements and prescribes a recognition threshold of more likely than not as a measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In making this assessment, a Company must determine whether it is more likely than not that a tax position will be sustained upon examination, based solely on the technical merits of the position and must assume that the tax position will be examined by taxing authorities. The Company's policy is to include interest and penalties related to unrecognized tax benefits in income tax expense. Interest and penalties totaled \$0 for the periods presented. The Company's net operating loss carryforwards are subject to IRS examination until they are fully utilized, and such tax years are closed.

The Company will file tax returns in the U.S. federal jurisdiction and the state of California. The Company's federal and state return forms are subject to review by the taxing authorities. The Company is not currently under examination by any taxing authority, nor has it been notified of an impending examination.

Recent Accounting Pronouncements

The Company has evaluated all issued but not yet effective accounting pronouncements and determined that they are either immaterial or not relevant to the Company.

Note 3 – Stockholders' Equity

Authorized Shares

The Company's Articles of Incorporation authorize the issuance of two classes of shares of stock. The total number of shares which this corporation is authorized to issue is 50,000,000 shares of \$0.0001 par value common stock and 10,000,000 of \$0.0001 par value preferred stock. No preferred shares were issued as of June 30, 2024.

On December 12, 2022, the Company sold an aggregate of 517,000 shares of common stock in a private placement offering (the "Offering") at a price of \$0.00 per share, with gross proceeds of \$1,551,000 (before deducting placement agent fees and expenses of \$124,385). On January 10, 2023, the Company held a second closing for an additional 214,667 shares of common stock, with gross proceeds of \$644,000 (before deducting placement agent fees and expenses of \$28,640). On March 31, 2023, the Company held a third closing for an additional 715,665 shares of common stock, with gross proceeds of \$2,147,000 (before deducting placement agent fees and expenses of \$117,830). On May 10, 2023, the Company held a fourth and final close for additional 570,166 shares of its common, with gross proceeds of \$1,710,500 (before deducting placement agent fees and expenses of \$140,160). Accordingly, the Company sold a total of 2,017,498 shares of common stock with a total gross proceeds of

\$6,052,500 (before deducting total placement agent fees and expenses of \$411,015) in this private placement.

The Offering was exempt from registration under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D promulgated by the SEC thereunder. The common stock in the Offering was sold to “accredited investors,” as defined in Regulation D, and was conducted on a “reasonable best efforts” basis.

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Issued and Vested Shares to Officers

On October 27, 2020, the Company issued 1,623,920 shares of common stock to Jonathan Klamkin, Director and Chief Executive Officer, and 1,623,920 shares of common stock to Lee McCarthy, Director, interim Chief Financial Officer and Chief Operations Officer, for an aggregate sum of \$ 10,000 each. Initially 20% or 324,784 shares vested on October 27, 2020, and the remaining 1,299,136 shares vest in equal amounts, monthly over the subsequent 4 years. The stock purchase agreement contains a repurchase option whereby unvested shares may be repurchased by the Company, at the Company’s option. At June 30 2024, Jonathan Klamkin had 1,515,659 vested shares and 108,261 unvested shares, and Lee McCarthy had 974,350 vested shares. On November 17, 2022, Lee McCarthy left the Company and, on September 10, 2023, the Company exercised its option to purchase 649,570 unvested restricted shares Lee McCarthy held for a total consideration of \$,001, the initial purchase price of these shares.

Registration Rights Agreement

The Company entered into a registration rights agreement that provides for certain liquidated damages upon the occurrence of a “Registration Event,” which is defined as the occurrence of any of the following events: (a) the Company fails to file with the Commission the Registration Statement on or before the Registration Filing Date; (b) the Registration Statement is not declared effective by the Commission on or before the Registration Effectiveness Date; (c) after the SEC Effective Date, the Registration Statement ceases for any reason to remain effective or the Holders of Registrable Securities covered thereby are otherwise not permitted to utilize the prospectus therein to resell the Registrable Securities covered thereby, except for Blackout Periods permitted herein; or (d) following the listing or inclusion for quotation on an Approved Market, the Registrable Securities, if issued and outstanding, are not listed or included for quotation on an Approved Market, or trading of the Common Stock is suspended or halted on the Approved Market, which at the time constitutes the principal markets for the Common Stock, for more than three (3) full, consecutive Trading Days (other than as a result of (A) actions or inactions of parties other than the Company or its affiliates or of the Approved Market not reasonably in the control of the Company, or (B) suspension or halt of substantially all trading in equity securities (including the Common Stock) on the Approved Market). The maximum amount of liquidated damages that may be paid by the Company shall be an amount equal to eight percent (8%) of the shares covered by the registration rights agreement. This filing covered 11,010,002 shares. The Company currently expects to satisfy all of its obligations under the Registration Agreement and does not expect to pay any damages pursuant to this agreement; therefore, no liability has been recorded.

Note 4 – Stock-Based Compensation

Restricted Stock Awards

In June 2021, the Company sold 723,008 shares of common stock to certain individuals in exchange for future management advisory services, for discounted prices price ranging from \$.0104 to \$.0195 per share. The shares are subject to restrictions that allow for repurchase of the shares by the Company due to a termination of the service agreement or other certain provisions. This repurchase right declines on a pro-rata basis over vesting periods (corresponding to the service period) ranging from 2-4 years. Related to these issuances, the Company has recorded deferred compensation of \$1,372,435 for the value of the shares in excess of the purchase price paid by the advisors. The deferred compensation was expensed as consulting expense in the consolidated statements of operation over the service period.

In March 2022, the Company signed an agreement to issue 150,000 shares of common stock valued at \$300,000 to a consultant for providing consulting services to the Company for eighteen months. Related to these issuances, the Company has recorded deferred compensation of \$300,000 which was expensed as consulting expense in the consolidated statements of operation over the eighteen months.

For the years ended June 30, 2024 and 2023, \$32,900 and \$920,464, respectively, have been amortized in the consolidated statements of operations. At June 30, 2024, \$20,133 of deferred compensation included in the balance sheets is expected to be expensed within 12 months.

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The following is a schedule summarizing restricted stock awards for the periods indicated:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Outstanding at July 1, 2022	344,426	\$ 1.90
Granted	150,000	2.00
Vested	(419,133)	1.92
Forfeited	-	-
Outstanding at June 30, 2023	75,293	\$ 1.97
Granted	-	-
Vested	(64,696)	1.98
Forfeited	-	-
Outstanding at June 30, 2024	10,597	\$ 1.90

Stock Options

During the three months ended December 31, 2022, the Company issued 161,000 options to purchase common stock to employees. The options have an exercise price of \$2.00 or \$2.10 and expire in 10 years with various vesting schedules from nine months to 48 months, subject to the continued status as an employee to the Company through each vesting date.

During the three months ended June 30, 2023, the Company issued 163,000 options to purchase common stock to a consultant and employees. The options expire in 10 years and have an exercise price of \$2.60 with immediate vesting or \$3.00 with a vesting schedule of 48 months. Stock options granted to employees are subject to the continued status as an employee to the Company through each vesting date.

During the three months ended September 30, 2023, the Company issued 6,500 options to purchase common stock to consultants. The options expire in 10 years and have an exercise price that range from \$2.90 to \$3.90 with immediate vesting.

During the three months ended December 31, 2023, the Company issued 7,000 options to purchase common stock to a consultant. The options expire in 10 years and have an exercise price that ranges from \$2.50 to \$3.43 with immediate vesting.

During the three months ended March 31, 2024, the Company issued 6,500 options to purchase common stock to consultants. The options expire in 10 years and have an exercise price that range from \$2.99 to \$3.50 with immediate vesting. During the three months ended March 31, 2024, the Company issued 100,821 options to purchase common stock to board of directors. The options expire 10 year and vest in nine months with an exercise price of \$2.99.

The Company estimates the fair value of each option award using the Black-Scholes option-pricing model. The Company used the following assumptions for to estimate the fair value of stock options for the period presented:

	Year Ended June 30,	
	2024	2023
Weighted-average fair value	\$ 2.52	\$ 2.45
Expected volatility	105% - 114%	100% - 134%
Expected term	5.0 years - 6.2 years	5.0 years - 7.0 years
Dividend yield	0.00%	0.00%
Risk-free interest rate	3.94% - 4.92%	1.26% - 4.24%

For the years ended June 30, 2024 and 2023, stock-based compensation expenses for options granted were \$732,167 and \$448,444, respectively. Unrecognized stock-based compensation expense was \$857,026 and average expected recognition period was 1.1 years as of June 30, 2024.

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The following is a schedule summarizing stock option activities for the periods presented:

	Number of Options	Weighted Average Exercise Price	Aggregate Intrinsic Value (1)
Outstanding at July 1, 2023	1,034,000	\$ 2.31	\$ 639,775
Granted	120,821	3.01	
Exercised	-	-	
Expired/cancelled	(201,000)	2.08	
Outstanding at June 30, 2024	953,821	\$ 2.45	\$ 1,087,178
Exercisable at June 30, 2024	550,116	\$ 2.36	\$ 673,901

(1) Represents the excess of the fair value on the last day of period (which was \$3.59 as of June 30, 2024) over the exercise price, multiplied by the number of options.

	Number of Options	Weighted Average Exercise Price	Aggregate Intrinsic Value (1)
Outstanding at July 1, 2022	817,750	\$ 2.00	\$ -
Granted	471,250	2.68	
Exercised	-	-	
Expired/cancelled	(255,000)	2.00	
Outstanding at June 30, 2023	1,034,000	\$ 2.31	\$ 639,775
Exercisable at June 30, 2023	360,060	\$ 2.05	\$ 309,248

(1) Represents the excess of the fair value on the last day of period (which was \$2.90 as of June 30, 2023) over the exercise price, multiplied by the number of options.

Note 5 – Facility Operating Lease

On April 1, 2021, the Company commenced a 5-year operating lease for a facility in Santa Barbara, California with total lease payments of \$781,813. The Company determined the lease constitutes a Right of Use (ROU) asset and has recorded the present value of the lease payments as an asset and liability per ASC 842. The lease agreement waived the first three months of rent with payments commencing July 1, 2021. At the commencement of the lease, the net present value of the lease payments was \$767,553. In addition to these lease payments, the Company is also responsible for its shares of common area operating expenses and electricity. Such expenses are considered variable costs and are not included in the measurement of the lease liability. The lease agreement also provides for the option to extend the lease for two additional sixty-month periods. On July 1, 2023, one of the two options to extend was considered reasonably certain of exercise and the Company remeasured the ROU asset and lease liability. The Company recorded the net present value of \$1,189,606 for both the ROU asset and lease liability on July 1, 2023.

The following table presents maturities of operating lease liabilities on an undiscounted basis as of June 30, 2024:

For the years ending June 30,	
2025	\$ 169,224
2026	173,454
2027	177,791
2028	182,235
2029	186,791
Thereafter	337,732
Total	1,227,227
	(157,284)
Less imputed interest	
Total lease liability	1,069,943
Less: lease liability, current portion	128,743
Lease liability, long term portion	\$ 941,200

The lease term and the discount rate for the lease at June 30, 2024 is 6.8 years and 4.00%, respectively. The total lease expenses were \$167,097 and \$129,437 for the years ended June 30, 2024 and 2023, respectively. The variable costs for common area operating expenses and electricity were \$240,431 and \$264,280 for the years ended June 30, 2024 and 2023, respectively.

In April 1, 2021, the Company subleased a portion of their facility. The sub-lease provided for base monthly rent of \$13,013 through May 31, 2021 and \$8,400 starting June 1, 2021 plus common area operating and utility costs. The sublease was amended again on May 17, 2022 to sublease a smaller portion of the property at a base rental rate of \$5,200 per month effective June 1, 2022. The Company recognized sub-lease income of \$128,921, including reimbursement of common area operating and utility costs, for the year ended June 30, 2023. The sub-lease ended in March 2023.

Note 6 – Warrants to Purchase Common Stock

In connection with the Offering held from December 2022 through May 2023, the Company issued warrants of 85,653 to purchase common stock to the Placement Agents. The warrants carry a term of 5 years and an exercise price of \$3.00.

The following warrants to purchase common stock were outstanding as of June 30, 2024:

Number of Shares	Exercise Price	Expiration Date
286,672	\$ 2.00	June 22, 2026
37,433	2.00	June 28, 2026
11,500	2.00	July 1, 2026
29,067	3.00	December 22, 2027
4,933	3.00	January 10, 2028
6,720	3.00	March 31, 2028
44,933	3.00	May 10, 2028
421,258		

Note 7 – Concentration of Credit Risk and Significant Customers

The Company manages its credit risk associated with exposure to its direct customers on outstanding accounts receivable through the application of credit approvals and other monitoring procedures. The Company closely monitors the aging of accounts receivable from its direct customers. Significant customers are those that represent 10% or more of revenue or accounts receivable.

Total revenues, by percentage, from individual customers representing 10% or more of total revenues in the respective periods were as follows:

	Year Ended June 30,	
	2024	2023
Customer A	36.2%	92.2%
Customer B	30.5	*
Customer C	17.3	*
Customer D	*	*
Customer E	*	*

* Less than 10% of total

Accounts receivable, by percentage, from individual customers representing 10% or more of accounts receivable are set forth in the following table:

	As of June 30,	
	2024	2023
Customer A	*	94.2%
Customer B	*	*
Customer C	18.3%	*
Customer D	27.7	*
Customer E	53.9	*

* Less than 10% of total

Customer A, B, C and D are government agencies.

Note 8 – Subsequent Event

The Company has evaluated subsequent events through the issuance of these financial statements, and determined that there have been no events that have occurred that would require adjustments to our disclosures in the consolidated financial statements except for the following:

Note Purchase Agreements

On August 5, 2024, the Company entered into note purchase agreements (the "NPA") for an aggregate financing of \$1.8 million with five accredited investors ("Investors"). At the first closing under the NPA, which occurred on August 5, 2024, the Company issued to the investor's convertible promissory notes in the aggregate principal amount of \$1,800,000 (the "Notes") to purchase shares of the Company's common stock, par value \$0.0001 per share. At a second closing under the NPA, which occurred on August 27, 2024, the Company issued convertible promissory notes to five additional accredited investors in the aggregate principal amount of \$1,345,000 for aggregate proceeds of \$3,145,000. The Company may hold additional closings, but there is no guarantee as to how much additional proceeds, if any, it will receive.

On September 6, 2024, the Company won \$11.717 million DARPA contract for nano-scale semiconductors to develop heterogeneous integration technology compatible with leading edge and future advanced-node semiconductors. Technology applications include AI, mobile devices and 5G/6G. This DARPA contract to Aeluma is structured with \$5.974 million provided over 18 months, and the \$5.743 million balance provided over the following 18 months as Aeluma meets certain milestones. Teledyne Scientific Company, the Central Research Laboratory of Teledyne, is a proposed subcontractor to assist with defining target materials and with developing strategies for demonstrating program metrics. The University of California Santa Barbara is also a proposed subcontractor to support the implementation of test devices.

PART II - INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all expenses to be paid by the Registrant, other than estimated placement agents' fees, in connection with our public offering. All amounts shown are estimates except for the SEC registration fee and the FINRA filing fee:

SEC registration fee	\$	695.30
FINRA filing fee	\$	-
Legal fees and expenses	\$	30,000
Accounting fees and expenses	\$	5,000
Transfer agent and registrar fees	\$	-
Miscellaneous fees and expenses	\$	-
Total	\$	35,695.30

Item 14. Indemnification of Directors and Officers

Our certificate of incorporation provides that all directors, officers, employees and agents of the registrant shall be entitled to be indemnified by us to the fullest extent permitted by Section 145 of the Delaware General Corporation Law.

Section 145 of the Delaware General Corporation Law concerning indemnification of officers, directors, employees and agents is set forth below.

“§ 145. Indemnification of officers, directors, employees and agents; insurance.

(a) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

(b) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

(c) (1) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. For indemnification with respect to any act or omission occurring after December 31, 2020, references to “officer” for purposes of this paragraphs (c)(1) and (2) of this section shall mean only a person who at the time of such act or omission is deemed to have consented to service by the delivery of process to the registered agent of the corporation pursuant to § 3114(b) of Title 10 (for purposes of this sentence only, treating residents of this State as if they were nonresidents to apply § 3114(b) of Title 10 to this sentence).

(2) The corporation may indemnify any other person who is not a present or former director or officer of the corporation against expenses (including attorneys' fees) actually and reasonably incurred by such person to the extent he or she has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein.

(d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made, with respect to a person who is a director or officer of the corporation at the time of such determination:

(1) By a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum; or

(2) By a committee of such directors designated by majority vote of such directors, even though less than a quorum; or

(3) If there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion; or

(4) By the stockholders.

(e) Expenses (including attorneys' fees) incurred by an officer or director of the corporation in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents of the corporation or by persons serving at the request of the corporation as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.

(f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to or repeal or elimination of the certificate of incorporation or the bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

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(g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under this section.

(h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

(i) For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

(j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation's obligation to advance expenses (including attorneys' fees)."

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, 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 of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the 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.

In accordance with Section 102(b)(7) of the DGCL, our certificate of incorporation, will provide that no director shall be personally liable to us or any of our stockholders for monetary damages resulting from breaches of their fiduciary duty as directors, except to the extent such limitation on or exemption from liability is not permitted under the DGCL unless they violated their duty of loyalty to the company or its stockholders, acted in bad faith, knowingly or intentionally violated the law, authorized unlawful payments of dividends, unlawful stock purchases or unlawful redemptions, or derived improper personal benefit from their actions as directors. The effect of this provision of our certificate of incorporation is to eliminate our rights and those of our stockholders (through stockholders' derivative suits on our behalf) to recover monetary damages against a director for breach of the fiduciary duty of care as a director, including breaches resulting from negligent or grossly negligent behavior, except, as restricted by Section 102(b)(7) of the DGCL. However, this provision does not limit or eliminate our rights or the rights of any stockholder to seek non-monetary relief, such as an injunction or rescission, in the event of a breach of a director's duty of care.

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If the DGCL is amended to authorize corporate action further eliminating or limiting the liability of directors, then, in accordance with our certificate of incorporation, the liability of our directors to us or our stockholders will be eliminated or limited to the fullest extent authorized by the DGCL, as so amended. Any repeal or amendment of provisions of our certificate of incorporation limiting or eliminating the liability of directors, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to further limit or eliminate the liability of directors on a retroactive basis.

Our certificate of incorporation will also provide that we will, to the fullest extent authorized or permitted by applicable law, indemnify our current and former officers and directors, as well as those persons who, while directors or officers of our corporation, are or were serving as directors, officers, employees or agents of another entity, trust or other enterprise, including service with respect to an employee benefit plan, in connection with any threatened, pending or completed proceeding, whether civil, criminal, administrative or investigative, against all expense, liability and loss (including, without limitation, attorney's fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement) reasonably incurred or suffered by any such person in connection with any such proceeding. Notwithstanding the foregoing, a person eligible for indemnification pursuant to our certificate of incorporation will be indemnified by us in connection with a proceeding initiated by such person only if such proceeding was authorized by our board of directors, except for proceedings to enforce rights to indemnification.

The right to indemnification conferred by our certificate of incorporation is a contract right that includes the right to be paid by us the expenses incurred in defending or otherwise participating in any proceeding referenced above in advance of its final disposition; provided, however, that, if the DGCL requires, an advancement of expenses incurred by our officer or director (solely in the capacity as an officer or director of our corporation) will be made only upon delivery to us of an undertaking, by or on behalf of such officer or director, to repay all amounts so advanced if it is ultimately determined that such person is not entitled to be indemnified for such expenses under our certificate of incorporation or otherwise.

The rights to indemnification and advancement of expenses will not be deemed exclusive of any other rights which any person covered by our certificate of incorporation may have or hereafter acquire under law, our certificate of incorporation, our bylaws, an agreement, vote of stockholders or disinterested directors, or otherwise.

Any repeal or amendment of provisions of our certificate of incorporation affecting indemnification rights, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing at the time of such repeal or amendment or adoption of such inconsistent provision with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision. Our certificate of incorporation will also permit us, to the extent and in the manner authorized or permitted by law, to indemnify and to advance expenses to persons other than those specifically covered by our certificate of incorporation.

Our bylaws, which we intend to adopt immediately prior to the closing of this offering, include the provisions relating to advancement of expenses and indemnification rights consistent with those set forth in our certificate of incorporation. In addition, our bylaws provide for a right of indemnity to bring a suit in the event a claim for indemnification or advancement of expenses is not paid in full by us within a specified period of time. Our bylaws also permit us to purchase and maintain insurance, at our expense, to protect us and/or any director, officer, employee or agent of our corporation or another entity, trust or other enterprise against any expense, liability or loss, whether or not we would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Any repeal or amendment of provisions of our bylaws affecting indemnification rights, whether by our board of directors, stockholders or by changes in applicable law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing thereunder with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision.

Articles of Incorporation and Bylaws

The following sections from our amended and restated articles of incorporation discuss the indemnification provided thereby.

To the fullest extent permitted by the DGCL as the same exists or as may hereafter be amended from time to time, a director of the Company shall not be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Subject to any provisions in the Bylaws of the Company related to indemnification of directors of the Company, the Company shall indemnify, to the fullest extent permitted by applicable law, any director of the Company who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she is or was a director of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding. The Company shall be required to indemnify a person in connection with a Proceeding (or part thereof) initiated by such person only if the Proceeding (or part thereof) was authorized by the Board of Directors.

The Company shall have the power to indemnify, to the extent permitted by applicable law, any officer, employee or agent of the Company who was or is a party or is threatened to be made a party to any Proceeding by reason of the fact that he or she is or was a director, officer, employee or agent of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding.

Our bylaws provide that the Company may indemnify and advance litigation expenses to its directors, officers, employees and agents to the extent permitted by law, the Company's Articles or Bylaws, and shall indemnify and advance litigation expenses to its directors, officers, employees and agents to the extent required by law, the Company's Articles of Incorporation or Bylaws. The Company's obligations of indemnification, if any, shall be conditioned on the Company receiving prompt notice of the claim and the opportunity to settle and defend the claim. The Company may, to the extent permitted by law, purchase and maintain insurance on behalf of an individual who is or was a director, officer, employee or agent of the Company.

Item 15. Recent Sales of Unregistered Securities

During the last three years, the Company has not issued unregistered securities to any person, except as described below. None of these transactions involved any underwriters, underwriting discounts or commissions, except as specified below, or any public offering, and, unless otherwise indicated below, the Registrant believes that each transaction was exempt from the registration requirements of the Securities Act by virtue of Section 4(a)(2) thereof and/or Rule 506 of Regulation D promulgated thereunder, and/or Regulation S promulgated thereunder regarding offshore offers and sales. All recipients had adequate access, through their relationships with the Registrant, to information about the Registrant.

On June 5, 2021, we issued 20,000 shares of common stock pursuant to an advisory agreement.

On June 10, 2021, we issued an aggregate of 511,278 shares of common stock pursuant to three individual Advisory Agreements, which includes an additional 164,108 shares to Mr. DenBaars, who is one of our directors.

On June 10, 2021, we issued an aggregate of 99,414 shares of common stock pursuant to an Omnibus Equity Agreement, pursuant to which each of the signatories pursuant thereto agreed to convert his/her shares issuable under his/her respective Simple Agreements for Future Equity agreements into shares of the Company's common stock at the close of the Merger.

On June 10, 2021, the Company entered into an amended advisor agreement with Mr. DenBaars to issue an additional 164,108 for the consideration amount of \$2,461.62 to take on additional advisor duties.

On June 22, 2021, pursuant to the Merger, we issued an aggregate of 4,100,000 shares of our Common Stock in exchange for all of the shares of Biond Photonics' shares of capital stock issued and outstanding immediately prior to the Merger.

On July 1, 2021, we sold 115,000 common stock shares at the Offering Price for net proceeds (after deducting offering costs of \$23,070) of \$206,930 and issued an additional 11,500 warrants to purchase common stock to the Placement Agents, all pursuant to the Offering.

On November 15, 2021, the Board of Directors agreed to issue an aggregate of 20,000 shares of common stock to two advisors of the Company.

On November 7, 2022, the Company issued 150,000 shares of common stock to a consultant for providing consulting services to the Company.

On December 22, 2022, we issued an aggregate of 517,000 shares of our common stock to 21 accredited investors, for aggregate gross proceeds of \$1,551,000 (the "2022 Private Offering").

On January 10, 2023, we held a second close of the 2022 Private Offering, pursuant to which we issued an aggregate of 214,667 shares of our common stock for aggregate gross proceeds of \$644,000.

On March 31, 2023, we held the third closing of the 2022 Private Offering, pursuant to which we issued an aggregate of 715,665 shares of our common stock for aggregate gross proceeds of \$2,147,000.

On May 10, 2023, we held the final closing of the 2022 Private Offering, pursuant to which we issued an aggregate of 570,166 shares of our common stock for aggregate gross proceeds of \$1,710,500.

Item 16. Exhibits and Financial Statement Schedules

Exhibit No.	Description
2.1	Agreement and Plan of Merger and Reorganization among Parc Investments, Inc., Aeluma Operating Co. and Biond Photonics, Inc.**
3.1	Certificate of Merger relating to the merger of Aeluma Operating Co. with and into Biond Photonics, Inc., filed with the Secretary of State of the State of California on June 22, 2021**
3.2	Amended and Restated certificate of incorporation, filed with the Secretary of State of the State of Delaware on June 22, 2021**
3.3	Amended and Restated Bylaws.**
4.1	Form of Lock Up Agreement**
4.2	Form of Placement Agent Warrant**
4.3	Form of Placement Agent Warrant dated December 2022 ⁽⁴⁾
5.1	Opinion of Hunter Taubman Fischer & Li LLC ⁽⁵⁾
10.2	Form of Post-Merger Indemnification Agreement**
10.3	Form of Pre-Merger Indemnification Agreement**
10.4	Form of Subscription Agreement, dated June 22, 2021, by and between the Company and the parties thereto**
10.5	Registration Rights Agreement, dated June 22, 2021, by and between the Company and the parties thereto**
10.6+	2021 Equity Incentive Plan and form of award agreements**
10.7	Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. Klamkin ⁽¹⁾
10.8	Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. McCarthy ⁽¹⁾
10.9	Advisor Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated December 21, 2020 ⁽¹⁾
10.10	Advisor Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated June 10, 2021 ⁽¹⁾
10.11	Advisory Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated December 31, 2020 ⁽¹⁾
10.12	Advisory Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated June 10, 2021 ⁽¹⁾
10.13	Independent Director Agreement with Palvi Mehta, effective as of December 1, 2021 ⁽²⁾
10.14	Independent Director Agreement with John Paglia, effective as of December 1, 2021 ⁽³⁾
10.15	Subscription Agreement ⁽⁴⁾
10.16	Registration Rights Agreement ⁽⁴⁾
10.17	Form of Note Purchase Agreement ⁽⁶⁾
10.18	Form of Note ⁽⁶⁾
10.19	Independent Director Agreement with Craig Ensley, effective as of December 14, 2023
16.1	Letter from Raich Ende Malter & Co. LLP as to the change in certifying accountant, dated June 28, 2021***
21.1	Subsidiaries of the Registrant**
23.1	Consent of Rose, Snyder & Jacobs LLP
23.2	Consent of Hunter Taubman Fischer & Li LLC (Included in Exhibit 5.1)
101.INS	Inline XBRL Instance Document for the year ended June 30, 2023
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).
107	Filing Fees Exhibit ⁽⁵⁾

+ Indicates a management contract or any compensatory plan, contract or arrangement.

** Incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021.

*** Incorporated by reference to the Current Report on Form 8-K filed on July 1, 2021.

(1) Incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021.

(2) Incorporated by reference to the Current Report on Form 8-K filed on November 18, 2021.

(3) Incorporated by reference to the Current Report on Form 8-K filed on November 30, 2021.

(4) Incorporated by reference to the Current Report on Form 8-K filed on December 23, 2022.

- (5) Incorporated by reference to the Registration Statement on Form S-1 filed on July 6, 2023.
(6) Incorporated by reference to the Current Report on Form 8-K filed on August 6, 2024.

Item 17. Undertakings

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 set forth 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 a 20% 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;
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
- (i) If the Registrant is relying on Rule 430B (§230.430B of this chapter):
- (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

- (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an Underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or
- (ii) If the Registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

The undersigned Registrant hereby undertakes to provide to the Underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the Underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Goleta, State of California, on October 9, 2024.

AELUMA, INC.

By: /s/ Jonathan Klamkin
Name: Jonathan Klamkin
Title: Chief Executive Officer &
Principal Financial Officer & Chairman

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jonathan Klamkin</u> Jonathan Klamkin	President, Chief Executive Officer, Principal Financial Officer, and Chairman (Principal Executive Officer and Principal Financial Officer)	October 9, 2024
<u>/s/ Craig Ensley</u> Craig Ensley	Director	October 9, 2024
<u>/s/ Steven DenBaars</u> Steven DenBaars	Director	October 9, 2024
<u>/s/ John Paglia</u> John Paglia	Director	October 9, 2024

DIRECTOR AGREEMENT

THIS AGREEMENT (The “**Agreement**”) is effective as of the 14 day of December, 2023 (the “**Effective Date**”), and is by and between AELUMA, INC., a Delaware corporation (hereinafter referred to as the “**Company**”), and Craig Ensley (hereinafter referred to as the “**Director**”).

BACKGROUND

The Company’s Board of Directors (the “**Board**”) and the Director desire to memorialize the role of the Director and to have the Director perform the duties required of such position in accordance with the terms and conditions of this Agreement.

AGREEMENT

NOW THEREFORE, in consideration for the above recited promises and the mutual promises contained herein, the adequacy and sufficiency of which are hereby acknowledged, the Company and the Director hereby agree as follows:

1. **DUTIES.** The Company requires that the Director be available to perform the duties of a director customarily related to this function as may be determined and assigned by the Board and as may be required by the Company’s constituent instruments, including its certificate or articles of incorporation, bylaws and its corporate governance and board committee charters, each as amended or modified from time to time, and by applicable law, including by Delaware’s General Corporation Law (the “**DGCL**”) and such other services mutually agreed to by the Director and the Company.

The Director agrees to devote as much time as is reasonably necessary to perform the duties as the Director of the Company, including duties as a member of any committees as the Director may hereafter be appointed to by the Board. Furthermore, the Director shall make reasonable business efforts to attend all Board meetings.

The Director will perform such duties described herein in accordance with the general fiduciary duty of directors arising under the DGCL. Such duties include but are not limited to assisting the Company with the development of business and new business strategies relating to the objectives of the Company, participation in the Company’s investor relations activities including road shows and shareholder communication activities, and participation in corporate strategy decisions of the Company.

Other than as set forth above, Director will not, without the prior notification to the Board, engage in any other business activity, which could materially interfere with the performance of the Director’s duties, services and responsibilities hereunder or which is in violation of the reasonable policies established from time to time by the Company, provided that the foregoing shall in no way limit his/her activities on behalf of (i) any current employer and its affiliates or (ii) the board of directors of any entities on which he currently sits. At such time as the Board receives such notification, the Board may require the resignation of Director if it determines that such business activity does in fact materially interfere with the performance of Director’s duties, services and responsibilities hereunder.

“**Duties**” mean all services and responsibilities included or contemplated by this Section 1.

2. **TERM.** The term of this Agreement and the Director’s services hereunder shall be from the Effective Date through November 30, 2024 (the “**Term**”), unless terminated as provided for in this Section 2. This Agreement and the Director’s services hereunder shall terminate upon the earlier of the following:
 - a. Removal of the Director as a director of the Company, upon proper Board or stockholder action in accordance with the By-Laws and Articles of Incorporation of the Company and applicable law;
 - b. Resignation of the Director as a director of the Company upon written notice to the Board; or
 - c. Director’s failure to be reelected by the Company’s stockholders at a meeting duly called for such purpose.

3. **COMPENSATION.** While this Agreement is in effect, the Director shall perform duties as a Director and/or a member of the committees of the Board, be compensated for such and be reimbursed expenses in accordance with the Schedule A attached to this Agreement, subject to the following:
 - a. The Director is solely responsible for taxes arising out of any compensation paid by the Company to the Director under this Agreement, and the Director understands that he will be issued a U.S. Treasury form 1099 for any compensation paid to him by the Company. The Director acknowledges and agrees that because he is not an employee of the Company the Company will not withhold any amounts for taxes from any of his payments under the Agreement.
 - b. The Company may offset any and all monies payable to the Director to the extent of any undisputed monies owing to the Company from the Director.
 - c. The rules and regulations of the Company notified to the Director, from time to time, apply to the Director. Such rules and regulations are subject to change by the Company in its sole discretion. Notwithstanding the foregoing, in the event of any conflict or inconsistency between the terms and conditions of this Agreement and rules and regulations of the Company, the terms of this Agreement control.
4. **CONFIDENTIALITY.** The Company and the Director each acknowledge that, in order for the intents and purposes of this Agreement to be accomplished, the Director shall necessarily be obtaining access to certain confidential information concerning the Company and its affairs, including, but not limited to business methods, information systems, financial data and strategic plans which are unique assets of the Company (“**Confidential Information**”). The Director covenants not to, either directly or indirectly, in any manner, utilize or disclose to any person, firm, corporation, association or other entity any Confidential Information.

5. **NON-COMPETE.** During the term of this Agreement (the “**Restricted Period**”), the Director shall not, directly or indirectly, (i) in any manner whatsoever engage in any capacity with any business competitive with the Company’s current lines of business or any business then engaged in by the Company, any of its subsidiaries or any of its affiliates in the area of optoelectronics for sensing and communications applications (the “**Company’s Business**”) for the Director’s own benefit or for the benefit of any person or entity other than the Company or any subsidiary or affiliate; or (ii) have any interest as owner, sole proprietor, shareholder, partner, lender, director, officer, manager, employee, consultant, agent or otherwise in any business competitive with the Company’s Business; provided, however, that (a) the Director may hold, directly or indirectly, solely as an investment, not more than two percent (2%) of the outstanding securities of any person or entity which are listed on any national securities exchange or regularly traded in the over-the-counter market notwithstanding the fact that such person or entity is engaged in a business competitive with the Company’s Business; (b) own a passive equity interest in a private debt or equity investment fund in which Director does not have the ability to control or exercise any managerial influence over such fund; (c) engage in any activity consented to in advance in writing by the Board; (d) perform speaking engagements and receiving honoraria in connection with such engagements; (e) provide services to any government agency, college, university, or other non-profit research organization; or (f) render services in any capacity to a separate business unit of an entity that is engaged in the Company’s Business, as long as such business unit is not engaged in the Company’s Business and Director has no active participation in the Company’s Business. In addition, during the Restricted Period, the Director shall not develop any property for use in the Company’s Business on behalf of any person or entity other than the Company, its subsidiaries and affiliates.
6. **TERMINATION.** With or without cause, the Company and the Director may each terminate this Agreement at any time upon written notice, and the Company shall be obligated to pay to the Director the compensation and expenses due up to the date of the termination. Nothing contained herein or omitted herefrom shall prevent the shareholder(s) of the Company from removing the Director with immediate effect at any time for any reason.

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7. **INDEMNIFICATION.** The Company shall indemnify, defend and hold harmless the Director, to the full extent allowed by the law of the State of Delaware and as provided by, or granted pursuant to, any charter provision, bylaw provision, vote of stockholders or disinterested directors or otherwise, to action in the Director’s official capacity; provided, however, that, in accordance with the DGCL and federal securities laws, such indemnification shall not apply where the Director engages in actions or omissions which involve intentional misconduct, fraud or knowing violation of law. Reasonable expenses incurred by the Director in defending any claim, action, suit or proceeding shall accordingly be paid by the Company in advance of the final disposition of such claim, action, suit or proceeding, but such expenses shall not include amounts paid in settlement by the Director or the amount of judgments or fines against Director. In the event that the Director is ultimately determined not to be entitled to such indemnification, then all amounts advanced under this Section 7 shall be repaid. In addition, the Company shall use its best efforts to purchase and maintain a customary directors’ and officers’ liability insurance policy (or policies) during the term of this Agreement and thereafter.
8. **NOTICE.** Any and all notices referred to herein shall be sufficient if furnished in writing at the addresses specified on the signature page hereto or, if to the Company, to the Company’s address as specified in filings made by the Company with the U.S. Securities and Exchange Commission.
9. **GOVERNING LAW.** This Agreement shall be interpreted in accordance with, and the rights of the parties hereto shall be determined by, the laws of the State of Delaware without reference to that state’s conflicts of laws principles.
10. **ASSIGNMENT.** The rights and benefits of the Company under this Agreement shall be transferable, and all the covenants and agreements hereunder shall inure to the benefit of, and be enforceable by or against, its successors and assigns. The duties and obligations of the Director under this Agreement are personal and therefore the Director may not assign any right or duty under this Agreement without the prior written consent of the Company.
11. **GENERAL.**
- a. **SEVERABILITY.** If any provision of this Agreement shall be declared invalid or illegal, for any reason whatsoever, then, notwithstanding such invalidity or illegality, the remaining terms and provisions of this Agreement shall remain in full force and effect in the same manner as if the invalid or illegal provision had not been contained herein.
- b. **EFFECT OF WAIVER.** The waiver by either party of the breach of any provision of this Agreement shall not operate as or be construed as a waiver of any subsequent breach thereof.
- c. **ARTICLE HEADINGS.** The article headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.
- d. **COUNTERPARTS.** This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one instrument. Facsimile execution and delivery of this Agreement is legal, valid and binding for all purposes.
- e. **ENTIRE AGREEMENT; AMENDMENT.** Except as provided elsewhere herein, this Agreement sets forth the entire agreement of the parties with respect to its subject matter and supersedes all prior agreements, promises, covenants, arrangements, communications, representations or warranties, whether oral or written, by any officer, employee or representative of any party to this Agreement with respect to such subject matter. The terms set forth in this Agreement shall not be changed, altered, modified or amended, except by a written agreement that (i) explicitly states the intent of the parties hereto to supplement the terms herein and (ii) is signed by both parties hereto.

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IN WITNESS WHEREOF, the parties have executed this Agreement to be effective as of December 14, 2023.

AELUMA, INC

By: /s/ Jonathan Klamkin
Name: Jonathan Klamkin
Title: Chief Executive Officer

DIRECTOR:

/s/ Craig Ensley
Craig Ensley

SCHEDULE A

I POSITION: DIRECTOR.

II. COMPENSATION:

FEES. For all Duties rendered by the Director pursuant to this Agreement, both during and outside of normal working hours, including but not limited to, making reasonable business efforts to (i) attend all required meetings of the Board or applicable committees thereof, executive sessions of the Directors, (ii) review filing reports and other corporate documents as requested by the Company, and (iii) provide comments and opinions as to business matters as requested by the Company, the Company agrees to compensate the Director as set forth herein.

STOCK. The Director shall be granted a total amount of 29,014 stock options to purchase the Company's Common Stock (the "Option"), at an exercise price of \$2.99 per share, which shall vest in accordance with the following schedule:

- 6,514 stock options shall vest on February 29, 2024;
- 7,500 stock options shall vest each on May 31, 2024; August 31, 2024; and November 30, 2024.

If Director resigns or is otherwise terminated in accordance with the terms of this Agreement and/or the Company's articles of incorporation or bylaws, any unvested options shall be immediately cancelled and Director will have 90 days to exercise any earned, vested options.

The exercise price per share of the Option will be determined by the Board or Committee when the Option is granted, provided, however, that such exercise price per share under any Option shall not be less than 100% of the Fair Market Value of a share on the date of grant of such Option. The Option will be subject to the terms and conditions under the Company's 2021 Equity Incentive Plan (the "Plan").

The Option is not transferable to another party and Director will be subject to all the SEC reporting requirements associated with the grant, exercise and sale of this equity compensation.

Additional compensation for serving on the Company's committees is payable as follows, if applicable:

- Service on **audit committee**: 5,000 stock options per year (10,000 stock options per year for the chair of such committee) – vesting in equal quarterly increments
- Service on **compensation committee**: 3,750 stock options per year (7,500 stock options per year for the chair of such committee) – vesting in equal quarterly increments
- Service on **nominating/governance committee**: 3,000 stock options per year (6,000 stock options per year for the chair of such committee) – vesting in equal quarterly increments

All options, unless otherwise specified, will have an exercise price equal to the fair market value at the time of issuance. The number of options for committee service compensation will be subject to quarterly adjustment.

EXPENSES. During the term of the Director's service as a director of the Company, the Company shall promptly reimburse the Director for all expenses incurred by him/her in connection with attending (a) all meetings of the Board or applicable committees thereof, (b) executive sessions of the Directors, and (c) stockholder meetings, as a director or a member of any committee of the Board, provided that any such expenses over \$500.00 shall be approved by the Company in writing in advance. In addition, the Director shall rely on the Company to arrange all hotel accommodations in connection with any such meetings the Director must attend. The amount of such expenses eligible for reimbursement by the Company during a calendar year shall not affect such expenses eligible for reimbursement by the Company in any other calendar year, and the reimbursement of any such eligible expenses shall be made on or before the last day of the calendar year next following the calendar year in which the expense was incurred.

NO OTHER BENEFITS OR COMPENSATION. The Director acknowledges and agrees that he is not granted or entitled to any other benefits or compensation from the Company for services provided under this Agreement except expressly provided for in this Schedule A.



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference, in this Registration Statement on Form S-1 of our report dated September 27, 2024, with respect to the consolidated financial statements of Aeluma, Inc. and Subsidiaries appearing in the Company's Annual Report on Form 10-K for the year ended June 30, 2024.

/s/ Rose, Snyder & Jacobs LLP
Rose, Snyder & Jacobs LLP

Encino, California
October 8, 2024

15821 VENTURA BOULEVARD, SUITE 490, ENCINO, CALIFORNIA 91436
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