
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
WASHINGTON, DC 20549

SCHEDULE 14A

(Rule 14a-101)

**INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION**

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under § 240.14a-12

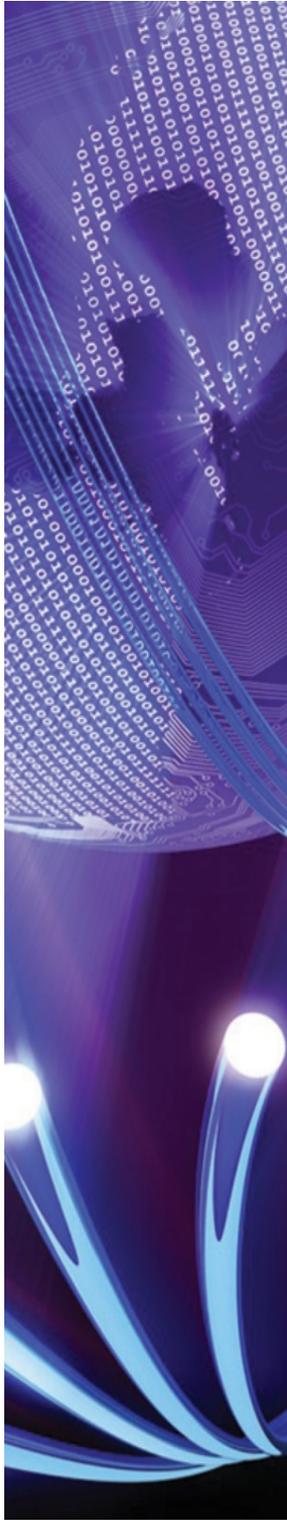
LUNA INNOVATIONS INCORPORATED

(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check all boxes that apply):

- No fee required
 - Fee paid previously with preliminary materials
 - Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11
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NOTICE OF 2022 ANNUAL MEETING OF STOCKHOLDERS AND PROXY STATEMENT

To be held on May 10, 2022

LUNA 

Notice of Annual Meeting of Stockholders



301 1st Street SW, Suite 200 • Roanoke, Virginia 24011

Date
Tuesday, May 10, 2022

Time
10:00 a.m. EDT

Items of Business

1. To elect the board's two nominees named herein to serve as Class I members of the Company's board of directors to hold office until the 2025 annual meeting of stockholders.
2. To approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed in this proxy statement.
3. To ratify the appointment, by the Audit Committee of the Company's board of directors, of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022.
4. To transact any other business that is properly brought before the meeting or any adjournment or postponement thereof.

The Annual Meeting will be held in a virtual-only meeting format, via live video webcast that will provide stockholders with the ability to participate in the Annual Meeting, vote their shares and ask questions. In order to attend the Annual Meeting, you must register at <https://www.proxydocs.com/LUNA>. Upon completing your registration, you will receive further instructions via email, including a unique link that will allow you access to the Annual Meeting and to vote and submit questions during the Annual Meeting. You will not be able to attend the meeting in person. Please refer to the attached proxy statement, which forms a part of this Notice and is incorporated herein by reference, for further information with respect to the business to be transacted at the annual meeting.

Stockholders of record at the close of business on March 25, 2022 (the "Record Date") are entitled to notice of, and to vote at, the annual meeting or any adjournment or postponement thereof. The presence, online or by proxy, of shares of the Company's common stock representing a majority of shares of the Company's common stock issued and outstanding on the Record Date will be required to establish a quorum at the annual meeting.

Your vote is important. Please sign, date and return the enclosed proxy card as soon as possible, or vote by telephone or on the Internet as instructed in these materials, to make sure that your shares are represented at the annual meeting. If you are a stockholder of record of the Company's common stock, you may cast your vote by proxy or online at the virtual annual meeting. If your shares are held of record by a brokerage firm, bank or other nominee, you must obtain a proxy issued in your name from that record holder and should instruct the record holder as to how to vote your shares.

By Order of the Board of Directors,

/s/ Scott A. Graeff

Scott A. Graeff

President, Chief Executive Officer, Treasurer and Secretary

Roanoke, Virginia
April 08, 2022

You are cordially invited to attend the annual meeting. Whether or not you plan to attend the virtual annual meeting, please complete, sign, date and return the accompanying proxy card in the enclosed envelope or vote by telephone or on the Internet as instructed in these materials, as promptly as possible in order to ensure your representation at the meeting. Even if you have voted by proxy, you may still vote online if you attend the virtual annual meeting.

Important Notice Regarding the Availability of Proxy Materials for the Meeting of Stockholders to be held on May 10, 2022:
The Proxy Statement and Annual Report to Stockholders are available at <https://www.proxydocs.com/LUNA>.

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LUNA INNOVATIONS INCORPORATED

PROXY STATEMENT
FOR
ANNUAL MEETING OF STOCKHOLDERS
May 10, 2022

INFORMATION CONCERNING SOLICITATION AND VOTING

General

This proxy statement is furnished to the stockholders of Luna Innovations Incorporated (the “Company,” “we,” “us,” or “our”) in connection with the solicitation of proxies for use at our annual meeting of stockholders to be held on May 10, 2022 at 10:00 a.m. EDT for the purposes set forth in the accompanying “Notice of Annual Meeting of Stockholders.” The annual meeting will be a virtual stockholder meeting through which you can listen to the meeting, submit questions and vote online. To register, visit <https://www.proxydocs.com/LUNA> and enter your control number which is included in the proxy materials mailed to you. Upon completing your registration, you will receive further instructions via email, including a unique link that will allow you to access the Annual Meeting. On the day of the meeting, we recommend that you log in a few minutes before the annual meeting to ensure you are logged in when the meeting starts. Online check-in will begin at 9:45 a.m. EDT. Information on how to vote online during the annual meeting is discussed below.

We have decided to hold a virtual meeting in light of public health concerns regarding the COVID-19 pandemic, to protect the health and safety of our stockholders and employees. We also believe holding a virtual meeting improves stockholder access, encourages greater global participation, lowers costs compared to an in-person event, and aligns with our broader sustainability goals. Stockholders attending the virtual meeting will be afforded the same rights and opportunities to participate as they would at an in-person meeting. A copy of our Annual Report to Stockholders, which includes our annual report on Form 10-K for the year ended December 31, 2021 filed with the Securities and Exchange Commission, together with this proxy statement and accompanying proxy card, is expected to be mailed on or about April 13, 2022, to our stockholders of record as of the close of business on the Record Date. Those materials are also available at <https://www.proxydocs.com/LUNA>. This solicitation is made on behalf of our board of directors, and we will pay the costs of solicitation. We will reimburse banks, brokerage firms and other custodians, nominees and fiduciaries for reasonable expenses incurred by them in sending our proxy material to our stockholders. Our principal executive offices are located at 301 1st Street SW, Suite 200, Roanoke, Virginia 24011, and our telephone number is (540) 769-8400.

Asking Questions and Technical Matters Related to our Virtual Annual Meeting

Only stockholders of record as of the record date for the annual meeting and their proxy holders may submit questions or comments.

If you would like to submit a question, you may do so by joining the virtual annual meeting and typing your question in the box in the annual meeting portal.

We ask that you limit your remarks to one brief question or comment that is relevant to the annual meeting or our business and that remarks are respectful of your fellow stockholders and meeting participants. Questions may be grouped by topic by our management with a representative question read aloud and answered. In addition, questions may be ruled as out of order if they are, among other things, irrelevant to our business, related to pending or threatened litigation, disorderly, repetitious of statements already made, or in furtherance of the speaker’s own personal, political or business interests. Questions will be addressed in the Q&A portion of the annual meeting.

If you encounter any difficulties accessing the virtual annual meeting during the check-in or meeting time, please call the technical support number that will be posted on the Virtual Stockholder Meeting log in page. Technical support will be available starting at 9:00 a.m. EDT on May 10, 2022.

Shares Entitled to Vote and Quorum Requirement

Our outstanding common stock constitutes the only class of securities entitled to vote at the annual meeting. Stockholders of record of our common stock at the close of business on the Record Date are entitled to notice of, and to vote at, our 2022 annual meeting of stockholders. As of the close of business on March 25, 2022, 32,348,613 shares of our common stock were outstanding; therefore, the presence at the meeting, online or by proxy, of at least 16,174,307 shares of common stock will constitute a quorum. Each share of common stock owned as of the Record Date is entitled to one vote. If there is no quorum, holders of a majority of shares present at the meeting online or represented by proxy may adjourn the meeting to another date.

Voting Procedures

The procedures for voting differ depending on whether you are a stockholder of record (that is, if your shares are registered directly in your own name with the Company's transfer agent) or you hold your shares in "street name" (that is, your shares are held in an account at a brokerage, bank, dealer or other similar organization rather than in your own name, in which case you are considered to be the "beneficial owner" of those shares).

Stockholders of Record

Stockholders of record may vote by (i) completing and returning the enclosed proxy card prior to the meeting, (ii) voting over the telephone, (iii) voting on the Internet, or (iv) voting online during the meeting.

A proxy card is enclosed for your use. We ask that you carefully review, complete, sign, date and return the proxy card in the accompanying envelope, which is postage prepaid if mailed in the United States.

In addition to submitting your vote by mail, you may vote by telephone or over the Internet. In order to vote by telephone or over the Internet, please have the enclosed proxy card available for reference, and call the number or visit the website listed on the proxy card and follow the instructions. You will be asked to provide the control number from the enclosed proxy card. The telephone and internet voting procedures are designed to authenticate stockholders' identities, to allow stockholders to give their voting instructions and to confirm that stockholders' instructions have been recorded properly.

You may attend the annual meeting via the Internet and vote during the annual meeting. Registration is required by visiting www.proxydocs.com/LUNA and entering your control number which is included in the proxy materials mailed to you. Please have your notice in hand when you access the website and then follow the instructions. The annual meeting can be accessed by following the directions received in subsequent emails you receive.

If you are a stockholder of record and do not vote by completing your proxy card, by telephone, by mail, over the Internet or online during the annual meeting, your shares will not be voted.

For the ten days prior to the annual meeting, a list of stockholders entitled to vote at the annual meeting will be available for examination by any stockholder of record for purposes germane to the annual meeting at our corporate headquarters during regular business hours. To access a list of record stockholders beginning ten days prior to the annual meeting and until the meeting, stockholders should email ir@lunainc.com. In addition, during the Annual Meeting, the list of stockholders will be available for examination by any stockholder of record at www.proxydocs.com/LUNA.

Beneficial Owners

If your shares are held in street name, the organization holding your account is considered to be the stockholder of record for purposes of voting at the annual meeting. If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a voting instruction form with these proxy materials from that organization rather than from the Company. As a beneficial owner, you still have the right to direct your broker or other agent regarding how to vote the shares in your account. Simply complete and mail the voting

instruction form to ensure that your vote is counted. Alternatively, you may vote by telephone or over the Internet as instructed by your broker or bank.

You are also invited to attend the virtual annual meeting and are required to register in advance at www.proxydocs.com/LUNA. However, since you are not the stockholder of record, you may not vote your shares online at the meeting unless you request and obtain a valid proxy from your broker or other agent. Follow the instructions from your broker or bank included with these proxy materials or contact your broker or bank to request a proxy form.

If you are a beneficial owner and do not instruct your broker, bank, or other agent how to vote your shares, the question of whether your broker or nominee will still be able to vote your shares depends on whether the New York Stock Exchange ("NYSE"), deems the particular proposal to be a "routine" matter. Even though our common stock is listed on the Nasdaq Capital Market, the NYSE rules apply to brokers who are NYSE members voting on matters being submitted to stockholders at our annual meeting. Brokers and nominees can use their discretion to vote "uninstructed" shares with respect to matters that are considered to be "routine," but not with respect to "non-routine" matters. Under the rules and interpretations of the NYSE, "non-routine" matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals, elections of directors (even if not contested), executive compensation and certain corporate governance proposals, even if supported by management. Accordingly, your broker or nominee may not vote your shares on Proposals No. 1 or No. 2 without your instructions but may vote your shares on Proposal No. 3.

We provide Internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. There is no cost associated with casting your vote online. However, please be aware that you must bear any costs associated with your Internet access, such as usage charges from Internet access providers and telephone companies.

The persons named as attorneys-in-fact to vote the proxies, Scott A. Graeff and Eugene Nestro, were selected by the board of directors and are executive officers of the Company. All properly executed proxies returned in time to be counted at the annual meeting will be voted.

If you return a signed and dated proxy card without marking voting selections, then unless there are different instructions on the proxy card, your shares will be voted at the meeting **FOR** the election of the two director nominees listed in Proposal No. 1, **FOR** the advisory approval of executive compensation in Proposal No. 2, and **FOR** the ratification of the appointment of our independent registered public accounting firm in Proposal No. 3. With respect to any other business that may properly come before the annual meeting and be submitted to a vote of stockholders, proxies will be voted in accordance with the best judgment of the designated proxy holders.

All votes cast at the annual meeting will be tabulated by the person or persons appointed by our board of directors to act as inspectors of election for the meeting. The inspectors of election will separately count, for Proposal No. 1, the election of directors, votes "For," "Withhold" and "broker non-votes," and with respect to other proposals, votes "For" and "Against," abstentions and "broker non-votes." Broker non-votes occur when a beneficial owner of shares held in "street name" does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed "non-routine," in which case the broker or nominee cannot vote the shares, as described above.

Abstentions and broker non-votes will be counted as shares that are present and entitled to vote for purposes of determining the presence of a quorum. Abstentions will be counted towards the vote total for each of Proposals No. 2, and 3 and will have the same effect as "Against" votes. Broker non-votes have no effect and are not included in the tabulation of voting results on any proposals.

The director nominees listed in Proposal No. 1 will be elected by a plurality of the votes of the shares present or represented by proxy at the meeting and entitled to vote on the election of directors. The two nominees receiving the most "For" votes will be elected.

Proposal No. 2, advisory approval of the compensation of the Company's named executive officers, will be considered to be approved if it receives "For" votes from the holders of a majority of shares either present or represented by proxy at the meeting and entitled to vote.

The appointment of our independent registered public accounting firm listed in Proposal No. 3 will be ratified if a majority of shares present or represented by proxy at the meeting and entitled to vote thereon vote "For" such proposal.

Your vote is important. Accordingly, please carefully review, complete, sign, date and return the enclosed proxy card, or vote over the telephone or Internet, whether or not you plan to attend the annual meeting.

If you receive more than one set of proxy materials, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on the proxy cards in the proxy materials to ensure that all of your shares are voted.

Changing Your Vote

If you are a stockholder of record, you may revoke your proxy at any time before it is actually voted at the meeting either by signing and submitting a new proxy card with a later date or by attending the annual meeting and voting online. You may also grant a subsequent proxy by telephone or over the Internet. Your most recently submitted proxy card or telephone or Internet proxy is the one that will be counted. Merely attending the meeting, however, will not revoke your submitted proxy unless you vote at the meeting, which will have the effect of revoking your proxy. You may also send a timely written notice that you are revoking your proxy to our Corporate Secretary at 301 1st Street SW, Suite 200, Roanoke, Virginia 24011.

If you hold shares through a bank or brokerage firm, you should have received a proxy card and voting instructions with these proxy materials, and you must contact the bank or brokerage firm directly to revoke any prior voting instructions.

Results of Voting

Preliminary voting results will be announced at the annual meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the annual meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the annual meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

Proposal No. 1

Election of Directors

General Information

Our board of directors is divided into three classes (Class I, Class II and Class III) with staggered three-year terms. Each class consists, as nearly as possible, of one-third of the total number of directors. Vacancies on the board of directors may be filled only by persons elected by a majority of the remaining directors. A director elected by the board of directors to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified.

The board of directors currently has seven members, including two Class I directors, Richard Roedel and Gary Spiegel whose terms expire at the 2022 annual meeting. Mr. Roedel and Mr. Spiegel were both previously elected by the stockholders. The terms of the Class II and Class III directors will expire at the 2023 and 2024 annual meetings of the stockholders, respectively.

Our board of directors has nominated Mr. Roedel and Mr. Spiegel to serve as Class I directors for a three-year term expiring at the 2025 annual meeting of stockholders and until their successors have been duly elected and qualified, or, if sooner, until the director's death, resignation or removal. Mr. Roedel is currently a Class I director, chair of the board of directors, chair of the Risk Committee, a member of the Nominating and Governance Committee and a member of the Compensation Committee. Mr. Spiegel is currently a Class I director, chair of the Compensation Committee, member of the Nominating and Governance Committee and a member of the Risk Committee.

Directors are elected by a plurality of the votes of shares present online at the meeting or represented by proxy and entitled to vote on the election of directors. Proxies cannot be voted for more than two nominees. The two nominees receiving the highest number of "For" votes will be elected. Only votes "For" and "Withheld" will affect the outcome. Broker non-votes will have no effect on this proposal. Shares represented by executed proxies will be voted "For" the election of the two nominees recommended by the board of directors unless the proxy is marked in such a manner so as to withhold authority to vote. If any of the nominees is unable or unexpectedly declines to serve as director, the board of directors may designate another nominee to fill the vacancy, and the proxy will be voted for that nominee. Each person nominated for election has agreed to serve if elected, and we have no reason to believe that either nominee will be unable to serve.

The names of the two nominees for director and of our other directors whose terms will continue after the annual meeting, their ages as of March 25, 2022, and certain other information about them are set forth below. There are no family relationships among our directors or executive officers.

Names of Nominees	Age	Position(s)	Director Since
Richard W. Roedel	72	Chair of the Board of Directors	2005
Gary Spiegel	71	Director	2015

Names of the Incumbent Directors with Terms Continuing After 2022 Annual Meeting	Age	Position(s)	Director Since
Warren B. Phelps, III	75	Director	2017
Mary Beth Vitale	68	Director	2019
Scott A. Graeff	55	Director	2017
N. Leigh Anderson	72	Director	2017
Pamela Coe	62	Director	2021

Our Nominating and Governance Committee seeks to assemble a board of directors that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise and high-level management experience necessary to oversee and direct our business. To that end, the committee has identified and evaluated nominees in the broader context of the board's overall composition, with the goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that the committee views as critical to effective functioning of the board. The biographies below include information, as of the date of this proxy statement, relating to the specific and particular experience, qualifications, attributes or skills of each director that led the committee to believe that the director should continue to serve on the board. However, each of the members of the committee may have a variety of reasons why he or she believes a particular person would be an appropriate nominee for the board, and these views may differ from the views of other members.



RICHARD W. ROEDEL

Age: 72
Director Since: 2005
Board Committees
Nominating & Governance
Compensation
Risk

Biographical Information

Richard W. Roedel has served as a member of our board of directors since 2005 and as Chair of our board of directors since 2010. Mr. Roedel also serves as a director of publicly held companies, Brightview Holdings, Inc., LSB Industries, Inc., and Clarivate Plc. Mr. Roedel serves as a Chair of LSB. In May 2021, Mr. Roedel retired from the board of Six Flags Entertainment, Inc. where he served as the Non-Executive Chair. Mr. Roedel has previously served on boards of IHS Markit Ltd, Lorillard, Inc., Sealy Corporation, BrightPoint, Inc., Broadview Holdings, Inc., Dade Behring Holdings, Inc., and TakeTwo Interactive Software, Inc. Mr. Roedel is a member of the National Association of Corporate Directors (NACD) Risk Oversight Advisory Council. Mr. Roedel served a three-year term, ending in 2017, on the Standing Advisory Group of the Public Company Accounting Oversight Board (PCAOB). From 1971 through 2000, he was employed by BDO Seidman LLP, becoming an audit partner in 1980, later being promoted in 1990 to managing partner in Chicago and then managing partner in New York in 1994, and finally, in 1999, to chair and chief executive officer. Mr. Roedel holds a B.S. degree in accounting from The Ohio State University and is a Certified Public Accountant.

Qualifications

The Nominating and Governance Committee believes that Mr. Roedel's public accounting experience and his status as an authority on issues facing audit committees, his extensive service on public company boards and committees and his deep familiarity with our company will make him a valuable member of the board of directors.



GARY SPIEGEL

Age: 71
Director Since: 2015
Board Committees:
Compensation
Nominating & Governance
Risk

Biographical Information

Gary Spiegel has served as a member of our board of directors since May 2015. He has more than 40 years of experience in the photonics industry. He held various positions, including vice president, sales and marketing, senior vice president, sales and business development, and senior vice president, business development at Newport Corporation from 2002 to 2013. Mr. Spiegel retired from Newport Corporation in 2014 and is currently a business development consultant. He has a bachelor's degree in Industrial Marketing from Baruch College of the City University of New York and executive education course on Mergers and Acquisitions at UCLA Anderson school. He currently sits on the board of directors of Telescent Inc., an early-stage technology company focused on software defined network cross connect technology. From 2016-2019, he served on the board of Alio Industries, a small technology company serving a variety of high technology markets. He served as Secretary and Treasurer of the SPIE from 2015 through 2018, where he chaired the Financial Advisory Committee, as well as the Compensation Committee. He is the chair of the SPIE Audit committee, an honored Fellow of the SPIE and the recipient of its 2020 Directors Award.

Qualifications

The Nominating and Governance Committee believes that Mr. Spiegel's extensive experience and recognized thought leadership in the photonics industry will enable him to continue to make valuable contributions to the board of directors.

THE BOARD OF DIRECTORS RECOMMENDS YOU VOTE "FOR" EACH NAMED NOMINEE.

Class II Directors Continuing in Office Until the 2023 Annual Meeting of Stockholders



Warren B. Phelps, III

Age: 75
Director Since: 2017
Board Committees:
Audit
Compensation
Risk

Biographical Information

Warren B. Phelps, III has served as a member of our board of directors since May 2017. He has served as Executive Chair of Empower RF Systems, a developer and manufacturer of high power RF amplifiers for the defense and commercial markets, since 2013. Since 2007, Mr. Phelps has served as a director of CarParts.com and its predecessor US AutoParts, a public company. From 2007-2017 he was chair of its Audit Committee and a member of the Nominating and Governance Committee. Currently Mr. Phelps serves as CarParts.com's Board Chair and chair of the Compensation Committee. From 2000 until his retirement in 2006, Mr. Phelps served in several executive positions for Spirent plc, a leading communications technology company, most recently as President of the Performance Analysis Broadband division. From 1996 to 2000, Mr. Phelps was at Netcom Systems, a provider of network test and measurement equipment, most recently as President and Chief Executive Officer. Prior to that, Mr. Phelps held executive positions, including Chair and Chief Executive Officer, at MICOM Communications and in various financial management roles at Burroughs/Unisys Corporation. Mr. Phelps holds a B.S. degree in mathematics from St. Lawrence University in Canton, New York and an M.B.A. from The University of Rochester in Rochester, New York.

Qualifications

The Nominating and Governance Committee believes that Mr. Phelps's prior experience as a Chief Executive Officer and with the defense and commercial industries enables him to make valuable contributions to the board of directors.



Mary Beth Vitale

Age: 68
Director Since: 2019
Board Committees:
Nominating & Governance
Audit
Risk

Biographical Information

Mary Beth Vitale has served as a member of our board of directors since September 2019. She currently serves as chair of Pareteum, Inc., a publicly traded company and GEHA, a VEBA health insurer where she chairs the Risk and Technology Committee. Ms. Vitale also served on the board of directors of CoBiz Financial, a publicly traded national commercial bank, from 2005 to 2018. Ms. Vitale co-founded Peller, LLC., a consulting firm specializing in cybersecurity and board governance to boards of directors, in 2001. Previously, she had served as President, CEO and Chair of the Board of WestwindMedia.com, President and Chief Operating Officer of RMI.NET, and President-Western States and corporate officer for AT&T. She joined the Global Board of Women Corporate Directors in October 2020. Ms. Vitale is past Chair of the Board of Directors of the National Association of Corporate Directors (NACD) local chapter and has also been recognized as an NACD Board Leadership Fellow. earned the Director Certification and is a SEC qualified financial expert. She currently is a faculty member for the NACD in board governance and cyber security training. She is also a Co-Chair and founder of the Women Corporate Directors, Colorado Chapter. In 2020, she was selected as one of the top 100 directors by the NACD. Ms. Vitale also earned the CERT Certificate in Cybersecurity Oversight from the Software Engineering Institute, which demonstrates her commitment to advanced cybersecurity literacy to the Company, investors and regulators. She received her bachelor's degree from Hillsdale College; a master's degree from the University of Colorado; and an Advanced Management certificate from the Wharton School.

Qualifications

The Nominating and Governance Committee believes that Ms. Vitale's financial, business development and cybersecurity expertise enables her to make valuable contributions to the board of directors.



Scott A. Graeff

Age: 55
Director Since: 2017

Biographical Information

Scott A. Graeff was appointed as our President, Chief Executive Officer and a member of the Board of Directors in October 2017. Mr. Graeff has served as our Treasurer since 2005, and our Secretary since May 2015. Mr. Graeff previously served as our Chief Strategy Officer from 2012 to October 2017 and as our Chief Commercialization Officer from 2010 to 2012. He also served as our interim Chief Financial Officer during the period from 2010 to 2011. He previously served as our Chief Operating Officer from 2009 to 2010, as our Chief Commercialization Officer from 2006 to 2009, and as our Chief Financial Officer and Executive Vice President, Corporate Development, from 2005 to 2006. Mr. Graeff was also a member of our board of directors from 2005 until 2006. From 1999 to 2001, Mr. Graeff served as Chief Financial Officer of Liquidity Link, a software development company. From 2001 to 2002, Mr. Graeff served as President and Chief Financial Officer of Autumn Investments. From 2002 until 2005, Mr. Graeff served as a Managing Director for Gryphon Capital Partners, a venture capital investment group. From 2003 until 2005, Mr. Graeff also served as the Acting Chief Financial Officer of Luna Technologies, Inc., which we acquired in 2005. Mr. Graeff holds a B.S. degree in commerce from the University of Virginia.

Qualifications

The Nominating and Governance Committee believes that Mr. Graeff's position as our President and Chief Executive Officer and his prior management experience enable him to continue to make valuable contributions to our board of directors.



N. Leigh Anderson

Age: 72
Director Since: 2017
Board Committees:
Compensation
Audit

Biographical Information

N. Leigh Anderson has served as a member of our board of directors since May 2017. Dr. Anderson has served as Chief Executive Officer of SISCAPA Assay Technologies, a developer of diagnostic testing technology, of which he was a co-founder, since 2011, and has served as the Chief Executive Officer of the Plasma Proteome Institute, a non-profit biomedical scientific research institute in Washington, D.C., of which he is also a founder, since 2002. From 2001 to 2002, Dr. Anderson served as the Chief Scientific Officer and a member of the board of directors of Large Scale Biology Corporation, a public biotechnology company. Dr. Anderson also served as a member of the board of directors and a member of the audit committee of Dade Behring Holdings, Inc., a publicly held medical diagnostics equipment manufacturer, from 2002 until its acquisition by Siemens AG in 2007. Dr. Anderson earned a B.A. degree in physics from Yale University and a Ph.D. in molecular biology from Cambridge University.

Qualifications

The Nominating and Governance Committee believes that Dr. Anderson's scientific background in critical areas, such as intellectual property, and pertinent executive and director experience in the biotechnology and biomedical industries enable him to bring significant value to the board of directors.



Pamela Coe

Age: 62

Director Since: 2021

Board Committees:

Nominating & Governance

Audit

Biographical Information

Pamela Coe has served on our board of directors since May 2021. Ms. Coe served as Senior Vice President, Legal & Secretary for Liberty Media Corporation and its sister companies from 2007 until her retirement in January 2020. Previously she was Senior Counsel - Finance for Tele-Communications, Inc. (TCI), which merged with AT&T from 1993 to 2000. Prior to her tenure at TCI, Ms. Coe was a Partner in a major San Francisco based law firm Pettit and Martin from 1985 to 1992. During her tenure, Ms. Coe specialized in corporate, securities and banking law. From December 2012 to July 2019, Ms. Coe served as a member of the Board of Directors of Expedia Group, Inc. and served on Expedia's Compensation Committee. Since May 2021, Ms. Coe serves as a director to Frontier Communications Parent, Inc. She holds a Bachelor of Science degree in Finance from Arizona State University and a Juris Doctor from the University of California, Los Angeles – School of Law.

Qualifications

The Nominating and Governance Committee believes that Ms. Coe's board experience in a range of industries and her capital markets experience as an attorney bring significant value to the board of directors.

Board Tenure



Age Diversity



Board Skills and Qualifications



Board Diversity

The Board Diversity Matrix, below, provides the diversity statistics for our board of directors.

Board Diversity Matrix (As of March 1, 2022)		
Total Number of Directors	7	
	Female	Male
Part I: Gender Identity		
Directors	2	5
Part II: Demographic Background		
African American or Black	1	
White	1	5

Independence of the Board of Directors

As required under the Nasdaq Stock Market (“Nasdaq”) listing standards, a majority of the members of a listed company’s board of directors must qualify as “independent,” as affirmatively determined by the board of directors. Our board of directors consults with legal counsel to ensure that the board’s determinations are consistent with relevant securities and other laws and regulations regarding the definition of “independent,” including those set forth in pertinent Nasdaq listing standards, as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of his or her family members, and the Company, its senior management and its independent auditors, our board of directors has affirmatively determined that the following six current directors are independent within the meaning of the applicable Nasdaq listing standards: Mr. Roedel, Mr. Spiegel, Mr. Phelps, Ms. Vitale, Dr. Anderson and Ms. Coe. In addition, after review of all relevant identified transactions and relationships between each person who served as director during 2021, or any of his family members, and the Company, its senior management and its independent auditors, our board of directors has affirmatively determined that Donald Pastor, who served on our board of directors until May 2021, was also independent within the meaning of the applicable Nasdaq listing standards. In making these determinations, the board found that none of these current or former directors had a material or disqualifying relationship with the Company. Mr. Graeff is not independent, as he is currently employed as our President and Chief Executive Officer.

Board Leadership Structure

Our board of directors is led by an independent non-executive Chair, Mr. Roedel, who has authority, among other things, to call and preside over board meetings, including meetings of the independent directors, to set meeting agendas and to determine materials to be distributed to the board. Accordingly, the non-executive Chair has substantial ability to shape the work of the board. We believe that separation of the positions of Chair and Chief Executive Officer reinforces the independence of the board in its oversight of our business and affairs. In addition, we believe that having an independent non-executive Chair creates an environment that is more conducive to objective evaluation and oversight of management’s performance, increasing management accountability and improving the ability of the board to monitor whether management’s actions are in the best interests of the Company and our stockholders. As a result, we believe that having an independent non-executive Chair can enhance the effectiveness of the board as a whole.

Role of the Board in Risk Oversight

One of the board’s key functions is informed oversight of our risk management process. In February 2021, the board established a standing Risk Committee, to address risks including, but not limited to, operational, financial, cybersecurity, legal and regulatory, strategic and reputational risks, including with respect to the COVID-19 outbreak. Additionally, our Audit Committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The Audit Committee also monitors compliance with legal and regulatory requirements. Our Nominating and Governance Committee monitors the effectiveness of our corporate governance policies, including whether they are successful in preventing illegal or improper liability-creating conduct. Our Compensation Committee assesses and monitors whether any of our compensation policies and programs have the potential to encourage excessive risk-taking.

Information Regarding Certain Committees of the Board of Directors

Our board of directors has established an Audit Committee, a Compensation Committee, a Nominating and Governance Committee and a Risk Committee. Our board of directors and its committees meet regularly throughout the year and also hold special meetings and act by written consent from time to time as appropriate. Our board of directors has delegated various responsibilities and authority to these committees as generally described below. The committees regularly report on their activities and actions to the full board of directors. Each of these committees of our board of directors has a written charter approved by our board of directors.

The following table provides the membership information for 2021 for each of the Audit, Compensation, Nominating and Governance and Risk committees:

Name	Audit	Compensation	Nominating and Governance	Risk
Richard W. Roedel		X	X	X*
Warren B. Phelps, III	X*	X		X
Gary Spiegel		X*	X	X
N. Leigh Anderson	X	X		
Mary Beth Vitale	X		X*	X
Donald Pastor	X(1)		X(1)	
Pamela Coe	X(2)		X(2)	

* Committee Chair

- (1) Mr. Pastor served on the Audit and Nominating and Governance Committees until May 2021.
(2) Ms. Coe began serving on the Audit and Nominating and Governance Committees in May 2021.

Audit Committee

The Audit Committee of our board of directors recommends the appointment of our independent auditors, reviews our internal accounting procedures and financial statements, and consults with and reviews the services provided by our independent auditors, including the results and scope of their audit.

The Audit Committee is currently composed of Mr. Phelps, Dr. Anderson, Mses. Vitale and Coe. Mr. Phelps serves as the chair of the committee. The Audit Committee met seven times, including telephonic meetings, during 2021.

The board of directors reviews the Nasdaq listing standards definition of independence for audit committee members on an annual basis and has determined that each member of the Audit Committee is independent within the meaning of the requirements of the Sarbanes-Oxley Act of 2002 and applicable SEC and Nasdaq rules, including Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing rules. The board of directors has also determined that each of Mr. Phelps and Ms. Vitale qualifies as an audit committee financial expert, as currently defined under applicable SEC rules. In reaching this determination, the board of directors made a qualitative assessment of their level of knowledge and experience based on a number of factors, including their formal education and extensive experience at an executive and audit committee level.

The Audit Committee operates under a written charter adopted by the board of directors, which is available in the "Investor Relations" section of our website at www.lunainc.com.

Compensation Committee

The Compensation Committee of our board of directors reviews and implements changes to the compensation and benefits for our executive officers, administers our stock plans, and establishes and reviews general policies relating to compensation and benefits for certain of our officers.

The Compensation Committee is currently composed of Messrs. Spiegel, Phelps, Roedel and Dr. Anderson. Mr. Spiegel serves as the chair of the committee. The Compensation Committee met five times in 2021.

Each member of the Compensation Committee is independent within the meaning of applicable Nasdaq listing rules.

The Compensation Committee operates under a written charter adopted by the board of directors, which is available in the "Investor Relations" section of our website at www.lunainc.com.

Typically, the Compensation Committee meets at least quarterly and with greater frequency if necessary. The agenda for each meeting is usually developed by the chair of the Compensation Committee, in consultation with the Chief Executive Officer. The Compensation Committee meets regularly in executive session. However, from time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The charter of the Compensation Committee grants the Compensation Committee authority to obtain, at the expense of the

Company, advice and assistance from internal and external legal, accounting or other advisors. In particular, the Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. As described below in "Executive Compensation," in 2020, the Compensation Committee engaged an independent third-party compensation consultant, Compensation Strategies, Inc., to conduct a competitive peer group analysis, which was taken into account when developing our 2021 executive compensation program.

Historically, the Compensation Committee has made most of the significant adjustments to annual compensation and determined bonus and equity awards, if any, at one or more meetings held during the first quarter of the year. However, the Compensation Committee also considers adoption of annual senior management incentive plans, including new performance objectives, matters related to individual compensation, such as compensation for new executive hires, as well as high-level strategic issues, such as the efficacy of the Company's compensation strategy, potential modifications to that strategy and new trends, plans or approaches to compensation, at various meetings throughout the year. Generally, the Compensation Committee obtains the recommendations and advice of the Chief Executive Officer regarding the form and amount of compensation for executive officers other than himself.

The specific determinations of the Compensation Committee with respect to Executive Compensation for the year ended December 31, 2021 are described in greater detail in the "Executive Compensation" section of this proxy statement.

Nominating and Governance Committee

The Nominating and Governance Committee of our board of directors is responsible for reviewing the appropriate size, function, committee structure and needs of the board of directors, establishing criteria for evaluating and selecting new members of the board, identifying and recommending qualified director nominees to the board for approval and monitoring and making recommendations to the board of directors on matters relating to corporate governance. The Nominating and Governance Committee is responsible for corporate guidelines and documents. The Nominating and Governance Committee met four times during 2021.

The Nominating and Governance Committee currently consists of Ms. Vitale and Coe and Messrs. Roedel and Spiegel. Ms. Vitale serves as the chair of the committee. All members of the Nominating and Governance Committee are independent within the meaning of applicable Nasdaq listing rules.

The Nominating and Governance Committee operates under a written charter adopted by the board of directors, which is available in the "Investor Relations" section of our website at www.lunainc.com.

Risk Committee

The Risk Committee of our board of directors is responsible for providing assistance in fulfilling its oversight responsibilities with respect to risk management, compliance and operational control activities within the Company. The Risk Committee collaborates with other committees and management to assist in their oversight and reviews of the Company's risks. The Risk Committee met four times during 2021.

The Risk Committee currently consists of Messrs. Roedel, Spiegel, Phelps and Ms. Vitale. Mr. Roedel serves as the chair of the committee. All members of the Risk Committee are independent within the meaning of applicable Nasdaq listing rules.

The Risk Committee operates under a written charter adopted by the board of directors, which is available in the "Investor Relations" section of our website at www.lunainc.com.

Board of Directors and Committee Meeting Attendance

Our board of directors met seven times, including telephonic meetings, during 2021. Each of our directors who served in 2021 attended at least 75% of the aggregate number of meetings held during his or her tenure by the board of directors and by the committees of the board of directors on which he or she served.

Independent members of the board of directors regularly meet in executive session without management present.

Annual Meeting Attendance

Our policy is to invite and encourage all directors to attend the annual meeting of stockholders, if possible. All of the members of our board of directors who were serving at the time of our 2021 annual meeting of stockholders attended that meeting.

Director Nomination Process

Candidates for director nominees are reviewed in the context of the current composition of the board of directors, the operating requirements of the Company and the long-term interests of stockholders. Our Nominating and Governance Committee identifies director nominees by first evaluating the current members of the board of directors willing to continue in service. In the case of incumbent directors whose terms of office are set to expire, the Nominating and Governance Committee reviews these directors' overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence. Current members with skills and experience that are relevant to our business and who are willing to continue in service are considered for nomination.

If any member of the board of directors does not wish to continue in service, or the committee or board of directors decides not to nominate a member for re-election, the committee identifies the desired skills and experience of a new nominee based on our strategic and business needs. In the case of new director candidates, the Nominating and Governance Committee also determines whether the nominee is independent for Nasdaq purposes, which determination is based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Governance Committee then uses its network of contacts to compile a list of potential candidates based on the skills needed. The Nominating and Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the board of directors. Current members of the board of directors and senior management are then polled for their recommendations. To date, the Nominating and Governance Committee has not engaged professional search firms or other third parties to identify or evaluate potential nominees, but the committee may do so in the future.

The Nominating and Governance Committee will also consider nominees recommended by stockholders, and any such recommendations should be forwarded to our Corporate Secretary in writing at our executive offices as identified in this proxy statement. Such recommendations should include the following information:

- the name, age, business address and residence address of the proposed candidate;
- the principal occupation or employment of the proposed candidate and the candidate's business experience for at least the previous five years;
- the class and number of shares of our stock which the proposed candidate beneficially owns;
- a description of all arrangements or understandings between the stockholder making the recommendation and each proposed candidate;
- any information reasonably necessary to determine whether the proposed candidate meets SEC and Nasdaq independence standards; and
- any other information relating to such proposed candidate that is required to be disclosed in solicitations of proxies for elections of directors or is otherwise required pursuant to Regulation 14A under the Exchange Act (including without limitation such proposed candidate's written consent to being named in any proxy statement as a nominee and to serve as a director if elected).

Such recommendations should be provided at least 120 days prior to the anniversary date of the mailing of our proxy statement for the previous annual meeting of stockholders. The committee does not intend to alter the manner in which it evaluates candidates, including the criteria set forth below, based on whether or not the candidate was recommended by a stockholder.

The Nominating and Governance Committee evaluates individual director candidates based upon a number of criteria, including:

- a high degree of personal and professional integrity;
- commitment to promoting the long-term interests of our stakeholders;
- broad general business experience and acumen, which may include experience in management, finance, marketing and accounting, with particular emphasis on technology companies or policy-making experience in governmental or non-profit institutions;
- adequate time to devote attention to the affairs of the Company;
- an ability to bring balance to our board of directors in light of the Company's current and anticipated needs and in light of the skills and attributes of the other board members; and
- other attributes relevant to satisfying the requirements imposed by the SEC and Nasdaq.

The Nominating and Governance Committee retains the right to modify these qualifications from time to time.

Our Nominating and Governance Committee does not have a formal policy regarding board diversity. Diversity is one of a number of factors, however, that the committee takes into account in identifying nominees, and the Nominating and Governance Committee believes that it is essential that the board members represent diverse viewpoints.

The Board values diversity, in its broadest sense and, in the director identification and nomination process, the Board seeks a breadth of experience from a variety of industries and from professional disciplines, such as finance, professional services and technology, along with a diversity of gender, ethnicity and geographic location. In any searches for director candidates, the Nominating and Governance Committee seeks to include female and minority candidates in the initial list of candidates from which the committee selects prospective director candidates and requires that any search firm that it may engage to assist with a director search do the same.

The Nominating and Governance Committee will continue to evaluate the size and composition of our Board on an ongoing basis.

Director Compensation

The following table sets forth certain information concerning cash and non-cash compensation earned by the non-employee members of our board of directors in 2021. The compensation paid to Mr. Graeff, our President and Chief Executive Officer, is described below under "Executive Compensation." Mr. Graeff does not receive any additional compensation for his service as a director.

Name	Fees Earned or Paid in Cash (1)(2)(\$)	Stock Awards (3)(4)(\$)	Total (\$)
Richard W. Roedel	78,750	62,500	141,250
Gary Spiegel	55,500	37,500	93,000
Warren B. Phelps, III	55,500	37,500	93,000
N. Leigh Anderson	45,500	37,500	83,000
Mary Beth Vitale	53,000	37,500	90,500
Donald Pastor	16,431	—	16,431
Pamela Coe	29,069	37,500	66,569

(1) Represents the annual cash retainer for board and, as applicable, committee service for 2021.

(2) During 2021, our non-employee directors had the option to receive some or all of their cash retainers for board and committee service in deferred stock units pursuant to our non-employee directors' deferred compensation plan. These deferred stock units are convertible into shares of our common stock on a one-for-one basis upon specified events. Mr. Roedel received an aggregate of 6,203 deferred stock units in lieu of his cash payments for his service as chair of the board of directors with an aggregate grant date fair value of \$62,500, as well as an aggregate of 1,594 deferred stock units in lieu of his cash payments for his service as chair of our Risk Committee, a member of our Compensation Committee and a member of our Nominating and Governance Committee with an aggregate grant date fair value of \$16,250. Mr. Phelps received an aggregate of 3,722 deferred stock units in lieu of his cash payments for his service on the board of directors with an aggregate grant date fair value of \$37,500, as well as an aggregate of 1,779 deferred stock units in lieu of his cash payments for his service as the Chair of our Audit Committee, as a member of the Compensation Committee and as a member of the Risk Committee, with an aggregate grant date fair value of \$18,000. Ms. Vitale received an aggregate of 3,722 deferred stock units in lieu of

cash payments for her service on the board of directors with an aggregate grant date fair value of \$37,500, as well as an aggregate of 1,548 deferred stock units in lieu of her cash payments for her service as Chair of our Nominating and Governance Committee, as a member of the Audit Committee and as a member of the Risk Committee, with an aggregate grant date fair value of \$15,500. Ms. Coe received an aggregate of 2,331 deferred stock units in lieu of her cash payments for her service on the board of directors with an aggregate grant date fair value of \$23,958 for a portion of the second quarter and the third and fourth quarters of 2021, as well as an aggregate of 497 deferred stock units in lieu of her cash payments for her service as a member of the Audit Committee and a member of the Nominating and Governance Committee for a portion of the second quarter and the third and fourth quarters with an aggregate grant date fair value of \$5,111.

- (3) As of December 31, 2021, our non-employee directors held the following equity awards:

Name	Deferred Stock Units	RSUs	Shares Underlying Stock Options
N. Leigh Anderson	22,653	—	—
Pamela Coe	6,212	—	—
Richard W. Roedel	298,645	—	304,164
Gary Spiegel	13,943	3,384	—
Warren B. Phelps, III	69,295	—	—
Mary Beth Vitale	26,647	—	—

- (4) Messrs. Spiegel and Phelps, Meses. Vitale and Coe, and Dr. Anderson received 3,384 restricted stock units ("RSUs"), in each case with a grant date fair value of \$37,500, for their annual director retainer. Mr. Roedel received 5,264 RSUs with a grant date fair value of \$62,500 for service as chair of the board of directors. The grant date fair value was computed in accordance with ASC Topic 718, *Compensation-Stock Compensation*. For a discussion of valuation assumptions, see Note 11 to our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021. Pursuant to our non-employee directors deferred compensation plan, Messrs Phelps, Roedel, Dr. Anderson and Meses. Vitale and Coe elected to receive these RSUs in the form of deferred stock units and these awards are included in the deferred stock units totals in footnote (3).

We also reimburse our non-employee directors for all reasonable out-of-pocket expenses incurred in the performance of their duties as directors, which expense reimbursements are not included in the foregoing table.

Compensation

Retainers. Board members receive an annual retainer pursuant to our amended and restated non-employee director compensation policy. In 2021, under this policy, the annual retainer for service as chair of the board was \$62,500, the annual retainer for service as a member of the board was \$37,500, the annual retainer for service as a member of a committee was \$4,000, and the annual retainer for service as a chair of a committee was \$11,000 (except for service as the chair of the Nominating and Governance Committee which was \$6,000). In January 2022, our board of directors adopted an amendment to our non-employee director compensation policy, effective on the date of the 2022 Annual Meeting of Stockholders, pursuant to which the annual retainer for service as a chair of the board will be increased to \$63,000, the annual retainer for service as a member of the board will be increased to \$42,000, the annual retainer for service as a member of a committee will be increased to \$5,000, the annual retainer for service as chair of the Audit Committee and Compensation Committee will be \$15,000, and the annual retainer for service as chair of the Nominating and Governance Committee and Risk Committee will be \$11,000. These board and committee retainers are paid quarterly in advance. These retainers for board and committee service are paid, at the election of the director, in either shares of common stock or stock units issued pursuant to our non-employee directors' deferred compensation plan, as described above.

Equity-Based Compensation. Pursuant to the amended and restated non-employee director compensation policy, non-employee directors are also entitled to receive an annual equity grant in the form of RSUs at the time of annual meeting of stockholders. In 2021, the chair of our board of directors was entitled to RSUs with a value of \$62,500 and other non-employee directors were entitled to RSUs with a value of \$37,500. Pursuant to the amendment to our amended and restated non-employee director compensation policy, effective at the 2022 Annual Meeting of Stockholders, the chair of our board of directors will be entitled to RSUs with a value of \$113,000 and the non-employee directors will be entitled to RSUs with a value of \$63,000. RSUs granted under the policy will vest on the earlier of the one-year anniversary of the grant date or the date of the next annual meeting of stockholders. Our non-employee directors may elect to receive these RSUs in the form of deferred stock units pursuant to our non-employee directors' deferred compensation plan.

Compensation Committee Interlocks and Insider Participation

None of the members of our Compensation Committee during 2021 is or was a present or former officer or employee of the Company, nor did such members engage in any transaction or relationship requiring disclosure in this proxy statement under the section titled "Certain Relationships and Related Person Transactions."

No executive officer of the Company served as a director or member of the Compensation Committee (or other board committee performing equivalent functions) of any other entity during the last fiscal year, one of whose executive officers served on our board of directors or Compensation Committee.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all our directors and employees, including our principal executive officer, principal financial officer and principal accounting officer or controller. The full text of our Code of Business Conduct and Ethics is posted on our website at www.lunainc.com in the "Investor Relations" section. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website.

Hedging and Pledging Policy

Our insider trading policy prohibits directors, executive officers and other employees from engaging in speculative trading activities, including hedging transactions or other inherently speculative transactions with respect to our securities. The policy also prohibits directors, executive officers and other employees from holding company securities in a margin account or otherwise pledging the company's securities as collateral for a loan.

Executive Officers

The following table sets forth certain summary information concerning our executive officers as of March 25, 2022.

Name	Age	Position
Scott A. Graeff	55	President, Chief Executive Officer, Treasurer and Secretary
Eugene Nestro	56	Chief Financial Officer
Brian Soller	47	Chief Operating Officer

Information about Mr. Graeff is set forth above under “Class III Directors Continuing in Office Until the 2024 Annual Meeting of Stockholders.”

Eugene Nestro has served as our Chief Financial Officer since December 2019. He previously served as the Vice President, Corporate Finance at Cree, Inc., a public company developing and marketing power and radio frequency semiconductors and lighting class LEDs, from September 2017 to June 2019. Prior to Cree, Mr. Nestro served in corporate and operational finance positions of increasing responsibility at TE Connectivity Ltd., a public industrial technology company, from 2000 to September 2017. Mr. Nestro holds a B.S. degree in accounting from Penn State University and M.B.A. from Saint Joseph’s University, Erivan K. Haub School of Business

Brian Soller has served as our Chief Operating Officer since April 2021. He previously served as Senior Vice President and General Manager of the Company’s Lightwave Division since 2019 and as Vice President and General Manager of the Lightwave Division from 2014 to 2019. Prior to that, Dr. Soller was the Vice President of Marketing at Micron Optics, Inc. from 2013 to 2014 and the Vice President of Corporate Development and sales at LightPath Technologies from 2010 to 2013. Prior to LightPath, Dr. Soller was employed by Luna in various capacities, serving as a Vice President from 2005 to 2007 and as General Manager of our Products Division from 2008 to 2009. Dr. Soller holds a B.S. in Mathematics and Physics from the University of Wisconsin-La Crosse and a Ph.D. in Optical Science from the Institute of Optics, University of Rochester.

Proposal No. 2

Advisory Vote on Executive Compensation

At our 2019 annual meeting of stockholders, our stockholders indicated their preference that we solicit a non-binding advisory vote on the compensation of our named executive officers, commonly referred to as a “say-on-pay” vote, every year. The Board has adopted a policy that is consistent with that preference. In accordance with that policy, this year we are again asking for our stockholders to approve, on an advisory basis, the compensation of the Company’s named executive officers as disclosed in this proxy statement in accordance with SEC rules.

This vote is not intended to address any specific item of compensation, but rather the overall compensation of the Company’s named executive officers described in the Executive Compensation section of this proxy statement. As discussed in those disclosures, the Company believes that its compensation policies and decisions are consistent with current market practices. Compensation of the Company’s named executive officers is designed to enable the Company to attract and retain talented and experienced executives to lead the Company successfully in a competitive environment.

Accordingly, the board of directors is asking the stockholders to indicate their support for the compensation of the Company’s named executive officers as described in this proxy statement by casting a non-binding advisory vote “FOR” the following resolution:

“RESOLVED, that the compensation paid to the Company’s named executive officers, as disclosed pursuant to compensation disclosure rules of the Securities and Exchange Commission, including the Executive Compensation section, compensation tables and any related information disclosed in this proxy statement, is hereby APPROVED.”

Because the vote is advisory, it is not binding on the board of directors or the Company. Nevertheless, the views expressed by the stockholders, whether through this vote or otherwise, are important to management and the board of directors and, accordingly, the board of directors and the Compensation Committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

Advisory approval of this proposal requires the vote of the holders of a majority of the shares present online at the meeting or represented by proxy and entitled to vote at the annual meeting.

THE BOARD OF DIRECTORS RECOMMENDS YOU VOTE “FOR” PROPOSAL NUMBER 2.

Proposal No. 3

Ratification of Appointment of Independent Registered Public Accounting Firm

Our Audit Committee has appointed Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2022 and has further directed that management submit the selection of our independent registered public accounting firm for ratification by the stockholders at the annual meeting. Ernst & Young LLP was selected as our independent registered public accounting firm in March 2022. A representative of Ernst & Young LLP is expected to be present at our 2022 annual meeting of stockholders and will have an opportunity to make a statement and respond to appropriate questions from stockholders.

Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm is not required by our bylaws or other applicable legal requirements. However, our board of directors is submitting the appointment of Ernst & Young LLP to the stockholders for ratification as a matter of good corporate practice. If our stockholders fail to ratify the appointment, the Audit Committee will reconsider whether or not to retain that firm. Even if the appointment is ratified, the Audit Committee at its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in our best interests and the best interests of our stockholders.

The affirmative vote of a majority of shares of our common stock present online at the 2022 annual meeting of stockholders or by proxy and entitled to vote is required to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2022. Abstentions will have the same effect as a vote against this proposal. Broker non-votes are counted towards a quorum but are not counted for any purpose in determining whether this matter has been approved.

Change in Independent Registered Accounting Firm

In March 2022, the Audit Committee approved the engagement of Ernst & Young LLP as our independent registered public accounting firm for our fiscal year ended December 31, 2022 and approved the dismissal of Grant Thornton LLP as our independent registered public accounting firm. Grant Thornton LLP had served as our independent registered public accounting firm since 2005. On March 23, 2022, we filed a Current Report on Form 8-K disclosing this change.

The reports of Grant Thornton LLP on our financial statements for the fiscal years ended December 31, 2021 and 2020 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principle.

During the years ended December 31, 2021 and 2020 and the subsequent interim period through March 23, 2022, there were no disagreements (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K) between us and Grant Thornton LLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures that, if not resolved to the satisfaction of Grant Thornton LLP, would have caused Grant Thornton LLP to make reference to the subject matter of the disagreement in its report, and there were no reportable events (as defined in Item 304(a)(1)(v) of Regulation S-K) except for the following event. As disclosed in Part II Item 9A of the Company's Form 10-K for the year ended December 31, 2020, the Company's management determined that the Company's disclosure controls and procedures were not effective as of the end of such period, which was the result of a late Form 8-K/A filing related to the Company's acquisition of OptaSense Holdings Limited. This issue with the Company's disclosure controls and procedures has been remediated. The Audit Committee discussed the subject matter of this reportable event with Grant Thornton. The Company has authorized Grant Thornton to respond fully and without limitation to all requests of Ernst & Young LLP concerning all matters related to the periods audited by Grant Thornton, including with respect to the subject matter of this reportable event.

During the years ended December 31, 2021 and 2020 and in the subsequent interim period through March 22, 2022, neither the Company nor anyone on its behalf consulted with Ernst & Young LLP regarding (i) the application of accounting principles to a specific transaction, either completed or proposed, (ii) the type of audit opinion that might be rendered on the Company's financial statements and, neither a written report nor oral advice was provided to the Company that Ernst & Young LLP concluded was an important factor considered by the Company in reaching a decision as to accounting, auditing or financial reporting issues, (iii) any matter that was the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions), or (iv) any reportable event (as described in Item 304(a)(1)(v) of Regulation S-K).

Audit and Related Fees for Fiscal Years 2020 and 2021

The following table sets forth a summary of the aggregate fees billed to us by Grant Thornton LLP for professional services for the fiscal years ended December 31, 2020 and 2021, respectively. All of the services described in the following fee table were approved by the Audit Committee.

Name	2020	2021
Audit Fees	\$ 677,949	\$ 1,343,623
Audit-Related Fees	—	—
Total Fees	\$ 677,949	\$ 1,343,623

The Audit Committee met regularly with Grant Thornton LLP throughout the year and reviewed both audit and, if applicable, other services performed by Grant Thornton LLP as well as fees charged for such services. Audit fees for 2020 and 2021 consisted of professional services rendered for the annual audits of our consolidated financial statements and review of quarterly financial statements included in our quarterly reports on Form 10-Q. The 2020 audit fees were revised to include amounts for the statutory audit of OptaSense Holdings Limited. For 2021, audit fees also included the cost of (i) auditing two fiscal years of financial statements of OptaSense Holdings Limited and subsidiaries ("OptaSense") required in conjunction with our acquisition of OptaSense in December 2020 and (ii) the full year inclusion of OptaSense in our 2021 consolidated audit.

Pre-Approval Policies and Procedures

The Audit Committee has adopted, and the board of directors has approved, a policy that sets forth the procedures and the conditions pursuant to which services proposed to be performed by the independent auditors may be pre-approved. The policy generally pre-approves all audit services and non-audit services by our independent auditors, except in the case of non-audit services where subsequent approval is necessary and permissible. Pursuant to its pre-approval policy, the Audit Committee may delegate pre-approval authority for non-audit services to one or more of its members. The member to whom such authority is delegated must report, for informational purposes only, any pre-approval decisions to the Audit Committee at its next scheduled meeting. During 2020 and 2021, all services provided by Grant Thornton LLP were pre-approved by the Audit Committee in accordance with this policy.

THE BOARD OF DIRECTORS RECOMMENDS YOU VOTE "FOR" PROPOSAL NUMBER 3.

Audit Committee Report

As described more fully in its charter, the purpose of the Audit Committee is to assist the board of directors with its oversight responsibilities regarding the integrity of our financial statements, our compliance with legal and regulatory requirements, assessing our independent registered public accounting firm's qualifications and independence and, if applicable, the performance of the persons performing internal audit duties for the Company.

Company management is responsible for preparation, presentation and integrity of our financial statements as well as our financial reporting processes, accounting policies, internal audit function, internal accounting controls and disclosure controls and procedures. Our independent registered public accounting firm is responsible for performing an independent audit of our consolidated financial statements in accordance with generally accepted auditing standards and to issue a report thereon. The Audit Committee's responsibility is to monitor and oversee these processes. The following is the Audit Committee's report submitted to the board of directors for 2021.

The Audit Committee has:

- reviewed and discussed our audited financial statements for the fiscal year ended December 31, 2021 with management and Grant Thornton LLP, our independent registered public accounting firm during 2021;
- discussed with Grant Thornton LLP the matters required to be discussed by Auditing Standard No. 1301, Communications with Audit Committees, as adopted by the Public Company Accounting Oversight Board; and
- received from Grant Thornton LLP the disclosures and a letter regarding their independence as required by the applicable requirements of the Public Company Accounting Oversight Board requesting Grant Thornton LLP's communication with the Audit Committee concerning independence and discussed the auditors' independence with them.

In addition, the Audit Committee has met separately with Company management and with Grant Thornton LLP.

Based on the review and discussions referred to above, the Audit Committee recommended to the board of directors that the audited 2021 financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2021 for filing with the Securities and Exchange Commission.

AUDIT COMMITTEE

Warren B. Phelps, III, Chair
N. Leigh Anderson
Mary Beth Vitale
Pamela Coe

The foregoing audit committee report is not "soliciting material," shall not be deemed incorporated by reference into any filing of the Company under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof, and shall not otherwise be deemed filed under these acts, except to the extent we specifically incorporate by reference into such filings.

Executive Compensation

The Company is a “smaller reporting company” under Item 10 of Regulation S-K promulgated under the Securities and Exchange Act of 1934, and the following compensation disclosure is intended to comply with the requirements applicable to smaller reporting companies. Although the rules allow the Company to provide less detail about its executive compensation program, the Compensation Committee is committed to providing the information necessary to help stockholders understand its executive compensation-related decisions. Accordingly, this section includes supplemental narrative that describes the 2021 executive compensation program for our named executive officers (“NEOs”) listed in the table below. We are also committed to keeping an open dialogue with our stockholders to help ensure that we have a regular pulse on investor perspectives and, as we continue to grow, we intend to further enhance our outreach efforts during 2022 and into the future.

Name	Position
Scott A. Graeff	President and Chief Executive Officer
Eugene Nestro	Chief Financial Officer
Brian Soller	Chief Operating Officer

Executive Summary

Business Overview

2021 was a pivotal year for us. Through the challenges of the global pandemic, we stayed focused on our strategy and on enhancing our global leadership position in fiber optic technology. We reported record backlog and delivered double-digit revenue and gross profit growth for the fourth-quarter and full-year. Across our sensing and communications testing businesses, we realized some of the largest customer orders to date and penetrated new geographies and markets, while implementing systems to support growth. Key financial highlights included:

- Revenues for the year ended December 31, 2021, increased 48% compared to the prior-year period, primarily due to our acquisitions in 2020.
- Gross margin of 59% for the year ended December 31, 2021, was down slightly (61% for the year ended December 31, 2020) due to product mix as a result of acquisitions.
- Operating loss of \$2.6 million for the year ended December 31, 2021, compared to operating income of \$0.8 million for the year ended December 31, 2020. The decrease in operating income was primarily due to incremental amortization of intangible assets and inventory step-up related to Luna's completed acquisitions.
- Net income was \$1.4 million, or \$0.04 per fully diluted share, for the year ended December 31, 2021, compared to a net income of \$3.3 million, or \$0.10 per fully diluted share, for the year ended December 31, 2020.
- Adjusted EPS* was \$0.17 for the year ended December 31, 2021, compared to \$0.18 for the year ended December 31, 2020.
- Adjusted EBITDA was \$7.6 million for the year ended December 31, 2021, compared to \$7.9 million for the year ended December 31, 2020.

*Adjusted EPS and Adjusted EBITDA are non-GAAP financial measures. Adjusted EPS and Adjusted EBITDA exclude certain charges and credits that are required by GAAP. Adjusted EBITDA and Adjusted EPS provide useful information to both management and investors by excluding the effect of certain non-cash expenses and items that we believe may not be indicative of our operating performance, because either they are unusual and we do not expect them to recur in the ordinary course of its business, or they are unrelated to the ongoing operation of the business in the ordinary course. Adjusted EBITDA and Adjusted EPS should be considered in addition to results prepared in accordance with GAAP, but should not be considered a substitute for, or superior to, GAAP results. Adjusted EBITDA and Adjusted EPS have been reconciled to the nearest GAAP measure in the tables in Appendix of this proxy statement.

2021 Compensation Highlights

Our executive compensation program has three primary elements: base salary, annual incentives, and long-term equity incentives. Each of these compensation elements serves a specific purpose in our compensation strategy. Base salary is an essential component to any market-competitive compensation program. Annual incentives reward the achievement of short-term goals, while long-term incentives drive our NEOs to focus on long-term sustainable stockholder value creation. Based on our performance and consistent with the design of our program, the Compensation Committee made the following executive compensation decisions for fiscal 2021:

- **Base Salaries.** The Compensation Committee approved market-based salary increases for the NEOs for 2021.
- **Annual Incentives.** We established a 2021 senior management incentive plan, which rewarded our NEOs for our corporate financial performance, specifically whether the Company achieved specific financial performance metrics. The amount of the bonus was based on achieving goals set for revenue, adjusted operating income and individual qualitative objectives. We paid bonuses based on our performance as measured against each of the target financial metrics and the accomplishment of the qualitative objectives. For details, please refer to the “Cash Incentive Bonuses” section below.
- **Equity Incentives.** Consistent with past practice, for 2021, the Compensation Committee approved long-term equity incentive grants to the NEOs, which were comprised of a balanced mix of service-based RSUs, which will vest over time, and performance-based RSUs that will vest based on our achievement of long-term performance goals. In addition, based on performance, the NEOs earned 100% of their target performance-based RSUs for the 2019- 2021 performance cycle. For details, please refer to the “Equity Incentives” section below.

Best Compensation Practices, Policies and Guidelines

We believe the following practices and policies within our program promote sound compensation governance and are in the best interests of our stockholders and executives:

What We Do		What We Don't Do	
✓	Emphasize variable pay over fixed pay, with a significant portion tied to our financial results	✗	No tax gross ups
✓	Maintain stock ownership guidelines	✗	No repricing or exchange of underwater options without stockholder approval
✓	Maintain compensation recovery (claw-back) policy which applies to both cash and equity incentives	✗	No option or stock appreciation rights granted below fair market value
✓	Use an independent compensation consultant	✗	No supplemental executive retirement plans
✓	Annually assess risk in compensation plans	✗	No significant perquisites

What Guides our Program

Our Compensation Philosophy & Objectives

Our overall compensation philosophy is to provide executive compensation packages that enable us to attract, retain and motivate highly qualified executive officers to achieve our short-term and long-term business goals.

Our performance-oriented compensation program consists of base salary, annual cash bonuses, long-term equity incentives, benefits and, for certain senior executive officers, severance and termination protection. We believe that appropriately balancing the total compensation package and ensuring the viability of each component of the package is necessary in order to provide compensation that is competitive and to attract and retain talent. As a small company, we also try to optimize the mix of components to make such compensation programs cost effective for us.

The Compensation Committee intends for our compensation program to provide basic elements that ensure that management is fairly remunerated and has reasonable security so that the management team can perform at its best and take prudent risks. The committee believes that it does not use highly leveraged short-term incentives that drive high risk investments at the expense of our long-term value.

Our Compensation Committee typically evaluates the performance of each executive officer annually, based on the achievement of both corporate goals and individual qualitative performance objectives and makes its compensation decisions accordingly. Total compensation for our executive officers may vary significantly from year to year based on Company and individual performance. Further, the value of equity-based awards to our executives will vary based on fluctuation in our stock price from time to time.

Role of the Compensation Committee

Our executive compensation program is approved and monitored by the Compensation Committee of our board of directors. Under the terms of its charter, the Compensation Committee is responsible for reviewing and approving compensation granted to our executive officers, including our Chief Executive Officer ("CEO"), and those executive officers who report directly to the CEO and any other officers as determined under Section 16 of the Securities Exchange Act of 1934, as amended. Currently, we have three executive officers, our CEO, our Chief Financial Officer and our Chief Operating Officer. In particular, the Compensation Committee reviews and approves for the CEO and any other executive officers the following components of compensation:

- annual base salary;
- cash and equity bonuses, including the specific goals and amount;
- other equity compensation, if any;
- employment agreements, severance arrangements, and change in control provisions, as applicable;
- signing bonus or payment of relocation costs, above normal Company policy, if applicable; and
- any other material benefits, other than those provided to all employees.

The Compensation Committee also serves as the administrator for our equity incentive plans. All stock-based awards, including new grants to existing employees and executive officers, as well as grants to new employees, are approved by the Compensation Committee. The Compensation Committee is also responsible for annually evaluating the performance of our executive officers.

Role of Management

In discharging its responsibilities, the Compensation Committee works with members of our management, including our CEO. Our management assists the Compensation Committee by providing information on corporate and individual performance, market compensation data, and management's perspective on compensation matters. The Compensation Committee solicits and reviews our CEO's proposals with respect to program structures, as well as our CEO's recommendations for adjustments to annual cash compensation, long-term incentive compensation opportunities, and other compensation-related matters for our NEOs (except with respect to his compensation) based on our CEO's evaluation of their performance for the prior year.

At the beginning of each year, our CEO reviews the performance of our other NEOs based on such individual's level of success in accomplishing the business objectives established for him for the prior year and his overall performance during that year, and then shares these evaluations with, and makes recommendations to, the Compensation Committee for each element of compensation as described above. The annual business objectives for each NEO are developed through mutual discussion and agreement between our CEO and the NEOs.

The Compensation Committee reviews and discusses our CEO's proposals and recommendations and considers them as one factor in determining and approving the compensation of our Named Executive Officers. Our CEO also attends meetings of our Board of Directors and the Compensation Committee at which executive compensation matters are addressed, except with respect to discussions involving our CEO's own compensation.

Role of the Independent Compensation Consultant

The Compensation Committee has the authority to engage and retain an independent compensation consultant to provide independent counsel and advice. At least annually, the Compensation Committee formally conducts an evaluation as to the effectiveness of the independent compensation consultant and periodically runs a request for proposal process to ensure the independent compensation consultant is meeting its needs. The Compensation Committee engaged an independent third-party compensation consultant, Compensation Strategies, Inc., in 2020 to conduct a competitive peer group analysis of our executive compensation program to provide us with insights and market data on executive and director compensation matters, both generally and within our industry. In 2020, Compensation Strategies, Inc., compared the salary, target cash incentives, and equity compensation of our executive officers against an identified peer group of publicly traded companies. As a result of its analysis, Compensation Strategies, Inc. made recommendations to the Compensation Committee that were intended to bring the compensation elements paid to our executive officers towards the median of the identified peer companies. For purposes of setting pay for 2021, our Compensation Committee used the previous analysis and recommendations as basis on our executive compensation program. These peer group companies, which are specified in the table below, were selected by the Compensation Committee because they are in the scientific and technical instruments industry and are comparable to our size based on their revenue and market value.

Peer Group		
Company	Industry	Location
Applied Optoelectronics, Inc.	Semiconductors	Sugar Land, TX
Clearfield, Inc.	Communications Equipment	Minneapolis, MN
CUI Global	Electrical Equipment	Tualatin, OR
EXFO Inc	Communication Equipment	Quebec City, QC
Emcore Corporation	Semiconductors	Alhambra, CA
IEC Electronics Corp.	Electronic Components	Newark, NY
inTEST	Semiconductors	Mt. Laurel, NJ
IntriCon Corporation	Medical Instruments & Supplies	Arden Hills, MN
Iteris, Inc.	Communication Equipment	Santa Ana, CA
Mesa Laboratories, Inc.	Scientific and Technical Instruments	Lakewood, CO
Napco Security Technologies	Security and Protection Services	Amityville, NY
NeoPhotonics Corporation	Semiconductors	San Jose, CA
NLight, Inc.	Semiconductors	Vancouver, WA

We generally attempt to align our overall executive compensation with other publicly traded peer companies who share similar characteristics. Because of our diversified product and service offerings, we believe our peer group includes a broad range of technology and growth companies with whom we compete for executive talent.

In October 2021, the Compensation Committee engaged Pearl Meyer to serve as the independent consultant with respect to 2022 executive compensation program. Pearl Meyer was engaged after an extensive review process conducted by the Compensation Committee based on clearly stated selection criteria including applicable expertise within our industry segment, reputation, and application of compensation philosophy with the Compensation Committee and the Company's management team.

The Compensation Committee assessed the independence of both Compensation Strategies, Inc. and Pearl Meyer in 2021, as required under Nasdaq listing rules. The Compensation Committee has also considered and assessed all relevant factors, including but not limited to those set forth in Rule 10C-1(b)(4)(i) through (vi) under the Exchange Act, that could give rise to a potential conflict of interest with respect to the compensation consultant described above. Based on this review, we are not aware of any conflict of interest raised by the work performed by Compensation Strategies, Inc. or Pearl Meyer that would prevent the consultant from serving as an independent consultant to the Compensation Committee.

Summary Compensation Table

The following table sets forth the summary information concerning compensation earned during the last two completed fiscal years by our president and CEO, our Chief Financial Officer, and our Chief Operating Officer, who were our only executive officers during 2021. The following table includes all compensation earned by the NEOs for the respective periods, regardless of whether such amounts were actually paid during the period.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$)	Total (\$)
Scott A. Graeff	2021	410,000	-	499,994 (1)	184,500 (2)	21,189 (3)	1,115,683
	2020	385,000	11,957 (4)	461,160 (5)	311,443 (6)	9,268 (3)	1,178,828
Eugene Nestro	2021	290,000	-	215,006 (1)	87,000 (2)	16,455 (3)	608,461
	2020	275,000	5,694 (4)	181,440 (5)	148,306 (6)	6,477 (3)	616,917
Brian Soller	2021	265,000	-	202,510 (1)	66,250 (2)	7,297 (3)	541,057

- (1) In accordance with SEC rules, these amounts reflect the grant date fair values of the RSUs granted to each of the named executive officers in 2021, calculated in accordance with ASC Topic 718 for stock-based compensation transactions. Each RSU represented the contingent right to receive one share of our common stock. For Messrs. Graeff, Nestro and Soller, the amount reported in the table above includes the grant date fair values of time-based RSUs, as well as 34,091, 14,659 and 13,807 performance-based RSUs and 12,600 performance-based RSUs, respectively, which were based on the probable outcome of the vesting conditions of these RSUs as of the grant date. These performance based RSUs vest upon the achievement of certain performance targets, subject to the recipient's continuous service through the vesting events. Assuming that the maximum performance vesting condition of these RSUs was met as of the grant date, the aggregate grant date fair value of all RSUs granted to Messrs. Graeff, Nestro and Soller would have been \$624,998, \$268,752 and \$253,132, respectively. For a discussion of valuation assumptions, see Note 11 to our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.
- (2) Represents bonus amounts paid to the named executive officer under our 2021 senior management incentive plan upon the deemed achievement of specified financial and qualitative performance objectives.
- (3) Includes Company 401(k) plan matching contributions and policy premiums paid for life insurance for the benefit of the named executive officer and a car allowance for Messrs. Graeff and Nestro in 2021.
- (4) Represents the discretionary amounts earned pursuant to the 2020 senior management incentive plan by virtue of the Compensation Committee's discretionary adjustments to the Company's financial performance, as described in greater detail below.
- (5) In accordance with SEC rules, these amounts reflect the grant date fair values of the RSUs granted to each of the named executive officers in 2020, calculated in accordance with ASC Topic 718 for stock-based compensation transactions. Each RSU represented the contingent right to receive one share of our common stock. For Messrs. Graeff and Nestro, the amount reported in the table above includes the grant date fair values of time-based RSUs, as well as 32,025 performance-based RSUs and 12,600 performance-based RSUs, respectively, which were based on the probable outcome of the vesting conditions of these RSUs as of the grant date. These performance based RSUs vest upon the achievement of certain performance targets, subject to the recipient's continuous service through the vesting events. Assuming that the maximum performance vesting condition of these RSUs was met as of the grant date, the aggregate grant date fair value of all RSUs granted to Messrs. Graeff and Nestro would have been \$541,863 and \$213,192, respectively. For a discussion of valuation assumptions, see Note 11 to our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.
- (6) Represents bonus amounts paid to the named executive officer under our 2020 senior management incentive plan upon the deemed achievement of specified financial and qualitative performance objectives.

2021 Executive Compensation Decisions in Detail

Base Salary

Base salary is generally determined by considering competitive salary data and individual job performance. In determining base salary, we primarily rely on factors such as job performance, skill set, prior experience, past levels of compensation, seniority, pay levels of similarly situated positions internally, alternative opportunities that may be available to executives, retention, and market conditions generally. Base salaries for executive officers are reviewed at least annually. Base salary increases may also be granted in connection with promotions or significant changes in responsibility. In each case, we take into account the results achieved by the executive, his future potential, the scope of the officer's responsibilities and the depth of his experience. We do not apply specific formulas to determine annual pay increases, if any, and our Compensation Committee attempts to make decisions regarding changes in base salary in the context of other short-term and long-term compensation components.

The Compensation Committee approved annual base salaries for the NEOs as follows:

Name	2020 Base Salary	2021 Base Salary	% Increase
Scott A. Graeff	\$ 385,000	\$ 410,000	6%
Eugene Nestro	\$ 275,000	\$ 290,000	5%
Brian Soller	\$ — (1)	\$ 265,000	N/A

(1) Dr. Soller was not a named executive officer in 2020.

Cash Incentive Bonuses

The performance-based cash incentive bonus is designed to provide an opportunity for our senior executives, including our NEOs, to earn an annual incentive, paid in cash, based on the achievement of certain financial targets and strategic priorities. An executive's incentive target is a percentage of his base salary. Following the end of the year, the Compensation Committee assessed the Company's performance against certain financial metrics during 2021, as well as the achievement of individual performance objectives, with total award payouts measured on a scale of zero to 150% of target. The table below lists the annual incentive targets for each NEO for 2021.

Name	2021 Base Salary	Bonus Target (% of Base Salary)	'Bonus at Target' (\$)
Scott A. Graeff	\$ 410,000	75%	\$ 307,500
Eugene Nestro	\$ 290,000	50%	\$ 145,000
Brian Soller	\$ 265,000	50%	\$ 132,000

2021 Financial Performance Metrics, Weightings and Results. In 2021, we used consolidated revenue and consolidated adjusted operating income as the financial performance metrics in the senior management incentive plan because we believe it is important to focus on top line growth, as well as profitability. Revenue ensures we are delivering an appropriate level of top-line growth, while operating income keeps us focused on efficient delivery and execution, allowing us to drive long-term stockholder value creation.

In 2021, we continued to navigate through the challenges presented by the ongoing COVID-19 pandemic. Early in the year, at the time the Compensation Committee was establishing performance metrics and goals under incentive plans, we were cautiously optimistic about the pace of economic recovery given signs that COVID-19 restrictions were easing, and customer demand was strong. With this outlook, the Compensation Committee set goals for the incentive plans in early 2021 expecting an improved demand environment and minimal supply chain disruptions. However, unanticipated COVID-19 variants caused additional restrictions and increased supply chain disruptions throughout 2021, resulting in unavoidable and unplanned constraints to meet our customer demands.

Consolidated revenue did not meet the original threshold performance levels. However, after evaluating the actual goal achievement for the year relative to the original goal, the Compensation Committee considered that based on circumstances beyond management's control, the attainment of the original targets was unrealistic, and that, despite external headwinds, the Company demonstrated strong performance during 2021. However, because of significant supply chain disruptions caused by several factors, orders could not be converted to revenue in 2021, which negatively impacted top-line growth. Absent supply chain disruptions in late 2021, the Compensation Committee believed that consolidated revenue performance would have exceeded threshold level.

Based on these considerations, the Compensation Committee adjusted annual incentive payout results exclude the impact of the supply chain disruptions, and approved payouts based on the senior management incentive plan's financial metrics at threshold as follows:

'Payout Level	'% of Target	2021 Performance Metrics and Levels (dollars in millions)	
		Consolidated Revenue (1) (2) (40% of Weighting)	Consolidated Adjusted Operating Income (2) (40% of Weighting)
Maximum	200%	\$ 113.0	\$ 10.3
Target	100%	\$ 99.0	\$ 7.6
Threshold	50%	\$ 90.0	\$ 6.1
Actual Results ⁽³⁾		\$ 87.5	\$ 6.2
		88.4% of Target	81.5% of Target
Adjusted Results		\$ 90.0	\$ 6.2

- (1) Solely for purposes of calculating the payout percentage for purposes of our 2021 senior management incentive plan, the Compensation Committee adjusted GAAP consolidated revenue by \$2.5 million to reflect our senior management team's successful execution of our strategic priorities despite the challenges of the COVID-19 pandemic and supply chain disruptions. After taking into account the incremental cost to the organization of such adjustment, the Compensation Committee determined it was a modest and reasonable adjustment that resulted in a payout at threshold level for both metrics and only increased the performance level under the annual incentive plan by 2.5%.
- (2) Solely for purposes of calculating the payout percentage for purposes of our 2021 senior management incentive plan and consistent with past practice, the Compensation Committee adjusted performance metrics to include acquisitions of General Photonics and OptaSense, as well as the movement of Luna Labs to discontinued operations. The revised goals included increases to the revenue goals (to prevent unfair windfall to participants) and decreases to the operating income goals (to prevent any unfair penalization).
- (3) The actual percent of target achieved is calculated based on straight-line interpolation between incremental goal levels established between threshold and target and target and maximum.

2021 Annual Incentive Plan Payouts. A portion (20%) of each NEO's senior management incentive plan award is also based on the Compensation Committee's assessment of performance relative to qualitative individual performance objectives, which for 2021 included, among other strategic objectives, the successful integration of OptaSense and other acquisitions into the operations of the Company. Based on the Compensation Committee's assessments of individual performance, as well as the financial performance results described above, below are the actual awards earned by the NEOs in 2021 (and paid in 2022):

Name	Bonus Target (% of Base Salary)	Bonus at Target (\$)	Bonus Earned (% of Target)	Bonus Earned (\$)
Scott A. Graeff	75%	\$ 307,500	45%	\$ 184,500
Eugene Nestro	50%	\$ 145,000	30%	\$ 87,000
Brian Soller	50%	\$ 132,000	25%	\$ 66,250

Equity Incentives

Consistent with our compensation philosophy, our Compensation Committee believes that equity awards can be a significant motivator in attracting, retaining and rewarding the success of management employees by providing compensation with long-term vesting requirements and linking the ultimate value of those awards to stockholder returns. This component may include both grants of restricted stock units, or RSUs, and stock options. Similar to base salary increases, equity instruments may also be granted in connection with promotions or significant changes in responsibility. Although grants of stock-based awards can impact our operating results, we believe that

long-term equity-based compensation is an important element of our overall compensation program because it helps focus our executives on our long-term financial and operational performance and also aligns the interests of our executives with those of our stockholders. The potential financial value offered through such stock awards is also an important retention tool.

2021 Grants. The Compensation Committee intends to provide for annual grants of equity compensation comprising a combination of service-based RSUs, which will vest over time, and performance-based RSUs that will vest based on our achievement of long-term performance goals. With respect to the 2021 grants of equity compensation (the “2021 Grants”), the service-based RSUs are scheduled to vest in three equal annual instalments and the performance-based RSUs are scheduled to vest, if at all, based on our levels of revenue and operating income for the 2023 fiscal year, in each case subject to the executive officer’s continuous service through the end of the performance period. The performance-based awards establish threshold, target and maximum vesting amounts based on pre-defined levels of each of 2023 revenue and operating income, subject to the overall achievement of a minimum level of operating income for the year ending December 31, 2023.

Set forth below is a table summarizing the 2021 Grants for each NEO:

	Time-Based Restricted Stock	Performance-Based Restricted Stock Units		
	Units	Threshold	Target	Maximum
Scott A. Graeff	22,727	11,363	22,727	34,091
Eugene Nestro	9,773	4,886	9,773	14,659
Brian Soller	9,205	4,602	9,205	13,807

The Compensation Committee intends to continue to grant a combination of time-based and performance-based equity incentive awards to the NEOs on an annual basis. It is the Compensation Committee’s current expectation that, in future years, performance-based grants will generally represent, at target, 50% of the NEOs’ total annual equity incentive awards.

2019 Grants – Payout Results. Based on 2021 results, the Compensation Committee determined that 100% of the target performance-based RSUs originally granted in 2019 were earned for the performance cycle, which was based off the achievement of 86% of the revenue at target and 118% of the adjusted operating income at target. These performance-based RSUs were settled in shares of the Company’s common stock in the first quarter of 2022. For 2019, the Compensation Committee selected revenue and operating income as the relevant performance metrics. The chart below shows the performance goals set for revenue and operating income, as well as actual results.

Payout Level	% of Target	2019 Grant Performance Metrics and Goals			
		Revenue (50% of Weighting)		Adjusted Operating Income (50% of Weighting)	
Maximum	150%	\$ 102.9	\$ 7.2		
Target	100%	\$ 90.6	\$ 5.7		
Threshold	50%	\$ 79.7	\$ 4.6		
Actual Results		\$ 87.5	\$ 6.2		
Actual Results		86% of Target	118% of Target		

(1) Reflects goals under the incentive plans that were revised to include acquisitions of General Photonics and OptaSense, as well as the movement of Luna Labs to discontinued operations. The revised goals included increases to the revenue goals (to prevent unfair windfall to participants) and decreases to the operating income goals (to prevent any unfair penalization).

As a result, the NEOs (other than Mr. Nestro who joined the Company in December 2019 and therefore, did not receive a performance-based RSU award in 2019) earned 100% of their target performance-based RSUs for the 2019-2021 performance cycle, as follows:

Name	Target PSUs Granted	Actual PSUs Earned
Scott A. Graeff	23,000	23,000
Brian Soller	8,000	8,000

Other Compensation Practices, Policies and Guidelines

Timing of Equity Grants

We do not time the granting of our equity awards relative to any favorable or unfavorable news that we release. Restricted stock or stock options for new employees, including executive officers, are generally awarded at the first regular meeting of the Compensation Committee following the employee's hire date, or, in certain limited cases, at the first regular meeting of the Compensation Committee following the prospective employee's written acceptance of an employment offer. The Compensation Committee's regular meeting schedule is established several months in advance of each meeting. Thus, proximity of any equity grant to an earnings announcement or other market events is coincidental.

Stock Ownership Guidelines

In 2018, our board of directors established stock ownership guidelines applicable to our officers and directors, which are intended to ensure that our officers and directors acquire and maintain an equity stake in the company that aligns their interests with those of our stockholders.

Our officer stock ownership guidelines provide that the CEO and each other officer at the level of vice president or above who report directly to the CEO must acquire and maintain stock ownership at a multiple of their respective base salaries. Effective in 2022, the ownership requirement varies by officer level, with the CEO's target at five times salary, and the Chief Financial Officer's and Chief Operating Officer's target at three times base salary.

Our director stock ownership guidelines also provide that each director should acquire stock ownership in the company equal to three times his or her annual board retainer.

Compliance is assessed at September 30 of each year, and as of the most recent evaluation date, all current officers and directors were in compliance with the stock ownership guidelines, with the exception of Ms. Coe, who joined the Board in May 2021. Officers and directors have five years to comply with the stock ownership guidelines.

Compensation Recovery Policy

In February 2019, the Compensation Committee adopted a policy for recoupment of incentive compensation. Under the terms of this policy, if the Company is required to prepare an accounting restatement for any fiscal quarter or year due to the material noncompliance of the Company with any financial reporting requirement, the Company may seek to recover from certain employees, including the named executive officers, during the three fiscal years preceding the date on which the Company was required to prepare such accounting restatement, incentive bonus and equity awards in excess of amounts that would have been awarded based upon the restated financial statements. The Company may seek recoupment from prior incentive compensation payments through the reduction of future incentive compensation payments, the reduction or cancellation of outstanding incentive compensation payments, and direct repayment by the executive.

Other Benefits

In general, our practice is to provide commensurate benefits to employees at all levels of our organization. Consistent with this practice, the following are the primary benefits provided to our full-time employees, including our named executive officers:

- health, vision and dental insurance including, at the employee's option, Flexible Spending Accounts and/or a Health Savings Account;
- term life insurance and optional supplemental life insurance;
- optional supplemental health coverage;
- short- and long-term disability benefits;
- 401(k) plan, under which we match 30% of an employee's contributions up to 10% of the employee's total cash compensation, which match vests over a period of three years;

-
- employee stock purchase plan, under which participating employees may use after-tax payroll deductions to buy our common stock at a discounted price at regular intervals; and
 - paid time off and holidays.

We believe that these benefits are consistent with those offered by other companies and specifically with those companies with which we compete for employees.

Impact of Tax Accounting

We regularly consider the various tax and accounting implications of our compensation plans. When determining the value of long-term incentives and equity grants to executives and employees, the compensation costs associated with the grants are reviewed, as required by FASB ASC Topic 718.

Outstanding Equity Awards at December 31, 2021

The following table shows all outstanding unexercised stock options and unvested stock awards held by our named executive officers as of December 31, 2021.

Name	Option Awards				Stock Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares that have not vested (#)	Market Value of Shares that have not vested (\$)(13)	Equity incentive plan awards: number of unearned shares or units of stock that have not vested (#)	Equity incentive plan awards: market or payout value of unearned shares or units of stock that have not vested (\$)(13)
Scott A. Graeff	34,351	—	1.68	2/28/2022				
					30,667(1)	258,829		
					26,433(2)	223,095		
					22,727(3)	191,816		
						11,500(4)	97,060	
						10,675(5)	90,097	
						11,363(6)	95,904	
Eugene Nestro					16,666(7)	140,661		
					10,400(2)	87,776		
					9,773(3)	82,484		
							4,200(8)	35,448
						4,886(9)	41,238	
Brian Soller	100,000	—	1.49	4/7/2024				
					10,667(1)	90,029		
					7,800(2)	65,832		
					9,205(3)	77,690		
						4,000(10)	33,760	
						3,150(11)	26,586	
						4,602(12)	38,841	

- (1) Represents unvested shares underlying a RSU award issued on January 14, 2019. These shares underlying this RSU award vest annually over a three-year period.
- (2) Represents unvested shares underlying a RSU award issued on January 8, 2020. The shares underlying this RSU award vest annually over a three-year period.
- (3) Represents unvested shares underlying a RSU award issued on January 27, 2021. The shares underlying this RSU award vest annually over a three-year period.
- (4) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2021 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 11,500 shares underlying the RSU award will vest if the threshold level of achievement is reached, 23,000 shares underlying the RSU award will vest if the target level of achievement is reached and 34,500 shares underlying the RSU award will vest if the maximum level of achievement is reached.
- (5) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2022 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 10,675 shares underlying the RSU award will vest if the threshold level of achievement is reached, 21,350 shares underlying the RSU award will vest if the target level of achievement is reached and 32,025 shares underlying the RSU award will vest if the maximum level of achievement is reached.
- (6) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2023 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 11,363 shares underlying the RSU award will

vest if the threshold level of achievement is reached, 22,727 shares underlying the RSU award will vest if the target level of achievement is reached and 34,091 shares underlying the RSU award will vest if the maximum level of achievement is reached

- (7) Represents unvested shares underlying a RSU award issued on December 2, 2019, which vest annually over a three-year period.
- (8) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2022 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 4,200 shares underlying the RSU award will vest if the threshold level of achievement is reached, 8,400 shares underlying the RSU award will vest if the target level of achievement is reached and 12,600 shares underlying the RSU award will vest if the maximum level of achievement is reached.
- (9) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2023 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 4,886 shares underlying the RSU award will vest if the threshold level of achievement is reached, 9,773 shares underlying the RSU award will vest if the target level of achievement is reached and 14,659 shares underlying the RSU award will vest if the maximum level of achievement is reached.
- (10) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2021 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 4,000 shares underlying the RSU award will vest if the threshold level of achievement is reached, 8,000 shares underlying the RSU award will vest if the target level of achievement is reached and 12,000 shares underlying the RSU award will vest if the maximum level of achievement is reached.
- (11) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2022 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 3,150 shares underlying the RSU award will vest if the threshold level of achievement is reached, 6,300 shares underlying the RSU award will vest if the target level of achievement is reached and 9,450 shares underlying the RSU award will vest if the maximum level of achievement is reached.
- (12) Represents unvested shares underlying a performance-based RSU based on the threshold level of achievement under the terms of the grant. Pursuant to the terms of the award, the award will vest, if at all, based on the Company's levels of 2023 revenue and operating income, in each case subject to the executive officer's continuous service through vesting. 4,602 shares underlying the RSU award will vest if the threshold level of achievement is reached, 9,205 shares underlying the RSU award will vest if the target level of achievement is reached and 13,807 shares underlying the RSU award will vest if the maximum level of achievement is reached
- (13) Based on the closing price of our common stock of \$8.44 per share as of December 31, 2021, the last trading day of 2021.

Current Employment Agreements Effective April 2022

On April 1, 2022, we entered into amended and restated employment agreements with each of our NEOs (the "Amended Employment Agreements"). The Amended Employment Agreements supersede each NEO's prior employment agreement and are based on terms recommended by our compensation consultant.

Pursuant to the Amended Employment Agreements, Messrs. Graeff and Nestro and Dr. Soller are employed on an "at-will" basis. The initial term of the Amended Employment Agreements is through March 31, 2025, subject to automatic renewal for one-year periods unless either party notifies the other in writing of non-renewal at least six months in advance.

Mr. Graeff is entitled to an annual base salary of \$450,000, Mr. Nestro is entitled to an annual base salary of \$325,000, and Dr. Soller is entitled to an annual base salary of \$290,000, each of which is subject to review and adjustment from time to time by the Board in its sole discretion. Messrs. Graeff and Nestro and Dr. Soller are eligible to earn an annual performance cash bonus at the following target and maximum percentages of their current base salaries, subject to achievement of individual and corporate performance goals to be determined by the Board:

Name	Target Bonus (% of Base Salary)	Maximum Bonus (% of Base Salary)
Scott A. Graeff	100%	200%
Eugene Nestro	50%	100%
Brian Soller	50%	100%

Pursuant to the Amended Employment Agreements, in the event that Messrs. Graeff's or Nestro's or Dr. Soller's employment is terminated by us "without cause" or by one of them for "good reason" not in connection with a "change in control" (each as defined in the Amended Employment Agreements), subject to them entering into and not revoking a separation agreement that includes, among other terms, a general release of claims, they will be entitled to receive the following severance benefits:

- payments equal to the then applicable base salary for a period of 12 months paid in instalments on our regular payroll dates;
- if the NEO timely elects and remains eligible for continued coverage under COBRA, continued health insurance premiums until the earliest of (i) 12 months following termination, (ii) the date he becomes eligible for substantially equivalent insurance in connection with new employment or self-employment, or (iii) the date he ceases to be eligible for COBRA continuation coverage;
- a discretionary lump sum bonus payment equal to 100% of the target bonus that executive officer would have been eligible to receive for the year in which the termination occurs which will be paid when we otherwise pays annual bonuses, so long as that date is no later than March 15th the year following the year in which the termination occurs; and
- acceleration of vesting for all outstanding options, restricted stock or other equity incentive awards that have time-based vesting schedules for a period of 12 months.

Pursuant to the Amended Employment Agreements, in lieu of the severance benefits described above, in the event that Messrs. Graeff's or Nestro's or Dr. Soller's employment is terminated by us "without cause" or by one of them for "good reason" within three months prior to or 12 months following a "change in control" transaction, they will be entitled to receive the following severance benefits:

- in the case of Mr. Graeff, a payment equal to the then applicable base salary for a period of 24 months paid in a lump sum, and in the case of Mr. Nestro and Dr. Soller, a payment equal to the then applicable base salary for a period of 15 months paid in a lump sum;
- if the NEO timely elects and remains eligible for continued coverage under COBRA, continued health insurance premiums until the earliest of (i) 18 months following termination, (ii) the date he becomes eligible for substantially equivalent insurance in connection with new employment or self-employment, or (iii) the date he ceases to be eligible for COBRA continuation coverage;
- a discretionary lump sum bonus payment equal to 200%, 125% and 125% of the target bonus that Mr. Graeff, Mr. Nestro and Dr. Soller would have been eligible to receive for the year in which the termination occurs, respectively, which will be paid when we otherwise pays annual bonuses, so long as that date is no later than March 15th the year following the year in which the termination occurs; and
- effective as of the later of the effective date of the change in control or the termination date, (i) for all outstanding options, restricted stock or other equity incentive awards that have time-based vesting schedules, acceleration of vesting in full, and (ii) for all outstanding options, restricted stock or other equity incentive awards that have performance-based vesting schedules, acceleration of vesting as if any performance metrics applicable or achievable in the future have been achieved at target levels.

Furthermore, in the event and effective upon a change in control, (i) for all outstanding options, restricted stock or other equity incentive awards that have time-based vesting schedules, acceleration of vesting in full and (ii) for all outstanding options, restricted stock or other equity incentive awards that have performance-based vesting schedules, such awards will be shall be converted to time-based vesting in accordance with our standard time period of vesting.

Prior Employment Agreements in Effect Prior to April 2022

Employment Agreement with Scott A. Graeff

On December 5, 2017, we entered into an amended and restated employment agreement with Scott A. Graeff, which was in effect until we entered into the Amended Employment Agreements. Under the terms of the amended and restated employment agreement, Mr. Graeff's initial salary was \$325,000, which was subject to adjustment by the Compensation Committee from time to time. Mr. Graeff's annual base salary for 2021 was \$410,000. Under the amended and restated employment agreement, Mr. Graeff was eligible to participate in an annual cash incentive plan for a discretionary cash bonus plan with a payout at target performance of 75% of his actual salary during such year and a maximum value of 150% of his actual salary during such year, subject to the achievement of individual and corporate performance criteria to be determined by our board of directors or our Compensation Committee and set forth in the incentive plan.

The employment agreement provided that, in the event that his employment is terminated by us "without cause" or by him for "good reason" (each as defined in the employment agreement), subject to his entering into and not revoking a release in a form acceptable to the Company, he would be entitled to receive:

- a severance payment equal to 12 months of his then current annual salary payable in instalments on the Company's regular payroll dates plus a lump sum payment equal to his annual cash incentive compensation assuming that the performance objectives were achieved at the target level;
- if he timely elects and remains eligible for continued coverage under COBRA, an amount equal to the health insurance premiums that we were paying on his behalf and on behalf of his covered dependents prior to the date of termination for a period of nine months, or 12 months if the termination occurs within 12 months following a change in control transaction;
- a lump sum payment of any annual cash incentive earned but unpaid with respect to the year preceding the year of termination; and
- a cash payment for any unvested company matching contributions in his account under the Company's 401(k) plan and for any accrued but unpaid vacation.

In addition to the severance and retention payments described above, in the event a change in control occurs due to a sale of the Company's assets or a merger of the Company or an acquisition of the Company via tender offer, the employment agreement also provided that Mr. Graeff would receive the payments described above provided that all such payments will be accelerated and not deferred. In addition, all outstanding equity awards received prior to the change in control would immediately vest.

Employment Agreement with Eugene Nestro

Effective December 2, 2019, we entered into an employment agreement with Mr. Nestro, which was in effect until we entered into the Amended Employment Agreements.

Under the terms of the agreement, Mr. Nestro's initial salary was \$275,000, which was subject to adjustment by the Compensation Committee from time to time. Mr. Nestro's annual base salary for 2021 was \$290,000. Under the amended and restated employment agreement, Mr. Nestro was eligible to participate in our senior management incentive plan for an annual discretionary cash bonus with a target value of at least 40% of his then current base salary, subject to the achievement of individual and corporate performance criteria to be determined by our board of directors or our Compensation Committee and set forth in the incentive plan.

In the event that Mr. Nestro's employment was terminated by us "without cause" or by Mr. Nestro for "good reason" (each as defined in his employment agreement), subject to Mr. Nestro's entering into and not revoking a separation agreement that includes, among other terms, a general release of claims in our favor, in a form acceptable to us, Mr. Nestro would be entitled to receive:

- severance payments equal to his then applicable base salary for a period of 9 months paid in instalments on our regular payroll dates;
- a discretionary lump sum bonus payment equal to the target bonus that he would have been eligible to receive for the year in which the termination occurs, which will be paid when we otherwise pay annual bonuses, so long as that date is no later than March 15th the following year in which the termination occurs; provided, however, if the termination occurs within three months prior to or 12 months following a "change in control" transaction (as defined in the employment agreement), then Mr. Nestro will be entitled to receive a discretionary lump sum bonus payment equal to the maximum target bonus that he would have been eligible to receive for the year in which the termination occurs;
- if he timely elects and remains eligible for continued coverage under COBRA, the health insurance premiums that we were paying on behalf of Mr. Nestro and his covered dependents prior to the date of termination, until the earliest of (i) 12 months following termination, (ii) the date Mr. Nestro becomes eligible for substantially equivalent insurance in connection with new employment or self-employment, or (iii) the date Mr. Nestro ceases to be eligible for COBRA continuation coverage; and
- a cash payment for any unvested company matching contributions in Mr. Nestro's account under our 401(k) plan.

In addition, if Mr. Nestro's employment was terminated by us "without cause" or by Mr. Nestro for "good reason" within three months prior to or 12 months following a "change of control" transaction, all unvested stock options

and other stock awards for our common stock held by Mr. Nestro as of immediately prior to the termination date would accelerate in full.

Employment Agreement with Brian Soller

Effective August 1, 2018, we entered into an employment agreement with Dr. Soller, which was in effect until we entered into the Amended Employment Agreements.

Under the terms of the employment agreement, Dr. Soller initial salary was \$208,000, which was subject to adjustment by the Compensation Committee from time to time. Dr. Soller's annual base salary for 2021 was \$265,000. Under the employment agreement, Dr. Soller was eligible to participate in our senior management incentive plan for an annual discretionary cash bonus with a target value of at least 40% of his then current base salary, subject to the achievement of individual and corporate performance criteria to be determined by our board of directors or our Compensation Committee and set forth in the incentive plan.

In the event that Dr. Soller's employment was terminated by us "without cause" or by Dr. Soller for "good reason" (each as defined in his employment agreement), subject to Dr. Soller's entering into and not revoking a separation agreement that includes, among other terms, a general release of claims in our favor, in a form acceptable to us, Dr. Soller would be entitled to receive:

- severance payments equal to his then applicable base salary for a period of 9 months paid in instalments on our regular payroll dates;
- a discretionary lump sum bonus payment equal to the target bonus that he would have been eligible to receive for the year in which the termination occurs, which will be paid when we otherwise pay annual bonuses, so long as that date is no later than March 15th the following year in which the termination occurs; provided, however, if the termination occurs within three months prior to or 12 months following a "change in control" transaction (as defined in the employment agreement), then Dr. Soller will be entitled to receive a discretionary lump sum bonus payment equal to the maximum target bonus that he would have been eligible to receive for the year in which the termination occurs;
- if he timely elects and remains eligible for continued coverage under COBRA, the health insurance premiums that we were paying on behalf of Dr. Soller and his covered dependents prior to the date of termination, until the earliest of (i) 12 months following termination, (ii) the date Dr. Soller becomes eligible for substantially equivalent insurance in connection with new employment or self-employment, or (iii) the date Dr. Soller ceases to be eligible for COBRA continuation coverage; and
- a cash payment for any unvested company matching contributions in Dr. Soller's account under our 401(k) plan.

In addition, if Dr. Soller's employment was terminated by us "without cause" or by Dr. Soller for "good reason" within three months prior to or 12 months following a "change of control" transaction, all unvested stock options and other stock awards for our common stock held by Dr. Soller as of immediately prior to the termination date would accelerate in full.

Change in Control Benefits and Severance

The Compensation Committee believes that change in control and severance benefits play an important role in attracting and retaining valuable executives. The payment of such benefits also ensures a smooth transition in management following a change in control by giving the named executive officer the incentive to remain with the Company through the transition period, and, in the event the officer's employment is terminated as part of the transition, by compensating the officer with a degree of financial and personal security during a period in which he is likely to be unemployed. As a result, as described above, we have historically maintained employment agreements with our named executive officers that provide for severance payments, specified accelerated vesting of equity awards and continuation of group benefits if our named executive officers' employment is terminated by us without "cause" or by the named executive officers for "good reason," including in circumstances involving a change in control of the Company.

In connection with a change in control, the severance and other benefits provided for in the named executive officers' employment agreements or otherwise payable to such named executive officers may be treated as excess parachute payments under Section 280G of the Code. In such event, under the terms of these employment agreements, the executive officer's severance benefits shall be payable either (A) in full, or (B) as to such lesser amount which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by the executive officer, on an after-tax basis, of the greatest amount of severance benefits under the employment agreement, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table summarizes our securities authorized for issuance under our equity compensation plans as of December 31, 2021:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	1,956,258(1)	\$4.15(2)	2,340,854(3)
Total	1,956,258(1)	\$4.15(2)	2,340,854(3)

(1) Consists of 1,533,024 shares underlying stock options and 423,234 shares underlying restricted stock units.

(2) Includes 423,234 shares issuable upon the settlement of restricted stock units without consideration. The weighted average exercise price of the outstanding options and rights other than these restricted stock units is \$3.00 per share.

(3) Securities remaining available for future issuance under equity compensation plans include 1,381,946 securities available for issuance under the 2016 Equity Incentive Plan and 958,908 available for issuance under the 2020 Employee Stock Purchase Plan as of December 31, 2021.

Our 2016 Equity Incentive Plan allows for forfeited awards to be added back to our pool of available awards, including awards forfeited from the 2006 Equity Incentive Plan after the expiration date of our 2006 Equity Incentive Plan.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information with respect to beneficial ownership of our common stock, as of March 31, 2022, by:

- each person known by us to be a beneficial owner of 5% or more of the outstanding shares of our common stock;
- each of our directors;
- each of the executive officers named in the Summary Compensation Table, to whom we refer as our named executive officers; and
- all of our currently serving executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us and Schedules 13D and 13G, if any, filed with the SEC, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of the common stock that they beneficially own, subject to applicable community property laws. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options, RSUs, warrants, stock units under our non-employee directors' deferred compensation plan or other exercisable or convertible securities held by that person that are currently exercisable or convertible or exercisable or convertible within 60 days of March 31, 2022 are deemed outstanding, but are not deemed outstanding for purposes of computing the percentage ownership of any other person. Unless otherwise indicated, these shares do not include any stock, options or RSUs or stock units awarded after March 31, 2022. A total of 32,361,117 shares of our common stock were outstanding as of March 31, 2022.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Luna Innovations Incorporated, 301 1st Street SW, Roanoke, Virginia 24011.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percent of Class
Royce & Associates (1) 745 Fifth Avenue, New York, NY 10151	1,997,576	6.3%
BlackRock Inc. (2) 55 East 52nd Street, New York, NY 10555	1,906,639	6.0%
ACK Asset Management (3) 2 Greenwich Office Park, Suite 300, Greenwich, CT 06831	1,832,647	5.7%
The Vanguard Group (4) 100 Vanguard Blvd., Malvern, PA 19355	1,759,127	5.5%
Scott A. Graeff	515,195	1.6%
Eugene Nestro	32,792	*
Brian Soller (5)	234,245	*
Richard W. Roedel (6)	1,063,260	3.2%
Gary Spiegel (7)	84,896	*
Warren B. Phelps, III (8)	87,197	*
N. Leigh Anderson (9)	40,231	*
Mary Beth Vitale (10)	28,317	*
Pamela Coe (11)	7,557	*
All current directors and executive officers as a group (9 persons) (12)	2,093,690	6.3%

* Represents less than 1% of the outstanding shares of common stock.

- (1) This information has been obtained from a Schedule 13G/A filed on January 21, 2022, by Royce & Associates LP.
- (2) This information has been obtained from a Schedule 13G/A filed on February 3, 2022, by BlackRock, Inc.
- (3) This information has been obtained from a Schedule 13G filed on February 14, 2022 by ACK Asset Management ("ACK"). ACK owns no shares directly. ACK maintains investment and/or voting power with respect to certain funds and managed accounts advised by it. Mr. Meisenberg and Mr. Reilly are the managing members of ACK and control ACK. Each of ACK, Mr. Meisenberg and Mr. Reilly may be deemed to beneficially own such shares.
- (4) This information has been obtained from a Schedule 13G filed on February 10, 2022, by The Vanguard Group.
- (5) Includes 100,000 shares subject to options that are immediately exercisable or exercisable within 60 days of March 31, 2022.
- (6) Includes 304,164 shares subject to options that are immediately exercisable or exercisable within 60 days of March 31, 2022, and 301,054 shares of common stock issuable pursuant to stock units held under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holder.
- (7) Includes 13,943 shares of common stock issuable pursuant to stock units held under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holder.
- (8) Includes 70,964 shares of common stock issuable pursuant to stock units held under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holder.
- (9) Includes 23,998 shares of common stock issuable pursuant to stock units held under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holder.
- (10) Includes 28,317 shares of common stock issuable pursuant to stock units held under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holder.
- (11) Includes 7,557 shares of common stock issuable pursuant to stock units held under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holder.
- (12) Includes an aggregate of: (i) 445,833 shares of common stock issuable pursuant to stock units issued under our non-employee directors' deferred compensation plan that are payable under circumstances within the control of the holders; and (ii) an aggregate of 404,164 shares of common stock issuable under stock options that are immediately exercisable or exercisable within 60 days of March 31, 2022.

Certain Relationships and Related Person Transactions

Policies and Procedures for Transactions with Related Persons

Related person transactions, which we define as all transactions involving an executive officer, director, or a holder of more than five percent of our common stock, including any of their immediate family members and any entity owned or controlled by such persons, are reviewed and approved by the Audit Committee of our board of directors and a majority of disinterested directors on our board.

In any transaction involving a related person, our Audit Committee and board of directors consider all of the available material facts and circumstances of the transaction, including:

- the direct and indirect interests of the related persons;
- in the event the related person is a director (or immediate family member of a director or an entity with which a director is affiliated), the impact that the transaction will have on a director's independence;
- the risks, costs and benefits of the transaction to us; and
- whether any alternative transactions or sources for comparable services or products are available.

After considering all such facts and circumstances, our Audit Committee and board determine whether approval or ratification of the related person transaction is in our best interests. For example, if our Audit Committee determines that the proposed terms of a related person transaction are reasonable and at least as favorable as could have been obtained from unrelated third parties, it will recommend to our board of directors that such transaction be approved or ratified. Alternatively, if a related person transaction will compromise the independence of one of our directors, our Audit Committee may recommend that our board of directors reject the transaction if it could affect our ability to comply with securities laws and regulations or Nasdaq listing requirements.

Each transaction described below was approved or ratified by our Audit Committee or the disinterested members of our board of directors after making a determination that the transaction was on terms no less favorable than those we could have obtained from unrelated third parties.

The policies and procedures described above for reviewing and approving related person transactions are not set forth in writing. The charter for our Audit Committee, however, provides that one of the committee's responsibilities is to review and approve in advance any proposed related person transactions.

Transactions and Relationships with Directors, Executive Officers and Five Percent Stockholders

Other than compensation described in "Executive Compensation" and "Director Compensation" elsewhere in this proxy statement and as described below, we believe that there has not been any other transaction or series of transactions since January 1, 2021 to which we were or are to be a participant in which the amount involved exceeds \$120,000 and in which any director, executive officer or holder of more than five percent of our common stock, or members of any such person's immediate family, had or are expected to have a direct or indirect material interest.

Indemnification Agreements with Officers and Directors

We have entered into indemnity agreements with certain of our officers and directors that provide, among other things, that we will indemnify such officer or director, under the circumstances and to the extent provided for therein, for expenses, damages, judgments, fines and settlements he or she may be required to pay in actions or proceedings that he or she is or may be made a party by reason of his or her position as a director, officer or other agent of the Company, and otherwise to the fullest extent permitted under Delaware law and our bylaws.

Other Information

Other Matters to be Presented at the Annual Meeting

We do not know of any matters to be presented at our 2022 annual meeting of stockholders other than those described in this proxy statement. If any other matters are properly brought before the annual meeting, proxies will be voted in accordance with the best judgment of the person or persons voting the proxies.

Security Holder Communication with Board Members

Any holder of our common stock may contact the board of directors or a specified individual director by writing to the attention of the board of directors (or a specified individual director) and sending such communication to the attention of our corporate Secretary at our executive offices as identified in this proxy statement. Each communication from a stockholder should include the following information in order to permit us to confirm your status as a security holder and enable us to send a response if deemed appropriate:

- the name, mailing address and telephone number of the security holder sending the communication;
- the number and type of our securities owned by such security holder; and
- if the security holder is not a record owner of our securities, the name of the record owner of our securities beneficially owned by the security holder.

Our corporate Secretary will forward all appropriate communications to the board of directors or individual members of the board of directors as specified in the communication. Our corporate Secretary may, but is not required to, review all correspondence addressed to the board of directors or any individual member of the board of directors. The purpose of this review is to allow the board to avoid having to consider irrelevant or inappropriate communications, such as advertisements, solicitations and hostile communications, or any correspondence more suitably directed to management.

Stockholder Proposals for 2023 Annual Meeting

Our bylaws provide for advance notice procedures to recommend a person for nomination as a director or to propose business to be considered by stockholders at a meeting but not to be included in our proxy materials. For the 2023 annual meeting of stockholders, such nominations or proposals, other than those made by or at the direction of the board of directors, must be submitted in writing and received by our corporate Secretary at our offices no later than January 13, 2023, which is 90 days prior to the anniversary of the expected mailing date of this proxy statement. If our 2023 annual meeting of stockholders is moved more than 30 days before or after the anniversary date of our 2022 annual meeting of stockholders, then the deadline is the close of business on the tenth day following the day notice of the date of the meeting was mailed or made public, whichever occurs first. Such proposals also need to comply with all applicable requirements of the rules and regulations of the SEC. The chairperson of a stockholder meeting may refuse to acknowledge the introduction of your proposal if it is not made in compliance with the foregoing procedures or the applicable provisions of our bylaws.

In addition, for a stockholder proposal to be considered for inclusion in our proxy statement for the 2023 annual meeting of stockholders, the proposal must be submitted in writing and received by our corporate Secretary at our offices at 301 1st Street SW, Suite 200, Roanoke, Virginia 24011 no later than December 13, 2022, which is 120 days prior to the anniversary of the expected mailing date of this proxy statement. You are also advised to review our bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations.

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may participate in the practice of “householding” proxy statements and their accompanying documents. This means that only one set of our annual meeting materials is sent to multiple stockholders in your household unless you instruct otherwise. We will promptly deliver a separate copy of these documents without charge to you upon written request to Luna Innovations Incorporated, 301 1st Street SW, Suite 200, Roanoke, Virginia 24011, Attn: Investor Relations. If you want to receive separate copies of our annual meeting materials in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

By Order of the Board of Directors

/s/ Scott A. Graeff

Scott A. Graeff

President, Chief Executive Officer, Treasurer and Secretary

April 08, 2022

A copy of our Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2021 is available without charge on our website, www.lunainc.com, or upon written request to: Corporate Secretary, Luna Innovations Incorporated, 301 1st Street SW, Suite 200, Roanoke, Virginia 24011.

Appendix

Reconciliation of Net Income to Adjusted EPS (in thousands, except share and per share data)

	Year ended December 31,	
	2021	2020
Net income	\$ 1,382	\$ 3,291
Income from discontinued operations, net of income taxes	2,471	1,931
Net (loss)/income from continuing operations	(1,089)	1,360
Share-based compensation	2,826	2,012
Integration and transaction expense	2,322	2,204
Amortization of intangible assets	3,113	1,714
Amortization of inventory step-up	509	78
Income tax effect on adjustments	(2,193)	(1,502)
Adjusted income from continuing operations	\$ 5,488	\$ 5,866
Adjusted EPS	\$ 0.17	\$ 0.18
Adjusted weighted average shares:		
Diluted	31,658	32,579

Reconciliation of Net Income to Adjusted EBITDA (in thousands)

	Year ended December 31,	
	2021	2020
Net income	\$ 1,382	\$ 3,291
Income from discontinued operations, net of income taxes	2,471	1,931
Net (loss)/income from continuing operations	(1,089)	1,360
Interest expense	479	25
Investment income	-	(67)
Income tax benefit	(1,980)	(455)
Depreciation and amortization	4,517	2,769
EBITDA	1,927	3,632
Share-based compensation	2,826	2,012
Integration and transaction expense	2,322	2,204
Amortization of inventory step-up	509	78
Adjusted EBITDA	\$ 7,584	\$ 7,926

Reconciliation of Operating Loss to Adjusted Operating Income
(in thousands)

	Year ended December 31, 2021	
Operating loss	\$	(2,590)
Share-based compensation		2,826
Integration and transaction expense		2,322
Amortization of intangible assets		3,113
Amortization of inventory step-up		509
Adjusted operating income	\$	<u>6,180</u>



YOUR VOTE IS IMPORTANT! PLEASE VOTE BY:

	<p>INTERNET</p> <p>Go To: www.proxypush.com/LUNA</p> <ul style="list-style-type: none"> • Cast your vote online • Have your Proxy Card ready • Follow the simple instructions to record your vote
	<p>PHONE Call 1-866-390-6270</p> <ul style="list-style-type: none"> • Use any touch-tone telephone • Have your Proxy Card ready • Follow the simple recorded instructions
	<p>MAIL</p> <ul style="list-style-type: none"> • Mark, sign and date your Proxy Card • Fold and return your Proxy Card in the postage-paid envelope provided
	<p>You must pre-register to attend the meeting online and/or participate at www.proxydocs.com/LUNA.</p>

Luna Innovations Incorporated
Annual Meeting of Stockholders



For Stockholders of record as of March 25, 2022

TIME: Tuesday, May 10, 2022 10:00 AM, Eastern Time
PLACE: Annual Meeting to be held live via the Internet
please visit www.proxydocs.com/LUNA for more details.

This proxy is being solicited on behalf of the Management

The undersigned hereby appoints Scott A. Graeff and Eugene Nestro (the "Named Proxies"), and each or either of them, as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes them, and each of them, to vote all the shares of capital stock of Luna Innovations Incorporated which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such true and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given.

THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED IDENTICAL TO THE BOARD OF DIRECTORS RECOMMENDATION. This proxy, when properly executed, will be voted in the manner directed herein. In their discretion, the Named Proxies are authorized to vote upon such other matters that may properly come before the meeting or any adjournment or postponement thereof.

You are encouraged to specify your choice by marking the appropriate box (SEE REVERSE SIDE) but you need not mark any box if you wish to vote in accordance with the Board of Directors' recommendation. The Named Proxies cannot vote your shares unless you sign (on the reverse side) and return this card.

PLEASE BE SURE TO SIGN AND DATE THIS PROXY CARD AND MARK ON THE REVERSE SIDE



Luna Innovations Incorporated

Annual Meeting of Stockholders

Please make your marks like this:

MANAGEMENT RECOMMENDS A VOTE:
FOR ON PROPOSALS 1, 2 AND 3

PROPOSAL	YOUR VOTE			MANAGEMENT RECOMMENDS
1. Election of Directors				↓
1.01 Richard W. Roedel	FOR <input type="checkbox"/>		WITHHOLD <input type="checkbox"/>	FOR
1.02 Gary Spiegel	<input type="checkbox"/>		<input type="checkbox"/>	FOR
2. Approval, on an advisory basis, of the compensation of Luna's named executive officers.	FOR <input type="checkbox"/>	AGAINST <input type="checkbox"/>	ABSTAIN <input type="checkbox"/>	FOR
3. Proposal to ratify the appointment of Ernst & Young LLP as Luna's independent registered public accounting firm for the fiscal year ending December 31, 2022.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FOR

You must pre-register to attend the meeting online and/or participate at www.proxydocs.com/LUNA.

Authorized Signatures - Must be completed for your instructions to be executed.

Please sign exactly as your name(s) appears on your account. If held in joint tenancy, all persons should sign. Trustees, administrators, etc., should include title and authority. Corporations should provide full name of corporation and title of authorized officer signing the Proxy/Vote Form.

Signature (and Title if applicable)

Date

Signature (if held jointly)

Date