

Use these links to rapidly review the document
[TABLE OF CONTENTS](#)

[Table of Contents](#)

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of
the Securities Exchange Act of 1934 (Amendment No.)

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

Zynerva Pharmaceuticals, Inc.

(Name of Registrant as Specified In Its Charter)

Not Applicable

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

Payment of Filing Fee (Check the appropriate box):

- ☒ No fee required.
- ☐ Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- (1) Title of each class of securities to which transaction applies: _____
- (2) Aggregate number of securities to which transaction applies: _____
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): _____
- (4) Proposed maximum aggregate value of transaction: _____
- (5) Total fee paid: _____
- ☐ Fee paid previously with preliminary materials.
- ☐ Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- (1) Amount Previously Paid: _____
- (2) Form, Schedule or Registration Statement No.: _____
- (3) Filing Party: _____
- (4) Date Filed: _____
- _____

ZYNERBA PHARMACEUTICALS, INC.
NOTICE OF 2017 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 7, 2017

April 24, 2017

The 2017 Annual Meeting of Stockholders of Zynerba Pharmaceuticals, Inc. will be held at our corporate headquarters located at 80 W. Lancaster Avenue, Suite 300, Devon, Pennsylvania, 19333, on Wednesday, June 7, 2017 at 8:00 a.m. Eastern Daylight Time.

The items of business are:

1. Election of seven nominees named in this Proxy Statement as directors, each to hold office until the 2018 Annual Meeting of Stockholders and until their respective successors are elected and qualified;
2. Ratification of the appointment of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017; and
3. Transaction of such other business as may properly be brought before the Annual Meeting or any adjournment or postponement thereof.

Stockholders of record of Zynerba Pharmaceuticals, Inc. common stock at the close of business on April 17, 2017 are entitled to vote at the meeting and any postponements or adjournments of the meeting.

By Order of the Board of Directors



Armando Anido
Chief Executive Officer and Chairman of the Board of Directors
April 24, 2017

Important Notice Regarding Availability of Proxy Materials for the Annual Meeting: Our Annual Report and Proxy Statement are available at <http://www.astproxyportal.com/ast/20275/>.

Your vote is important. Please vote as promptly as possible electronically via the phone or Internet or by completing, signing, dating and returning the proxy card or voting instruction card.

TABLE OF CONTENTS

2017 PROXY STATEMENT SUMMARY	
GENERAL INFORMATION	1
BOARD OF DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	4
DIRECTOR COMPENSATION	14
EXECUTIVE COMPENSATION	15
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	19
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	22
INDEPENDENT AUDITORS AND RELATED FEES	22
REPORT OF THE AUDIT COMMITTEE	23
PROPOSALS TO BE VOTED ON	25
PROPOSAL ONE: ELECTION OF DIRECTORS	25
PROPOSAL TWO: RATIFICATION OF APPOINTMENT OF KPMG LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	26
OTHER MATTERS	27
PROXY SOLICITATION	27
STOCKHOLDER PROPOSALS AND NOMINEES FOR 2018 ANNUAL MEETING	27
ANNUAL REPORT ON FORM 10-K	27

2017 PROXY STATEMENT SUMMARY

Here are highlights of important information you will find in this Proxy Statement. This summary does not contain all of the information that you should consider, and you should read the entire Proxy Statement carefully before voting.

ANNUAL MEETING OF STOCKHOLDERS

Time and Date	Record Date	Place	Number of Common Shares Eligible to Vote as of the Record Date
8:00 a.m. local time June 7, 2017	April 17, 2017	80 W. Lancaster Avenue, Suite 300 Devon, Pennsylvania 19333	13,249,779

VOTING MATTERS

	Board Recommendation	Page Reference (for more detail)
Proposal 1: Election of Seven Directors	✓ FOR EACH NOMINEE	25
Proposal 2: Ratification of Appointment of KPMG LLP as Independent Registered Public Accounting Firm for the 2017 Fiscal Year	✓ FOR	26

OUR DIRECTOR NOMINEES

You are being asked to vote on these seven directors. All directors are currently elected annually by a plurality of votes cast. Detailed information about each director's background and areas of expertise can be found beginning on page 4.

Name, Age	Age	Director Since	Principal Occupation	Committee Membership		
				AC	CC	NCGC
Armando Anido	59	2014	Chief Executive Officer of Zynherba Pharmaceuticals, Inc.			
Warren D. Cooper, MB, BS, BSc, MFPM†	64	2015	Managing Director & Chief Medical Officer of Healthcare Royalty Partners			
William J. Federici	57	2015	Vice President and Chief Financial Officer of West Pharmaceutical Services, Inc.			
Thomas L. Harrison, LHD	69	2015	Chairman Emeritus Diversified Agency Services, Division of Omnicom Group, Inc.			
Daniel L. Kisner, MD	70	2015	Independent Consultant			
Kenneth I. Moch	62	2015	President and Chief Executive Officer of Cognition Therapeutics, Inc.			
Cynthia A. Rask, MD	63	2015	Independent Consultant			

AC Audit Committee

CC Compensation Committee

[Table of Contents](#)

NCGC Nominating and Corporate Governance Committee



Committee Member



Chair of the Committee



Lead Independent Director

CORPORATE GOVERNANCE SUMMARY FACTS

The following table summarizes our current Board structure and key elements of our corporate governance framework:

Size of Board (set by the Board)	7
Number of Independent Directors	6
Lead Independent Director	Yes
Board Self-Evaluation	Annual
Review of Independence of Board	Annual
Independent Directors Meet Without Management Present	Yes
Annual Director Elections	Yes
Voting Standard for Election of Directors in Uncontested Elections	Plurality
Diversity of Board background, experience and skills	Yes

RECENT CORPORATE HIGHLIGHTS

- Underwritten public offering of common stock closed in January 2017 and full exercise of underwriter's over-allotment option closed in February 2017, with gross proceeds of approximately \$58.0 million and net proceeds of approximately \$54.3 million.
 - Phase 1 program for ZYN002 completed in 2016, including the announcement of positive top line results from our Phase 1 multiple rising dose clinical trial for ZYN002 and positive safety results in epilepsy patients in our single rising dose clinical trial for ZYN002 in June 2016.
 - Phase 2 clinical trial for ZYN002 in adult patients with refractory epileptic focal seizures, which we refer to as the STAR 1 (Synthetic Transdermal Cannabidiol for the Treatment of Epilepsy) trial, initiated in June 2016. Enrollment in this clinical trial was completed in March 2017.
 - Phase 2 clinical trial for ZYN002 in patients with osteoarthritis, which we refer to as the STOP (Synthetic Transdermal Cannabidiol for the Treatment of Knee Pain due to Osteoarthritis) trial, initiated in August 2016. Enrollment of this clinical trial was completed in March 2017.
 - Phase 2 clinical trial for ZYN002 in adult patients with refractory epileptic focal seizures who have completed the STAR 1 clinical trial, which we refer to as the STAR 2 (Synthetic Transdermal Cannabidiol for the Treatment of Epilepsy) trial, initiated in November 2016.
 - Phase 2 clinical trial for ZYN002 in patients with fragile X syndrome, which we refer to as the FAB-C (Treatment of Fragile X Syndrome Anxiety and Behavioral Challenges with CBD) trial, initiated in December 2016.
-

ZYNERBA PHARMACEUTICALS, INC.

80 W. Lancaster Avenue, Suite 300
Devon, PA 19333

**PROXY STATEMENT FOR THE 2017 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 7, 2017**

**This Proxy Statement, along with a proxy card,
is being made available to our stockholders on or about April 24, 2017**

GENERAL INFORMATION

We have made these proxy materials available to you in connection with the solicitation by the Board of Directors (our "*Board*" or the "*Board of Directors*") of Zynerva Pharmaceuticals, Inc. of proxies to be voted at the 2017 Annual Meeting of Stockholders (the "*Annual Meeting*") to be held on Wednesday, June 7, 2017 at our corporate headquarters, located at 80 W. Lancaster Avenue, Suite 300, Devon, Pennsylvania, 19333, at 8:00 a.m. Eastern Daylight Time and any adjournments or postponements thereof. References in this proxy statement to the "Company," "we," "our," and "us" are to Zynerva Pharmaceuticals, Inc.

Stockholders Entitled to Vote

Holders of shares of our common stock, our only class of issued and outstanding voting securities, at the close of business on April 17, 2017 (the "*Record Date*") are entitled to vote on the proposals presented at the Annual Meeting. As of April 17, 2017, 13,249,779 shares of our common stock were issued and outstanding. Each share is entitled to one vote on each matter properly brought to the Annual Meeting. A list of stockholders entitled to vote at the Annual Meeting will be available for examination by any stockholder for a purpose related to the Annual Meeting during normal business hours at our executive offices for a period of at least 10 days preceding the date of the Annual Meeting.

Quorum

The presence, in person or by proxy, of the holders of a majority of the issued and outstanding shares of common stock entitled to vote at the Annual Meeting, or 6,624,890 shares, is necessary to constitute a quorum for the transaction of business at the Annual Meeting. Votes for and against, abstentions and "broker non-votes" will each be counted as present for purposes of determining the presence of a quorum. Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you attend the Annual Meeting in person and vote.

The Annual Meeting may be adjourned or postponed from time to time and at any reconvened meeting, action with respect to the matters specified in this Proxy Statement may be taken without further notice to stockholders except as required by applicable law or our charter documents.

Stockholders of Record

You are a "stockholder of record" if your shares are registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, LLC. As a stockholder of record, you have the right to grant your voting proxy directly to the proxy holders designated by the Company or to vote in person at the Annual Meeting. If you are a stockholder of record of your shares, and you do not vote by proxy card, by telephone, via the internet or in person at the Annual Meeting, your shares will not be voted at the Annual Meeting.

Shares Held in Street Name

You are deemed to beneficially own your shares in "street name" if your shares are held in an account at a brokerage firm, bank, broker, trust or other similar organization, which organization is considered the stockholder of record. If this is the case, you will receive a separate voting instruction form with this Proxy Statement from such organization. As the beneficial owner, you have the right to direct your bank, broker, trustee, or other nominee how to vote your shares, and you are also invited to attend the Annual Meeting. If you hold your shares in street name and do not provide voting instructions to your broker, bank, trustee or nominee, your shares will not be voted on any proposals on which such party does not have discretionary authority to vote, which is referred to herein as a broker non-vote, as further described below under the heading "Broker Non-Votes."

Please note that if your shares are held of record by a broker, bank, trustee or other nominee and you wish to vote at the Annual Meeting, you will not be permitted to vote in person unless you first obtain a proxy issued in your name from your broker, bank, trustee, or other nominee.

Broker Non-Votes

Broker non-votes are shares held by brokers, banks, trustees or other nominees who are present in person or represented by proxy, but which are not voted on a particular matter because the brokers, banks, trustees, or other nominees do not have discretionary authority with respect to that proposal and they have not received voting instructions from the beneficial owner. Under the rules that govern brokers, brokers have the discretion to vote on routine matters, but not on non-routine matters. The routine matters to be considered at the Annual Meeting include the ratification of the appointment of the Company's independent registered public accounting firm. The proposal for the election of our director nominees at the Annual Meeting is considered to be a non-routine matter. *As a result, if you do not provide your broker, bank, trustee, or other nominee with voting instructions on non-routine matters, your shares will not be voted on any non-routine proposal.*

Voting Matters

<u>Proposal</u>	<u>Votes Required</u>	<u>Treatment of Abstentions and Broker Non-Votes</u>	<u>Broker Discretionary Voting</u>
Proposal 1—Election of Seven Directors	Plurality of votes cast	Abstentions and broker non-votes will not be taken into account in determining the outcome of the proposal	No
Proposal 2—Ratification of Appointment of KPMG LLP as our Independent Registered Public Accounting Firm for the 2017 Fiscal Year	Majority of shares present and entitled to vote on the proposal in person or represented by proxy	Abstentions and broker non-votes will have the effect of negative votes	Yes

In each case, your shares will be voted as you instruct. If you return a signed card, but do not provide voting instructions, your shares will be voted FOR each of the proposals.

We are currently unaware of any matters to be raised at the Annual Meeting other than those referred to in this Proxy Statement. If other matters are properly presented at the Annual Meeting for

[Table of Contents](#)

consideration and you are a stockholder of record and have submitted your proxy, the persons named in your proxy will have discretion to vote on those matters for you.

Voting Methods

You may vote at the Annual Meeting by delivering a proxy card in person or you may cast your vote in any of the following ways:



Mailing your signed proxy card or voter instruction card.



Using the Internet at www.voteproxy.com.



Calling toll-free from the United States, U.S. territories and Canada to 1-800-776-9437.










Even if you plan to attend the Annual Meeting, we encourage you to vote in advance by internet, telephone or mail so that your vote will be counted in the event you later decide not to attend the Annual Meeting. If your shares are held in street name, please follow the separate voting instructions you receive from your broker, bank, trustee, or other nominee.

If you are a stockholder of record, you may revoke your proxy: (i) by written notice of revocation mailed to and received by the Secretary of the Company prior to the date of the Annual Meeting, (ii) by voting again via the Internet or by telephone at a later time, (iii) by executing and delivering to the Secretary of the Company a proxy dated as of a later date than a previously executed and delivered proxy, or (iv) by attending the Annual Meeting and voting in person. Attendance at the Annual Meeting will not, without further action, revoke a proxy.

If your shares are held by a broker, bank, trustee, or other nominee, you may change your vote by submitting new voting instructions to your broker, bank, trustee, or nominee; or, if you have obtained a legal proxy from your broker, bank, trustee, or nominee giving you the right to vote your shares, by attending the Annual Meeting and voting in person.

BOARD OF DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE


The following sets forth information regarding our directors and executive officers as of April 24, 2017:


Name	Age	Position	Committee Membership		
			AC	CC	NCGC
Armando Anido	59	Chairman of the Board and Chief Executive Officer			
Terri B. Sebree	59	President			
James E. Fickenschner	53	Chief Financial Officer and Vice President, Corporate Development			
Suzanne M. Hanlon	60	Secretary, General Counsel and Vice President, Human Resources			
Brian Rosenberger	48	Vice President, Commercial			
Warren D. Cooper, MB, BS, BSc, MFPM†	64	Director			
William J. Federici	57	Director			
Thomas L. Harrison, LHD	69	Director			
Daniel L. Kisner, MD	70	Director			
Kenneth I. Moch	62	Director			
Cynthia A. Rask, MD	63	Director			

AC Audit Committee

CC Compensation Committee

NCGC Nominating and Corporate Governance Committee

 Committee Member

 Chair of the Committee

† Lead Independent Director

Armando Anido has served as chairman of our Board and as our chief executive officer since October 2014. Prior to joining our company, Mr. Anido served as our business consultant from May 2014 to October 2014. Mr. Anido has more than 35 years of executive, operational and commercial leadership experience in the pharmaceutical industry. Mr. Anido served as chief executive officer and as a director of NuPathe, Inc., or NuPathe, a publicly-traded specialty pharmaceutical company, from July 2012 through March 2014, during which time he led the company through U.S. Food and Drug Administration, or FDA, approval of its lead product, Zecuity®, a transdermal patch for migraines. Prior to joining NuPathe, Mr. Anido served as chief executive officer and president and as a director of Auxilium Pharmaceuticals, Inc., or Auxilium, a specialty pharmaceutical company, from July 2006 through December 2011, where he led the company in its commercialization of its lead product, Testim®, a testosterone gel. Additionally, Mr. Anido led the company through the FDA approval and commercialization of Xiaflex®, an injectable collagenase for Dupuytren's Contracture. Mr. Anido currently serves as a director of Aviragen Therapeutics (formerly Biota Pharmaceuticals, Inc.), a pharmaceutical company, from October 2015 to the present, and as a director of Auris Medical, a pharmaceutical company, from April 2016 to present. He formerly served as a director of Respira Therapeutics, Inc., a pharmaceutical company, from May 2012 through September 2014, and Adolor Corporation, a pharmaceutical company, from September 2003 through December 2011. Mr. Anido was retired from January 2012 through June 2012. Mr. Anido holds a B.S. in Pharmacy and an MBA, both from West Virginia University. With more than 35 years of experience in the pharmaceutical industry, Mr. Anido brings valuable executive, operational and commercial expertise to our Board.

[Table of Contents](#)

Terri B. Sebree has served as our president since October 2014. Prior to joining our company, Ms. Sebree served as our business consultant from May 2014 to October 2014. Ms. Sebree has more than 30 years of executive, development and operational experience in the pharmaceutical industry, particularly in central nervous system product development including epilepsy and pain. Ms. Sebree founded and served as president of NuPathe, a specialty pharmaceutical company, from February 2005 until April 2014, where she led the effort to develop, achieve regulatory approval for and complete manufacturing of the company's lead product, Zecuity, a transdermal patch for migraines. Prior to founding NuPathe, Ms. Sebree served as senior vice president, development of Auxilium, a specialty pharmaceutical company, where she led the development and approval program of Testim, a testosterone gel. Prior to joining Auxilium, Ms. Sebree served as executive vice president, U.S. Operations at IBAH, Inc., a contract research organization. Prior to that, Ms. Sebree served in a variety of management roles with Abbott Laboratories Inc., a global healthcare company, for over nine years. Ms. Sebree currently serves on the board of directors of Serodur ASA, a publicly traded company on the Oslo Stock Exchange. Ms. Sebree holds a B.S. from Texas A&M University.

James E. Fickenscher has served as our chief financial officer and vice president, corporate development since September 2016. Prior to joining our company, Mr. Fickenscher served as the Senior Vice President, Chief Financial Officer of Antares Pharma, Inc., a specialty pharmaceutical company, from November 2014 until September 2016. Mr. Fickenscher served as Chief Financial Officer of Auxilium Pharmaceuticals, Inc., a specialty biopharmaceutical company, from May 2005 until August 2014. From January 2000 until April 2004, Mr. Fickenscher served as Senior Vice President, Chief Financial Officer of Aventis Behring L.L.C., a wholly owned subsidiary of Aventis, predecessor to Sanofi S.A. Mr. Fickenscher joined Aventis Behring L.L.C. in 1995 as Vice President, Business Development and Strategic Planning and, from that time until 2000, also held the positions of General Manager, Japan and Vice President & General Manager, Hemophilia Business Unit. Throughout his tenure at Aventis Behring L.L.C., he was also responsible for strategic planning. Prior to Aventis Behring L.L.C., Mr. Fickenscher worked at Rhone-Poulenc Rorer, predecessor to Aventis S.A., in its Collegeville, PA and Paris, France offices and at Deloitte, Haskins & Sells, LLP, the predecessor to Deloitte & Touche LLP. Mr. Fickenscher received his B.S. at Bloomsburg University of Pennsylvania. He is a member of the American Institute of Certified Public Accountants.

Suzanne M. Hanlon has served as our secretary, general counsel and vice president, human resources since October 2014. Prior to joining our company, Ms. Hanlon served as our legal consultant from May 2014 to October 2014. Ms. Hanlon has more than 25 years of legal experience in the pharmaceutical industry. Ms. Hanlon served as vice president, associate general counsel of NuPathe from July 2005 to April 2014, where she worked with Mr. Anido and Ms. Sebree on the regulatory approval of Zecuity, a transdermal patch for migraines. Prior to joining NuPathe, Ms. Hanlon served as chief development counsel of Auxilium, a specialty pharmaceutical company. Prior to joining Auxilium, Ms. Hanlon served as vice president of global contracts and general counsel at IBAH, Inc. Prior to joining IBAH, Inc., Ms. Hanlon was a partner at Montgomery McCracken Walker & Rhoads LLP. Ms. Hanlon holds a B.A. from Pennsylvania State University and a J.D. from Villanova University School of Law.

Brian Rosenberger has served as our vice president, commercial since January 2017. Prior to joining our company, Mr. Rosenberger served as vice president, alliance and strategic portfolio management of Cipher Pharmaceuticals, Inc., a specialty pharmaceutical company, from May 2015 to January 2017, where he managed Cipher's global portfolio. From 2008 to April 2015, Mr. Rosenberger served in various roles at Auxilium, culminating in his role as executive director, corporate development and alliance management, where he participated in M&A, licensing and co-promotion deals through and including the acquisition of Auxilium by Endo International plc in January 2015. Prior to joining Auxilium, Mr. Rosenberger held sales managerial positions at Neurocrine Biosciences, Inc., a biopharmaceutical company, during the initial commercial build-out of the organization and spent over

[Table of Contents](#)

a decade at GlaxoSmithKline plc in various U.S. and global commercial roles within specialty markets, including neurohealth epilepsy marketing. Mr. Rosenberger holds a B.A. from Dickenson College.

Warren D. Cooper, MB, BS, BSc, MFPM has served as a member of our Board since August 2015. Dr. Cooper is a U.K.-trained physician with more than 35 years of experience in the global pharmaceutical industry. Since January 2017, Dr. Cooper has served as Managing Director and Chief Medical Officer of Healthcare Royalty Partners, a healthcare investment firm. Prior to joining Healthcare Royalty Partners in January 2017, Dr. Cooper served as the president of Coalescence Inc., a healthcare and pharmaceutical development consultancy, where he held various positions since 1999. Dr. Cooper was the chief executive officer of Prism Pharmaceuticals, Inc., a venture-backed, specialty pharmaceutical company that he led from inception in September 2004 until the sale of the company to Baxter International in May 2011. His career in the pharmaceutical industry began with Merck, Sharp and Dohme and spanned 12 years, initially as a clinical research physician in the United Kingdom, then as head of European and, subsequently, Worldwide Clinical Research Operations for Merck Research Laboratories across all therapeutic areas. Moving to AstraMerck (now AstraZeneca PLC), or AstraZeneca, in a broad clinical development role, he eventually led that company's cardiovascular business division, a role with full business lifecycle leadership from in-licensing through development, to P&L responsibility for sales and marketing. Dr. Cooper is a member of the Faculty of Pharmaceutical Medicine of the Royal Colleges of Physicians of the United Kingdom. He has previously served on the boards of directors of Nutrition 21, Inc., Nuron Biotech Inc., Cardiorientis AG and the World Affairs Council of Philadelphia. Dr. Cooper holds a B.Sc. in Physiology, an M.D. and a B.S., each from the London Hospital, University of London. With more than 35 years of experience in the global pharmaceutical industry, Dr. Cooper brings valuable expertise in pharmaceutical company leadership and clinical pharmaceutical research to our Board.

William J. Federici has served as a member of our Board since August 2015. Mr. Federici has served as senior vice president and chief financial officer of West Pharmaceutical Services, Inc., a publicly traded global pharmaceutical technology company, since August 2003. He served as a member of the board of directors and chairman of the Audit committee at NuPathe from January 2011 until February 2014. From June 2002 until August 2003, he was national industry director for pharmaceuticals of KPMG LLP, and prior thereto, he was an audit partner with Arthur Andersen, LLP. Mr. Federici holds a B.A. in Economics and an M.B.A. in Professional Accounting from Rutgers University and is a Certified Public Accountant. With his leadership experience in the global pharmaceutical and accounting industries, Mr. Federici brings valuable expertise in financial and audit-related matters to our Board.

Thomas L. Harrison, LHD has served as a member of our Board since August 2015. Dr. Harrison is a noted author and speaker and since April 2013, has served as chairman emeritus of Diversified Agency Services, the world's largest group of marketing services companies, and a division of Omnicom Group, Inc., or Omnicom. In 1987 he founded Harrison & Star Business Group, a healthcare marketing agency that was acquired by Omnicom in 1992. From 1992 until 1997, he served as chairman of the Harrison & Star Group and chairman of diversified healthcare communications for Omnicom. In 1997, Dr. Harrison was appointed president of diversified agency services, and in 1998 was named chairman and chief executive, serving until 2011. In 1980 he began his agency career at Rolf Werner Rosenthal, a mid-sized healthcare advertising agency. From 1974 until 1980 he served in sales and marketing roles at Pfizer, Inc. Dr. Harrison is a member of the Executive Committee of the Montefiore Hospital, a fellow of the New York Academy of Medicine, and governor of the New York Academy of Sciences where he sits on the Sackler Global Nutrition Committee. In 2013, Dr. Harrison became a board member of Dipexium Pharmaceuticals, Inc. and a board member of rVue Inc., a digital out-of-home media company. In 2014, he was appointed to the boards of Social Growth Technologies, Inc. and of Fifth Street Asset Management Inc. where he serves as chairman of the audit committee. He previously served as a board member of each of the New York Chapter of the Arthritis

[Table of Contents](#)

Foundation, ePocrates, Inc., a publicly traded healthcare information company until its March 2013 acquisition by athenahealth, Inc., and The Morgans Hotel Group (2006-2013). Dr. Harrison holds a M.S. in Cell Biology, Physiology and Biochemistry, and received an honorary doctorate in 2007, from West Virginia University. With more than 40 years of experience in the pharmaceutical and healthcare advertising industries, Dr. Harrison brings valuable expertise in pharmaceutical company leadership, pharmaceutical sales and healthcare advertising and marketing to our Board.

Daniel L. Kisner, MD has served as a member of our Board since August 2015. Dr. Kisner has served as an independent consultant to the pharmaceutical/biotech industry since 2011. From 2003 until 2011 he served as a venture partner/partner at Aberdare Ventures, a venture firm with a focus on investing in healthcare technology companies. Prior to that he was president and chief executive officer of Caliper Technologies Corp., or Caliper, from 1999 until 2003, and served as chairman of Caliper until 2008. He led Caliper from a startup dealing with microfluidic lab-on-a-chip technology to a publicly traded commercial company. From 1991 until 1999, he served as chief operating officer and president of Isis Pharmaceuticals, Inc., a biomedical pharmaceutical company. Prior thereto, Dr. Kisner was division vice president of Pharmaceutical Development at Abbott Laboratories and vice president of Clinical Research at SmithKline Beckman Laboratories. In addition, he previously held a tenured position at the University of Texas School of Medicine at San Antonio and is certified by the American Board of Internal Medicine in Internal Medicine and Medical Oncology. Dr. Kisner served on the board of directors of Tekmira Pharmaceuticals from 2010 until March 2015 and Lpath Inc. from July 2012 until December 2016, and he currently serves on the boards of directors of Dynavax Technologies Corporation and Conatus Pharmaceuticals Inc. Dr. Kisner holds a B.A. degree from Rutgers University and an M.D. from Georgetown University. With more than 25 years of healthcare technology experience, Dr. Kisner brings valuable expertise in healthcare technology company leadership and investing, including prior experience in growing a research-stage company to a commercially successful, publicly-traded company, to our Board.

Kenneth I. Moch has served as a member of our Board since August 2015. Mr. Moch has more than 25 years of experience in managing and financing biomedical technologies, and has played a key role in building five life science companies. Since October 2016, Mr. Moch has served as the president and chief executive officer of Cognition Therapeutics, Inc., a specialty pharmaceutical company. Previously, from September 2015 until October 2016, he served as managing partner of The Salutramed Group, LLC, where he provided strategic and tactical counsel to the biotechnology and pharmaceutical industries. Prior to that, he served as president of Euclidian Life Sciences Advisors, a strategic advisory firm for life sciences companies, from April 2014 until September 2015. From April 2010 to April 2014, he served as president and chief executive officer, and as a director, of Chimerix, Inc., having joined the company as chief operating officer in June 2009. Previously, he was president and chief executive officer of three life science companies—BioMedical Enterprises, Inc., Alteon, Inc., and Biocyte Corporation—and was a co-founder and vice president of The Liposome Company, Inc. He also served as managing director of Healthcare Investment Banking at ThinkEquity Partners and as a management consultant with McKinsey & Company. In the public policy arena, Mr. Moch currently serves as a member of the board of the Biotechnology Innovation Organization and has previously served as chairman of BioNJ. Mr. Moch holds an A.B. in Biochemistry from Princeton University and an M.B.A. with emphasis in Finance and Marketing from the Stanford Graduate School of Business. With more than 25 years of experience in the biomedical technology and pharmaceutical industries, Mr. Moch brings valuable expertise in biomedical technology company leadership and financing matters to our Board.

Cynthia A. Rask, MD has served as a member of our Board since August 2015. Dr. Rask has more than 20 years of experience working in the pharmaceutical/biotech industry, seven years of FDA experience, and several years of experience as a clinical neurologist and clinical investigator. Since 2006, she has worked as an independent consultant. Dr. Rask trained in Internal Medicine and Neurology at

[Table of Contents](#)

the University of Rochester and is board-certified in Neurology. Following her residency, she did a fellowship in Epilepsy at the Minnesota Comprehensive Epilepsy Program (MINCEP), and is board certified in Clinical Neurophysiology. She was an assistant professor of Neurology at the University of Minnesota and at Dartmouth College. In 1991, she began her industry career at Abbott Laboratories working on development of a new antiepileptic drug, then joined Genentech Inc. where she led efforts on developing neurotrophic factors for treatment of various types of neuropathic pain. In January of 1999 Dr. Rask began working at the FDA, first as a medical reviewer on investigational new drug applications and biologics license applications; in 2002 she was appointed as the division director for the Division of Clinical Evaluation and Pharmacology/Toxicology in the Office of Cellular, Tissue and Gene Therapies, or OCTGT. Beginning in 2004, she also served as the acting deputy office director in OCTGT, helping to develop FDA policies and guidance documents and manage the office budget until leaving the FDA in June of 2005 to return to the San Francisco Bay area to join a non-profit pharmaceutical company as vice president of development, an organization funded primarily by grants from the Gates Foundation. In 2006, Dr. Rask began her own consulting company and has worked for a variety of clients including biotech and pharmaceutical companies, ranging in size from small startups to medium and large pharma, academic groups, including Harvard University and the Huntington Study Group, and non-profit organizations, including The Michael J. Fox Foundation. Dr. Rask holds an A.B. from Cornell University and an M.D. from the University of Minnesota Medical School. With more than 25 years of experience working in various capacities related to the pharmaceutical/biotech industry, Dr. Rask brings valuable expertise in regulatory matters and clinical pharmaceutical and biotech research to our Board.

No Family Relationships

There are no family relationships between any of our officers and directors.

Corporate Governance Guidelines

Our corporate governance guidelines are designed to help ensure effective corporate governance of our Company. Our corporate governance guidelines cover topics including, but not limited to, director qualification criteria, director responsibilities, director compensation, director orientation and continuing education, succession planning and the annual evaluations of our Board and its committees. Our corporate governance guidelines are reviewed at least annually by the Nominating and Corporate Governance Committee and amended by our Board when appropriate. The full text of our corporate governance guidelines is available on our website at www.zynerba.com.

Code of Business Conduct and Ethics

Our Board adopted a Code of Business Conduct and Ethics applicable to all of our employees, executive officers and directors. The Code of Business Conduct and Ethics covers fundamental ethical and compliance-related principles and practices such as accurate accounting records and financial reporting, avoiding conflicts of interest, the protection and use of our property and information and compliance with legal and regulatory requirements. The Code of Business Conduct and Ethics is available on our website at www.zynerba.com.

Our Board is responsible for overseeing the Code of Business Conduct and Ethics, and our Board or an appropriate committee thereof must approve any waivers of the Code of Business Conduct and Ethics for employees, executive officers or directors. Any amendments to the Code of Business Conduct and Ethics, or any waivers of its requirements, will be disclosed on our website.

Hedging and Pledging Policies

Our Board has adopted an Insider Trading Policy that prohibits all of our officers, directors and employees from engaging in any speculative transaction designed to decrease risks associated with holding our securities, including hedging or similar transactions. Our Insider Trading Policy also prohibits any pledging of our securities as collateral for loans and holding our securities in margin accounts.

Our Board

Our Board currently consists of seven members. The number of directors on our Board is established by our Board. During 2016, our Board met eight times. Each director attended at least 75% of the total Board meetings and meetings of committees on which he or she served. Although we do not have a formal policy regarding attendance by members of our Board at our Annual Meeting, we strongly encourage all directors to attend. Each director attended our 2016 Annual Meeting.

Our Board observes all applicable criteria for independence established by the NASDAQ Stock Market Rules and other governing laws and applicable regulations. No director will be deemed to be independent unless our Board determines that the director has no relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Our Board has determined that all of our directors with the exception of Mr. Anido are independent as defined under the NASDAQ Stock Market Rules. Our Board has also determined that: (i) Messrs. Federici and Moch and Dr. Cooper, who comprise our Audit Committee; (ii) Drs. Kisner, Harrison and Rask, who comprise our Compensation Committee; and (iii) Drs. Harrison, Cooper and Rask, who comprise our Nominating and Corporate Governance Committee, each satisfy the independence standards for those committees established by the applicable rules and regulations of the SEC and the NASDAQ Stock Market Rules.

Our Board believes its members collectively have the experience, qualifications, attributes and skills to effectively oversee the management of our Company, including a high degree of personal and professional integrity, an ability to exercise sound business judgment on a broad range of issues, sufficient experience and background to have an appreciation of the issues facing our Company, a willingness to devote the necessary time to their Board and committee duties, a commitment to representing the best interests of the Company and our stockholders and a dedication to enhancing stockholder value.

Board Leadership Structure

Mr. Anido currently serves as both chief executive officer and chairman of the Board. The Board does not have a formal policy on whether the roles of chief executive officer and chairman of the Board should be separate, but believes at this time that the Company and its stockholders are best served by its current leadership structure. Combining the roles of chief executive officer and chairman of the Board fosters accountability, effective decision-making and alignment between interests of the Board and management.

Dr. Cooper serves as our Lead Independent Director and presides over regularly scheduled meetings at which only our independent directors are present, serves as liaison between the chairman of the Board and the independent directors, approves meeting agendas and schedules for the Board and performs such additional duties as the Board may determine and delegate. Our Board believes that this structure provides an environment in which the independent directors are fully informed, have significant input into the content of Board meetings, and are able to provide objective and thoughtful oversight of management. Our Board intends to evaluate from time to time whether our chief executive officer and chairman of the Board positions should remain combined based on what our Board determines is best for the Company and its stockholders.

[Table of Contents](#)

While certain members of the Board may participate on the boards of directors of other public companies, we monitor such participation to ensure it is not excessive and does not interfere with their duties to us.

Board Committees

Our Board has established an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Each committee operates under a charter that was approved by our Board and is available on our website, www.zynerba.com, under the "Investor Relations" section.

Audit Committee

Our Audit Committee consists of Messrs. Federici and Moch and Dr. Cooper, and is chaired by Mr. Federici. The primary purpose of our Audit Committee is to assist the Board in the oversight of our accounting and financial reporting processes, the audit and integrity of our financial statements, and the qualifications and independence of our independent auditor, and to prepare any reports required of the Audit Committee under the rules of the SEC. The Audit Committee is responsible for, among other things:

- hiring our independent registered public accounting firm and pre-approving the audit and permitted non-audit and tax services to be performed by our independent registered public accounting firm;
- reviewing and approving the planned scope of the annual audit and reviewing the results of the annual audit;
- reviewing the significant accounting and reporting principles to understand their impact on our financial statements;
- reviewing with management, our independent registered public accounting firm and legal counsel, as appropriate, our financial reports, earnings announcements and our compliance with legal and regulatory requirements;
- establishing procedures for the treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters and confidential submissions by our employees of concerns regarding questionable accounting or auditing matters;
- recommending to our Board a Code of Business Conduct and Ethics, and periodically reviewing and recommending appropriate changes thereto;
- reviewing and approving related-party transactions in accordance with our related party transactions policy; and
- reviewing and evaluating, at least annually, our Audit Committee's charter.

Both our independent registered public accounting firm and management periodically meet privately with our Audit Committee.

Our Board has determined that all members of the Audit Committee are deemed "independent" and financially literate under the applicable rules and regulations of the SEC and NASDAQ, and all members qualify as an "audit committee financial expert" with the meaning of SEC regulations. In 2016, the Audit Committee met four times.

Compensation Committee

Our Compensation Committee consists of Drs. Kisner, Harrison and Rask, and is chaired by Dr. Kisner. The primary purpose of our Compensation Committee is to review the performance and

[Table of Contents](#)

development of our management in achieving corporate goals and objectives and to assure that our executive officers are compensated effectively in a manner consistent with the strategy of our company, competitive practice, sound corporate governance guidelines and stockholder interests. In carrying out these responsibilities, this committee oversees, reviews and administers all of our executive compensation, equity and benefit plans and programs. The Compensation Committee is responsible for, among other things:

- reviewing and approving the corporate goals and objectives relevant to executive compensation, evaluating performance in light of those goals and objectives and setting the compensation for our executive officers;
- reviewing and recommending the terms of employment agreements and other employment-related arrangements with our executive officers;
- reviewing and approving our compensation strategy for our employees;
- reviewing and recommending to our Board the compensation of our directors;
- administering our equity compensation plan and benefits plans and approving the grant of equity awards to our employees and directors under these plans;
- overseeing and periodically reviewing the operation of all of our employee benefit plans;
- when required, reviewing and discussing with management our Compensation Discussion and Analysis and recommending to the full Board its inclusion in our periodic reports and proxy statement to be filed with the SEC;
- when required, preparing the report of the Compensation Committee to be included in our annual proxy statement;
- engaging compensation consultants or other advisors it deems appropriate to assist with its duties; and
- reviewing and evaluating, at least annually, our Compensation Committee's charter.

Pursuant to its charter, our Compensation Committee has the sole authority to retain compensation consultants to assist in its evaluation of executive and director compensation. Our Compensation Committee engaged Amosti Consulting, Inc., or Amosti Consulting, as a compensation consultant in 2016. At the request of our Compensation Committee, Amosti Consulting evaluated and provided recommendations to our Compensation Committee regarding the levels of compensation of executive officers and director's relative to companies that were identified by Amosti Consulting and our Compensation Committee as our industry peers. Our Compensation Committee took into account the recommendations of Amosti Consulting and utilized information, including industry peer data, regarding the compensation of our executive officers and directors in evaluating, recommending and determining compensation levels.

Amosti Consulting provides no services to us other than its advice to our Compensation Committee on the executive and director compensation matters described above. Our Compensation Committee determined Amosti Consulting to be independent under the NASDAQ and SEC regulations.

Our Board has determined that all members of our Compensation Committee are deemed "independent" under the listing standards of NASDAQ, and they are "nonemployee directors" for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and "outside directors" for purposes of Section 162(m) of the Internal Revenue Code, of the Code. In 2016, the Compensation Committee met five times.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Drs. Harrison, Cooper and Rask, and is chaired by Dr. Harrison. The primary purpose of our Nominating and Corporate Governance Committee is to assist our Board by identifying individuals qualified to become members of our Board, recommending a slate of nominees to be proposed by our Board to stockholders for election to our Board, ensuring that the Board has the appropriate mix of skills and experience, developing and recommending corporate governance principles and guidelines of our company and monitoring compliance therewith, and recommending directors to serve on the committees of our Board. The Nominating and Corporate Governance Committee is responsible for, among other things:

- assisting our Board in identifying prospective director nominees and recommending nominees for each annual meeting of stockholders to our Board;
- reviewing developments in corporate governance practices and recommending changes to the governance guidelines applicable to our Board;
- reviewing independence of our Board;
- evaluating and making recommendations as to the size and composition of the Board;
- recommending members for each of our committees of the Board;
- determining qualifications for service on our Board;
- reviewing the adequacy of our certificate of incorporation and bylaws and recommending to our Board, as conditions dictate, amendments thereto for consideration by our Board and, when applicable, by our stockholders; and
- reviewing and evaluating, at least annually, our Nominating and Corporate Governance Committee's charter.

Our Board has determined that all members of the Nominating and Corporate Governance Committee are independent under the listing standards of NASDAQ. In 2016, the Nominating and Corporate Governance Committee met two times.

Role of the Board in Risk Oversight

One of the key functions of our Board is informed oversight of our risk management process. Our Board does not have a standing risk management committee, but rather administers this oversight function directly through the Board as a whole, as well as through various standing committees of our Board that address risks inherent in their respective areas of oversight. While our Board maintains the ultimate oversight responsibility for the risk management process, its committees oversee risk in certain specified areas. Our Audit Committee oversees management of enterprise risks and financial risks, as well as potential conflicts of interests. Our Compensation Committee is responsible for overseeing management of risks relating to our executive compensation plans and arrangements, and the incentives created by the compensation awards it administers. Our Nominating and Corporate Governance Committee is responsible for overseeing management of risks associated with the independence of our Board. Pursuant to our Board's instruction, our management regularly reports on applicable risks to the relevant committee or the Board, as appropriate, with additional review or reporting on risks conducted as needed or as requested by our Board and its committees.

Executive Sessions

Executive sessions of our independent directors are held at each regularly scheduled meeting of our Board and at other times they deem necessary. Our Board's policy is to hold executive sessions both with and without the presence of management. Our Board committees also generally meet in executive session at the end of each committee meeting.

Consideration of Director Nominees

General. In evaluating nominees for membership on our Board, our Nominating and Corporate Governance Committee applies our Board membership criteria set forth in our Corporate Governance Guidelines. Under these criteria, the Committee takes into account many factors, including an individual's business experience and skills, as well as independence, judgment, knowledge of our business and industry, professional reputation, leadership, integrity and ability to represent the best interests of the Company's stockholders. In addition, the Nominating and Corporate Governance Committee will also consider the ability of the nominee to commit sufficient time and attention to the activities of our Board, as well as the absence of any potential conflicts with the Company's interests. The Nominating and Corporate Governance Committee does not assign specific weight to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. Our Board does not have a formal policy with respect to diversity of nominees. Rather, our Nominating and Corporate Governance Committee considers Board membership criteria as a whole and seeks to achieve diversity of experience, skills and viewpoint on our Board. Our Board is responsible for selecting candidates for election as directors based on the recommendation of the Nominating and Corporate Governance Committee.

Our Nominating and Corporate Governance Committee and Board regularly assess the appropriate size of our Board, and whether any vacancies on our Board are expected due to retirement or otherwise. In the event that vacancies are anticipated, or otherwise arise, the Nominating and Corporate Governance Committee will consider various potential nominees who may come to the attention of the Committee through current Board members, professional search firms, stockholders or other persons. Each potential nominee brought to the attention of the Committee, regardless of who recommended such potential nominee, is considered on the basis of the criteria set forth in our Corporate Governance Guidelines.

Stockholder Nominees. The Nominating and Corporate Governance Committee will review any candidates for director recommended by a stockholder of record who is entitled to vote at the Annual Meeting and who satisfies the notice, information and consent provisions set forth in the Bylaws. Our Board will use the same evaluation criteria and process for director nominees recommended by stockholders as it uses for other director nominees. For information concerning stockholder proposals, see "Stockholder Proposals or Nominations for 2018 Annual Meeting" below in this Proxy Statement.

Communications with the Board of Directors

Stockholders wishing to formally communicate with our Board, any Board committee, the independent directors as a group or any individual director may send communications directly to the Company at 80 W. Lancaster Avenue, Suite 300, Devon, PA 19333, Attention: Corporate Secretary. All clearly marked written communications, other than unsolicited advertising or promotional materials, are logged and copied, and forwarded to the director(s) to whom the communication was addressed. Please note that the foregoing communication procedure does not apply to (i) stockholder proposals pursuant to Exchange Act Rule 14a-8 and communications made in connection with such proposals or (ii) service of process or any other notice in a legal proceeding.

Compensation Committee Interlocks and Insider Participation

No member of our Compensation Committee has ever been an executive officer or employee of ours. None of our officers currently serves, or has served during the last completed year, on the board of directors, compensation committee or other committee serving an equivalent function, of any other entity that has one or more officers serving as a member of our Board or Compensation Committee.

Policies and Procedures for Related Party Transactions

Pursuant to the related party transactions policy adopted by our Board, we review all transactions with a dollar value in excess of \$120,000 involving us in which any of our directors, director nominees, significant stockholders and executive officers and their immediate family members will be participants, to determine whether such person has a direct or indirect material interest in the transaction. All directors and executive officers are required to promptly notify our chief financial officer of any proposed transaction involving us in which such person has a direct or indirect material interest. Such proposed transaction will then be reviewed by the Audit Committee to determine whether the proposed transaction is a related party transaction under our policy. In reviewing any related party transaction, the Audit Committee will determine whether or not to approve or ratify the transaction based on all relevant facts and circumstances, including the following:

- the materiality and character of the related person's interest in the transaction;
- the commercial reasonableness of the terms of the transaction;
- the benefit and perceived benefit, or lack thereof, to us;
- the opportunity costs of alternate transactions; and
- the actual or apparent conflict of interest of the related person.

In the event that any member of the Audit Committee is not a disinterested member with respect to the related person transaction under review, that member will be excluded from the review and approval or rejection of such related party transaction. Whenever practicable, the reporting, review and approval will occur prior to entering into the transaction. If management becomes aware of a related party transaction that has not been previously approved, it will notify the Audit Committee of such transaction. The Audit Committee will review the transaction and, based on its review, will: (i) if the transaction is ongoing, (a) ratify the transaction; (b) direct that we terminate the transaction; or (c) ratify the transaction subject to any changes or modifications that it deems appropriate (taking into consideration our contractual obligations); or (ii) if the proposed transaction has been completed, (a) ratify the transaction; (b) direct that we rescind the transaction (taking into consideration our contractual obligations); and/or (c) direct that we take any other action which it deems appropriate in the circumstances.

DIRECTOR COMPENSATION

Non-Employee Director Compensation

The following table summarizes information concerning the compensation awarded to, earned by, or paid for services rendered in all capacities by our non-employee directors during 2016.

Name of Non-Employee Director	Fee Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards \$(1)	Total (\$)
Warren D. Cooper, MB, BS, BSc, MFPM(2)	68,795	—	76,975	145,770
William J. Federici(2)	47,500	—	76,975	124,475
Thomas L. Harrison, LH.D(2)	45,000	—	76,975	121,975
Daniel L. Kisner, M.D.(2)	45,000	—	76,975	121,975
Kenneth I. Moch(2)	42,500	—	76,975	119,475
Cynthia A. Rask, M.D.(2)	43,500	—	76,975	120,475

- (1) Reflects the grant date fair value determined in accordance with ASC 718. The assumptions made in these valuations are included in Note 9 of the Notes to the Annual Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2016.

[Table of Contents](#)

- (2) As of December 31, 2016, each of Drs. Cooper, Harrison, Kisner and Rask and Messrs. Federici and Moch had stock options to purchase 50,000 shares of our common stock outstanding.

Our directors receive annual cash retainers, paid on a quarterly basis, and grants of stock option awards. Each non-employee director receives an annual retainer of \$35,000 and an annual grant of 15,000 stock options. The chair of the Audit Committee receives an additional \$12,500 and each other member of such committee receives an additional \$7,500. The chair of the Compensation Committee receives an additional \$10,000 and each other member of such committee receives an additional \$5,000. The chair of the Nominating and Corporate Governance Committee receives an additional \$5,000 and each other member of such committee receives an additional \$3,500. The lead independent director receives an additional \$20,000. Effective in the second quarter of 2017, we have revised our non-employee director compensation policy to reflect (i) an increase in the additional fees to the Chair of our Audit Committee from \$12,500 to \$15,000 and (ii) the ability of our directors to elect to receive stock options in lieu of quarterly cash payments, which will be valued in accordance with Black-Scholes valuation method. Any option granted to our directors in lieu of cash compensation will vest in full on the date of grant.

Our directors are also entitled to reimbursement for reasonable travel and lodging expenses for attending Board and committee meetings.

EXECUTIVE COMPENSATION

The following tables summarize information concerning the compensation awarded to, earned by, or paid for services rendered in all capacities by our named executive officers during 2016 and 2015. Our named executive officers include Armando Anido, our chief executive officer, Terri B. Sebree, our president, and James E. Fickenschier, our chief financial officer and vice president, corporate development (who joined us on September 13, 2016).

Our Compensation Committee is focused on designing a compensation program that attracts, retains, and incentivizes talented executives, motivates them to achieve our key financial, operational, and strategic goals, and rewards them for superior performance. It is also focused on ensuring that our compensation program aligns our executive officers' interests with those of our stockholders by rewarding their achievement of specific corporate and individual performance goals.

As an emerging growth company, we have elected to comply with reduced compensation disclosure requirements permitted under the JOBS Act. As a result, we have not included a compensation discussion and analysis section discussing the compensation of our executive officers or proxy proposals seeking approval, on an advisory basis, of the compensation of our named executive officers or the frequency with which such votes must be conducted.

Summary Compensation Table

The following table summarizes the total compensation paid to or earned by each named executive officer for 2016 and 2015.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards \$(1)	All Other Compensation \$(2)	Total (\$)
Armando Anido <i>Chairman of the Board and Chief Executive Officer</i>	2016	535,600	337,428	—	28,179	901,207
	2015	515,000	324,450	3,793,947	27,636	4,661,033
Terri B. Sebree <i>President</i>	2016	412,000	256,470	—	13,297	681,767
	2015	400,000	257,122	1,931,807	15,418	2,604,347
James E. Fickenscher(3) <i>Chief Financial Officer and Vice President, Corporate Development</i>	2016	97,000	151,060(4)	1,042,285	12,033	1,302,378
	2015	—	—	—	—	—

- (1) This amount reflects the aggregate grant date fair value of stock options and restricted stock awards computed in accordance with FASB accounting standards codification, or ASC, 718.
- (2) This amount reflects (a) for the year ended December 31, 2015, (i) payment for 90% of the premiums for medical and dental insurance for each of Mr. Anido and Ms. Sebree in the amounts of \$22,662 and \$10,444, respectively, and (ii) payments for life and long term disability insurance for each of Mr. Anido and Ms. Sebree in the amounts of \$4,974 and \$4,974, respectively; and (b) for the year ended December 31, 2016, (i) payment for 90% of the premiums for medical and dental insurance for each of Mr. Anido, Ms. Sebree and Mr. Fickenscher in the amounts of \$27,112, \$12,230, and \$11,766, respectively, and (ii) payments for life and long term disability insurance for each of Mr. Anido, Ms. Sebree and Mr. Fickenscher in the amounts of \$1,067, \$1,067, and \$267, respectively.
- (3) On September 13, 2016, Mr. Fickenscher was appointed as our Chief Financial Officer and Vice President, Corporate Development. Mr. Fickenscher replaced our previous Chief Financial Officer and Treasurer, Richard A. Baron, who voluntarily terminated his employment with us effective September 12, 2016.
- (4) This amount reflects the achievement of Mr. Fickenscher's full target cash bonus equal to 40% of his annual base salary, per the terms of his employment agreement.

Elements of Compensation

2016 Base Salaries

In January 2016, our Compensation Committee set the 2016 annual base salaries for each of Mr. Anido and Ms. Sebree, which represented an increase of 4% and 3%, respectively, above each such executive officer's 2015 base salary. The 2016 annual base salaries for each of Mr. Anido and Ms. Sebree are set forth in the "Summary Compensation Table" above. In connection with the hiring of Mr. Fickenscher, our Board approved a base salary of \$364,000, subject to annual review by the Compensation Committee.

Performance Bonuses

Each named executive officer is eligible for a performance bonus based upon the achievement of certain corporate performance goals and objectives and individual performance, with the exception of our chief executive officer, whose performance bonus is based solely on the achievement of corporate goals and objectives.

[Table of Contents](#)

Annual performance bonuses to executive officers are set based on the executive officer's base salary as of the end of the bonus year and are generally paid out in the first quarter of the following year. Target levels for executive bonuses are based on the employment agreements with those executives as discussed in "Employment Agreements" below. At the beginning of each year, our Compensation Committee together with our Board establishes corporate goals and objectives for the following year. These goals and objectives and the proportional weight given to each are determined after considering management input and our overall strategic objectives. The goals generally focus on clinical development, business development and financial and operational goals. With respect to our chief executive officer, 100% of any annual performance bonus is based on the achievement of corporate goals and objectives. Annual performance awards to our other named executive officers are based 75% upon the achievement of corporate goals and objectives and 25% upon the achievement of individual goals and objectives.

In determining the amount of performance bonus awards, our Compensation Committee determines the level of achievement of the corporate goals for each year. In determining the individual component of each named executive's bonus award, our Compensation Committee will consider a number of factors, including an assessment of each of the named executive officer individual goals, an analysis of the officer's overall performance of his or her duties during the year and input and specific recommendations from our chief executive officer regarding the performance of each executive officer other than himself. In addition, our Compensation Committee takes into consideration, the recommendations of and industry peer data provided by its independent compensation consultant. These achievement levels are used to determine each named executive officer's bonus. The bonuses paid to our named executive officers for 2016 are set forth in the "Summary Compensation Table" above.

Equity Compensation

We offer stock options to our employees, including our named executive officers, as a long-term incentive component of our compensation program. In January 2017, our Compensation Committee awarded stock options to Mr. Anido, Ms. Seabee and Mr. Fickenscher for 125,000 shares, 75,000 shares and 31,500 shares, respectively. All of these stock options vest as to 25% of the total number of option shares on the first anniversary of the date of grant and in equal quarterly installments over the ensuing twelve quarters, subject to the executive officer's continued employment with us on the vesting date. The stock options are also subject to accelerated vesting in certain circumstances. For additional discussion, please see "Potential Payments upon Termination or Change of Control" below.

Employee Benefits and Perquisites

Our executive officers are eligible to participate in our health and welfare plans to the same extent as all full-time employees generally. We also provide our named executive officers and other employees with term life insurance and disability insurance at our expense. We do not provide our named executive officers with any other perquisites or other personal benefits.

No Tax Gross-Ups

We do not make gross-up payments to cover our named executive officers' personal income taxes that may pertain to any of the compensation paid or provided by our company.

Employment Agreements

We have entered into employment agreements with each of our named executive officers. The employment agreements entered into with each of our named executive officers provide for a base

[Table of Contents](#)

salary, an annual performance bonus and stock options (subject to vesting requirements) and, with respect to each of Mr. Anido and Ms. Sebree, a restricted stock award.

Each of our named executive officers is eligible for an annual performance bonus which is set as a percentage of base salary based upon the achievement of certain individual and/or corporate performance goals. The target bonus for each of Mr. Anido and Ms. Sebree is 60% of base salary, and for Mr. Fickenscher is 40% of base salary.

Pursuant to their employment agreements, Mr. Anido and Ms. Sebree each received stock options and restricted stock grants, and Mr. Fickenscher received stock options, each as described below under the heading "Outstanding Equity Awards at Fiscal Year-End."

Our named executive officers are entitled to participate in all of our retirement and group welfare plans available to our senior level executives as a group or our employees generally, subject to the terms and conditions applicable to such plans. Further, each such person's employment agreement contains standard confidentiality and assignment of inventions provisions and post-employment non-compete provisions for, in the case of Mr. Anido 18 months, and in the case of Ms. Sebree and Mr. Fickenscher 12 months.

Potential Payments upon Termination or Change of Control

If any of our named executive officers' employment is terminated by us without "cause" or a named executive officer resigns for "good reason," as such terms are defined in the respective employment agreements, then, subject to his or her execution and delivery of a general release of claims and compliance with all the terms and provisions of his or her employment agreement that survive the executive's termination of employment, such person shall be entitled to: (i) receive continuation of his or her base salary for a period of, in the case of Mr. Anido 18 months, and in the case of Ms. Sebree and Mr. Fickenscher 12 months; (ii) continued medical and dental benefits for, in the case of Mr. Anido 18 months, and in the case of Ms. Sebree and Mr. Fickenscher 12 months, in each case at the same premium rates charged to active employees; and (iii) pro rata vesting of all outstanding stock option and other equity-based awards that would have vested had such executive remained employed by us for an additional 12 month period.

If any of our named executive officers' employment is terminated by us without "cause" or such person resigns for "good reason" within the 90 day period preceding a "change of control," as such term is defined in the respective employment agreements, or on or within 12 months following a change of control or if such person resigns his or her employment for any reason within 30 days following a change of control, then, subject to his or her execution and delivery of a general release of claims and compliance with all the terms and provisions of his or her employment agreement that survive the executive's termination of employment, such person shall be entitled to the severance benefits described in the preceding paragraph, provided that (i) all outstanding stock options and other equity-based awards shall become fully vested and exercisable (to the extent applicable) as of the date of such termination of employment, (ii) such person's outstanding vested stock options and other equity-based awards (after giving effect to the vesting acceleration described in the preceding clause) shall remain exercisable for three years following such termination of employment or, if earlier, until the stated expiration of the stock option or other equity-based award, and (iii) (A) in the case of Mr. Anido and Ms. Sebree, if such change in control results in net proceeds per share of capital stock to investors in excess of \$4.24, such person shall receive a payment equal to such person's target annual bonus, or (B) in the case of Mr. Fickenscher, he shall receive a payment equal to his target annual bonus.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information concerning unexercised stock options and stock options that have not vested and stock awards that have not vested for each of the named executive officers as of December 31, 2016:

Name	Option Award				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 or Units of Stock That Have Not Vested (#)(3)	Market Value of Shares or Units of Stock That Have Not Vested (\$)
Armando Anido	164,561	127,992(1)	3.98	10/02/2024	145,474	2,267,940
	123,962	272,716(2)	14.00	08/04/2025	—	—
Terri B. Seabee	82,280	63,996(1)	3.98	10/02/2024	78,202	1,219,169
	63,119	138,862(2)	14.00	08/04/2025	—	—
James E. Fickenscher	—	150,000(4)	10.23	09/13/2026	—	—

- (1) This option vested with respect to 25% of the shares subject to the option upon the closing of our initial public offering on August 10, 2015. The remainder of the option vests in 12 equal quarterly installments thereafter.
- (2) This option vests in 16 equal quarterly installments beginning on August 10, 2015, the date of the closing of our initial public offering.
- (3) 25% of the restricted shares vested upon the closing of our initial public offering on August 10, 2015. The remainder of the restricted shares vest in 12 equal quarterly installments thereafter.
- (4) 25% of the option vests upon the first anniversary of the grant date. The remainder of the option vests in 12 equal quarterly installments thereafter.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information about the beneficial ownership of our common stock by (i) each of our directors and director nominees, (ii) each of our named executive officers named in the Summary Compensation Table under "Executive Compensation," (iii) all our directors, director nominees and executive officers as a group, and (iv) each person or group known by us to own more than 5% of our common stock. The percentages reflect beneficial ownership, as determined in accordance with the SEC's rules, as April 20, 2017 and are based on 13,249,779 shares of common

[Table of Contents](#)

stock outstanding as of April 20, 2017. Except as noted below, the address for all beneficial owners in the table below is 80 W. Lancaster Avenue, Suite 300, Devon, PA 19333.

<u>Name of Beneficial Owner</u>	<u>Amount and Nature of Beneficial Ownership(1)</u>	<u>Percent of Class</u>
Directors and Executive Officers:		
Armando Anido(2)	747,081	5.48%
Terri B. Sebree(3)	367,677	2.74%
James E. Fickenscher(4)	7,000	*
Warren D. Cooper, MB, BS, BSc, MFPM(5)	26,667	*
William J. Federici(6)	27,401	*
Thomas L. Harrison, LHD(7)	40,047	*
Daniel L. Kisner, MD(5)	26,667	*
Kenneth I. Moch(8)	27,803	*
Cynthia A. Rask, MD(9)	27,093	*
All directors, director nominees and executive officers as a group (11 persons)(10)	1,386,257	9.91%
5% or more Stockholders (not disclosed above):		
Michael D. Rapp(11)	1,354,115	10.22%
Perceptive Advisors LLC(12)	842,128	6.36%
Cormorant Asset Management, LLC(13)	780,501	5.89%
G-Ten Partners LLC(14)	742,928	5.61%

* Represents less than 1% of the number of shares of our common stock outstanding as of April 20, 2017.

- (1) Beneficial ownership is determined in accordance with the rules of the SEC, and includes voting and investment power with respect to shares. Unless otherwise indicated below, to our knowledge, all persons listed in the table have sole voting and dispositive power with respect to their shares of common stock, except to the extent authority is shared by spouses under applicable law. Pursuant to the rules of the SEC, the number of shares of common stock deemed outstanding includes shares issuable upon vesting of shares of restricted stock held by the respective person or group that will vest within 60 days of April 20, 2017 and pursuant to options held by the respective person or group that are currently exercisable or may be exercised within 60 days of April 20, 2017.
- (2) Includes (a) 374,677 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 439,554 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017), (b) 332,512 shares of restricted stock, all of which have voting rights and 228,602 of which are vested or will vest within 60 days of April 20, 2017, (c) 26,595 shares of common stock held by TUA of Armando Anido; and (d) 13,297 shares of common stock held by Nancy J. Anido Trust. TUA of Armando Anido and Nancy J. Anido Trust are controlled by Armando Anido, who has voting and dispositive power with respect to the shares of common stock held by the trusts.
- (3) Includes (a) 188,931 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 234,326 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017) and (b) 178,746 shares of restricted stock, all of which have voting rights and 122,888 of which are vested or will vest within 60 days of April 20, 2017.

[Table of Contents](#)

- (4) Includes 7,000 shares of common stock (and excludes 181,350 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017).
- (5) Includes 26,667 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 23,333 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017).
- (6) Includes 27,401 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 23,333 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017).
- (7) Includes (a) 12,500 shares of common stock and (b) 27,547 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 23,333 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017).
- (8) Includes 27,083 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 23,333 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017).
- (9) Includes 27,093 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 23,333 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017).
- (10) Includes (a) 59,392 shares of common stock; (b) 775,714 shares of common stock issuable upon the exercise of options to purchase common stock (and excludes 1,094,749 shares of common stock issuable upon the exercise of options to purchase common stock that will not be vested within 60 days of April 20, 2017); and (c) 551,151 shares of restricted stock, all of which have voting rights and 378,916 of which are vested or will vest within 60 days of April 20, 2017.
- (11) Based on information reported by Mr. Rapp on Schedule 13G/A filed with the SEC on February 16, 2017. The address of Mr. Rapp is c/o Broadband Capital Investments LLC, 1110 Brickell Avenue, Suite 430, Miami, Florida 33131.
- (12) Based on information reported by Perceptive Advisors LLC ("*Perceptive Advisors*") on Schedule 13G filed with the SEC on February 14, 2017. Perceptive Advisors and Joseph Edelman beneficially own 842,128 shares of our common stock, 807,571 of which are held by Perceptive Life Sciences Master Fund Ltd, a private investment fund (the "*Perceptive Fund*") to which Perceptive Advisors serves as the investment manager, and 34,557 of which are held in a trading account to which Perceptive Advisors serves as the investment manager. Mr. Edelman is the managing member of Perceptive Advisors. Each of Perceptive Advisors, the Perceptive Fund and Joseph Edelman disclaims beneficial ownership of the shares reported on the Schedule 13G. The address of Perceptive Advisors LLC is 51 Astor Place, 10th Floor, New York, NY 10003.
- (13) Based on information reported by Cormorant Asset Management, LLC on Schedule 13G/A filed with the SEC on February 14, 2017. Cormorant Asset Management, LLC may be deemed to beneficially own shares which are beneficially owned by Cormorant Global Healthcare Master Fund, LP (the "*Cormorant Fund*") and shares which are beneficially owned by a managed account (the "*Cormorant Account*"). Cormorant Global Healthcare GP, LLC serves as the general partner of the Cormorant Fund, and Cormorant Asset Management, LLC serves as the investment manager to both the Cormorant Fund and the Cormorant Account. Bihua Chen serves as the managing member of Cormorant Global Healthcare GP, LLC and Cormorant Asset Management, LLC. Each of Cormorant Asset Management, LLC, Cormorant Fund, Cormorant Global Healthcare GP, LLC and Bihua Chen disclaims beneficial ownership of the shares reported

on the Schedule 13G/A except to the extent of its or his pecuniary interest therein. The address of Cormorant Asset Management, LLC is 200 Clarendon Street, 52nd Floor, Boston, MA 02116.

- (14) Based on information reported by Ethan Benovitz, Jaime Hartman and G-Ten Partners LLC ("*G-TEN*") on Schedule 13G/A filed with the SEC on February 14, 2017. The shares are held by Genesis Capital Advisors LLC (the "*Adviser*"), as well as G-TEN Partners LLC (the "*Fund*"), which is managed by the Adviser. Ethan Benovitz and Jaime Hartman, as individuals, act as co-investment managers to the Fund and as managing members of the Adviser. The Adviser, in its capacity as the investment manager of the Fund, has the power to vote and the power to direct the disposition of all Shares held by the Fund. Each of the Adviser, the Fund, Ethan Benovitz and Jaime Hartman disclaims beneficial ownership of the shares reported on the Schedule 13G/A except to the extent of their pecuniary interest therein.

Changes in Control

We are not aware of or a party to any arrangements, including any pledge by any person of our securities, the operation of which may at a subsequent date result in a change of control.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our executive officers and directors and persons who beneficially own more than 10% of our common stock to file initial reports of beneficial ownership and reports of changes in beneficial ownership with the SEC. Such persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms filed by such persons. Based solely on a review of copies of reports provided to the Company pursuant to Rule 16a-3(e) of the Exchange Act and representations of such reporting persons, the Company believes that during 2016, such SEC filing requirements were satisfied, except that the Form 4's of Drs. Cooper, Harrison, Kisner and Rask and Messrs. Federici and Moch were filed late in connection with the award of stock options on May 25, 2016, the Form 4 of Ms. Hanlon was filed late in connection with the sale of shares of our common stock on August 16, 2016, and the Form 4 of Mr. Fickenscher was filed late in connection with the award of stock options on September 13, 2016.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than equity and other compensation, termination, change of control and other arrangements, which are described under "Executive Compensation" and "Director Compensation," respectively, since January 1, 2016, there has not been, nor is there currently proposed, any transaction or series of similar transactions to which we were or will be a party in which the amount involved in the transaction exceeded \$120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest.

INDEPENDENT AUDITORS AND RELATED FEES

Policy on Audit Committee Pre-Approval of Audit and Permitted Non-Audit Services of Independent Auditors

Our Audit Committee is responsible for appointing, approving fees and overseeing the working of the Company's independent registered public accounting firm. As part of this responsibility, the Audit Committee has established a policy to pre-approve all audit and permissible non-audit services provided by the independent registered accounting firm for the purpose of maintaining the independence of our independent auditor. We may not engage our independent auditor to render any audit or non-audit service unless either the service is approved in advance by the Audit Committee, or the engagement to

render the service is entered into pursuant to the Audit Committee's pre-approval policies and procedures.

Principal Accountant Fees and Services

The following table shows the aggregate fees paid or accrued by the Company to our independent auditor, KPMG LLP for the audit and other services provided in 2016 and 2015:

	2016	2015
Audit Fees	\$ 357,500	\$ 1,010,000
Audit-related Fees	—	—
Tax Fees	—	—
All Other fees	—	—
Total	<u>\$ 357,500</u>	<u>\$ 1,010,000</u>

Audit Fees. Audit fees consist of fees billed for the audit of our annual financial statements, the review of the interim financial statements, and related services that are normally provided in connection with registration statements, including the registration statement on Form S-1 for our initial public offering and the registration statement on Form S-3 for our at-the-market offering program in September 2016.

Audit-Related Fees. There were no such fees incurred in 2016 or 2015.

Tax Fees. We did not incur any tax fees by our independent auditor in 2016 or 2015.

All Other Fees. We did not incur any other fees in 2016 or 2015.

REPORT OF THE AUDIT COMMITTEE

The following is the report of our Audit Committee with respect to our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC on or about March 27, 2017 (the "*Annual Report*"). The information contained in this report shall not be deemed to be "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Company specifically incorporates it by reference in such filing.

Our Audit Committee oversees our financial reporting process on behalf of our Board. Management has the responsibility for the financial statements and the reporting process, including internal control systems. Our independent registered public accounting firm, KPMG LLP, is responsible for expressing an opinion as to the conformity of our audited financial statements with accounting principles generally accepted in the United States of America.

Review and Discussions with Management and Independent Accountants

The Audit Committee reviewed and discussed the audited financial statements with management of the Company. The Audit Committee also met with KPMG LLP to review the financial statements included in the Annual Report. The Audit Committee discussed with a representative of KPMG LLP the matters required to be discussed by the Statement on Auditing Standards No. 16, as amended, "Communication with Audit Committees." In addition, the Audit Committee met with KPMG LLP, with and without management present, to discuss the overall scope of KPMG LLP's audit, the results of its examinations and the overall quality of the Company's financial reporting. The Audit Committee received the written disclosures and the letter from KPMG LLP required by Rule 3526 of the Public

[Table of Contents](#)

Company Accounting Oversight Board, *Communication with Audit Committee Concerning Independence*, and has discussed with KPMG LLP its independence, and satisfied itself as to the independence of KPMG LLP.

Based on the above review, discussions, and representations received, the Audit Committee recommended to the Board of Directors that the audited financial statements for the fiscal year ended December 31, 2016 be included in the Company's Annual Report and filed with the SEC.

Audit Committee:

William J. Federici, Chair
Warren D. Cooper
Kenneth I. Moch

PROPOSALS TO BE VOTED ON

PROPOSAL ONE:

ELECTION OF DIRECTORS

At the Annual Meeting, our stockholders will vote on the election of seven (7) director nominees named in this Proxy Statement as directors, each to serve until our 2018 Annual Meeting and until their respective successors are elected and qualified. Our Board has unanimously nominated each of our seven (7) existing directors for election to our Board at the Annual Meeting.

All of our nominees have indicated their willingness to serve if elected, but if any should be unable or unwilling to stand for election, the shares represented by proxies may be voted for a substitute as the Company may designate, unless a contrary instruction is indicated in the proxy.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR EACH OF OUR DIRECTOR NOMINEES.

PROPOSAL TWO:

**RATIFICATION OF APPOINTMENT OF KPMG LLP AS
THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Audit Committee has selected KPMG LLP as the Company's independent registered public accounting firm to audit our financial statements for the fiscal year ending December 31, 2017. Although stockholder approval for this appointment is not required, the Audit Committee and our Board are submitting the selection of KPMG LLP for ratification to obtain the views of stockholders and as a matter of good corporate governance. If the appointment is not ratified, the Audit Committee will reconsider whether or not to retain KPMG.

Representatives of KPMG LLP are expected to be present at the Annual Meeting, and will have the opportunity to make statements if they desire to do so and to respond to appropriate questions.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR THE RATIFICATION OF KPMG LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE COMPANY FOR THE FISCAL YEAR ENDING DECEMBER 31, 2017.

OTHER MATTERS

The Company is not aware of any matter to be acted upon at the Annual Meeting other than the matters described in this proxy statement. However, if any other matter properly comes before the Annual Meeting, the proxy holders will vote the proxies thereon in accordance with their best judgment on such matter.

PROXY SOLICITATION

The Company will bear the expenses of calling and holding the Annual Meeting and the soliciting of proxies therefor. This Proxy Statement and the accompanying materials, in addition to being mailed directly to stockholders, will be distributed through brokers, custodians, nominees and other like parties to beneficial owners of shares of common stock. The Company will pay reasonable expenses incurred in forwarding the proxy materials to the beneficial owners of shares and in obtaining the written instructions of such beneficial owners.

STOCKHOLDER PROPOSALS AND NOMINEES FOR 2018 ANNUAL MEETING

Stockholders interested in submitting a proposal for consideration at our 2018 Annual Meeting must do so by sending the proposal to our Corporate Secretary at Zynerba Pharmaceuticals, Inc., 80 W. Lancaster Avenue, Suite 300, Devon, PA 19333. Under the SEC's proxy rules, the deadline for submission of proposals to be included in our proxy materials for the 2018 Annual Meeting is December 25, 2017. Accordingly, in order for a stockholder proposal to be considered for inclusion in our proxy materials for the 2018 Annual Meeting, any such stockholder proposal must be received by our Corporate Secretary on or before December 25, 2017, and comply with the procedures and requirements set forth in Rule 14a-8 under the Securities Exchange Act of 1934, as well as the applicable requirements of our Bylaws. Any stockholder proposal received after December 25, 2017, will be considered untimely, and will not be included in our proxy materials. In addition, stockholders interested in submitting a proposal outside of Rule 14a-8 must properly submit such a proposal in accordance with our Bylaws.

Our Bylaws require advance notice of business to be brought before a stockholders' meeting, including nominations of persons for election as directors. To be timely, a nomination for director nominee(s) and/or notice of an item of business to be introduced at a stockholders' meeting must be received by our Corporate Secretary at our principal executive offices not less than 90 days but not more than 120 days prior to the one-year anniversary of the date on of the 2017 Annual Meeting (i.e., June 7, 2018) and must contain specified information concerning the director nominee(s) and/or the matters to be brought before such meeting and concerning the stockholder proposing such matters. Therefore, to be presented at our 2018 Annual Meeting, such a proposal must be received by the Company on or after February 7, 2018 but no later than March 9, 2018. If the date of the 2018 Annual Meeting is advanced or delayed by more than 25 days from the anniversary date of the 2017 Annual Meeting, notice must be received no later than the close of business on the 10th day following the day on which the public announcement of the date of such Annual Meeting is first made.

ANNUAL REPORT ON FORM 10-K

We filed an Annual Report on Form 10-K for the year ended December 31, 2016 on March 27, 2017 with the SEC. A copy of our Annual Report on Form 10-K will also be made available (without exhibits), free of charge, to interested stockholders upon written request to Zynerba Pharmaceuticals, Inc., 80 W. Lancaster Avenue, Suite 300, Devon, PA 19333, Attn: Corporate Secretary.

ANNUAL MEETING OF STOCKHOLDERS OF
ZYNERBA PHARMACEUTICALS, INC.

June 7, 2017

GO GREEN

e-Consent makes it easy to go paperless. With e-Consent, you can quickly access your proxy material, statements and other eligible documents online, while reducing costs, clutter and paper waste. Enroll today via www.astfinancial.com to enjoy online access.

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, proxy statement and proxy card are available at <http://www.astproxyportal.com/ast/20275/>

Please sign, date and mail
your proxy card in the
envelope provided as soon
as possible.

↓ Please detach along perforated line and mail in the envelope provided. ↓

20730000000000000000 5

060717

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSAL 2.
PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE ☒

1. Election of Directors:

☐ FOR ALL NOMINEES

☐ WITHHOLD AUTHORITY
FOR ALL NOMINEES

☐ FOR ALL EXCEPT
(See instructions below)

NOMINEES:

- ☐ Armando Anido
☐ Warren D. Cooper, MB, BS, BSc, MFPM
☐ William J. Federici
☐ Thomas L. Harrison, LH.D
☐ Daniel L. Kisner, MD
☐ Kenneth I. Moch
☐ Cynthia A. Rask, MD

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: ●

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method. ☐

2. Ratification of appointment of KPMG LLP as Independent Registered Public Accounting Firm for the 2017 Fiscal Year.

FOR AGAINST ABSTAIN
☐ ☐ ☐

This Proxy, when properly executed, will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this Proxy will be voted FOR proposals 1 and 2.

Signature of Stockholder

Date:

Signature of Stockholder

Date:

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

0

ZYNERBA PHARMACEUTICALS, INC.

Proxy for Annual Meeting of Stockholders on June 7, 2017

Solicited on Behalf of the Board of Directors

The undersigned hereby appoints James Fickenscher and Suzanne M. Hanlon as proxies, each with the power to appoint his/her substitute, and hereby authorizes them to represent and vote, as designated on the reverse side, all shares of common stock of Zynerva Pharmaceuticals, Inc., held of record by the undersigned on April 17, 2017, at the Annual Meeting of Stockholders to be held on June 7, 2017 or any postponement or adjournment thereof.

(Continued and to be signed on the reverse side.)

