UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

FORM 10-K/A (Amendment No. 1)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

or

□ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to Commission File Number: 001-35068

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

Delaware (State or other jurisdiction of incorporation or organization) 41-2193603 (IRS Employer Identification No.)

351 Galveston Drive Redwood City, CA 94063 (650) 216-3500

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

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u> Common Stock, \$0.001 par value Name of Each Exchange on Which Registered The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes 🗆 No 🗹

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗆 No 🗹

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes \square No \square

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (\S -232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \square No \square

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (\S -229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. \Box

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

Large accelerated filer	
Non-accelerated filer	
Emerging growth company	

Accelerated filer ☑ Smaller reporting company ☑ If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2) Yes 🗆 No 🗹

The aggregate market value of the voting stock held by non-affiliates of the registrant on June 29, 2018 (the last business day of the registrant's most recently completed second fiscal quarter), based upon the last sale price reported on the Nasdaq Global Market, or Nasdaq, on that date, was approximately \$177,225,920. The calculation excludes 893,483 shares of the registrant's common stock held by current executive officers and directors that the registrant has concluded are affiliates of the registrant. Exclusion of such shares should not be construed to indicate that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant or that such person is controlled by or under common control with the registrant.

As of April 18, 2019, the number of outstanding shares of the registrant's common stock was 78,893,545.

DOCUMENTS INCORPORATED BY REFERENCE

None.

ACELRX PHARMACEUTICALS, INC. 2018 ANNUAL REPORT ON FORM 10-K/A

AMENDMENT NO. 1

TABLE OF CONTENTS

	Page
Explanatory Note	
PART III	1
Item 10. Directors, Executive Officers and Corporate Governance	2
Item 11. Executive Compensation	7
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	27
Item 13. Certain Relationships and Related Transactions, and Director Independence	29
Item 14. Principal Accounting Fees and Services	30
PART IV	30
Item 15. Exhibits, Financial Statement Schedules	30
Signatures	35
i	

EXPLANATORY NOTE

This Amendment No. 1 (this "Amendment") amends the Annual Report on Form 10-K for the year ended December 31, 2018 of AcelRx Pharmaceuticals, Inc., filed with the Securities and Exchange Commission (the "SEC") on March 7, 2019 (the "Original Form 10-K"). The purpose of this Amendment is to amend Part III, Items 10 through 14 of the Original Form 10-K to include information previously omitted from the Original Form 10-K in reliance on General Instruction G(3) to Form 10-K because we will not file our definitive proxy statement within 120 days of the end of our fiscal year ended December 31, 2018. Accordingly, Part III of the Original Form 10-K is hereby amended and restated as set forth below and the reference on the cover page of the Original Form 10-K to the incorporation by reference of our definitive proxy statement into Part III of the Original Form 10-K is hereby deleted.

The information included herein as required by Part III, Items 10 through 14 of Form 10-K is more limited than what is required to be included in the definitive proxy statement that we will file in connection with our annual meeting of stockholders. Accordingly, that definitive proxy statement, which we will file at a later date, will include additional information related to the topics herein and additional information not required by Part III, Items 10 through 14 of Form 10-K.

In addition, as required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") new certifications by our principal executive officer and principal financial officer are filed as exhibits to this Amendment under Item 15 of Part IV hereof, which has been amended to reflect the filing of these new certifications. Because no financial statements have been included in this Amendment and this Amendment does not contain or amend any disclosure with respect to Items 307 and 308 of Regulation S-K, paragraphs 3, 4, and 5 of the certifications have been omitted.

Except as described above, no other changes have been made to the Original Form 10-K. The Original Form 10-K continues to speak as of the date of the Original Form 10-K, and we have not updated the disclosures contained therein to reflect any events which occurred at a date subsequent to the filing of the Original Form 10-K other than as expressly indicated in this Amendment. In this Amendment, unless the context indicates otherwise, the terms "Company," "we," "us," and "our" refer to AceIRx Pharmaceuticals, Inc. Other defined terms used in this Amendment but not defined herein shall have the meaning specified for such terms in the Original Form 10-K.

All statements in this Amendment that are not historical are forward-looking statements within the meaning of Section 21E of the Exchange Act. These forward-looking statements can generally be identified as such because the context of the statement will include words such as "may," "will," "intend," "plans," "believes," "anticipates," "expects," "estimates," "predicts," "potential," "continue," "opportunity," "goals," or "should," the negative of these words or words of similar import. Similarly, statements that describe our future plans, strategies, intentions, expectations, objectives, goals or prospects are also forward-looking statements. These forward-looking statements are or will be, as applicable, based largely on our expectations and projections about future events and future trends affecting our business, and so are or will be, as applicable, subject to risks and uncertainties including but not limited to the risk factors discussed in the Original Filing, that could cause actual results to differ materially from those anticipated in the forward-looking statements. We caution investors that there can be no assurance that actual results or business conditions will not differ materially from those projected or suggested in such forward-looking statements. Our views and the events, conditions and circumstances on which these future forward-looking statements are based, may change.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

OUR BOARD OF DIRECTORS

The following table sets forth certain information concerning our directors as of April 18, 2019:

			Term Expires on the Annual Meeting held
Name	Age	Position	in the Year
Adrian Adams (1)(2)(3)	68	Chairman and Director	2021
Richard Afable, M.D. (2)	65	Director	2021
Vincent J. Angotti	51	Director and Chief Executive Officer	2019
Mark G. Edwards (1)	61	Director	2021
Stephen J. Hoffman, M.D., Ph.D. (1)(3)	65	Director	2019
Pamela P. Palmer, M.D., Ph.D.	56	Director, Chief Medical Officer and Co-Founder	2019
Howard B. Rosen	61	Director	2020
Mark Wan (2)(3)	53	Director	2020

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

(3) Member of the Nominating and Corporate Governance Committee

Our Amended and Restated Certificate of Incorporation divides our board of directors into three classes, with staggered three-year terms. The Class I directors, whose terms expire at the 2019 annual meeting, are Vincent J. Angotti, Stephen J. Hoffman, M.D., Ph.D. and Pamela P. Palmer, M.D., Ph.D. The Class II directors, whose term expires at the 2020 annual meeting, are Howard B. Rosen and Mark Wan. The Class III directors, whose terms expire at the 2021 annual meeting, are Howard B. Rosen and Mark Wan. The Class III directors, whose terms expire at the 2021 annual meeting, are Adrian Adams, Richard Afable and Mark G. Edwards. Only one class of directors is elected at each annual meeting. The directors in the other classes continue to serve for the remainder of such class' three-year term. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified.

The following are biographies of our directors:

Adrian Adams, age 68, has served as our Chairman of the Board since February 2013. Since December 2018, Mr. Adams has also served as chairman of the board of directors of Akebia Therapeutics, Inc., a specialty pharmaceutical company. Previously, Mr. Adams served as Chief Executive Officer of Aralez Pharmaceuticals, Inc., a specialty pharmaceutical company, after the merger between Pozen, Inc. and Tribute Pharmaceuticals Canada, Inc. in February 2016 to January 2019 and served as a member of the board of directors from February 2016 to April 2019. Prior to that, from May 2015 to January 2016, Mr. Adams served as Chief Executive Officer and a member of the board of directors of Pozen, Inc. Mr. Adams served as Chief Executive Officer and President of Auxilium Pharmaceuticals Inc., a specialty biopharmaceutical company, from December 2011 until January 2015, when it was acquired by Endo International plc. Prior to joining Auxilium, from September 2011 until November 2011, Mr. Adams served as chairman and Chief Executive Officer of Neurologix, a company focused on development of multiple innovative gene therapy development programs. Before Neurologix, Mr. Adams served as President and Chief Executive Officer of Inspire Pharmaceuticals, Inc., where he oversaw the commercialization and development of prescription pharmaceutical products and led the company through a strategic acquisition by global pharmaceutical leader Merck & Co., Inc. in May 2011. Prior to Inspire, Mr. Adams served as President and Chief Executive Officer of Sepracor Inc. from December 2006 until February 2010, when it was acquired by Dainippon Sumitomo Pharma Co. Prior to joining Sepracor, Mr. Adams was President and Chief Executive Officer of Kos Pharmaceuticals, Inc. from 2002 until the acquisition of the company by Abbott Laboratories in December 2006. Mr. Adams graduated from the Royal Institute of Chemistry at Salford University in the U.K. Mr. Adams has extensive national and international experience and has been instrumental in launching major global brands in addition to driving successful corporate development activities encapsulating financing, product and company acquisitions, in-licensing and company M&A activities, all of which provide him with the qualifications and skills to serve as a director.

Richard Afable, M.D., age 65, has served as our director since December 2013. Dr. Afable has served as Chief Executive Officer of Concierge Key Health, LLC since August 2018. Dr. Afable has served as trustee of Chapman University since March 2017, of Providence St. Joseph Health since January 2018, and he is the immediate past chair of the California Hospital Association. From July 2016 through December 2017, Dr. Afable has served as Executive Vice President and Chief Executive, Southern California, for Providence St. Joseph Health. From February 2013 to July 2016, Dr. Afable served as the Chief Executive Officer of Covenant Health Network, based in Irvine, California, a non-profit healthcare delivery system formed through the affiliation of Hoag Memorial Hospital Presbyterian and St. Joseph Health System. Prior to Covenant Health Network, Dr. Afable served as the Chief Executive of Hoag Memorial Hospital Presbyterian from 2005 to 2013. Prior to Hoag Memorial Hospital Presbyterian, Dr. Afable served as the Chief Medical Officer of Catholic Health East from 1999 to 2005. He earned a B.S. in biology, an M.D. degree from Loyola University of Chicago, and a Master's in Public Health from the University of Illinois at Chicago. Dr. Afable's scientific, financial and business expertise, including his experience as an executive officer in the health care industry, provides him with the qualifications and skills to serve as a director.

Vincent J. Angotti, age 51, has served as our director and Chief Executive Officer since March 2017. From 2015 to 2016, Mr. Angotti was Chief Executive Officer and Director of XenoPort, Inc., a biopharmaceutical company that was acquired by Arbor Pharmaceuticals, LLC in 2016. Prior to that, from 2008 to 2015, Mr. Angotti held various roles at Xenoport, including Executive VP and Chief Operating Officer from 2012 to 2015, and Senior Vice President and Chief Commercialization Officer from 2008 to 2012. Prior to joining XenoPort, from 2001 to 2008, Mr. Angotti held several senior sales and marketing positions at Reliant Pharmaceuticals, Inc., a pharmaceutical company that was acquired by GlaxoSmithKline in 2007, the most recent of which was senior vice president of sales and marketing. Mr. Angotti began his career in the life sciences industry at Novartis Pharmaceuticals Corp., where he worked from 1991 until 2001 in sales and operations positions, most recently as executive director, field operations. He holds a Bachelor of Science with a concentration in business management from Cornell University and a Masters of Business Administration with honors from Columbia University. Mr. Angotti's role as our Chief Executive Officer, his business expertise and his prior leadership roles in pharmaceutical companies provides him with the qualifications and skills to serve as a director.

Mark G. Edwards, age 61, has served as our director since September 2011. Mr. Edwards is Managing Director of Bioscience Advisors Inc., a biopharmaceutical consulting firm he founded in 2011. Since February 2017, Mr. Edwards has also served on the board of directors of Scripps Research Institute, a non-profit medical research facility. From July 2008 until December 2010, he was Managing Director and a Principal of Deloitte Recap LLC, a wholly-owned subsidiary of Deloitte Touche Tohmatsu, an audit and financial consulting services firm. Mr. Edwards was previously the Managing Director and founder of Recombinant Capital, Inc. (Recap), a consulting and database firm based in Walnut Creek, California, from 1988 until the sale of Recap to Deloitte in 2008. Prior to founding Recap in 1988, Mr. Edwards was Manager of Business Development at Chiron Corporation, a biotechnology company. He received his B.A. and M.B.A. degrees from Stanford University. Mr. Edwards' financial and business expertise, including his background as a business advisor to pharmaceutical and biotechnology companies, provides him with the qualifications and skills to serve as a director.

Stephen J. Hoffman, M.D., Ph.D., age 65, has served as our director since February 2010. Dr. Hoffman has served as Chief Executive Officer and Director of Aerpio Pharmaceuticals, Inc. since December 2017. Prior to that, Dr. Hoffman had been a Senior Advisor to PDL BioPharma, Inc. beginning in February 2014. Prior to that, he served as a managing director at Skyline Ventures, a venture capital firm, from May 2007 until February 2014. From January 2003 to March 2007, Dr. Hoffman was a general partner at TVM Capital, a venture capital firm. From 1994 to 2012, Dr. Hoffman served as President, Chief Executive Officer and a director of Allos Therapeutics, a biopharmaceutical company; and served as chairman of the board of directors from 2002 until its acquisition by Spectrum Pharmaceuticals in 2012. Dr. Hoffman currently serves on the board of directors of Dicerna Pharmaceuticals, Inc. and Palleon Pharmaceuticals, Inc. Dr. Hoffman holds a Ph.D. in chemistry from Northwestern University and an M.D. from the University of Colorado, School of Medicine. Dr. Hoffman's scientific, financial and business expertise, including his diversified background as an executive officer and investor in public pharmaceutical companies, provides him with the qualifications and skills to serve as a director.

Pamela P. Palmer, M.D., Ph.D., age 56, has served as our director and Chief Medical Officer since she co-founded the company in July 2005. Dr. Palmer has been on faculty at the University of California, San Francisco since 1996 and is currently a Clinical Professor of Anesthesia and Perioperative Care. Dr. Palmer was Director of UCSF PainCARE-Center for Advanced Research and Education from 2005 to 2009, and was Medical Director of the UCSF Pain Management Center from 1999 to 2005. Dr. Palmer has been a consultant of Omeros Corporation, a biopharmaceutical company, since she co-founded that company in 1994. Dr. Palmer holds an M.D. from Stanford University and a Ph.D. from the Stanford Department of Neuroscience. Dr. Palmer's extensive clinical and scientific experience in the treatment of acute and chronic pain as well as historical knowledge of our company provides her with the qualifications and skills to serve as a director.

Howard B. Rosen, age 61, served as our Chief Executive Officer from April 1, 2016 until March 5, 2017, as our interim Chief Executive Officer from April 1, 2015 until March 31, 2016, and has served as our director since 2008. Since 2008, Mr. Rosen has served as a consultant to several companies in the biotechnology industry. He has also served as a lecturer at Stanford University in Chemical Engineering since 2008 and in Management since 2011. Mr. Rosen served as interim President and Chief Executive Officer of Pearl Therapeutics, Inc., a company focused on developing treatments for chronic respiratory diseases, from June 2010 to March 2011. From 2004 to 2008, Mr. Rosen was Vice President of Commercial Strategy at Gilead Sciences, Inc., a biopharmaceutical company. Mr. Rosen was President of ALZA Corporation, a pharmaceutical and medical systems company that merged with Johnson & Johnson, a global healthcare company, in 2001, from 2003 until 2004. Prior to that, from 1994 until 2003, Mr. Rosen held various positions at ALZA Corporation. Mr. Rosen is also a member of the board of directors of Kala Pharmaceuticals, Inc., a publicly traded biotechnology company, Metera Pharmaceuticals, Inc. and Entrega, Inc., both of which are private biotechnology companies, and Hammerton, Inc., a decorative lighting company. Mr. Rosen previously served as chairman of the board of directors of Alcobra, Ltd., a public pharmaceutical company, from 2014 through 2017. Mr. Rosen holds a B.S. in Chemical Engineering from the Massachusetts Institute of Technology and an M.B.A. from the Stanford Graduate School of Business. Mr. Rosen's experience in the biopharmaceutical industry, including his specific experience with commercialization of pharmaceutical products, provides him with the qualifications and skills to serve as a director.

Mark Wan, age 53, has served as our director since August 2006. Mr. Wan is a founding managing director of Causeway Media Partners, a private investment firm, which was founded in 2013. He is also a founding general partner of Three Arch Partners, a venture capital firm. Prior to co-founding Three Arch Partners in 1993, Mr. Wan was a general partner at Brentwood Associates, a private equity firm from 1987 until 1993. Mr. Wan currently serves on the board of directors of QT Vascular Ltd., a public Singapore-based medical device company. In addition, Mr. Wan currently serves on the board of directors for a number of private firms, including ETN Media, Inc., FloSports, Inc., VenueNext, Inc., QuintEvents, LLC, Stio, Freeletics, Momentous, CareConnect and SanoV Pte Ltd, which is based in Singapore. He is chair of the board of directors for Jackson Hole Community School, an independent private school, and also serves on the board of directors for Resource Legacy Fund and the Monterey Bay Aquarium, both of which are non-profit institutions. From 1999 until its acquisition by athenahealth, Inc., in March 2013, Mr. Wan served on the board of directors of Epocrates, Inc., a company focused on providing mobile drug reference tools. Mr. Wan holds a B.S. in Engineering from Yale University and an M.B.A. from the Stanford Graduate School of Business. Mr. Wan's financial experience and extensive knowledge of our company provides him with the qualifications and skills to serve as a director.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act, requires our directors and executive officers, and persons who own more than ten percent of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and other equity securities of our company. Officers, directors and greater than ten percent stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of copies of such forms received by the Company or on written representations from certain reporting persons submitted to the Company during the year ended December 31, 2018, the Company believes that during the period from January 1, 2018 to December 31, 2018, its executive officers, directors and ten percent (10%) stockholders complied with all Section 16(a) requirements, except that Dr. Palmer and Messrs. Angotti, Asadorian, Dasu and Hamel did not timely file a Form 4 in connection with the grant of stock options dated January 22, 2018 by unanimous written consent of the Board. In addition, Dr. Hoffman filed a Form 5 for transactions previously reported on Form 4s which were inadvertently filed using incorrect CIK and CCC numbers in order to correctly identify those past transactions as Dr. Hoffman's transactions and to reflect accurately Dr. Hoffman's beneficial ownership holdings in our common stock.

CODE OF BUSINESS CONDUCT AND ETHICS

The Company has adopted the AcelRx Pharmaceuticals, Inc. Code of Business Conduct and Ethics that applies to all officers, directors and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The Code of Business Conduct and Ethics is available on our website at *www.acelrx.com*. Stockholders may request a free copy of the Code of Business Conduct and Ethics by submitting a written request to: AcelRx Pharmaceuticals, Inc., Attention: Investor Relations, 351 Galveston Drive, Redwood City, CA 94063. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website.

STOCKHOLDER COMMUNICATIONS WITH THE BOARD OF DIRECTORS

Although we do not have a formal policy regarding communications with the Board, stockholders may communicate with the Board, including the nonmanagement directors, by sending a letter to the AcelRx Board of Directors, c/o Investor Relations, 351 Galveston Drive, Redwood City, CA 94063. Stockholders who would like their submission directed to a particular member of the Board may so specify.

CERTAIN CORPORATE GOVERNANCE MATTERS

Audit Committee

The Audit Committee of the Board, or Audit Committee, was established by the Board in accordance with Section 3(a)(58)(A) of the Exchange Act to oversee the Company's corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The Audit Committee evaluates the performance of and assesses the qualifications of the independent auditors; determines and approves the engagement of the independent auditors; determines whether to retain or terminate the existing independent auditors or to appoint and engage new independent auditors; reviews and approves the retention of the independent auditors to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent auditors on the Company's audit engagement team as required by law; reviews and approves or rejects transactions between the Company and any related persons; confers with management and the independent auditors regarding the effectiveness of internal controls over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by the Company regarding accounting or auditing matters; and meets to review the Company's annual audited financial statements and quarterly financial statements with management and the independent auditor, including a review of the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Original Form 10-K.

The Audit Committee is comprised of Messrs. Edwards, Adams and Dr. Hoffman, each of whom is a non-employee member of our Board. The Audit Committee met four times during the fiscal year. The Audit Committee has adopted a written charter that is available to stockholders on the Company's website at <u>www.acelrx.com</u>.

The Board reviews the Nasdaq listing standards definition of independence for Audit Committee members on an annual basis and has determined that all members of the Company's Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing standards).

In addition, our Board has determined that each of the directors serving on our Audit Committee meets the requirements for financial literacy under applicable rules and regulations of the SEC and Nasdaq. Our Board has also determined that Mr. Edwards qualifies as an "audit committee financial expert" within the meaning of SEC regulations. In making this determination, our Board considered the overall knowledge, experience and familiarity of Mr. Edwards with accounting matters, in analyzing and evaluating financial statements and in managing private equity investments. Mr. Edwards serves as Chair of the Audit Committee. The composition of the Audit Committee satisfies the independence and other requirements of Nasdaq and the SEC.

OUR EXECUTIVE OFFICERS

The following table sets forth certain information concerning our executive officers as of April 18, 2019:

Age	Position
51	Director, Chief Executive Officer
49	Chief Financial Officer
56	Director, Chief Medical Officer and Co-Founder
67	Chief Development Officer
56	Chief Engineering Officer
	51 49 56 67

Vincent J. Angotti. Mr. Angotti's biography is included above under the section titled "Our Board of Directors."

Raffi Asadorian has served as our Chief Financial Officer since August 2017. Previously, Mr. Asadorian served as the Chief Financial Officer of Amyris, Inc., a publicly traded commercial-stage biotechnology company, from January 2015 to January 2017. Prior to Amyris, he served as the Chief Financial Officer of Unilabs, a private equity-owned medical diagnostics company, from August 2009 to October 2014. Mr. Asadorian started his career at PricewaterhouseCoopers (PwC) where he was a partner in its Transaction Services (M&A advisory) group. While at PwC, Mr. Asadorian advised Barr Pharmaceuticals, a publicly traded specialty pharmaceutical company, on its acquisition of PLIVA, a publicly traded pharmaceutical company, and, after its acquisition, Mr. Asadorian joined Barr as Senior Vice President and Chief Financial Officer of its PLIVA business from 2007 to 2009. In that role, Mr. Asadorian oversaw a global finance team and was responsible for Barr's ex-US financial operations, until its acquisition by Teva Pharmaceuticals.

Pamela P. Palmer, M.D., Ph.D. Dr. Palmer's biography is included above under the section titled "Our Board of Directors."

Lawrence G. Hamel has served as our Chief Development Officer since September 2006. From 1986 until September 2006, Mr. Hamel served as Product Development Manager, Director Project Management, Executive Director Oral Product Development, and Vice President Oral Products Development at ALZA Corporation. From 1977 until 1985, Mr. Hamel held a number of other positions at ALZA Corporation, including Senior Chemist, Research Scientist, and Senior Research Fellow. Mr. Hamel holds a B.S. in Biology from the University of Michigan.

Badri Dasu has served as our Chief Engineering Officer since September 2007. From December 2005 until September 2007, Mr. Dasu served as Vice President of Medical Device Engineering at Anesiva, Inc., a biopharmaceutical company. From March 2002 until December 2005, Mr. Dasu served as Vice President for Manufacturing and Device Development at AlgoRx Pharmaceuticals, Inc., an emerging pain management company, which merged with Corgentech Inc., a biotechnology company, in December 2005. From January 2000 until March 2002, Mr. Dasu served as Vice President of Manufacturing and Process Development at PowderJect Pharmaceuticals, a vaccine, drug and diagnostics delivery company that was acquired by Chiron Corporation in 2003 and later acquired by Novartis AG, a global healthcare and pharmaceutical company, in 2006. Previously, Mr. Dasu served in various capacities in process development at Metrika, Inc., a company focused on the manufacture and marketing of disposable diabetes monitoring products that was acquired by Bayer HealthCare, LLC in 2006, and at Cygnus, Inc., a drug delivery and specialty pharmaceuticals company. Mr. Dasu holds a B.E. in Chemical Engineering from the University of Mangalore, India and a M.S. in Chemical Engineering from the University of Tulsa.

Item 11. Executive Compensation

COMPENSATION DISCUSSION AND ANALYSIS

Our compensation discussion and analysis, or CD&A, discusses the compensation of the individuals who served as our executive officers during 2018, as set forth in the summary compensation table, subsequent tables and related disclosure in this Annual Report on Form 10-K, as amended, or the Form 10-K/A. Our CD&A describes our overall executive compensation philosophy, objectives and practices, as well as the decisions and determinations made by the Compensation Committee of the Board, or Compensation Committee, regarding executive compensation for 2018. It also describes key decisions made by the Compensation Committee for 2019 prior to the filing of this Form 10-K/A.

We refer to the following individuals as "named executive officers" for 2018:

Name	Title
Vincent J. Angotti	Director and Chief Executive Officer
Raffi Asadorian	Chief Financial Officer
Pamela P. Palmer, M.D., Ph. D.	Director and Chief Medical Officer
Badri Dasu	Chief Engineering Officer
Lawrence G. Hamel	Chief Development Officer

Executive Summary

2018 Business Highlights

During the 2018 fiscal year, we achieved the following corporate objectives and milestones:

- FDA approval of DSUVIA[™], following a successful Advisory Committee meeting;
- Completed two underwritten public offerings providing adequate capitalization to begin the commercialization of DSUVIA;
- Manufacturing and other activities undertaken to support the commercialization of DSUVIA in the United States and the commercialization of Zalviso[®] by Grünenthal GmbH, or Grünenthal, in the European Union, or EU; and
- Obtained approval of Marketing Authorisation Application, or MAA, for $DZUVEO^{TM}$ in the EU.

Executive Compensation Highlights

Consistent with our compensation philosophy throughout the Company, we strive to provide a compensation package to each executive officer that is competitive, rewards achievement of our business objectives, drives the development of a successful and growing business, and aligns the interests of our executive officers with our stockholders through equity ownership in the Company.

The Compensation Committee took the following actions with regards to its review and analysis of the compensation for our named executive officers:

- Updated the prior peer group of comparable public companies for 2018, selected with the assistance of an independent compensation consultant, to
 inform its decision-making process and assist in ensuring that our executive compensation program is positioned to be competitive and aligned
 with our business objectives. In connection with this review, and in light of the Complete Response Letter received from the FDA for DSUVIA,
 our Compensation Committee decided not to increase the base salaries of our named executive officers in 2018. As described below, the
 Compensation Committee determined that in order to better align the interests of our named executive officers with our strategic goals in 2018, it
 would instead award to all employees, including our named executive officers, special, performance-based stock options tied to obtaining FDA
 approval of DSUVIA.
- Granted time-based stock options to focus our named executive officers on our long-term performance and align their interests with those of our stockholders.
- In April 2018, the Compensation Committee evaluated and approved the grant of special, performance-vested options to our employees, including our named executive officers, tied to achievement of obtaining FDA approval of DSUVIA, to support employee retention and drive achievement of our strategic goals.
- Established performance goals for annual incentive bonuses intended to reward achievement of key corporate goals, including milestones related to FDA approval of DSUVIA, European approval of DZUVEO, manufacturing and other activities to support the commercialization of DSUVIA in the United States and Zalviso in Europe, and financing objectives, as well as individual performance goals.

In 2019, the Compensation Committee revised equity compensation for our employees, including our named executive officers, to be a mix of stock options and restricted stock units, or RSUs. The Compensation Committee determined that the use of 100% option awards is now a minority practice used by approximately 30% of the Company's peers and therefore decided to incorporate RSUs in order to better align with peer equity compensation practices. It also determined that for peer companies granting a mix of stock options and RSUs, the split is approximately 50% options and 50% RSUs. The equity grant value will now be split roughly equally between stock options and RSUs, with the number of RSUs equal to 50% of the number of stock option grants will vest over a four-year period subject to the continued service of the employee to the Company. Twenty-five percent of the shares will vest on the first anniversary of the option award, with the remaining shares vesting monthly in equal amounts over the remainder of the vesting period. Restricted stock units will vest over three years with annual cliff vesting for each of the three years.

Compensation Philosophy and Practices

At AcelRx, our executive compensation program is based on four guiding principles:

- Integrate compensation closely with the achievement of our business and performance objectives;
- Enhance stockholder value by aligning the financial interests of our executive officers with those of our stockholders;
- Attract, motivate and retain the people needed to define and create industry-leading products and services, and;
- Reward individual performance that contributes to our short-term and long-term success.

Our compensation philosophy and principles have lead us to believe that our compensation programs should include short-term and long-term components, including cash and equity-based compensation, and should reward performance as measured against established goals. Consequently, the compensation of our executive officers generally consists of four principal elements: base salary, annual incentive bonuses, long-term equity incentives, and employee benefits. Our Compensation Committee considers the total current and potential long-term compensation of each of our executive officers in establishing each element of compensation but views each element as related but distinct. We also provide severance and other benefits following termination of employment under certain circumstances.

At our annual meeting in June 2016, we conducted our second advisory vote on executive compensation, commonly referred to as a "say-on-pay" vote. At that time, approximately 99% of the votes affirmatively cast on the advisory say-on-pay proposal were voted in favor of the compensation of our named executive officers. Our Board and our Compensation Committee understood this level of approval to indicate strong stockholder support for our executive compensation policies and programs generally. The views expressed by the stockholders, whether through this vote or otherwise, are important to our Board and our Compensation Committee also remain committed to engaging with shareholders and are open to feedback.

In 2018, we continued many of our key practices and programs that demonstrate good governance, including:

An emphasis on pay for performance. A significant portion of our executive officers' total compensation is variable and at risk and tied directly to
measurable performance, which aligns the interests of our executives with those of our stockholders. The following chart shows the portion of
2018 compensation of our Chief Executive Officer and other named executive officers that is "at risk", consisting of annual performance bonus
earned and equity incentives awarded, as reported in our "Summary Compensation Table":



Reflects 2018 annual base salaries, performance bonus awards and grant date fair values of equity awards, as reported in the Summary Compensation Table. The charts do not include "All Other Compensation" as reported in the summary Compensation Table because such amounts were less than 1% for the CEO and less than 2% for the other NEOs.

- *Peer group positioning.* Using a peer group selected with the assistance of an independent compensation consultant, the Compensation Committee targets alignment of the base salary, annual incentive bonuses and employee benefits elements of our executives' compensation to at or near the 50th percentile of our peer group, and the long-term equity incentive element of our executives' compensation to at or near the 75th percentile of our peer group.
- Equity as a key component to align the interests of our executives with those of our stockholders. Our Compensation Committee continues to believe that keeping executives interests aligned with those of our stockholders through equity incentives is critical to driving toward achievement of long-term goals of both our stockholders and the company.

We also continued practices in 2018 that demonstrate good governance and careful stewardship of corporate assets, including:

- *Limited personal benefits.* Our executive officers are eligible for the same benefits as our non-executive salaried employees, and they do not receive any additional perquisites.
- No pension plan, post-retirement health plans or supplemental deferred compensation or retirement benefits. We do not offer any pension plans or post-retirement health benefits or provide our executive officers with any supplemental deferred compensation or retirement benefits.
- No tax gross-ups. We do not provide our executive officers with any tax gross-ups.
- No single-trigger cash change of control benefits. We do not provide cash severance benefits to our executives upon a change of control, absent an actual termination of employment. We only provide single trigger vesting acceleration if unvested equity awards are not assumed by an acquirer in a change of control.

Compensation Processes and Procedures

Our Board has established a Compensation Committee for the purpose of reviewing and making recommendations to our full Board regarding the compensation to be paid to our executive officers and directors. All compensation decisions regarding our executive officers and directors are ultimately made by our full Board.

Our Compensation Committee generally meets at least once in the first quarter of the year, and again throughout the year as needed. The agenda for each meeting is usually developed by the Chair of the Compensation Committee, in consultation with the Chief Executive Officer. From time to time, members of management and other employees as well as outside advisors or consultants are invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The Compensation Committee also meets regularly in executive session.

The Compensation Committee determines and makes recommendations to our Board regarding the compensation levels of our executive officers and the establishment of performance objectives for the current year for our executive officers. In determining compensation levels, our Compensation Committee will generally consider the Company's overall financial condition and performance, peer company data and other survey materials, reports on current market conditions, operational data, tax and accounting information to ensure that the compensation provided to our executive officers remains competitive relative to compensation paid by companies of similar size and stage of development operating in the biotechnology and pharmaceutical industry, while taking into account our relative performance and our own strategic goals. The members of the Compensation Committee will also consider their own experiences with hiring and retaining executive officers at other companies.

In recommending performance goals for the current year, the Compensation Committee will recommend goals for the clinical, regulatory, commercial, manufacturing operations, and financial areas of the Company.

Role of Compensation Committee's Independent Compensation Consultant

For 2018, the Compensation Committee engaged an independent compensation consultant, Compensia, to provide the Committee with a competitive market assessment of the current compensation for the Company's executive team. Compensia did significant work for the Compensation Committee, including selecting and recommending a peer group of companies for the Compensation Committee to use for comparison purposes in evaluating our executive compensation policies and programs. After review and consultation with Compensia the Compensation Committee has determined that Compensia is independent and there is no conflict of interest resulting from retaining Compensia currently. In reaching these conclusions, the Compensation Committee considered the factors set forth in Rule 10C-1 of the Exchange Act and applicable Nasdaq listing standards.

Under its charter, the Compensation Committee has the sole discretion to retain or obtain the advice of compensation consultants, legal counsel and other compensation advisers, and it has direct responsibility for the appointment, compensation and oversight of the work of any compensation adviser. The Compensation Committee also has the right to receive from the Company appropriate funding for the payment of reasonable compensation to the compensation adviser it selects, as well as the responsibility to consider certain independence factors before selecting such compensation advisers. The compensation consultant reports directly and exclusively to the Compensation Committee with respect to executive and non-employee director compensation matters.

Also under its charter, the Compensation Committee may form and delegate authority to subcommittees as appropriate, including, but not limited to, a subcommittee composed of one or more members of the Board to grant stock awards under the Company's equity incentive plans to persons who are not (a) "Covered Employees" under Section 162(m) of the Internal Revenue Code of 1986, as amended; (b) individuals with respect to whom the Company wishes to comply with Section 162(m) of the Code or (c) then subject to Section 16 of the Exchange Act.

Role of our Management

In general, our Chief Executive Officer and our finance department work together to prepare materials requested by and to be presented to the Compensation Committee, including analyses of financial data, peer data comparisons and other briefing materials. Our Chief Executive Officer typically presents these proposals, along with any background information, to the Compensation Committee for review and consideration. The Compensation Committee may approve, modify, or reject those proposals, or may request additional information from management or outside advisors or consultants on those matters.

For setting compensation levels for executives other than our Chief Executive Officer, the Compensation Committee will solicit and consider the recommendations of the Chief Executive Officer, including his review of the officer's performance and contributions in the prior year, and his recommendations for the potential compensation levels that should be set for each executive officer for the coming year.

Role of Other Independent Board Members

With respect to our Chief Executive Officer, the Compensation Committee generally prepares an evaluation of the Chief Executive Officer, which it then reviews with the independent members of the Board for their input and consideration. The Compensation Committee also submits to the independent Board members its recommendations for Chief Executive Officer compensation. The final compensation elements and levels for the Chief Executive Officer are then determined by the independent members of the Board.

No executive officer is present or participates directly in approving the amount of any component of his or her own compensation package.

Use of Peer Company Data

In 2018, our Compensation Committee reviewed our group of peer companies to ensure appropriateness for use in assessing the Company's executive compensation program and to include a reference peer group composed of larger companies that provide a road map for compensation as the Company grows. The objective was to identify approximately 15 to 20 companies that were reasonably comparable to AcelRx in terms of industry, stage of development and financial characteristics to support compensation decision making.

As a result, our peer group for 2018 consisted of the following companies:

Adamas Pharmaceuticals, Inc.	Ardelyx, Inc.
BioDelivery Sciences International, Inc.	ChemoCentryx, Inc.
Collegium Pharmaceutical, Inc.	Cytokinetics, Inc.
Depomed, Inc.	DURECT Corporation
Egalet Corporation	Flexion Therapeutics, Inc.
Geron Corporation	Omeros Corporation
Avid Bioservices, Inc. (formerly Peregrine Pharmaceuticals)	Rigel Pharmaceuticals, Inc.
Vanda Pharmaceuticals, Inc.	VIVUS, Inc.

These peer group companies, based on available data at the time of our analysis in December 2017, had a market capitalization ranging from \$45 million to \$866 million and a median of \$377 million, as compared to our market capitalization of \$103 million; a range of revenue for the previous four quarters of \$0 to \$415 million and a median of \$32 million, as compared to our revenue of \$14 million; and a number of employees ranging from 18 to 490 with a median of 98, as compared to our 39 employees. The peer group companies may differ from us in size as we compete with many larger and more local companies for talent. Our Compensation Committee generally uses the peer group for a broad understanding of market compensation practices and our positioning within the peer group with respect to each element of our compensation program. In addition, the Compensation Committee finds the peer data useful in evaluating whether our overall executive compensation programs are providing sufficient incentive opportunities and retention components, given the competitive market that exists for talented and experienced executives. In some circumstances, our Compensation Committee targets compensation components to meet certain benchmarks, such as targeting salary to be at or near the 50th percentile of our peer group. However, our Compensation

Committee believes that over-reliance on benchmarking can result in compensation that is unrelated to the value delivered by our executive officers because compensation benchmarking does not take the specific performance of our executives, the performance of the company as a whole, or other unique business circumstances into account.

Elements of Executive Compensation

As discussed above, the compensation of our executive officers generally consists of four principal components: base salary, annual incentive bonuses, long-term equity incentives, and employee benefits. We also provide severance and other benefits following termination of employment under certain circumstances.

Base Salary

As a general matter, we pay our named executive officers a base salary to provide them a stable source of income for the work that they perform during the year. The Compensation Committee generally seeks to set executive salaries at or near the 50th percentile of our peer group. Base salaries are initially established through negotiation at the time the executive is hired, taking into account his or her qualifications, experience, prior salary, and competitive market salary information for similar positions in our industry. Thereafter, the Compensation Committee reviews the base salaries of our executive officers annually and adjustments, if any, are made based on our company's performance and available budget, the performance of each executive officer against his individual job and responsibilities, competitive market conditions for executive compensation for similar positions, as well as increases in the cost of living. As a result of these factors, actual executive salaries may be higher than the 50th percentile of our peer group.

In January 2018, our Compensation Committee reviewed base salary levels for our named executive officers against salaries for similar positions from our peer group of companies. As mentioned above, in light of the Complete Response Letter received from the FDA for DSUVIA, our Compensation Committee decided not to increase the base salaries of our named executive officers in 2018 and to instead award to all employees, including our named executive officers, special, performance-based stock options tied to obtaining FDA approval of DSUVIA, in order to better align the interests of our named executive officers and employees with our strategic goals in 2018. Accordingly, the annual base salaries for our named executive officers in 2017, as shown in the table below.

2017 Annual	2018 Annual	Percentage Increase to Annual
Base Salary (\$)	Base Salary (\$)	Base Salary
600,000	600,000	N/A
400,000	400,000	N/A
467,750	467,750	N/A
341,525	341,525	N/A
341,525	341,525	N/A
	Base Salary (\$) 600,000 400,000 467,750 341,525	Base Salary (\$) Base Salary (\$) 600,000 600,000 400,000 400,000 467,750 467,750 341,525 341,525

Annual Incentive Bonuses

Our annual Cash Bonus Plan is designed to provide an incentive to our executive officers and other employees to achieve our short-term corporate performance objectives, and to reward them when these objectives are achieved, while also taking into account the level of individual contribution. Under the annual Cash Bonus Plan, target bonus levels are assigned based on various categories of employees, with our executive employees having higher bonus opportunities, but also more pay at risk in the event our performance objectives are not achieved. Each year, the Compensation Committee reviews a detailed set of overall corporate performance goals for the current year for use under our annual bonus plan. These performance objectives are initially prepared by management, reviewed (and revised, if determined appropriate) by the Compensation Committee, and then presented to the full Board for approval. Goals under the annual incentive bonuses are set based on the Company's overall performance objectives, as well as the objectives for performance within each executive's functional area, including his relative individual contributions, while taking into account competitive market information.

Whether or not a bonus is paid for any year and the actual amount of a bonus awarded in any year is within the discretion of our Board. The actual amount of a bonus awarded in any year may be more or less than the target amount, depending on the Board of Director's assessment as to whether and to what extent we have achieved our corporate objectives, and whether and to what extent an individual has achieved his or her individual objectives. Our Board also has the discretion to award bonuses, however, even if the applicable performance criteria set forth under the annual Cash Bonus Plan have not been met, or to award a bonus based on other criteria.

The Compensation Committee set target bonus percentages at or near the 50th percentile of our peer group. For 2018, the target bonus percentage was 55% of annual base salary for our Chief Executive Officer, 40% of annual base salary for our Chief Medical Officer, 40% of annual base salary for our Chief Financial Officer, and 35% of annual base salary for the remaining named executive officers, which is the same bonus target percentages that were in effect for 2017, except that our Chief Financial Officer's target bonus percentage was increased from 30% to 40% of his base salary in order to set his target bonus percentage closer to the 50th percentile of the peer group. The weighting of the corporate performance and individual performance goals for the executives was not changed. Since our Chief Executive Officer is responsible for the overall performance of the Company, his 2018 annual bonus was based solely on the Company's overall performance in achieving corporate goals. For our other named executive officers, the cash bonus was weighted 60% on achievement of the Company's 2018 corporate objectives and 40% on achieving his or her individual performance goals, as determined by the Chief Executive Officer, recommended by the Compensation Committee and approved by the Board.



Our 2018 corporate performance objectives, as recommended by our Compensation Committee and approved by our Board, were as follows:

- Achieve successful outcome in DSUVIA Advisory Committee meeting and obtain FDA approval of DSUVIA;
- Obtain financing to provide adequate capitalization to begin the commercialization of DSUVIA;
- Manufacture and undertake other activities to support the commercialization of DSUVIA in the United States and the commercialization of Zalviso by Grünenthal in the EU; and
- Defend and obtain approval of MAA for DZUVEO in the EU.

At the end of each year, the Compensation Committee determines the overall level of corporate achievement, including assessing our performance relative to these goals. The Compensation Committee does not use a rigid formula in determining the Company's level of achievement, but instead considers:

- the degree of success achieved for each corporate goal, comparing actual results against the pre-determined deliverables associated with each objective;
- the difficulty of the goal;
- whether significant unforeseen obstacles or favorable circumstances altered the expected difficulty of achieving the desired results;
- other factors that may have made the stated goals more or less important to our success; and
- other accomplishments by us during the year or other factors which, although not included as part of the formal goals, are nonetheless deemed important to our near- and long-term success.

The Compensation Committee does assign weightings to the goals by functional area, but, as described above, uses its discretion and judgment to determine a percentage that it believes fairly represents our achievement level for the year. In February 2019, the Compensation Committee reviewed the performance of the Company against its 2018 goals. Due to the Company's receipt of FDA approval of DSUVIA, receipt of approval of DZUVEO in the EU, obtaining adequate financing to begin commercialization of DSUVIA and preparing the supply chain for the DSUVIA launch, the Compensation Committee determined that the Company had achieved 100% of its 2018 corporate objectives, which was then presented and confirmed by the Board.

Also in February 2019, the Board confirmed that each of the named executive officers achieved a performance level of 100% against his or her individual performance goals for 2018, with the exception of Dr. Palmer, who was being awarded a bonus at the 105% achievement level in acknowledgement of her outstanding work in 2018 towards obtaining FDA approval for DSUVIA. In making these determinations, the Board considered the following:

- In evaluating Mr. Asadorian's performance, the Compensation Committee considered his attainment of certain defined individual objectives. In
 particular, in 2018 Mr. Asadorian led financing efforts to raise net proceeds of \$75.0 million, managed spending within the Board-approved net
 operating budget; developed contingency plans to address future cash requirements; supported the Company's financial planning and analysis
 requirements; supported the Company's investor relations strategy; ensured compliance with internal controls; and met SEC reporting
 compliance requirements.
- In evaluating Dr. Palmer's performance, the Compensation Committee considered her attainment of certain defined individual objectives. In
 particular, in 2018 Dr. Palmer supported the FDA review of the NDA for DSUVIA in the United States, leading to a successful Advisory
 Committee meeting and FDA approval of DSUVIA; defended the MAA for DZUVEO in the EU, leading to approval of DZUVEO in the EU;
 and completed certain abstract and poster presentations relating to the Company's product portfolio.

- In evaluating Mr. Dasu's performance, the Compensation Committee considered his attainment of certain defined individual objectives. In particular, in 2018 Mr. Dasu completed certain engineering work to prepare for the commercialization of DSUVIA; to support Zalviso and DSUVIA device development and manufacturing; to support the commercialization of Zalviso in the EU; and supported regulatory efforts related to the defense of the MAA for DZUVEO in the EU.
- In evaluating Mr. Hamel's performance, the Compensation Committee considered his attainment of certain defined individual objectives. In particular, in 2018 Mr. Hamel supported the effort to prepare for commercialization of DSUVIA in the United States; completed certain pharmaceutical work in support of the continued development of commercial supplies of Zalviso in the EU; supported the FDA review of the NDA for DSUVIA; and supported the EMA review of the MAA for DZUVEO in the EU.

Pursuant to the 2018 Bonus Plan, and based on the recommendations of the Compensation Committee, in February 2019, the Board awarded cash bonuses to our executives based on the confirmed attainment level of the 2018 corporate objectives and the confirmed attainment level of their respective individual performance goals for 2018. All bonus amounts were paid on February 15, 2019.

The table below provides the target bonus for each named executive officer, the level of performance achieved against the goals, and the amount of the actual bonus paid:

	2018 Target Bonus as a Percentage of Annual	2018 Target	Level of Achievement of Corporate	Level of Achievement of Individual	2018 Actual Bonus
Name	Base Salary	Bonus(\$)	Goals	Goals	Paid (\$)
Vincent Angotti	55%	330,000	100%	N/A	330,000
Raffi Asadorian	40%	160,000	100%	100%	160,000
Pamela P. Palmer, M.D., Ph. D.	40%	187,100	100%	105%	190,842
Badri Dasu	35%	119,534	100%	100%	119,534
Lawrence G. Hamel	35%	119,534	100%	100%	119,534

Equity Compensation

Equity incentives represent the largest at-risk element of our executive compensation program. Our equity incentives are designed to align the interests of our executive officers with those of our stockholders by creating an incentive for our executive officers to maximize stockholder value and to remain employed with us despite a competitive labor market. In general, stock awards are granted once annually to existing employees, including our executive officers, and upon a new hire or promotion, and are subject to vesting over time, based on the individual's continued employment. Typically, stock awards grants are made to our existing executive officers at the beginning of each fiscal year, and these annual stock awards consist of stock options. However, sometimes such annual stock awards are made at the end of a fiscal year. Our Board and Compensation Committee believes that stock options continue to be an appropriate vehicle for equity awards at this time, because our executives are only able to realize rewards if our stockholders also have gains.

In making recommendations to our Board regarding the size of long-term equity incentives to award to our named executive officers, our Compensation Committee refers to guidelines we have developed based on an executive's position, which in turn were developed based on third party survey data of companies in our industry. Our Compensation Committee also considers the role and responsibilities of the named executive officers, competitive factors, the non-equity compensation received by the named executive officers in current and previous years, as well as the total available pool of equity to be granted in the current fiscal year and each executive's current equity ownership in the Company and the extent to which outstanding awards are fully vested. After reviewing all of these factors, the Compensation Committee makes recommendations to our Board, who awarded our then-serving named executive officers the stock options reflected in the tables that follow this CD&A. Our Board made annual stock option grants to Mr. Angotti, Mr. Asadorian, Dr. Palmer, Mr. Dasu and Mr. Hamel in February 2018, which awards were set to be at or near the 75th percentile of our peer group. Although awards were below market in terms of value, from a percent of company perspective, equity grants in 2018 were at the 75th percentile. Our Board believes setting equity awards at or near the 75th percentile of our peer group strengthens the alignment of our named executive officers' interests with those of our stockholders.

Our stock option awards typically vest over a four-year period subject to the continued service of the employee to the Company. Twenty-five percent of the shares typically vest on the first anniversary of the option award, with the remaining shares vesting monthly in equal amounts over the remainder of the vesting period.

On April 7, 2018, the Board, based upon the recommendation of the Compensation Committee, granted a new type of performance-based stock option award to our employees, including our named executive officers in order to incentivize the attainment of our short-term strategic goal to obtain commercial approval by the FDA of the NDA for DSUVIA. Vesting of the performance-based stock options is as follows: 50% of the stock option award becomes vested and exercisable upon the Company's achievement of commercial approval by the FDA of its NDA for DSUVIA on or before February 15, 2019, which FDA approval was received on November 2, 2018; and the remaining 50% of the award shall vest on the one-year anniversary of the date of such FDA approval, or November 2, 2019, in all cases subject to the employee's continuous service to the Company. All of the performance-based options were granted with an exercise price of \$2.23, the closing sales price as reported on the Nasdaq Global Market on April 9, 2018. The other terms of the performance-based option are substantially similar to the Board-approved form of option agreement used for time-based option grants.

Perquisites and Other Benefits

Consistent with our compensation philosophy, we intend to continue to maintain our current benefits for our executive officers, which are also generally available to employees, including medical, dental, vision and life insurance coverage and 401(k) employer contributions; however, the Compensation Committee in its discretion may revise, amend or add to these benefits. Our 401(k) plan provides that eligible employees can elect to contribute to the 401(k) plan, subject to certain limitations. Pursuant to the 401(k) plan, we make annual matching contributions to each participant in the 401(k) plan of up to 4% of the participant's related compensation. All matching contributions are subject to a three-year vesting schedule, based on the number of years of service with the Company.

Severance Benefits

AcelRx maintains a Severance Plan (as defined below) for certain of our executive officers, under which our named executive officers are also eligible to become participants, and offer letter agreements with certain of our named executive officers, including Mr. Angotti, also include severance and change of control benefits. The terms of the severance and change of control benefits are described in more detail below in the section entitled "Potential Payments Upon Termination or Change of Control." Given the nature of the industry in which we participate and the range of strategic initiatives that we may explore, we believe providing severance and change of control benefits are an essential element of our executive compensation package and assist us in recruiting and retaining talented individuals in a marketplace where these types of arrangements are commonly offered by our peer companies. Change of control benefits are generally structured on a "double-trigger" basis, meaning that the executive officer must experience a constructive termination or a termination without cause in connection with the change of control in order for the change of control benefits to become due, except as noted below. By establishing these severance benefits, we believe we can mitigate the distraction and loss of executive officers that may occur in connection with rumored or actual fundamental corporate changes and thereby protect shareholder interests while a transaction is under consideration or pending.

Employment Agreements and Arrangements

We have entered into offer letter agreements with each of our named executive officers, in connection with each named executive officer's commencement of employment with us. Each of our executive officers is employed "at-will," and each such executive officer's employment may be terminated at any time by us or the named executive officer. These offer letter agreements provide for the named executive officer's initial base salary, a target annual bonus opportunity, eligibility to participate in our standard benefit plans and in certain cases, a new hire stock option grant along with vesting provisions with respect to such stock option grant. These agreements also provide for severance benefits upon termination of employment or a change of control of our company, which are described in more detail under the heading "Benefits Upon Termination or Change in Control."

2019 Compensation Actions

In February 2019, the Compensation Committee and Board approved base salary, target bonuses and time-based equity awards for our continuing named executive officers that were generally consistent with past practice, except that RSUs were also approved in addition to stock options. The equity grant value will now be split roughly equally between stock options and RSUs, with the number of RSUs equal to 50% of the number of stock options. These stock options and RSUs were granted to such employees in consideration of their services to the Company. Stock options shall vest as follows: one-fourth (1/4) shall vest on the one year anniversary of the vesting commencement date, and then 1/48th of the shares shall vest on each of the 36 months thereafter, in all cases subject to the employee's continuous service. The RSUs shall vest over three years: one-third (1/3) on each anniversary of the vesting commencement date, in all cases subject to the employee's continuous service.

The Compensation Committee and Board introduced the grant of RSUs along with options starting in 2019 because they had determined that the use of 100% option awards is now a minority practice used by approximately 30% of the Company's peers and therefore decided to incorporate RSUs in order to better align with peer equity compensation practices. It was also determined that for peer companies granting a mix of stock options and RSUs, the split is approximately 50% options and 50% RSUs.

Analysis of Risks Presented by our Compensation Policies and Programs

Our Compensation Committee has discussed the concept of risk as it relates to the forms and amounts of compensation at AcelRx and believes that the risks arising from our compensation policies and practices for our employees are not reasonably likely to have a material adverse effect on us. In addition, our Compensation Committee believes that the mix and design of the elements of our executive compensation program do not encourage management to assume excessive risks. Our compensation program consists of both fixed and variable compensation. The fixed (or salary) portion is designed to provide a steady income regardless of our stock price performance so that executives do not focus exclusively on stock price performance to the detriment of other important business metrics. The variable (cash bonus and equity) portions of compensation are designed to reward both short-term and long-term corporate performance. We believe that the variable elements of compensation are a sufficient percentage of overall compensation to motivate executives to produce positive short- and long-term corporate results, while the fixed element is also sufficiently high such that executives are not encouraged to take unnecessary or excessive risks in doing so. Because executive officers receive a significant portion of their compensation. Furthermore, the performance goals used to determine the amount of an executive officer's bonus are measures that the Compensation Committee believes contribute to long-term stockholder value and promote the continued viability of the company and are often focused on key events related to the overall success of our product development. Finally, compensation decisions include subjective considerations, which help to constrain the influence of formulas or objective factors on excessive risk taking.

Compensation Recovery Policy

We do not have a policy to attempt to recover cash bonus payments paid to our executive officers if the performance objectives that led to the determination of such payments were to be restated or found not to have been met to the extent the Compensation Committee originally believed. However, as a public company subject to the provisions of Section 304 of the Sarbanes-Oxley Act of 2002, if we are required as a result of misconduct to restate our financial results due to our material noncompliance with any financial reporting requirements under the federal securities laws, our Chief Executive Officer and Chief Financial Officer may be legally required to reimburse us for any bonus or other incentive-based or equity-based compensation they receive. In addition, we plan to implement appropriate compensation recoupment programs in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. Margin accounts or pledged securities are not permitted according to our Insider Trading Policy, because a margin sale or foreclosure sale may occur at a time when the pledgor is aware of inside information or is otherwise not permitted to trade in AcelRx securities. Likewise, hedging transactions or short sales are not permitted under our Insider Trading Policy to ensure that the director, officer or employee continues to have the same objectives as the Company's other shareholders.

Accounting and Tax Considerations

AcelRx accounts for stock-based awards exchanged for employee services in accordance with the *Compensation – Stock Compensation* topic of the Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC. In accordance with the topic, we are required to estimate and record an expense for each award of equity compensation over the vesting period of the award. Accounting rules also require us to record cash compensation as an expense over the period during which it is earned.

Under Section 162(m) of the Code, or Section 162(m), compensation paid to any publicly held corporation's "covered employees" that exceeds \$1 million per taxable year for any covered employee is generally non-deductible.

Prior to the enactment of the Tax Cuts and Jobs Act of 2017, or Tax Cuts and Jobs Act, Section 162(m) provided a performance-based compensation exception, pursuant to which the deduction limit under Section 162(m) did not apply to any compensation that qualified as "performance-based compensation" under Section 162(m). Pursuant to the Tax Cuts and Jobs Act, the performance-based compensation exception under Section 162(m) was repealed with respect to taxable years beginning after December 31, 2017, except that certain transition relief is provided for compensation paid pursuant to a written binding contract which was in effect on November 2, 2017 and which is not modified in any material respect on or after such date.

Compensation paid to each of the Company's "covered employees" in excess of \$1 million per taxable year generally will not be deductible unless it qualifies for the performance-based compensation exception under Section 162(m) pursuant to the transition relief described above. Because of certain ambiguities and uncertainties as to the application and interpretation of Section 162(m), as well as other factors beyond the control of the Compensation Committee, no assurance can be given that any compensation paid by the Company will be eligible for such transition relief and be deductible by the Company in the future. Although the Compensation Committee will continue to consider tax implications as one factor in determining executive compensation for the Company's named executive officers in a manner consistent with the goals of the Company's executive compensation program and the best interests of the Company and its stockholders, which may include providing for compensation that is not deductible by the Company due to the deduction limit under Section 162(m). The Compensation Committee also retains the flexibility to modify compensation that was initially intended to be exempt from the deduction limit under Section 162(m) if it determines that such modifications are consistent with the Company's business needs.

COMPENSATION COMMITTEE REPORT

The material in this report is not "soliciting material," is not deemed "filed" with the Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, other than in this Form 10-K/A where it shall be deemed to be furnished, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The Compensation Committee has reviewed and discussed with management the CD&A contained in this Form 10-K/A. Based on this review and discussion, the Compensation Committee has recommended to the Board that the CD&A be included in this Form 10-K/A.

The foregoing report has been furnished by the Compensation Committee.

Richard Afable, M.D., Committee Chair Mark Wan Adrian Adams

SUMMARY COMPENSATION TABLE

The following table sets forth certain summary information for the year indicated with respect to the compensation earned by our named executive officers as of December 31, 2018.

Summary Compensation Table

		Salary	Bonus	Option Awards	Non-Equity Incentive Plan Compensation	All Other Compensation	
Name and Principal Position	Year	(\$)	(\$)	(\$) ⁽¹⁾	(\$) ⁽²⁾	(\$) ⁽³⁾	Total (\$)
Vincent J. Angotti	2018	600,000	_	797,845	330,000	11,000	1,738,845
Chief Executive Officer	2017	493,461	—	1,687,122	164,340	9,000	2,353,923
Raffi Asadorian	2018	400,000	_	336,235	160,000	11,000	907,235
Chief Financial Officer	2017	150,000	—	420,087	34,200	2,000	606,287
Pamela P. Palmer, M.D., Ph.D.	2018	467,750	_	394,364	190,842	11,000	1,063,956
Chief Medical Officer	2017	467,750	_	253,347	142,196	10,800	874,093
	2016	457,500	_	261,246	177,510	10,600	906,856
Badri Dasu	2018	341,525	_	262,149	119,534	11,000	734,208
Chief Engineering Officer	2017	341,525	_	152,008	90,846	10,800	595,179
	2016	334,000	_	165,495	113,393	10,600	623,488
Lawrence G. Hamel	2018	341,525	_	216,558	119,534	11,000	688,617
Chief Development Officer	2017	341,525	_	152,008	90,846	10,800	595,179
	2016	334,000		165,495	113,393	10,600	623,488

(1) The dollar amounts in this column represent the aggregate grant date fair value of all option awards granted during the indicated year. These amounts have been calculated in accordance with ASC 718, using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. For a discussion of valuation assumptions, see Note 1 to our financial statements and the discussion under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation" included in the Original Form 10-K. These amounts do not necessarily correspond to the actual value that may be recognized from the option awards by the named executive officers.

(2) The dollar amounts in 2018 reflect the incentive bonuses awarded to the named executive officers under the Company's 2018 Cash Bonus Plan and which were paid in February 2019.

(3) Reflects matching contributions made by AcelRx under its 401(k) Plan on behalf of each named executive officer.

In February 2017, we entered into an offer letter agreement with Mr. Angotti, which provided for an initial annual base salary of \$600,000 with an annual cash bonus targeted at 55% of Mr. Angotti's base salary. As of the date of this Form 10-K/A, Mr. Angotti's annual base salary is \$618,000 and Mr. Angotti is eligible for an annual target bonus of up to 55% of his annual base salary.

In July 2017, we entered into an offer letter agreement with Mr. Asadorian, which provided for an initial annual base salary of \$400,000 with an annual cash bonus targeted at 30% of Mr. Asadorian's base salary. As of the date of this Form 10-K/A, Mr. Asadorian's annual base salary is \$430,000 and Mr. Asadorian is eligible for an annual target bonus of up to 40% of his annual base salary.

In December 2010, we entered into an offer letter agreement with Dr. Palmer, which provided for an initial annual base salary of \$375,000. As of the date of this Form 10-K/A, Dr. Palmer's annual base salary is \$481,800 and Dr. Palmer is eligible for an annual target bonus of up to 40% of her annual base salary.

In December 2010, we entered into an offer letter agreement with Mr. Dasu, which provided for an initial annual base salary of \$235,000. As of the date of this Form 10-K/A, Mr. Dasu's annual base salary is \$351,771 and Mr. Dasu is eligible for an annual target bonus of up to 35% of his annual base salary.

In December 2010, we entered into an offer letter agreement with Mr. Hamel, which provided for an initial annual base salary of \$275,000. As of the date of this Form 10-K/A, Mr. Hamel's annual base salary is \$351,771 and Mr. Hamel is eligible for an annual target bonus of up to 35% of his annual base salary.

PAY RATIO

Pursuant to the Exchange Act, we are required to calculate and disclose in this Form 10-K/A the ratio of the total annual compensation of our Chief Executive Officer to the median of the total annual compensation of all of our employees (excluding our Chief Executive Officer) for the last fiscal year. Based on SEC rules for this disclosure and applying the methodology described below, we have determined that our Chief Executive Officer's total compensation of our median employee for 2018 was \$328,891. Accordingly, we estimate the ratio of our Chief Executive Officer's total compensation for 2017 to the median of the total compensation of all of our employees (excluding our Chief Executive Officer) for 2018 to be 5.3 to 1 (such ratio, the "Chief Executive Officer Pay Ratio").

We selected December 31, 2018, which is a date within the last three months of fiscal 2018, as the date we would use to identify our median employee. We identified the median employee by examining the 2018 annual base salary for all individuals, excluding our Chief Executive Officer, who were employed by us on December 31, 2018. We included all employees in this analysis. We annualized the compensation of all part-time employees and all non-temporary employees who were not employed by us for all of 2018. We did not make any cost-of-living adjustments in identifying the median employee.

Once the median employee was identified as described above, that employee's total annual compensation for fiscal 2018 was determined using the same rules that apply to reporting the compensation of our named executive officers (including our Chief Executive Officer) in the "Total" column of the Summary Compensation Table above. The total compensation amounts included in the first paragraph of this pay-ratio disclosure were determined based on that methodology.

The Chief Executive Officer Pay Ratio above represents our reasonable estimate calculated in a manner consistent with SEC rules and applicable guidance. SEC rules and guidance provide significant flexibility in how companies identify the median employee, and each company may use a different methodology and make different assumptions particular to that company. As a result, and as explained by the SEC when it adopted these rules, in considering the pay ratio disclosure, stockholders should keep in mind that the rule was not designed to facilitate comparisons of pay ratios among different companies, even companies within the same industry, but rather to allow stockholders to better understand and assess each particular company's compensation practices and pay ratio disclosures.

Neither the Compensation Committee nor our management used our Chief Executive Officer Pay Ratio measure in making compensation decisions.

GRANTS OF PLAN BASED AWARDS IN FISCAL 2018

The following table provides information with regard to each grant of plan-based award made to a named executive officer under any plan during the fiscal year ended December 31, 2018.

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards ⁽¹⁾		Number of Securities Underlying	Exercise or Base Price of Option Awards	Grant Date Fair Value of Option	
Name	Grant Date	Threshold(\$)	Target(\$)	Maximum(\$)	Options (#) (2)	(\$/Sh) ⁽⁴⁾	Awards (\$)
Vincent J. Angotti							
Stock Options ⁽²⁾	1/22/2018	_		_	350,000	2.00	494,670
Stock Options ⁽³⁾	4/9/2018	_	_	_	192,500	2.23	303,175
Annual Bonus Plan	—	—	330,000		—		—
Raffi Asadorian							
Stock Options ⁽²⁾	1/22/2018	—	—		147,500	2.00	208,468
Stock Options ⁽³⁾	4/9/2018	—	—	_	81,125	2.23	127,767
Annual Bonus Plan			160,000		—		—
Pamela P. Palmer, M.D., Ph. D.							
Stock Options ⁽²⁾	1/22/2018				173,000	2.00	244,508
Stock Options ⁽³⁾	4/9/2018		_		95,150	2.00	149,855
Annual Bonus Plan	4/9/2018		187,100	_	95,150	2.23	149,833
			107,100				
Badri Dasu							
Stock Options ⁽²⁾	1/22/2018	_	_		115,000	2.00	162,534
Stock Options ⁽³⁾	4/9/2018	_			63,250	2.23	99,615
Annual Bonus Plan	_	_	119,534	_	—		—
Lawrence G. Hamel							
Stock Options ⁽²⁾	1/22/2018		_		95,000	2.00	134,268
Stock Options ⁽³⁾	4/9/2018				52,250	2.23	82,290
Annual Bonus Plan	—	—	119,534	—	_	—	_

(1) The Annual Bonus Plan amount in the table above reflects the target value of a cash bonus award to each respective named executive officer in 2018 under the Annual Bonus Plan approved by the Compensation Committee. There is no minimum or maximum bonus amount under the Annual Bonus Plan. The cash bonus award amounts actually paid under the Annual Bonus Plan to the named executive officers in 2018 are shown in the Summary Compensation Table for 2018 under the heading "Non-Equity Incentive Plan Compensation" and the accompanying footnote. Please refer to "Compensation Discussion and Analysis" above for a description of the Annual Bonus Plan.

(2) The time-vested stock options granted to our named executive officers in 2018 are exercisable with respect to 25% of the shares starting on the twelve month anniversary of the vesting commencement date, and 1/48th of the shares vesting monthly thereafter, subject to continuous service, and each of these options expiring 10 years from the date of grant.

(3) The performance-based stock options granted to our named executive officers in 2018 are exercisable as follows: 50% of the stock option award becomes vested and exercisable upon the Company's achievement of commercial approval by the FDA of its NDA for DSUVIA on or before February 15, 2019, which FDA approval was received on November 2, 2018; and the remaining 50% of the award shall vest on the one-year anniversary of the date of such FDA approval, or November 2, 2019, subject to continuous service, and each of these options expiring 10 years from the date of grant.

(4) Options are granted at an exercise price equal to the fair market value of our Common Stock, as determined by reference to the closing price reported by the Nasdaq Global Market on the date of grant.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2018

The following table presents information regarding outstanding equity awards held by our named executive officers as of December 31, 2018.

	Option Awards ⁽¹⁾					
Name	Vesting Commencement Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	
Vincent J. Angotti	04/09/2018 ⁽²⁾	96,250	96,250	2.23	04/09/2029	
č	01/22/2018	_	350,000	2.00	01/22/2028	
	03/06/2017	350,000	450,000	3.30	03/06/2027	
Raffi Asadorian	04/09/2018 ⁽²⁾	40,562	40,563	2.23	04/09/2029	
	01/22/2018	, 	147,500	2.00	01/22/2028	
	08/16/2017	73,333	146,667	3.00	08/16/2027	
Pamela P. Palmer, M.D., Ph.D.	04/09/2018(2)	47,575	47,575	2.23	04/09/2029	
	01/22/2018	_	173,000	2.00	01/22/2028	
	02/07/2017	60,729	72,771	3.00	02/07/2027	
	02/10/2016	101,099	9,401	3.40	02/10/2026	
	12/02/2014	110,000	_	6.60	12/02/2024	
	02/04/2014	100,000	_	10.34	02/04/2024	
		388,137	_	5.31	02/05/2023	
		231,911	_	3.39	02/07/2022	
		100,000	_	3.45	03/02/2021	
		221,000 ⁽³⁾	_	2.56	06/15/2020	
Badri Dasu	04/09/2018 ⁽²⁾	31,625	31,625	2.23	04/09/2029	
	01/22/2018	_	115,000	2.00	01/22/2028	
	02/07/2017	36,437	43,063	3.00	02/07/2027	
	02/10/2016	49,583	20,417	3.40	02/10/2026	
	12/02/2014	70,000	—	6.60	12/02/2024	
	02/04/2014	60,000	—	10.34	02/04/2024	
		131,316	—	5.31	02/05/2023	
		51,319	_	3.39	02/07/2022	
		52,500	—	3.45	03/02/2021	
		55,000 ⁽³⁾		2.56	06/15/2020	
Lawrence G. Hamel	04/09/2018(2)	21,125	26,125	2.23	04/09/2029	
	01/22/2018	—	95,000	2.00	01/22/2028	
	02/07/2017	36,437	43,063	3.00	02/07/2027	
	02/10/2016	49,583	20,417	3.40	02/10/2026	
	12/02/2014	70,000	_	6.60	12/02/2024	

	Option Awards ⁽¹⁾					
	N	Number of Securities Underlying	Number of Securities Underlying	Option		
	Vesting Commencement	Unexercised Options (#)	Unexercised Options (#)	Exercise Price	Option Expiration	
Name	Date	Exercisable	Unexercisable	(\$)	Date	
	02/04/2014	60,000		10.34	02/04/2024	
		124,343	—	5.31	02/05/2023	
		51,319	—	3.39	02/07/2022	
		31,000	—	3.45	03/02/2021	
		62,500 ⁽³⁾	_	2.56	06/15/2020	

- (1) Unless otherwise noted, all awards were granted pursuant to AcelRx's 2011 Equity Incentive Plan. With the exception of the performance-based stock options granted on April 9, 2018, all stock options vest over 4 years, with 25% of the shares vesting on the twelve month anniversary of the vesting commencement date, and 1/48th of the shares vesting monthly thereafter, subject to continuous service. Vesting commencement dates are included for stock options that were not fully vested as of December 31, 2018.
- (2) The performance-based stock options granted to our named executive officers on April 9, 2018 are exercisable as follows: 50% of the stock option award becomes vested and exercisable upon the Company's achievement of commercial approval by the FDA of its NDA for DSUVIA on or before February 15, 2019, which FDA approval was received on November 2, 2018; and the remaining 50% of the award shall vest on the one-year anniversary of the date of such FDA approval, or November 2, 2019, subject to continuous service.
- (3) Award granted pursuant to AcelRx's 2006 Stock Plan.

OPTION EXERCISES

The following table shows for the fiscal year ended December 31, 2018, certain information regarding option exercises during the year with respect to the named executive officers.

	Number of Shares Acquired on	Value Realized on
Name	Exercise	Exercise ⁽¹⁾
Lawrence G. Hamel	5,000	\$13,875

(1) The aggregate dollar amount realized upon the exercise of a stock option represents the difference between the aggregate market price of the shares of our Common Stock underlying that stock option on the date of exercise, as determined by reference to the closing price reported by the Nasdaq Global Market on the date of exercise, and the aggregate exercise price of the option.

²²

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE OF CONTROL FOR EACH NAMED EXECUTIVE OFFICER

The table below reflects the amount of compensation to each of the named executive officers pursuant to each executive's employment agreement or our Severance Plan, as applicable, in the event of termination of such executive's employment or in the event of a change of control. The amounts shown assume that a named executive officer's termination was effective as of December 31, 2018.

Potential Payments Upon Termination or Change of Control for each Named Executive Officer

Executive benefits and payments upon termination ^{(1) (2)} :	Involuntary termination not for cause or by constructive termination not in connection with a change of control(\$)	Involuntary termination not for cause or by constructive termination following a change of control(\$)
Vincent J. Angotti		
Base salary	600,000	1,200,000
Non-equity incentive compensation	330,000	824,340
Medical continuation	34,533	69,066
Value of accelerated stock options	59,690	116,200
Raffi Asadorian		
Base salary	200,000	400,000
Non-equity incentive compensation	—	160,000
Medical continuation	12,837	25,675
Value of accelerated stock options	—	48,970
Pamela P. Palmer, M.D., Ph.D.		
Base salary	233,875	467,750
Non-equity incentive compensation		187,100
Medical continuation	10,631	21,261
Value of accelerated stock options	—	57,436
Badri Dasu		
Base salary	170,763	341,525
Non-equity incentive compensation		119,534
Medical continuation	17,267	34,533
Value of accelerated stock options	· - ·	38,180
Lawrence G. Hamel		
Base salary	170,763	341,525
Non-equity incentive compensation		119,534
Medical continuation	12,221	24,442
Value of accelerated stock options		31,540
value of accolorated stock options		51,540

(1) The amounts shown above reflect the benefits payable under Mr. Angotti's employment offer letter and to our other named executive officers pursuant to our Severance Benefit Plan in place as of December 31, 2018. Please see "Benefits Upon Termination or Change in Control" in "Compensation Discussion and Analysis" above for a description of the terms of the Severance Benefit Plan as amended and restated.

(2) The closing price of our common stock on December 31, 2018 was \$2.31 per share. Accordingly, the aggregate intrinsic value represents only the value for those options in which the exercise price of the option is less than the market value of our stock on December 31, 2018.

Benefits Upon Termination or Change in Control

Mr. Angotti. Under our offer letter agreement with Mr. Angotti, in the event that Mr. Angotti's employment is terminated by us without cause (and not due to his death or disability) or he resigns for good reason, referred to as an involuntary termination, then he will be entitled to the following severance benefits: (i) a lump sum cash severance payment in an amount equal to twelve months of his then-current base salary, plus 100% of his target annual bonus for the year of termination; (ii) reimbursement of COBRA premiums for up to twelve months; (iii) twelve months' worth of accelerated vesting of his equity awards, and (iv) extended exercisability of vested options for up to twelve months following his termination date. In addition, if Mr. Angotti experiences an involuntary termination within three months prior to or eighteen months following a change in control of AcelRx, then his severance benefits will be increased as follows: (w) the lump sum cash severance payment will instead be an amount equal to twenty-four months of his then-current base salary, plus 200% of his target annual bonus; (x) he will be entitled to payment of any bonus earned but not yet paid for the prior fiscal year; (y) the COBRA premium reimbursement period will be for up to twenty-four months; and (z) 100% of all then-unvested equity awards will accelerate as of his termination date. In order to receive any severance benefits, Mr. Angotti must sign a waiver and release of claims in favor of AcelRx.

Severance Benefit Plan. In February 2017, our Board adopted an Amended and Restated Severance Benefit Plan, or Severance Plan, to create two tiers of severance benefits payable to participating executive officers upon an involuntary termination in connection with a change in control, depending on the executive officer's position with AcelRx as of the change in control transaction. The Severance Plan is subject to the Employee Retirement Income Security Act of 1974 and is intended to maintain the competitiveness and effectiveness of our total compensation packages. The Severance Plan replaces the prior change of control and severance arrangements contained in the offer letter agreements with Dr. Palmer, Mr. Dasu and Mr. Hamel.

The Severance Plan provides that if an executive officer's employment with us is terminated by us without cause (and not due to death or disability) or the executive officer resigns for good reason (as such terms are defined in the Severance Plan), referred to below as an involuntary termination, the executive officer will receive (i) a lump sum severance payment equal to 6 months of the monthly base salary the executive officer was receiving immediately prior to such termination date; and (ii) up to 6 months of reimbursement for premiums paid for COBRA coverage for the executive officer and his or her eligible dependents. In addition, the Severance Plan provides for the following enhanced severance benefits if an executive officer's involuntary termination occurs within 3 months prior to or within 18 months after a change in control (as such term is defined in the Severance Plan) of AcelRx:

Severance		
Benefit	C-level officers *	VP, SVP or EVP
Base Salary:	12 months	6 months
Target Bonus:	100% of target bonus opportunity	Greater of 50% of target bonus opportunity, or a prorated amount of target bonus opportunity through termination date
Reimbursement of COBRA Premiums:	Up to 12 months	Up to 6 months
Vesting Acceleration:	100% vesting and exercisability of all outstanding unvested stock awards subject to time-based vesting	Same as for C-level executive officers
Extended exercisability of stock options:	Until 6 months after termination date (or earlier expiration date of the award)	Same as for C-level executive officers

* Executive officer must elect to participate in the Severance Plan in lieu of any separate benefits in their employment offer letters

The Severance Plan also provides that in the event that an outstanding unvested time-based vesting stock award does not become an assumed award in connection with a change in control, each such outstanding stock award will become 100% vested and exercisable immediately prior to the effective date of the change in control. All severance benefits payable under the Severance Plan are subject to the execution of a waiver and release of claims in favor of AcelRx.

Mr. Angotti's offer letter and the Severance Plan also contain a "better after-tax" provision, which provides that if any of the payments to the executive constitutes a parachute payment under Section 280G of the Code, the payments will either be (i) reduced or (ii) provided in full to the executive, whichever results in the executive receiving the greater amount after taking into consideration the payment of all taxes, including the excise tax under Section 4999 of the Code, in each case based upon the highest marginal rate for the applicable tax.

DIRECTOR COMPENSATION

Non-Employee Director Compensation

Cash Compensation Arrangements

Compensation for our non-employee directors consists of cash and stock options. The Compensation Committee periodically reviews the compensation paid to non-employee directors for their service on the Board and its committees and recommends any changes considered appropriate to the full Board for its approval. Each member of our Board, who is not our employee, receives an annual retainer of \$40,000. In addition, our non-employee directors receive the following cash compensation for Board services, as applicable:

- the Board Chairman receives an additional annual retainer of \$20,000;
- the Audit Committee Chair receives an additional annual retainer of \$15,000;
- the Compensation Committee Chair receives an additional annual retainer of \$7,500;
- the Nominating and Corporate Governance Committee Chair receives an additional annual retainer of \$6,000;
- an Audit Committee member receives an additional annual retainer of \$7,500;
- a Compensation Committee member receives an additional annual retainer of \$3,750; and
- a Nominating and Corporate Governance Committee member receives an additional retainer of \$3,000.

All Board and committee retainers accrue and are payable on a quarterly basis at the end of each calendar quarter of service. We continue to reimburse our non-employee directors for travel, lodging and other reasonable expenses incurred in connection with their attendance at Board or committee meetings.

Equity Compensation Arrangements

Our non-employee director compensation policy has historically provided for automatic grants of stock options to our non-employee directors under our 2011 Incentive Plan. Upon election or appointment to our Board, a new non-employee director will receive an initial grant of a stock option to purchase 15,000 shares of our common stock, which will vest as to 1/36th of the shares subject to the option on an equal monthly basis over a three-year period. At each annual meeting, each non-employee director who is then serving as a director or who is elected to our Board on the date of such annual meeting is eligible to receive a grant of a stock option to purchase 15,000 shares of our common stock, which vests as to 1/24th of the shares subject to the option on an equal monthly basis over a two-year period.

Each of the stock options will be granted with an exercise price equal to the fair market value of our common stock on the date of the grant. All stock options awarded to our non-employee directors are entitled to full vesting acceleration as of immediately prior to the effective date of certain change of control transactions involving us, such as our liquidation or a dissolution of or an event that results in a material change in the ownership of our Company.



2018 Director Compensation

The following table sets forth certain summary information for the year ended December 31, 2018 with respect to the compensation of our nonemployee directors. Neither Mr. Angotti nor Dr. Palmer, who are executive officers, received or receives any additional compensation for serving on our Board.

2018 Director Compensation

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$) ⁽¹⁾	Total (\$)
Adrian Adams	74,250	43,908(2)(3)	118,158
Richard Afable, M.D.	47,500	43,908 ⁽²⁾⁽³⁾	91,408
Mark G. Edwards	55,000	43,908 ⁽²⁾⁽³⁾	98,908
Stephen J. Hoffman M.D., Ph.D.	50,500	43,908 ⁽²⁾⁽³⁾	94,408
Howard B. Rosen	40,000	43,908 ⁽²⁾⁽³⁾	83,908
Mark Wan	49,750	43,908 ⁽²⁾⁽³⁾	93,658

- (1) The dollar amount in this column represents the grant date fair value of the stock option award granted to each of the directors. This amount has been calculated in accordance with ASC 718 using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. For a discussion of valuation assumptions, see Note 1 to our financial statements and the discussion under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates—Share-Based Compensation" included in the Original Form 10-K. These amounts do not necessarily correspond to the actual value that may be recognized from the option award.
- (2) On June 14, 2018, the date of our 2018 annual meeting of shareholders, each of the following non-employee directors was granted an option to purchase 15,000 shares of our common stock. The shares subject to these stock options vest as to 1/24th of the shares subject to the option per month on an equal monthly basis over a two-year period.
- (3) As of December 31, 2018, the following directors held options to purchase the following number of shares of the Company's common stock: Mr. Adams, 105,000, of which 90,000 were exercisable; Dr. Hoffman, 102,500, of which 87,500 were exercisable; Dr. Afable, 90,000, of which 75,000 were exercisable; Mr. Wan, 102,500, of which 87,500 were exercisable; Mr. Edwards, 96,459, of which 81,459 were exercisable; Mr. Rosen 1,494,750, of which 1,014,833 were exercisable.

2019 Non-Employee Director Compensation Changes

To align with changes in equity compensation practices approved for our executive officers in 2019 and to preserve the equity pool share reserve under the 2011 Plan, in February 2019, the Compensation Committee reviewed and recommended that it would be in the best interests of our shareholders to change the allocation of our non-employee director equity compensation program in the 2019 fiscal year to include the grant of RSUs as well as options.

Beginning with our 2019 annual meeting, equity compensation for our non-employee directors will instead be a mix of stock options and restricted stock units, or RSUs. The equity grant value will now be split approximately equally between stock options and RSUs, and the number of RSUs would be equal to 50% of the number of stock options. Accordingly, upon election or appointment to our Board, a new non-employee director will now receive an initial grant of a stock option to purchase 7,500 shares of our common stock, which will vest as to 1/36th of the shares subject to the option on an equal monthly basis over a three-year period, and 3,750 RSUs with vesting over three years with annual cliff vesting for each of the three years. Each non-employee director who is then serving as a director or who is elected to our Board on the date of such annual meeting will now be eligible to receive a grant of a stock option to purchase 7,500 shares of our common stock, which would vest as to 1/24th of the shares subject to the option on an equal monthly basis over a two-year period, and 3,750 RSUs with annual cliff vesting for each of the two years.

Each of the stock options will be granted with an exercise price equal to the fair market value of our common stock on the date of the grant. All stock options and RSUs awarded to our non-employee directors are entitled to full vesting acceleration as of immediately prior to the effective date of certain change of control transactions involving us, such as our liquidation or a dissolution of or an event that results in a material change in the ownership of our Company.



COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The Compensation Committee consists of directors Dr. Afable, and Messrs. Wan and Adams, with Dr. Afable serving as the Chair. None of the members of our Compensation Committee during 2018 is currently or has been, at any time since our formation, one of our officers or employees. During 2018, no executive officer served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our Board or our Compensation Committee. None of the members of our Compensation Committee during 2018 currently has or has had any relationship or transaction with a related person requiring disclosure pursuant to Item 404 of Regulation S-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of our common stock as of April 18, 2019 by: (i) each director; (ii) each named executive officer; (iii) all of our current executive officers and directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our common stock.

	Beneficial Ow	nership ⁽¹⁾
Name of Beneficial Owner	Number of Shares	% of Total
Named Executive Officers and Directors:		
(Current Executive Officers and Directors)		
Vincent J. Angotti ⁽²⁾	720,800	*
Raffi Asadorian ⁽³⁾	246,208	*
Pamela P. Palmer, M.D., Ph.D. ⁽⁴⁾	1,911,682	2.4%
Badri Dasu ⁽⁵⁾	658,068	*
Lawrence G. Hamel ⁽⁶⁾	614,509	*
Adrian Adams ⁽⁷⁾	172,500	*
Richard Afable, M.D. ⁽⁸⁾	83,500	*
Mark G. Edwards ⁽⁹⁾	288,959	*
Stephen J. Hoffman, M.D., Ph.D. ⁽¹⁰⁾	95,000	*
Howard B. Rosen ⁽¹¹⁾	1,225,583	1.5%
Mark Wan ⁽¹²⁾	95,000	*
All current executive officers and directors as a group (11 persons) ⁽¹³⁾	6,311,809	7.5%

- Less than 1%.
- (1) This table is based upon information supplied by officers, directors and principal stockholders. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, we believe that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 78,893,545 shares outstanding on April 18, 2019, adjusted as required by rules promulgated by the SEC. The number of shares beneficially owned includes shares of common stock issuable pursuant to the exercise of stock options that are exercisable within 60 days of April 18, 2019. Shares issuable pursuant to the exercise of stock options and restricted stock units vesting within 60 days of April 18, 2019, are deemed to be outstanding and beneficially owned by the person to whom such shares are issuable for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.
- (2) Includes 662,916 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (3) Includes 190,561 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (4) Includes 1,438,708 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (5) Includes 594,801 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (6) Includes 556,661 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (7) Includes 97,500 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (8) Includes 82,500 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (9) Includes 88,959 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (10) Includes 95,000 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (11) Includes 1,168,083 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (12) Includes 95,000 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.
- (13) Includes 5,070,689 shares issuable pursuant to stock options exercisable within 60 days of April 18, 2019.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides certain information with respect to our equity compensation plans in effect as of December 31, 2018.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (A)	Weighted-average exercise price of outstanding options, warrants and rights (B)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column A) (2)(3) (C)
Equity compensation plans approved by security			
holders ⁽¹⁾	11,422,705	\$ 3.64	2,076,230
Equity compensation plans not approved by security			
holders		\$ —	
Total	11,422,705		2,076,230

(1) Consists of the AcelRx Pharmaceuticals, Inc. 2006 Stock Plan, or the 2006 Plan, the AcelRx Pharmaceuticals, Inc. 2011 Equity Incentive Plan, as amended, or the 2011 Incentive Plan, and the AcelRx Pharmaceuticals, Inc. 2011 Employee Stock Purchase Plan, or the ESPP.

(2) Consists of shares available for future issuance under the 2011 Incentive Plan, including shares that were previously available for future issuance under the 2006 Plan at the time of the execution and delivery of the underwriting agreement for our IPO, and the ESPP. As of December 31, 2018, 1,217,341 shares of common stock were available for issuance under the 2011 Incentive Plan and 858,889 shares of common stock were available for issuance under the ESPP. On February 28, 2019, 85,135 shares were purchased under the ESPP and as of April 18, 2019, up to a maximum of 357,406 shares may be purchased in the current purchase period.

(3) The initial aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2011 Incentive Plan was 1,875,000 shares. The number of shares of our common stock reserved for issuance under the 2011 Incentive Plan will automatically increase on January 1st each year, starting on January 1, 2012 and continuing through January 1, 2020, by 4% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, or such lesser number of shares of common stock as determined by our Board. The initial aggregate number of shares of common stock that may be issued pursuant to purchase rights granted to our employees or to employees of any of our designated affiliates under the ESPP was 250,000 shares. The number of shares of our common stock reserved for issuance will automatically increase on January 1st each year, starting January 1, 2012 and continuing through January 1, 2020, in an amount equal to the lower of (i) 2% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, and (ii) a number of shares of common stock as determined by our Board.

Item 13. Certain Relationships and Related Transactions, and Director Independence

POLICY AND PROCEDURES FOR REVIEW OF RELATED PARTY TRANSACTIONS

Our Audit Committee charter provides that the Audit Committee of the Board, or Audit Committee, will review and approve all related party transactions. This review will cover any material transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, and a related party had or will have a direct or indirect material interest, including, purchases of goods or services by or from the related party or entities in which the related party has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related party.

Our related party transactions policy sets forth the procedures for the identification, review, consideration and approval or ratification of transactions involving the Company and its related persons. The policy is designed to prevent transactions between the Company and any of its related persons that may interfere with the performance of the Company's employees' and directors' duties to the Company or deprive the Company of a business opportunity. Any such transactions with related persons may present actual or potential conflicts of interests. However, the Company recognizes that whether or not a conflict exists is often unclear and, in many circumstances, transactions with related persons may, on balance, be beneficial to the Company and its stockholders.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

There has not been, nor is there currently proposed, any transaction or series of similar transactions to which the Company was or is to be a party in which the amount involved exceeds \$120,000 and in which any current director, executive officer, holder of more than 5% of our common stock or any immediate family member of any of the foregoing persons had or will have a direct or indirect material interest other than compensation arrangements, described under the sections titled "Executive Compensation" and "Compensation of Directors" herein, other than with respect to the indemnification agreements described below.

INDEMNIFICATION AGREEMENTS

We have entered into indemnification agreements with each of our current directors and officers. These agreements provide for the indemnification of such persons for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were serving in such capacity. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us.

INDEPENDENCE OF THE BOARD OF DIRECTORS

Under the rules of the Nasdaq, "independent" directors must comprise a majority of a listed company's board of directors within a specified period following that company's listing date in conjunction with its initial public offering, or IPO. In addition, applicable Nasdaq rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating committees be independent within the meaning of applicable Nasdaq rules. Audit Committee members must also satisfy the independence criteria set forth in Rule 10A-3 under Exchange Act.

Our Board undertook a review of the independence of each director and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our Board determined that all of our directors, other than Mr. Angotti, our Chief Executive Officer, who was elected to the Board effective March 6, 2017, Mr. Rosen, who was our Chief Executive Officer until March 6, 2017, and Dr. Palmer, our Chief Medical Officer, qualify as "independent" directors within the meaning of the Nasdaq rules. Accordingly, a majority of our directors are independent, as required under applicable Nasdaq rules. Our non-employee directors have been meeting, and we anticipate that they will continue to meet, in regularly scheduled executive sessions at which only non-employee directors are present.

Item 14. Principal Accounting Fees and Services

FEES BILLED BY OUM & Co. LLP DURING FISCAL 2018 AND 2017

The following table represents aggregate fees for the fiscal years ended December 31, 2018 and 2017 for professional services rendered by OUM & Co. LLP, our independent registered public accounting firm:

	Fiscal Year Ended			
	 2018		2017	
Audit Fees	\$ 776,993	\$	644,380	
Audit-Related Fees	_		_	
Tax Fees	—		_	
All Other Fees	_		—	
Total Fees	\$ 776,993	\$	644,380	

Audit Fees: Consists of fees for professional services rendered for the audit of our financial statements and internal controls over financial reporting, review of interim financial statements and fees for assistance with registration statements filed with the SEC, comfort letters and services that are normally provided by OUM & Co. LLP in connection with statutory and regulatory filings or engagements. Fees for the 2018 audit and the 2018 quarterly reviews of financial statements were \$597,000. Fees for the 2017 quarterly reviews of financial statements were \$554,000.

PRE-APPROVAL POLICIES AND PROCEDURES

Our Audit Committee pre-approves all audit and permissible non-audit services provided by our independent registered public accounting firm. These services may include audit services, audit-related services, tax services and other services. Pre-approval may be given as part of the Audit Committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual explicit case-by-case basis.

In connection with the audit of our 2019 financial statements, we entered into an engagement agreement with OUM & Co. LLP which sets forth the terms by which OUM & Co. LLP will perform audit and interim review services for us. That agreement is subject to alternative dispute resolution procedures and an exclusion of punitive damages.

PART IV

Item 15. Exhibits And Financial Statement Schedules

(b) The following exhibits are included herein or incorporated by reference:

Exhibit		Incorporation By Reference				
Number	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date	
3.1*	Amended and Restated Certificate of Incorporation of the Registrant, currently in effect.	8-K	001-35068	3.1	2/28/2011	
3.2*	Amended and Restated Bylaws of the Registrant, currently in effect.	S-1	333-170594	3.4	1/7/2011	
4.1*	Reference is made to Exhibits 3.1 through 3.2.					
4.2*	Specimen Common Stock Certificate of the Registrant.	S-1	333-170594	4.2	1/31/2011	
10.1+*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.	S-1	333-170594	10.1	1/7/2011	
	30					

Exhibit			Incorporation By	Reference	
Number	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date
10.2+*	2006 Stock Plan, as amended.	S-1	333-170594	10.2	11/12/2010
10.3+*	Forms of Notice of Grant of Stock Option, Stock Option Agreement and Stock Option Exercise Notice under 2006 Stock Plan.	10-K	001-35068	10.3	3/30/2011
10.4+*	2011 Equity Incentive Plan.	S-8	333-172409	99.3	2/24/2011
10.5+*	Forms of Stock Option Grant Notice, Notice of Exercise and Option Agreement under 2011 Equity Incentive Plan.	10-K	001-35068	10.5	3/30/2011
10.6+*	Forms of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under 2011 Equity Incentive Plan.	10-K	001-35068	10.6	3/30/2011
10.7+*	2011 Employee Stock Purchase Plan.	S-8	333-172409	99.6	2/24/2011
10.8*	Lease between Metropolitan Life Insurance Company and the Registrant, dated December 15, 2011.	10-K	001-35068	10.9	3/23/2012
10.9*	Amendment to Lease between Metropolitan Life Insurance and the Registrant, dated May 2, 2014	8-K	001-35068	10.1	5/7/2014
10.10*	Second Amendment to Lease between Metropolitan Life Insurance and the Registrant, dated June 14, 2017	8-K	001-35068	10.1	6/20/2017
10.11+*	Amended and Restated Offer Letter between the Registrant and Larry Hamel, dated December 31, 2010.	S-1	333-170594	10.14	1/7/2011
10.12+*	Amended and Restated Offer Letter between the Registrant and Badri (Anil) Dasu, dated December 30, 2010.	S-1	333-170594	10.15	1/7/2011
10.13+*	Amended and Restated Offer Letter between the Registrant and Pamela Palmer, dated December 29, 2010.	S-1	333-170594	10.16	1/7/2011
10.14+*	Offer Letter between the Registrant and Vincent J. Angotti, effective as of March 6, 2017.	10-Q	001-35068	10.4	5/8/2017
10.15+*	Separation Agreement and General Release of Claims between <u>Timothy E. Morris and the Registrant, effective as of June 5,</u> 2017.	10-Q	001-35068	10.1	8/2/2017
10.16+*	Offer Letter between the Registrant and Raffi Asadorian, dated July 18, 2017.	8-K	001-35068	10.1	7/19/2017
10.17+*	Non-Employee Director Compensation Policy.	10-K	001-35068	10.20	3/9/2018
10.18+*	2019 Cash Bonus Plan Summary.				
10.19+*	Amended and Restated Severance Benefit Plan effective as of February 7, 2017.	8-K	001-35068	10.2	2/9/2017
	31				

Exhibit		Incorporation By Reference			
Number	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date
10.20*	Supply Agreement between the Registrant and Mallinckrodt LLC, effective as of May 31, 2013.	10-Q	001-35068	10.1	11/5/2013
10.21#*	Manufacture and Supply Agreement between the Registrant and Grünenthal GmbH, effective as of December 16, 2013.	10 - K	001-35068	10.28	3/17/2014
10.22#*	Collaboration and License Agreement between the Registrant and Grünenthal GmbH, effective as of December 16, 2013.	10 - K	001-35068	10.29	3/17/2014
10.23#*	First Amendment to the Manufacture and Supply Agreement between the Registrant and Grünenthal GmbH, effective as of July 17, 2015.	10-Q	001-35068	10.2	11/3/2015
10.24#*	First Amendment to the Collaboration and License Agreement between the Registrant and Grünenthal GmbH, effective as of July 17, 2015.	10-Q	001-35068	10.1	11/3/2015
10.25*	Second Amendment to the Collaboration and License Agreement between the Registrant and Grünenthal GmbH, effective as of September 20, 2016.	10-Q	001-35068	10.1	11/2/2016
10.26*	Manufacturing Services Agreement between Registrant and Patheon Pharmaceuticals, Inc., dated as of January 18, 2013	10-Q	001-35068	10.1	5/8/2013
10.27*	Amended and Restated Capital Expenditure Agreement between Registrant and Patheon Pharmaceuticals, Inc., dated as of January 18, 2013	10-Q	001-35068	10.2	5/8/2013
10.28*	Second Amendment to Amended and Restated Capital Expenditure and Equipment Agreement, between the Registrant and Patheon Pharmaceuticals, Inc. effective as of January 30, 2014.	10-Q	001-35068	10.4	5/8/2014
10.29#*	Amendment #1 to Manufacturing Services Agreement between the Registrant and Patheon Pharmaceuticals, Inc., effective as of January 19, 2016.	10-Q	001-35068	10.6	5/2/2016
10.30#*	Amendment #2 to Manufacturing Services Agreement between the Registrant and Patheon Pharmaceuticals, Inc., effective as of August 4, 2017.	10-Q	001-35068	10.1	11/9/2017
10.31#*	Award/Contract between the Registrant and the U.S. Army Medical Research and Materiel Command, dated May 11, 2015.	10-Q	001-35068	10.2	8/4/2015
10.32*	Modification of Contract W81XWH-15-C-0046 between the Registrant and the U.S. Army Medical Research and Materiel Command, effective August 6, 2015.	10-Q	001-35068	10.3	11/3/2015
	32				

_

Exhibit		Incorporation By Reference				
Number	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date	
10.33*	Modification of Contract W81XWH-15-C-0046 between the Registrant and the U.S. Army Medical Research and Materiel Command, effective August 12, 2015.	10-Q	001-35068	10.4	11/3/2015	
10.34*	Modification of Contract W81XWH-15-C-0046 between the Registrant and the U.S. Army Medical Research and Materiel Command, effective September 4, 2015.	10-Q	001-35068	10.5	11/3/2015	
10.35#*	Modification of Contract W81XWH-15-C-0046 between the Registrant and the U.S. Army Medical Research and Materiel Command, effective January 22, 2016.	10-Q	001-35068	10.4	5/2/2016	
10.36*	Modification of Contract W81XWH-15-C-0046 between the Registrant and the U.S. Army Medical Research and Materiel Command, effective March 3, 2016.	10-Q	001-35068	10.5	5/2/2016	
10.37*	Modification of Contract W81XWH-15-C-0046 between the Registrant and the U.S. Army Medical Research and Materiel Command, effective June 14, 2016.	10-Q	001-35068	10.3	7/29/2016	
10.38#*	Purchase and Sale Agreement between Registrant and ARPI LLC, dated as of September 18, 2015.	10-Q	001-35068	10.6	11/3/2015	
10.39#*	Subsequent Purchase and Sale Agreement between ARPI LLC (a wholly owned subsidiary of the Registrant) and PDL BioPharma, Inc., dated as of September 18, 2015.	10-Q	001-35068	10.7	11/3/2015	
10.40*	Controlled Equity OfferingSM Sales Agreement between the Registrant and Cantor Fitzgerald & Co., dated as of June 21, 2016.	8-K	001-35068	10.1	6/21/2016	
10.41*	Amended and Restated Loan and Security Agreement among the Registrant, Hercules Technology II, L.P., Hercules Capital Funding Trust 2014-1 and Hercules Technology II, L.P., dated as of March 2, 2017.	10-K	001-35068	10.43	3/3/2017	
10.42+*	Offer letter dated March 16, 2018 with John Saia.	8-K	001-35068	10.1	3/27/2018	
10.43+*	Form of Performance-Based Stock Option Award under 2011 Equity Incentive Plan.	10-Q	001-35068	10.2	5/10/2018	
10.44*	Sublease by and between Registrant and Genomic Health, Inc. dated as of November 30, 2018.	10 - K	001-35068	10.44	3/7/2019	
21.2*	Subsidiaries of the Registrant.	10 - K	001-35068	21.2	3/7/2019	
	33					

Exhibit		Incorporation By Reference			
Number	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date
23.1*	Consent of OUM & Co. LLP, Independent Registered Public Accounting Firm.	10-K	001-35068	23.1	3/7/2019
24.1*	Power of Attorney.	10 - K	001-35068	24.1	3/7/2019
31.1*	<u>Certification of Principal Executive Officer pursuant to Rules</u> <u>13a-14(a) and 15d-14(a) promulgated under the Securities</u> <u>Exchange Act of 1934, as amended.</u>	10-K	001-35068	31.1	3/7/2019
31.2*	<u>Certification of Principal Financial Officer pursuant to Rules</u> <u>13a-14(a) and 15d-14(a) promulgated under the Securities</u> <u>Exchange Act of 1934, as amended.</u>	10-K	001-35068	31.2	3/7/2019
31.3***	<u>Certification of Principal Executive Officer pursuant to Rules</u> <u>13a-14(a) and 15d-14(a) promulgated under the Securities</u> <u>Exchange Act of 1934, as amended.</u>				
31.4***	<u>Certification of Principal Financial Officer pursuant to Rules</u> <u>13a-14(a) and 15d-14(a) promulgated under the Securities</u> <u>Exchange Act of 1934, as amended.</u>				
32.1**	<u>Certifications of Chief Executive Officer and Chief Financial</u> <u>Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant</u> to Section 906 of the Sarbanes-Oxley Act of 2002.	10-K	001-35068	32.1	3/7/2019
101.INS*	XBRL Instance Document				
101.SCH*	XBRL Taxonomy Extension Schema Document				
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document				

+ Indicates management contract or compensatory plan.

Material in the exhibit marked with a "[*]" has been omitted pursuant to a request for confidential treatment filed with the SEC. Omitted portions have been filed separately with the SEC.

* Filed with the Registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 7, 2019.

** Furnished with the Registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 7, 2019. The certifications attached as Exhibit 32.1 shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.
 *** Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this Amendment No.1 to Annual Report on Form 10-K/A to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: April 30, 2019

AcelRx Pharmaceuticals, Inc.

(Registrant)

/s/ Vincent J. Angotti Vincent J. Angotti Chief Executive Officer and Director (Principal Executive Officer)

/s/ Raffi M. Asadorian

Raffi M. Asadorian Chief Financial Officer (Principal Financial and Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

<u>Signature</u>	Title	Date
* Vincent J. Angotti	Chief Executive Officer and Director (Principal Executive Officer)	April 30, 2019
* Raffi M. Asadorian	Chief Financial Officer (Principal Financial and Accounting Officer)	April 30, 2019
* Adrian Adams	Chairman	April 30, 2019
* Pamela P. Palmer, M.D., Ph.D.	Director	April 30, 2019
* Mark G. Edwards	Director	April 30, 2019
* Stephen J. Hoffman, Ph.D., M.D.	Director	April 30, 2019
* Richard Afable, M.D.	Director	April 30, 2019
* Howard B. Rosen	Director	April 30, 2019
*	Director	April 30, 2019
Mark Wan		

*By /s/ Vincent J. Angotti

Vincent J. Angotti Attorney-in-fact

CERTIFICATIONS

I, Vincent J. Angotti, certify that:

1. I have reviewed this annual report on Form 10-K/A of AcelRx Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

Date: April 30, 2019

/s/ Vincent J. Angotti

Vincent J. Angotti Chief Executive Officer (Principal Executive Officer)

CERTIFICATIONS

I, Raffi M. Asadorian, certify that:

1. I have reviewed this annual report on Form 10-K/A of AcelRx Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

Date: April 30, 2019

/s/ Raffi M. Asadorian

Raffi M. Asadorian Chief Financial Officer (Principal Financial Officer)