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

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

(Mark One)

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

For the fiscal year ended December 31, 2019

or

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

Commission File Number 001-37428

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

Delaware	**26-3474527**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1880 Century Park East, Suite 1000
Los Angeles, CA 90067
(Address and zip code of principal executive offices)

Registrant's Telephone Number, Including Area Code: **(310) 203-1000**

Securities Registered Pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, par value $0.001	RTTR	Nasdaq Capital Market

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

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 [X]

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 [X] No [ ]

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 (§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 [X] No [ ]

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. (Check one):

Large Accelerated Filer	[ ]	Accelerated Filer	[ ]
Non-Accelerated Filer	[X]	Smaller Reporting Company	[X]
		Emerging Growth Company	[X]

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. [ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [ ] No [X]

As of June 28, 2019 (the last business day of the registrant's most recently completed second fiscal quarter), the aggregate market value of the registrant's common stock held by non-affiliates was approximately $7.1 million based upon the closing price for shares of the registrant's common stock of $1.07 as reported by the Nasdaq Capital Market on that date.

As of March 25, 2020, there were 45,713,862 shares outstanding of the registrant's common stock, par value $0.001 per share.

DOCUMENTS INCORPORATED BY REFERENCE

NONE.

EXPLANATORY NOTE

This Amendment No. 1 (this "Amendment") to the Annual Report on Form 10-K of Ritter Pharmaceuticals, Inc. (the "Company") is being filed to include a signed copy of the Report of Independent Registered Public Accounting Firm (the "Report") on the Company's financial statements filed under Item 8 of Part II of Form 10-K. The original Annual Report on Form 10-K that was filed with the Securities and Exchange Commission (the "Commission") on March 31, 2020 (the "Original Form 10-K") inadvertently included an unsigned copy of the Report.

This Amendment is also being filed to include the information required by Items 10 through 14 of Part III of Form 10-K, which was omitted from the Original Form 10-K, in reliance on General Instruction G(3) to Form 10-K, which provides for the incorporation by reference of certain provisions of a registrant's definitive proxy statement into its Annual Report on Form 10-K.

In accordance with Rule 12b-15 under the Securities Exchange Act of 1934, as amended, Item 8 of Part II and Items 10 through 14 of Part III of the Original Form 10-K are hereby amended and restated in their entirety, and Part IV, Item 15 of the Original Form 10-K is hereby amended and restated in its entirety, for the purpose of adding new certifications by our principal executive officer and principal financial officer and a new consent of the Company's independent registered public accounting firm. Except as otherwise expressly set forth in this Amendment, no portion of the Original Form 10-K is being amended, modified or updated by this Amendment. Accordingly, this Amendment should be read in conjunction with the Original Form 10-K and with our subsequent filings with the Commission.

Unless we specify otherwise, all references in this Amendment to "we," "our," "us," or "the Company" refer to Ritter Pharmaceuticals, Inc.

PART II

Item 8. Financial Statements and Supplementary Data.

The financial statements and the reports of our independent registered accounting firm required pursuant to this item are included in Item 15 of this report and are presented beginning on page F-1.

PART III

Item 10. Directors, Executive Officers, and Corporate Governance

The Board of Directors in General

Our board of directors currently consists of six members. Biographical information with respect to our directors is provided below.

Our directors hold office for one year or until their successors have been duly elected and qualified or until the earlier of their death, resignation or removal. Our amended and restated bylaws provide that the authorized number of directors comprising our board of directors will be fixed, from time to time, by a majority of the total number of directors.

There are no family relationships among any of our directors or executive officers, other than Ira and Andrew Ritter, who are father and son, respectively.

Name	Position with the Company	Age as of the Annual Meeting	Director Since
Andrew J. Ritter	President, Chief Executive Officer and Director	37	2008
Ira E. Ritter	Executive Chairman, Chief Strategic Officer and Director	71	2008
Noah J. Doyle	Director	52	2008
Matthew W. Foehr	Director	47	2015
Paul V. Maier	Director	72	2015
Dr. William M. Merino	Director	77	2017

Andrew J. Ritter served as Co-Founder, President and Chief Executive Officer of the Company's predecessor in interest from its inception in 2004 until relinquishing the role of Chief Executive Officer to Mr. Step in October 2014. Mr. Ritter assumed the role of Chief Executive Officer, relinquishing the role of President in June 2018 when Mr. Step resigned as Chief Executive Officer. Mr. Ritter was a member of the board of directors of the Company's predecessor since its inception in 2004 and has been a member of our board of directors since 2008 when the Company was formed. Mr. Ritter has been actively studying the field of lactose intolerance for over 15 years and currently holds over a dozen patents and over twenty pending international patent applications. In addition, he has co-published articles, has given presentations at major healthcare and medical conferences, and has been a guest lecturer of entrepreneurship at various graduate and undergraduate schools throughout Los Angeles including: University of Southern California Marshall School of Business, University of California at Los Angeles Anderson School of Business and Pepperdine University Graziadio School of Business and Management. Mr. Ritter served as a Los Angeles City Commissioner on the Commission for Children, Youth and Their Families from 2000 to 2002. He holds a B.A. in Political Science and a minor in Business from the University of Southern California. Mr. Ritter received a Master of Business Administration from the Wharton School of Business.

Qualifications: We believe that Mr. Ritter is well qualified to serve on our board of directors due to his over 15 years of research experience working in lactose intolerance and digestive diseases. Having founded the Company and invented Lactagen™, Mr. Ritter has an in depth knowledge of the Company, and provides senior leadership on the clinical and product development matters facing the Company. Mr. Ritter also brings to the board of directors an extensive scientific and operational background gained previously at Ritter Natural Sciences and over the years at Ritter.

Ira E. Ritter served as Co-Founder, Chief Strategic Officer and Executive Chairman of our predecessor from its inception in 2004 through the formation of Ritter Pharmaceuticals, Inc. in 2008 and has served in those positions with us since 2008. Mr. Ritter has extensive experience creating and building diverse business enterprises and has provided corporate management, strategic planning and financial consulting for a wide range of market segments including; health product related national distribution and private label production, television and publishing. He assisted taking us public on Nasdaq and Martin Lawrence Art Galleries public on The New York Stock Exchange. Since 2010, Mr Ritter has also acted as a managing partner of Stonehenge Partners. Mr. Ritter has a long history of public service that includes appointments by three Governors to several State of California Commissions including eight years as Commissioner on the California Prison Industry Authority. He has guest lectured at University of Southern California Marshall School of Business and Pepperdine University Graziadio School of Business, where he also serves as an advisory board member to Pepperdine's Graduate School of Education and Psychology, Social Entrepreneurship and Change Program. He previously served on the boards of directors for Vitavis Laboratories and SCWorx.

Qualifications: We believe that Mr. Ritter is well suited to serve on our board of directors due to his over 40 years' experience overseeing daily operations of diverse business enterprises, and his managing public as well as private companies. Mr. Ritter provides our board of directors with extensive background in operational and strategic planning, as well as general executive and leadership expertise. Mr. Ritter has served on the boards of several companies during his career.

Noah J. Doyle has served as a director of the Company since September 2008. He has been an entrepreneur and investor for over 20 years. Mr. Doyle is the managing director of Javelin GP, LLC, the general partner of Javelin GP, LP, which is the general partner of Javelin and the manager of Javelin SPV. Prior to forming the first Javelin entities in 2008, Mr. Doyle supported over a dozen start-ups as an angel investor, including Keyhole, Inc. ("Keyhole") (acquired by Google Inc. in 2004), Cantametrix, Inc. (acquired by Gracenote, Inc. in 2002), Amae Software (acquired by Verint Systems, Inc. in 2006), Nuvon, Inc., Aquea Scientific Corporation, Emdigo Inc., Magnacash Inc. (acquired by Yaga, Inc. in 2001), and i-mint India. Mr. Doyle most recently directed the enterprise product line for Google's geospatial products, Google Earth and Google Maps, from 2004 to 2007. From 2002 to 2004 he managed the Sales and Corporate Development functions at Keyhole, which created the first Web hosted digital earth model. Prior to Keyhole, Mr. Doyle helped establish the Internet loyalty rewards marketplace as a co-founder of MyPoints.com ("MyPoints"), the largest Internet loyalty program with over 6 million active members, where he led product management and business development functions from the company's inception in 1996 through its initial public offering and subsequent acquisition by United Airlines in 2002. Prior to joining MyPoints, Mr. Doyle was based in Tokyo where he managed overseas sales and marketing for the OEM channel of Matsushita's (Panasonic) communications equipment subsidiary in Japan, from 1990 to 1994. Mr. Doyle served on the board of directors of MOL Global, Inc. from July 2014 to February 2016. He was also chairman of the management board of the University of California, Berkeley's campus bookstore, a $17 million retail operation, and also held product management and operations management roles at IBM/Rational (Pure Atria) and Oracle, from 1989 to 1990. Mr. Doyle holds M.B.A. and B.A. Economics degrees, as well as certificates in Management of Technology and Global Management from University of California, Berkeley.

Qualifications: We believe that Mr. Doyle is well suited to serve on our board of directors due to his over 20 years of experience as an entrepreneur and investor. Mr. Doyle has experience as a venture capitalist building and serving on the boards of many public and private emerging companies in leadership roles providing guidance on finance, development and operational growth.

Matthew W. Foehr has served as a director of the Company since February 2015. He currently serves as President and Chief Operating Officer at Ligand Pharmaceuticals Incorporated ("Ligand"), a biopharmaceutical company. Prior to joining Ligand in 2011, Mr. Foehr was Vice President and Head of Consumer Dermatology R&D, as well as Acting Chief Scientific Officer of Dermatology, in the Stiefel division of GlaxoSmithKline ("GSK"). Following GSK's acquisition of Stiefel Laboratories, Inc. ("Stiefel") in 2009, Mr. Foehr led the R&D integration of Stiefel into GSK. At Stiefel Laboratories, Inc., Mr. Foehr served as Senior Vice President of Global R&D Operations, Senior Vice President of Product Development& Support, and Vice President of Global Supply Chain Technical Services. Prior to joining Stiefel, Mr. Foehr held various executive roles at Connetics Corporation including Senior Vice President of Technical Operations and Vice President of Manufacturing. Currently, he is a member of the board of directors of Viking Therapeutics Inc. Mr. Foehr is the author of multiple scientific publications and is a named inventor on numerous U.S. patents. He received his Bachelor of Science degree in Biology from Santa Clara University.

Qualifications: We believe that Mr. Foehr is well suited to serve on our board of directors due to his more than 20 years of experience in the pharmaceutical industry and his experience managing global operations and research and development programs.

Paul V. Maier has served as a director of the Company since April 2015. From November 2009 through June 2014, Mr. Maier served as the Chief Financial Officer of Sequenom Inc., a publicly held company serving the discovery, clinical research, and diagnostics market. From February 2007 until November 2009, he served as an independent financial consultant. Previously, Mr. Maier was Senior Vice President and Chief Financial Officer of Ligand from 1992 through 2007. From 1990 to 1992, Mr. Maier served as Vice President, Finance of DFS West, a division of DFS Group LP, a private multinational retailer. From 1984 to 1990, Mr. Maier was employed by ICN Pharmaceuticals, a pharmaceutical and biotechnology research products company, where he held various executive positions in finance and general management in ICN as well as SPI Pharmaceuticals, a publicly held subsidiary. Mr. Maier currently serves on the board of directors of International Stem Cell Corporation, Biological Dynamics Inc. and Eton Pharmaceuticals, Inc. Mr. Maier served on the board of directors of Apricus Biosciences from 2012 to January 2019 and on the board of directors of MabVax Therapeutics from 2014 to July 2018. Mr. Maier received an MBA from Harvard Business School and a BS from Pennsylvania State University.

Qualifications: We believe that Mr. Maier is well suited to serve on our board of directors due to his over 25 years of experience as a senior executive in biotechnology and pharmaceutical companies and his extensive experience in finance.

Dr. William M. Merino has served as a director of the Company since January 2017. Dr. Merino served as the Senior Vice President of Worldwide Regulatory Affairs for Warner Lambert Pharmaceuticals from 1987 to 2000, where he was a member of the Office of the Chairman and responsible for the registration and approval of pharmaceuticals products with regulatory agencies around the world. He was also responsible for quality assurance, quality control and drug safety for the company, and led efforts to gain expedited registration of Lipitor in the United States and abroad in 20 other countries. He also has previous experience leading international regulatory affairs at Alcon Pharmaceuticals, G.D. Searle & Co., and Riker Laboratories. Dr. Merino has served as a senior clinical and regulatory advisory to the Company. Dr. Merino received his PhD in Pharmacology from Purdue University.

Qualifications: We believe that Dr. Merino's deep global experience in drug and device registration and his extensive work with senior members of the FDA as well as several international regulatory authorities will bring important insight and acumen to our board of directors, as the Company continues its interactions with the FDA in an effort to bring RP-G28 to market.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The code of business conduct and ethics is reviewed periodically and amended as necessary and is available on our website at *www.ritterpharmaceuticals.com.* Any amendments to the code of business conduct and ethics, or any waivers of its requirements that apply to our principal executive officer, principal financial officer or principal accounting officer, will be disclosed on our website.

Audit Committee

The current members of our Audit Committee are Matthew W. Foehr, Paul V. Maier (Chairman) and Dr. William M. Merino, each of whom was determined by our board of directors to be independent under Rule 10A-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the continued listing requirements of Nasdaq, and to satisfy the other continued listing requirements of Nasdaq for audit committee membership. Our board of directors has determined that Mr. Maier qualifies as an "audit committee financial expert," as such term is defined by the Securities and Exchange Commission (the "SEC"), and that he has the requisite level of financial sophistication required by the continued listing requirements of Nasdaq.

Executive Officers

Our Executive Officers as of the date of this proxy statement are as follows:

Name	Age	Position with the Company
Andrew J. Ritter	37	Chief Executive Officer and Director
Ira E. Ritter	71	Executive Chairman and Chief Strategic Officer
John W. Beck	60	Chief Financial Officer

Officers serve at the discretion of the board of directors. There are no family relationships among any of our directors or executive officers, other than Ira and Andrew Ritter, who are father and son, respectively. There is no arrangement or understanding between any executive officer and any other person pursuant to which the executive officer was selected.

For the biographies of Andrew J. Ritter and Ira E. Ritter, please see "Board of Directors - The Board of Directors in General".

John W. Beck has served as our Chief Financial Officer since May 2018. From 2008 until its acquisition by AstraZeneca in 2012, John W. Beck, served first as a board member and later as Chief Financial Officer and Senior Vice President of finance & operations of Ardea Biosciences Inc. ("Ardea"). Before joining Ardea, Mr. Beck spent 10 years with Metabasis Thereapeutics Inc., as a Co-Founder and its Chief Financial Officer. Mr. Beck has served on the advisory board of Pinnacle Medical Holdings, LLC, a Denver Colorado-based physician-led network of health-care providers, which was acquired by OnPoint Medical Group, LLC in 2017, since 2014. He has also served on the board of advisors of August Therapeutics, Inc., a San Diego California-based company developing non-systemic therapeutics to treat disordered eating and obesity, since 2017, and the board of directors of Artelo Biosciences Inc., a San Diego-based company focused on developing and commercializing a diverse portfolio of novel therapeutic candidates targeting the endocannabinoid system, since December 2019. Mr. Beck has also served as a scientific advisor and mentor to the University of California, San Diego's student-run TRITON FUNDS since August 2019.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act, and the rules issued thereunder, requires our directors and executive officers and beneficial owners of more than 10% of the outstanding shares of our equity securities to file reports of ownership and changes in beneficial ownership of our equity securities with the SEC. Copies of these reports are furnished to the Company. The Company is required to identify any of those individuals who failed to file such reports on a timely basis. Based solely on our review of the copies of such reports furnished to us, and representations from the persons subject to Section 16(a) with respect to the Company, we believe that during 2019 all of our executive officers, directors and 10% stockholders complied with the Section 16(a) requirements.

Item 11. Executive Compensation

Summary Compensation Table (2019 and 2018)

The following table sets forth the compensation paid or earned for the fiscal years ended December 31, 2019 and 2018 to our named executive officers for each of those years.

Name and Principal Position	Year	Salary[1] ($)	Bonus ($)	Stock Awards ($)	Option Awards[2] ($)	All Other Compensation[3] ($)	Total ($)
Andrew J. Ritter	2019	450,651	—	—	73,238	38,381	562,270
Chief Executive Officer and Director	2018	410,939	168,750	1,774,500	292,668	—	2,646,857
Ira E. Ritter	2019	345,499	—	—	58,125	24,814	428,438
Executive Chairman and Chief Strategic Officer	2018	342,559	103,500	819,000	87,668	—	1,352,727
John W. Beck	2019	321,608	—	—	30,516	57,563	409,687
Chief Financial Officer	2018	180,923	56,000	409,500	170,439	—	816,862

(1) A portion of the amounts reported in this column were deferred by the named executive officers as follows: (i) for Andrew Ritter, $70,200 of this amount was deferred; (ii) for Ira Ritter, $53,820 of this amount was deferred; and (iii) for John Beck, $33,000 of this amount was deferred. See "Narrative Summary Compensation Table—Offer Letter Amendments" below.

(2) Represent the grant date fair value of the option awards granted during the years presented, determined in accordance with FASB ASC Topic 718. We utilize the Black-Scholes option-pricing model to value awards. Key valuation assumptions include:

- *Expected dividend yield*. The expected dividend is assumed to be zero as we have never paid dividends and have no current plans to pay any dividends on our common stock.
- *Expected stock-price volatility*. As our common stock only recently became publicly traded, the expected volatility is derived from the average historical volatilities of publicly traded companies within our industry that we consider to be comparable to our business over a period approximately equal to the expected term.
- *Risk-free interest rate*. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term.
- *Expected term*. The expected term represents the period that the stock-based awards are expected to be outstanding. Our historical share option exercise experience does not provide a reasonable basis upon which to estimate an expected term because of a lack of sufficient data. Therefore, we estimate the expected term by using the simplified method provided by the SEC. The simplified method calculates the expected term as the average of the time-to-vesting and the contractual life of the options.

In addition to the assumptions used in the Black-Scholes option-pricing model, we also estimate a forfeiture rate to calculate the stock-based compensation for our equity awards. We will continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for our stock-based compensation calculations on a prospective basis.

(3) For Andrew Ritter, the amount reported in 2019 includes $8,910 for insurance premiums, $17,221 for social security and medicare employer contributions, and $12,250 for Young Presidents Organizations' dues. For Ira Ritter, the amount reported in 2019 includes $10,069 for insurance premiums and $14,745 for social security and medicare employer contributions. For John Beck, the amount reported in 2019 includes $15,167 for insurance premiums, $13,596 for social security and medicare employer contributions, and $28,800 for housing expenses paid on Mr. Beck's behalf.

Narrative to Summary Compensation Table

All share amounts referenced below have been adjusted to account for the reverse stock split that was effected March 23, 2018 (the "Reverse Stock Split").

Offer Letters with Andrew Ritter

Under the terms of his offer letter that became effective June 29, 2015, Andrew Ritter was entitled to receive an annual base salary of $310,000 and was entitled to receive up to $180,000 payable over a three-year period for tuition reimbursement. He was also eligible to receive an annual bonus based on a percentage of his base salary, as then in effect, and subject to the achievement of certain performance measures, as determined by the board of directors. The initial target bonus opportunity was 40% of base salary.

On June 26, 2018, in connection with his appointment as Chief Executive Officer of the Company, the Company entered into an amended and restated offer letter with Mr. Ritter, which provides for an annual base salary of $450,000. He is also eligible to receive an annual bonus based on a percentage of his base salary, as then in effect, and subject to the achievement of certain performance measures, as determined by the board of directors. The initial target bonus opportunity is 50% of base salary. Mr. Ritter is eligible to participate in all employee benefit programs generally available to other executive level employees of the Company.

Offer Letter with Ira Ritter

Under the terms of his offer letter, which became effective June 29, 2015, Ira Ritter is entitled to receive an annual base salary of $295,000. He is also eligible to receive an annual bonus based upon a percentage of his base salary, as then in effect, and subject to the achievement of specific performance measures, as determined by the board of directors. The initial target bonus opportunity was 35% of his base salary, which was raised to 40% of his base salary in 2018. Mr. Ritter is eligible to participate in all employee benefit programs generally available to other executive level employees of the Company.

Offer Letter with John W. Beck

Under the terms of his offer letter, which became effective May 23, 2018, Mr. Beck is entitled to receive an annual base salary of $320,000. He is eligible to receive an annual bonus equal to 40% of his base salary, as then in effect, as determined by the board of directors. He is also entitled to receive reimbursement in an amount up to $2,000 per month for reasonable travel and housing expenses. Mr. Beck is eligible to participate in all employee benefit programs generally available to other executive level employees of the Company.

Offer Letter Amendments

In connection with the Company's previously announced plan to reduce operating expenses, on October 15, 2019, the Company and each of Andrew Ritter, John Beck and Ira Ritter entered into an amendment to their respective offer letters (the "Offer Letter Amendments").

Pursuant to the terms of the Offer Letter Amendments, each of the executive officers agreed to defer a portion of his annual base salary (the "Deferred Amounts"), as set forth below, until such time as the board of directors, in its sole discretion, decides to pay the Deferred Amounts (or any portion of the Deferred Amounts) to the executive officers, if ever.

Name of Executive Officer		Deferred Amount
Andrew J. Ritter	$	70,200
John W. Beck	$	33,000
Ira E. Ritter	$	53,820

The board of directors has since determined that the Deferred Amounts will be paid to the executive officers upon the closing of the proposed merger between the Company and Qualigen, Inc.

2015 Equity Incentive Plan

On June 15, 2015, our board of directors approved the 2015 Equity Incentive Plan (the "2015 Plan"), and on June 17, 2015, the 2015 Plan was approved by our stockholders. The 2015 Equity Incentive Plan was subsequently amended by the stockholders of the Company on June 3, 2016, June 2, 2017 and August 24, 2017.

The purposes of the 2015 Plan are to optimize the profitability and growth of the Company through long-term incentives that are consistent with the Company's objectives and that link the interests of award recipients ("Grantees"), to those of the Company's stockholders; to give award recipients an incentive for excellence in individual performance; to promote teamwork among Grantees; and to give the Company flexibility in attracting and retaining key employees, directors and consultants.

Selected employees, officers and directors of the Company or any subsidiary, and consultants, advisors and independent service providers to the Company and any subsidiary who qualify as a "consultant" under the applicable rules of the SEC for registration of shares on a Form S-8 registration statement, are eligible to receive awards under the 2015 Plan. The plan administrator may also grant awards to individuals in connection with hiring, retention or otherwise before the date the individual first performs services for the Company or any subsidiary; provided, however, that those awards will not become vested or exercisable before the date the individual first performs services for the Company or any subsidiary.

The number of shares of common stock that we may issue pursuant to awards under the 2015 Plan is (i) 2,750,000 plus (ii) any shares which were available for grant under the 2008 Stock Plan or the 2009 Stock Plan (collectively, the "Prior Plans"), on the effective date of the 2015 Plan or are subject to awards under the Prior Plans which, after the effective date of the 2015 Plan, are forfeited or lapse unexercised or are settled in cash and are not issued under the Prior Plans. No more than 2,750,000 shares of common stock may be issued pursuant to incentive stock options intended to qualify under Section 422 of the Internal Revenue Code (the "Code"). No awards may be granted under any Prior Plan; however, any awards granted under any Prior Plan that were outstanding as of the effective date of the 2015 Plan continue to be subject to the terms and conditions of such Prior Plan.

The 2015 Plan provides for grants of stock options (including incentive stock options qualifying under Section 422 of the Code and nonstatutory stock options), restricted stock awards, stock appreciation rights, restricted stock units, performance awards, other stock-based awards or any combination of the foregoing.

Performance-Based Restricted Stock Units Granted in 2018

On June 26, 2018, our Compensation Committee granted performance-based restricted stock unit awards to each of Andrew J. Ritter (650,000 performance-based restricted stock units), Ira E. Ritter (300,000 performance-based restricted stock units) and John W. Beck (150,000 performance-based restricted stock units). The awards were subject to vesting criteria relating to the achievement of three specific performance goals established by the Compensation Committee. Each performance restricted stock unit represented a contingent right to receive one share of common stock, subject to the vesting conditions being satisfied. The terms of these awards provided as follows:

- If the first performance goal was achieved by the target date established by the Compensation Committee, then 100% of the target restricted stock units allocated to the first goal (*i.e*., 40% of the total target restricted stock units granted to the executive officer) would vest and the underlying shares of common stock would be issued, and if the first goal was achieved by an earlier date established by the Compensation Committee, then 125% of the target restricted stock units allocated to the first goal would vest and the underlying shares of common stock would be issued;

- If the second performance goal was achieved by the target date established by the Compensation Committee with respect to this goal, then 100% of the target restricted stock units allocated to the second goal (*i.e*., 40% of the total target restricted stock units granted to the executive officer) would vest and the underlying shares of common stock would be issued, and if the second goal was achieved by an earlier date established by the Compensation Committee, then 125% of the target restricted stock units allocated to the second goal would vest and the underlying shares of common stock would be issued; and

- If the third performance goal was achieved by the target date established by the Compensation Committee with respect to this goal, then 100% of the target restricted stock units allocated to the third goal (*i.e*., 20% of the total target restricted stock units granted to the executive officer) would vest and the underlying shares of common stock would be issued, and if the third goal was achieved by an earlier date established by the Compensation Committee, then 125% of the target restricted stock units allocated to the third goal would vest and the underlying shares of common stock would be issued.

On January 15, 2020, our board of directors cancelled these awards.

Outstanding Equity Awards at 2019 Fiscal Year-End

The following table presents the outstanding equity awards held by each of the named executive officers as of December 31, 2019. The information included in the table and footnotes below has been adjusted to account for the Reverse Stock Split.

	Option Awards					Stock Awards				
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Grant Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
Andrew J. Ritter	9/25/2013	2,797	—	12.74	9/25/2023					
	12/2/2014	2,097	—	58.63	12/2/2024					
	12/2/2014	43,243	—	93.59	12/2/2024					
	7/5/2016	7,005(1)	1,195(1)	15.40	7/5/2026					
	10/25/2016	11,087(2)	2,917(2)	26.00	10/25/2026					
	1/23/2018	23,722(3)	25,784(3)	3.40	1/23/2028					
	6/26/2018	56,250(4)	93,750(4)	2.73	6/26/2028					
						6/26/2018			650,000(6)	110,500(6)
	2/6/2019	52,500(5)	199,500(5)	0.60	2/6/2029					
									(650,000)(6)	(110,500)(6)
Totals		198,7019	323,146						—	—
Ira E. Ritter	9/25/2013	2,797	—	12,74	9/25/2023					
	12/2/2014	2,097	—	58.63	12/2/2024					
	12/2/2014	43,243	—	93.59	12/2/2024					
	7/5/2016	7,005(7)	1,195(7)	15.40	7/5/2026					
	10/25/2016	11,087(8)	2,917(8)	26.00	10/25/2026					
	1/23/2018	23,722(9)	25,784(9)	3.40	1/23/2028					
						6/26/2018			300,000(6)	180,000(6)
	2/6/2019	41,667(10)	158,333(10)	0.60	2/6/2029					
									(300,000)(6)	(180,000)(6)
Totals		131,618	188,229						—	—
John W. Beck	5/23/2018	39,584(11)	60,416(11)	3.32	5/23/2018					
						6/26/2028			150,000(6)	90,000(6)
	2/6/2019	21,875(12)	83,125(12)	0.60	2/6/2028					
									(150,000)(6)	(90,000)(6)
Totals		61,459	143,541						—	—

(1) This option was granted to Andrew Ritter on July 5, 2016 for an aggregate of 8,200 shares. The option vests in 48 equal monthly installments, the first of which vested on July 20, 2016 with the balance vesting on the 20th day of each calendar month thereafter until vested in full.

(2) This option was granted to Andrew Ritter on October 25, 2016 for an aggregate of 14,004 shares. The option vests ratably in 48 equal monthly installments following the public disclosure of top-line data results from the Company's Phase 2b clinical trial.

(3) This option was granted to Andrew Ritter on January 23, 2018 for an aggregate of 49,506 shares. The option vests in 48 equal monthly installments, the first of which vested on February 23, 2018 with the balance vesting on the 23rd day of each calendar month thereafter until vested in full.

(4) This option was granted to Andrew Ritter on June 26, 2018 for an aggregate of 150,000 shares. The option vests in 48 equal monthly installments, the first of which vested on July 26, 2018 with the balance vesting on the 23rd day of each calendar month thereafter until vested in full.

(5) This option was granted to Andrew Ritter on February 6, 2019 for an aggregate of 252,000 shares. The option vests in 48 equal monthly installments beginning on March 6, 2019 with the balance vesting on the 6th day of each calendar month thereafter until vested in full.

(6) Represent performance-based restricted stock unit awards granted on June 26, 2018. Market value was calculated using the closing price of our common stock on December 31, 2019 ($0.17). These awards were subsequently cancelled by the board of directors of the Company in January 2020. For more information with respect to these awards, please see the "Narrative to Summary Compensation Table 2015 Equity Incentive Plan - Performance - Based Restricted Stock Units Granted in 2018" section above.

(7) This option was granted to Ira Ritter on July 5, 2016 for an aggregate of 8,200 shares. The option vests in 48 equal monthly installments, the first of which vested on July 20, 2016 with the balance vesting on the 20th day of each calendar month thereafter until vested in full.

(8) This option was granted to Ira Ritter on October 25, 2016 for an aggregate of 14,004 shares. The option vests ratably in 48 equal monthly installments following the public disclosure of top-line data results from the Company's Phase 2b clinical trial.

(9) This option was granted to Ira Ritter on January 23, 2018 for an aggregate of 49,506 shares. The option vests in 48 equal monthly installments, the first of which vested on February 23, 2018 with the balance vesting on the 23rd day of each calendar month thereafter until vested in full.

(10) This option was granted to Ira Ritter on February 6, 2019 for an aggregate of 200,000 shares. The option vests in 48 equal monthly installments beginning on March 6, 2019 with the balance vesting on the 6th day of each calendar month thereafter until vested in full.

(11) This option was granted to John Beck on May 23, 2018 for an aggregate of 100,000 shares. 25% of the shares underlying this option vest on May 24, 2019. The remaining 75% of the shares underlying the option will vest in 36 equal installments beginning on the 24th day of each calendar month thereafter.

(12) This option was granted to John Beck on February 6, 2019 for an aggregate of 105,000 shares. The option vests in 48 equal monthly installments beginning on March 6, 2019 with the balance vesting on the 6th day of each calendar month thereafter until vested in full.

Payments Due Upon Termination of Employment or a Change in Control

Executive Severance & Change in Control Agreements

We have entered into Executive Severance & Change in Control Agreements (the "Severance Agreements"), with each of our named executive officers. The Severance Agreements provide that if we terminate the executive's employment without Cause, or the executive terminates his employment for Good Reason, the executive will be entitled to: (i) the Accrued Obligations; (ii) an amount equal to the sum of twelve (12) months of base salary for Andrew and Ira Ritter and six (6) months of base salary for John Beck, as in effect immediately prior to the termination date; (iii) medical, dental benefits provided by the Company to the executive and his spouse and dependents at least equal to the levels of benefits provided to other similarly situated active employees of the Company and its subsidiaries until the earlier of (a) the twelve (12) month anniversary of the date of termination or (b) the date that the executive becomes covered under a subsequent employer's medical and dental plans; and (iv) acceleration of vesting of all equity and equity-based awards.

Pursuant to the terms of the Severance Agreements, in the event that within one (1) month prior to or the twelve (12) months following a Change in Control, the Company terminates the executive's employment without Cause, or the executive terminates his employment for Good Reason, then, in lieu of the payments and benefits otherwise due to the executive in the preceding paragraph, the executive will be entitled to: (i) the Accrued Obligations; (ii) an amount equal to the sum of twelve (12) months of base salary for Andrew and Ira Ritter and six (6) months of base salary for John Beck, as in effect on the date of termination or the date of the Change in Control, whichever is greater; (iii) medical, dental benefits provided by the Company to the executive and his spouse and dependents at least equal to the level of benefits provided to other similarly situated active employees of the Company and its subsidiaries until the earlier of (a) the twelve (12) month anniversary of the date of termination or (b) the date that the executive becomes covered under a subsequent employer's medical and dental plans; and (iv) acceleration of vesting of all equity and equity-based awards.

In the event the executive's employment is terminated by him without Good Reason, by the Company for Cause or due to the executive's death or disability, the executive and/or his estate or beneficiaries will be solely entitled to the Accrued Obligations.

The executive's entitlement to the payments (other than the Accrued Obligations) and benefits described above is expressly contingent upon him providing the Company with a signed release satisfactory to the Company.

For purposes of the Severance Agreements:

"*Accrued Obligations*" means (i) earned but unpaid base salary through the date of termination; (ii) payment of any annual, long-term, or other incentive award which relates to a completed fiscal year or performance period, as applicable, and is payable (but not yet paid) on or before the date of termination; (iii) a lump-sum payment in respect of accrued but unused vacation days at the executive's per-business-day base salary rate in effect as of the date of termination; and (iv) any unpaid expense or reimbursements due pursuant to Company expense reimbursement policy.

"*Cause*" means a finding by the Company that the executive has (i) been convicted of a felony or crime involving moral turpitude; (ii) disclosed trade secrets or confidential information of the Company (or any parent or subsidiary) to persons not entitled to receive such information; (iii) engaged in conduct in connection with the executive's employment or service to the Company (or any parent or subsidiary), that has, or could reasonably be expected to result in, material injury to the business or reputation of the Company (or any parent or subsidiary), including, without limitation, act(s) of fraud, embezzlement, misappropriation and breach of fiduciary duty; (iv) violated the operating and ethics policies of the Company (or any parent or subsidiary) in any material way, including, but not limited to those relating to sexual harassment and the disclosure or misuse of confidential information; (v) engaged in willful and continued negligence in the performance of the duties assigned to the executive by the Company, after the executive has received notice of and failed to cure such negligence; or (vi) breached any material provision of any agreement between the executive and the Company (or any parent or subsidiary), including, without limitation, any confidentiality agreement.

"*Change in Control*" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than 50% of the voting power of the then outstanding securities of the Company; provided that a Change of Control will not be deemed to occur as a result of a change of ownership resulting from the death of a shareholder, and a Change of Control will not be deemed to occur as a result of a transaction in which the Company becomes a subsidiary of another corporation and in which the shareholders of the Company, immediately prior to the transaction, will beneficially own, immediately after the transaction, shares entitling such shareholders to more than 50% of all votes to which all shareholders of the parent corporation would be entitled in the election of directors (without consideration of the rights of any class of stock to elect directors by a separate class vote);

(ii) A change in the effective control of the Company which occurs on the date that a majority of members of the board of directors is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the board of directors prior to the date of the appointment or election; or

(iii) The consummation of (A) a merger or consolidation of the Company with another corporation where the shareholders of the Company, immediately prior to the merger or consolidation, will not beneficially own, immediately after the merger or consolidation, shares entitling such shareholders to more than 50% of all votes to which all shareholders of the surviving corporation would be entitled in the election of directors (without consideration of the rights of any class of stock to elect directors by a separate class vote); (B) a sale or other disposition of all or substantially all of the assets of the Company; or (C) a liquidation or dissolution of the Company.

"*Good Reason*" means, without the executive's express written consent, the occurrence of any one or more of the following: (i) a substantial and material diminution in the executive's duties or responsibilities; (ii) a material reduction in the executive's Base Salary; or (iii) the relocation of the executive's principal place of employment to a location that is more than 50 miles from the prior location.

A termination of employment by the executive for Good Reason will be effectuated by giving the Company written notice, or Notice of Termination for Good Reason, not later than 90 days following the occurrence of the circumstance that constitutes Good Reason, setting forth in reasonable detail the specific conduct of the Company that constitutes Good Reason and the specific provision(s) of this Agreement on which the executive relied. The Company will be entitled, during the 30-day period following receipt of a Notice of Termination for Good Reason, to cure the circumstances that gave rise to Good Reason, provided that the Company shall be entitled to waive its right to cure or reduce the cure period by delivery of written notice to that effect to the executive (such 30-day or shorter period, the "Cure Period"). If, during the Cure Period, such circumstance is remedied, the executive will not be permitted to terminate his employment for Good Reason as a result of such circumstance. If, at the end of the Cure Period, the circumstance that constitutes Good Reason has not been remedied, the executive will terminate employment for Good Reason on the date of expiration of the Cure Period.

2008 Stock Plan

The 2008 Stock Plan provides that in the event of a merger or a Change in Control (as defined below), each outstanding award will be treated as the administrator determines, including, without limitation, that each award be assumed or an equivalent award be substituted by the successor corporation or a parent or subsidiary of the successor corporation. In the event of a Change in Control in which the successor corporation does not assume or substitute for the award, awards outstanding under the 2008 Stock Plan will become fully vested and exercisable, including shares as to which such award would not otherwise be vested or exercisable, and all restrictions on outstanding restricted stock awards will lapse.

For purposes of the 2008 Stock Plan, "*Change in Control*" means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company, except that any change in the ownership of the stock of the Company as a result of a private financing of the Company that is approved by the board of directors will not be considered a Change in Control; or

(ii) If the Company has a class of securities registered pursuant to Section 12 of the Exchange Act, a change in the effective control of the Company which occurs on the date that a majority of members of the board of directors is replaced during any twelve (12) month period by directors whose appointment or election is not endorsed by a majority of the members of the board of directors prior to the date of the appointment or election; or

(iii) A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any person acquires (or has acquired during the twelve month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions.

2015 Equity Incentive Plan

The 2015 Plan provides that notwithstanding any other provision of the 2015 Plan, in the event of a Change in Control (as defined below), unless otherwise determined by the plan administrator, each outstanding award under the plan will be assumed or an equivalent award substituted by the successor corporation or a parent or subsidiary of the successor corporation. In the event that, or to the extent that, the successor corporation in a Change in Control refuses to assume or substitute for the award, or if the plan administrator determines that such assumption or substitution is not desirable or is only desirable for a portion of any outstanding award, then the plan administrator may take any or all of the following actions: (i) determine that an outstanding award will accelerate and become exercisable, or determine that the restrictions and conditions on an outstanding award will lapse, in whole or in part, as applicable, upon the Change of Control or upon such other event as the plan administrator determines; (ii) require that a Grantee surrender his or her outstanding award, or any portion of such outstanding award, in exchange for a payment by the Company, in cash or stock, as determined by the plan administrator, in an amount equal to the fair market value of the vested portion of the award (with respect to options or stock appreciation rights, or other similar appreciation value awards, such value shall be determined by the amount by which the then fair market value of the shares subject to the Grantee's unexercised award exceeds the any applicable exercise price or other grant price or base value or the award); or (iii) after giving the Grantee an opportunity to exercise the vested portion of his or her outstanding award, terminate any or all unexercised portion of the award at such time as the plan administrator deems appropriate. Such surrender or termination will take place as of the date of the Change of Control or such other date as the plan administrator may specify.

For purposes of the 2015 Plan, "Change in Control" means the occurrence of any of the following events:

(i) A change in our ownership which occurs on the date that any one person, or more than one person acting as a group, or Person, acquires ownership of our stock that, together with the stock held by such Person, constitutes more than 50% of the total voting power of our stock, except that any change in the ownership of our stock as a result of a private financing that is approved by our board of directors will not be considered a Change in Control; or

(ii) If we have a class of securities registered pursuant to Section 12 of the Exchange Act, a change in our effective control which occurs on the date that a majority of members of our board of directors is replaced during any twelve (12) month period by directors whose appointment or election is not endorsed by a majority of the members of our board of directors prior to the date of the appointment or election. For purposes of this paragraph (ii), if any Person is considered to be in effective control of our company, the acquisition of additional control of our company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of our assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) assets from us that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of our assets immediately prior to such acquisition or acquisitions. For purposes of this paragraph (iii), gross fair market value means the value of our assets, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

Persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with us.

Compensation of Directors

Non-Employee Director Compensation Program

Our non-employee directors are entitled to receive the following compensation for their services:

- Annual Cash Retainer — $35,000
- Chairman of the Board Cash Retainer — $25,000
- Audit Committee Chair Retainer — $15,000
- Compensation Committee Chair Retainer — $10,000
- Nominating and Corporate Governance Committee Chair Retainer — $7,500
- Initial Equity Grant — 40,000 shares
- Annual Equity Grant — 30,000 shares

2019 Director Compensation

The following table sets forth the compensation paid or earned for the fiscal year ended December 31, 2019 to our non-employee directors. Compensation paid to Andrew Ritter, and Ira Ritter is presented as part of the "Summary Compensation Table (2019 and 2018)" above. Our employee directors do not receive compensation for their service as directors.

Name of Director	Fees Earned and Paid in Cash ($)	Option Awards[(1)] ($)	All other compensation ($)	Total ($)
Noah Doyle	38,625(2)	4,013	—	42,638
Matthew W. Foehr	52,500(3)	4,013	—	56,513
Paul V. Maier	58,625(4)	4,013	—	62,638
Dr. William M. Merino	55,000(5)	4,013	—	59,013

(1) Represents the aggregate grant date fair value of the options granted to the non-employee directors on February 6, 2019 determined in accordance with FASB ASC 718.

We utilize the Black-Scholes option-pricing model to value awards. Key valuation assumptions include:

- *Expected dividend yield*. The expected dividend is assumed to be zero as we have never paid dividends and have no current plans to pay any dividends on our common stock.
- *Expected stock-price volatility*. As our common stock only recently became publicly traded, the expected volatility is derived from the average historical volatilities of publicly traded companies within our industry that we consider to be comparable to our business over a period approximately equal to the expected term.
- *Risk-free interest rate*. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term.
- *Expected term*. The expected term represents the period that the stock-based awards are expected to be outstanding. Our historical share option exercise experience does not provide a reasonable basis upon which to estimate an expected term because of a lack of sufficient data. Therefore, we estimate the expected term by using the simplified method provided by the SEC. The simplified method calculates the expected term as the average of the time-to-vesting and the contractual life of the options.

In addition to the assumptions used in the Black-Scholes option-pricing model, we also estimate a forfeiture rate to calculate the stock-based compensation for our equity awards. We will continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for our stock-based compensation calculations on a prospective basis.

As of December 31, 2019, Mr. Foehr and Mr. Maier held options to purchase an aggregate of 39,400 shares of our common stock. Mr. Doyle held options to purchase an aggregate of 18,000 shares of our common stock and Dr. Merino held options to purchase an aggregate of 19,200 shares of our common stock.

(2) Amount includes $15,450 of director fees that have been deferred and are expected to be paid upon the closing of the proposed merger between the Company and Qualigen, Inc.

(3) Amount includes $21,000 of director fees that have been deferred and are expected to be paid upon the closing of the proposed merger between the Company and Qualigen, Inc.

(4) Amount includes $23,450 of director fees that have been deferred and are expected to be paid upon the closing of the proposed merger between the Company and Qualigen, Inc.

(5) Amount includes $11,000 of director fees that have been deferred and are expected to be paid upon the closing of the proposed merger between the Company and Qualigen, Inc.

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 with respect to the beneficial ownership of Ritter common stock as of April 10, 2020 (except where otherwise indicated) for:

- each person, or group of affiliated persons, known by Ritter to beneficially own more than 5% of the outstanding shares of Ritter common stock;
- each of Ritter's named executive officers;
- each of Ritter's directors; and
- all of Ritter's current executive officers and directors as a group.

The number of shares beneficially owned by each entity, person, director or executive officer is determined under the rules of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the individual has the sole or shared voting power or investment power and any shares that the individual has the right to acquire within 60 days of April 10, 2020, through the exercise of any stock option, warrant or other right (including shares of common stock issuable upon the conversion of convertible preferred stock). Shares of Ritter's common stock that may be acquired by an individual or group within 60 days of April 10, 2020, pursuant to the exercise of options, warrants or other rights, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of Ritter's common stock of any other person shown in the table.

The percentage of beneficial ownership is based on 46,152,960 shares of Ritter common stock outstanding on April 10, 2020.

Subject to applicable community property laws, each person has sole investment and voting power with respect to the shares set forth in the following table. Except as otherwise noted below, the address for each person or entity listed in the table is c/o Ritter Pharmaceuticals, Inc., 1880 Century Park East, Suite 1000, Los Angeles, California 90067.

Except as contemplated by the merger, Ritter does not know of any arrangements the operation of which may at a subsequent date result in a change in control of Ritter.

Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Common stock Beneficially Owned
Executive Officers, Directors and Director Nominees		
Andrew J. Ritter[(1)]	356,637	*
Ira E. Ritter[(2)]	255,052	*
John W. Beck[(3)]	85,000	*
Noah J. Doyle[(4)]	798,924	1.7%
Matthew W. Foehr[(5)]	162,335	*
Paul V. Maier[(6)]	23,700	*
Dr. William M. Merino[(7)]	26,252	*
All current executive officers and directors as a group (7 persons)[(8)]	1,607,453	3.4%

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

(1) Includes 625 shares owned directly, 255,565 shares underlying stock option awards that are currently exercisable or exercisable within 60 days of April 10, 2020 and 81,697 shares beneficially owned by Stonehenge Partners LLC ("Stonehenge"), including 18,750 shares that are issuable upon the exercise of warrants to purchase common stock that are currently exercisable. As a managing partner of Stonehenge, Andrew Ritter may be deemed the beneficial owner of these shares. Andrew Ritter expressly disclaims beneficial ownership of the shares held by Stonehenge.

(2) Includes as of April 10, 2020, 625 shares held in a retirement plan trust of which the reporting person and his spouse are trustees, 153,980 stock option awards that are currently exercisable or exercisable within 60 days of April 10, 2020, and 81,697 shares beneficially owned by Stonehenge, including 18,750 shares that are issuable upon the exercise of warrants to purchase common stock that are currently exercisable. As a managing partner of Stonehenge, Ira Ritter may be deemed the beneficial owner of these shares. Ira Ritter expressly disclaims beneficial ownership of the shares held by Stonehenge.

(3) Represents shares underlying stock option awards held by Mr. Beck that are currently exercisable or exercisable within 60 days of April 10, 2020.

(4) Includes 2,272 shares owned directly by Mr. Doyle, 19,000 shares underlying stock options held by Mr. Doyle that are currently exercisable or exercisable within 60 days of April 10, 2020. This number also includes (i) 737,055 shares of common stock held directly by Javelin Venture Partners, L.P. and Javelin Partners I SPVI, LLC ("Javelin") and 40,597 shares of common stock that Javelin has the right to acquire upon exercise of warrants to purchase common stock that are currently exercisable Javelin Venture Partners GP, L.P. ("Javelin GP, LP") serves as the general partner for the Javelin entities. Javelin Venture Partners GP, LLC ("Javelin GP, LLC") serves as the general partner of Javelin GP, LP, and Noah Doyle and Jed Katz serve as the managers of Javelin GP, LLC.

(5) Includes 138,635 shares owned directly by Mr. Foehr and 23,700 shares underlying stock options held by Mr. Foehr that are currently exercisable or exercisable within 60 days of April 10, 2020.

(6) Represents shares underlying stock options held by Mr. Maier that are currently exercisable or exercisable within 60 days of April 10, 2020.

(7) Includes 1,398 shares owned directly by Dr. Merino and 24,854 shares underlying stock options held by Dr. Merino that are currently exercisable or exercisable within 60 days of April 10, 2020.

(8) Includes 645,146 shares underlying stock options and warrants that are currently exercisable or exercisable within 60 days of April 10, 2020.

Equity Compensation Plan Information

The following table sets forth aggregate information for the fiscal year ended December 31, 2019, regarding the Company's compensation plans, including individual compensation agreements, under which equity securities of the Company are authorized for issuance:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (#) (a)	Weighted average exercise price of outstanding options, warrants and rights ($) (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (#) (c)
Equity compensation plans approved by security holders	1,159,744(1)	$ 6.93	1,742,515(2)
Equity compensation plans not approved by security holders	—	—	—
Total	1,159,744(1)	$ 6.93	1,742,515(2)

(1) Represents the number of underlying shares of common stock associated with outstanding options that were granted under the 2008 Stock Plan and the 2015 Equity Incentive Plan.

(2) Represents the number of shares of common stock available for future issuance under the 2015 Equity Incentive Plan. As of June 29, 2015, no further awards were permitted to be issued under the 2008 Stock Plan.

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

Certain Relationships and Related Party Transactions

Our Audit Committee is responsible for reviewing, approving and overseeing any transaction between the Company and its directors, director nominees, executive officers, greater than 5% beneficial owners, and each of their respective immediate family members, where the amount involved exceeds the lesser of (i) $120,000 and (ii) one percent (1%) of the average of our total assets at year-end for the prior two fiscal years. Since January 1, 2018, there have been no such transactions.

Director Independence

Under Nasdaq's continued listing requirements, a majority of a listed company's board of directors must be comprised of independent directors, subject to certain exceptions. In addition, Nasdaq's continued listing requirements require that, subject to certain exceptions, each member of a listed company's audit, compensation and governance and nominating committees must be independent. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. Under Nasdaq's continued listing requirements, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, such person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Based upon information requested from and provided by each director concerning their background, employment and affiliations, including family relationships, our board of directors determined that each of Messrs. Doyle, Foehr and Maier and Dr. Merino are independent under the applicable rules and regulations of Nasdaq. In making such determinations, the board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances the board of directors deemed relevant in determining their independence.

Item 14. Principal Accountant Fees and Services

Fees and Services of Mayer Hoffman McCann P.C.

The following table sets forth the aggregate fees billed to the Company by MHM for the fiscal years ended December 31, 2019 and 2018:

	2019	2018
Audit Fees(1)	$ 132,000	$ 130,000
Audit-Related Fees	—	—
Tax Fees	—	—
All Other Fees(2)	31,110	11,000
Total	$ 163,110	$ 141,000

(1) Audit fees consisted of fees for audit work performed in the audit of financial statements, as well as fees for quarterly reviews and registration statements.

(2) All Other Fees for 2019 consists of fees paid in connection with registrations statements we filed with the SEC in 2019. All Other Fees for 2018 consists of fees paid in connection with our November 2018 private placement financing.

The Audit Committee has adopted a formal policy on auditor independence requiring the advance approval by the Audit Committee of all audit and non-audit services provided by our independent registered public accounting firm. In determining whether to approve any services by our independent registered public accounting firm, the Audit Committee reviews the services and the estimated fees, and considers whether approval of the proposed services will have a detrimental impact on the auditor's independence. On an annual basis, our management reports to the Audit Committee all audit services performed during the previous 12 months and all fees billed by our independent registered public accounting firm for such services.

In fiscal 2019 and 2018, all audit services and the corresponding fees were approved by our board of directors.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial Statements.

The following financial statements of Ritter Pharmaceuticals, Inc., together with the report thereon of Mayer Hoffman McCann P.C., an independent registered public accounting firm, are included in this Annual Report on Form 10-K:

(a)(2) Financial Statement Schedules.

All schedules have been omitted because they are not required or because the required information is given in the Financial Statements or Notes thereto set forth under Item 8 above.

(a)(3) Exhibits.

		Incorporated by Reference			
Exhibit No.	**Description**	**Form**	**File No.**	**Exhibit**	**Filing Date**
2.1	Agreement and Plan of Merger, by and among Ritter Pharmaceuticals, Inc., RPG28 Merger Sub, Inc. and Qualigen Inc., dated January 15, 2020	8-K	001-37428	2.1	1/21/2020
2.2	Amendment No. 1 to Agreement and Plan of Merger by and among Ritter Pharmaceuticals, Inc., RPG28 Merger Sub, Inc. and Qualigen, Inc., dated February 1, 2020	S-4	333-236235	Annex B	4/6/2020
2.3	Amendment No. 2 to Agreement and Plan of Merger by and among Ritter Pharmaceuticals, Inc., RPG28 Merger Sub, Inc. and Qualigen, Inc., dated February 1, 2020	S-4	333-236235	Annex C	4/6/2020
3.1	Amended and Restated Certificate of Incorporation of Ritter Pharmaceuticals, Inc.	8-K	001-37428	3.1	7/1/2015
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation	8-K	001-37428	3.1	9/15/2017
3.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation	8-K	001-37428	3.1	3/22/2018
3.4	Amended and Restated Bylaws of Ritter Pharmaceuticals, Inc.	8-K	001-37428	3.2	7/1/2015
3.5	Certificate of Designation of Series A Convertible Preferred Stock	8-K	001-37428	3.1	10/4/2017
3.6	Certificate of Designation of Series B Convertible Preferred Stock	10-Q	001-37428	3.1	11/9/2018

3.7	Certificate of Designation of Series C Convertible Preferred Stock	10-Q	001-37428	3.2	11/9/2018
4.1	Form of Common Stock Certificate of Ritter Pharmaceuticals, Inc.	8-K	001-37428	4.1	3/22/2018
4.2	Form of Common Stock Purchase Warrant	S-1	333-208818	4.7	12/31/2015
4.3	Form of Representative's Warrant Agreement	S-1/A	333-202924	4.7	5/8/2015
4.4	Warrant Agency Agreement by and between Ritter Pharmaceuticals, Inc. and Corporate Stock Transfer, Inc. and Form of Warrant Certificate	8-K	001-37428	4.1	10/4/2017
4.5	First Amendment to Warrant Agency Agreement by and between Ritter Pharmaceuticals, Inc. and Corporate Stock Transfer, Inc.	8-K	001-37428	4.1	5/7/2018
4.6	Registration Rights Agreement, by and among Ritter Pharmaceuticals, Inc. and the Purchasers signatory thereto, dated October 30, 2018	10-Q	001-37428	10.5	11/9/2018
4.7	Description of Common Stock	10-K	001-37428	4.7	3/31/2020
10.1+	Executive Compensation Plan	S-1	333-202924	10.3	5/8/2015

10.2+	2015 Equity Incentive Plan	S-8	333-207709	99.3	10/30/15
10.3+	Amendment to 2015 Equity Incentive Plan	8-K	001-37428	10.1	6/6/2016
10.4+	Second Amendment to 2015 Equity Incentive Plan	8-K	001-37428	10.1	6/6/2017
10.5+	Third Amendment to 2015 Equity Incentive Plan	8-K	001-37428	10.1	9/15/2017
10.6+	Form of Notice of Grant of Stock Option under the 2015 Equity Incentive Plan	S-8	333-207709	99.4	10/30/15
10.7+	Form of Performance Restricted Stock Unit Award Agreement	10-K	001-37428	10.10	4/1/2019
10.8+	Stock Option Agreement, dated September 25, 2013, by and between Ritter Pharmaceuticals, Inc. and Andrew J. Ritter	S-1	333-202924	10.11	5/8/2015
10.9+	Stock Option Agreement, dated December 2, 2014, by and between Ritter Pharmaceuticals, Inc. and Andrew J. Ritter	S-1	333-202924	10.12	5/8/2015
10.10+	Stock Option Agreement, dated December 2, 2014, by and between Ritter Pharmaceuticals, Inc. and Andrew J. Ritter	S-1	333-202924	10.13	5/8/2015
10.11+	Stock Option Agreement, dated September 25, 2013, by and between Ritter Pharmaceuticals, Inc. and Ira E. Ritter	S-1	333-202924	10.14	5/8/2015
10.12+	Stock Option Agreement, dated December 2, 2014, by and between Ritter Pharmaceuticals, Inc. and Ira E. Ritter	S-1	333-202924	10.15	5/8/2015
10.13+	Stock Option Agreement, dated December 2, 2014, by and between Ritter Pharmaceuticals, Inc. and Ira E. Ritter	S-1	333-202924	10.16	5/8/2015
10.14	Research and Development Agreement & License, dated November 30, 2010, by and among Kolu Pohaku Technologies, LLC, Kolu Pohaku Management, LLC and Ritter Pharmaceuticals, Inc.	S-1	333-202924	10.17	5/8/2015

10.15	Amendment No. 1 to Research and Development Agreement & License, dated July 6, 2011, by and among Kolu Pohaku Technologies, LLC, Kolu Pohaku Management, LLC and Ritter Pharmaceuticals, Inc.	S-1	333-202924	10.18	5/8/2015
10.16	Amendment No. 2 to Research and Development Agreement & License, dated September 30, 2011, by and among Kolu Pohaku Technologies, LLC, Kolu Pohaku Management, LLC and Ritter Pharmaceuticals, Inc.	S-1	333-202924	10.19	5/8/2015
10.17	Amendment No. 3 to Research and Development Agreement & License, dated February 6, 2012, by and among Kolu Pohaku Technologies, LLC, Kolu Pohaku Management, LLC and Ritter Pharmaceuticals, Inc.	S-1	333-202924	10.20	5/8/2015
10.18	Amendment No. 4 to Research and Development Agreement & License, dated November 4, 2013, by and among Kolu Pohaku Technologies, LLC, Kolu Pohaku Management, LLC and Ritter Pharmaceuticals, Inc.	S-1	333-202924	10.21	5/8/2015
10.19	Put and Call Option Agreement, dated November 30, 2010, by and between Kolu Pohaku Technologies, LLC and Ritter Pharmaceuticals, Inc.	S-1	333-202924	10.22	5/8/2015
10.20+	Form of Indemnification Agreement between Ritter Pharmaceuticals, Inc. and each of its directors and executive officers	S-1/A	333-202924	10.29	4/24/2015
10.21	Clinical Supply and Operation Agreement, dated December 16, 2009, by and among Ritter Pharmaceuticals, Inc. and Ricerche Sperimentali Montale SpA and Inalco SpA	S-1/A	333-202924	10.30	4/24/2015
10.22	Amendment 1 to the Clinical Supply and Cooperation Agreement, dated September 25, 2010, by and among Ritter Pharmaceuticals, Inc. and Ricerche Sperimentali Montale SpA and Inalco SpA	S-1/A	333-202924	10.31	4/24/2015
10.23+	Amended and Restated Offer Letter, by and between Ritter Pharmaceuticals, Inc. and Andrew J. Ritter	10-Q	001-37428	10.5	8/14/2018
10.24+	Offer Letter, by and between Ritter Pharmaceuticals, Inc. and Ira E. Ritter	10-Q	001-37428	10.2	8/12/2015
10.25+	Executive Severance & Change in Control Agreement, by and between Ritter Pharmaceuticals, Inc. and Andrew J. Ritter	10-Q	001-37428	10.3	8/12/2015
10.26+	Executive Severance & Change in Control Agreement, by and between Ritter Pharmaceuticals, Inc. and Ira E. Ritter	10-Q	001-37428	10.4	8/12/2015

10.27	Lease Agreement, dated July 9, 2015, between the Company and Century Park	10-Q	001-37428	10.1	11/10/2015
10.28+	Letter of Agreement, dated October 20, 2015 between Ritter Pharmaceuticals, Inc. and Chord Advisors, LLC	10-Q	001-37428	10.4	11/10/2015
10.29	Amended and Restated Master Services Agreement, dated May 1, 2018, by and between Ritter Pharmaceuticals, Inc. and Medpace, Inc.	8-K	001-37428	10.1	5/7/2018
10.30+	Offer Letter with John W. Beck, dated May 23, 2018	8-K	001-37428	10.1	5/29/2018
10.31	Executive Severance and Change in Control Agreement, by and between Ritter Pharmaceuticals, Inc. and John W. Beck, effective May 24, 2018	8-K	001-37428	10.2	5/29/2018
10.32	Securities Purchase Agreement, by and among Ritter Pharmaceuticals, Inc. and the Purchasers signatory thereto, dated October 30, 2018	10-Q	001-37428	10.3	11/9/2018
10.33	Form of Common Stock Purchase Warrant	10-Q	001-37428	10.4	11/9/2018
10.34	Amended and Restated Common Stock Purchase Agreement, by and between Ritter Pharmaceuticals, Inc. and Aspire Capital Fund, LLC, dated July 23, 2019	8-K	001-37428	10.1	7/24/2019
10.35	Amendment to Employment Salary Terms, by and between Ritter Pharmaceuticals, Inc. and Andrew Ritter dated October 15, 2019	8-K	001-37428	10.1	10/15/2019
10.36	Amendment to Employment Salary Terms, by and between Ritter Pharmaceuticals, Inc. and John Beck, dated October 15, 2019	8-K	001-37428	10.2	10/15/2019
10.37	Amendment to Employment Salary Terms, by and between Ritter Pharmaceuticals, Inc. and Ira Ritter, dated October 15, 2019	8-K	001-37428	10.3	10/15/2019
10.38	Sales Agreement, by and between Ritter Pharmaceuticals, Inc. and A.G.P./Alliance Global Partners	8-K	001-37428	10.1	11/7/2019
10.39	Form of Irrevocable Consent and Waiver of Restriction on Dilutive Issuances	10-Q	001-37428	10.5	11/14/2019
10.40	Form of Agreement to Exchange Warrants	8-K	001-37428	10.1	2/21/2020
23.1*	Consent of Mayer Hoffman McCann P.C., independent registered public accounting firm				
24.1	Power of Attorney (included on signature page)	10-K	001-37428	24.1	3/31/2020

31.1*	Certificate of principal executive officer pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certificate of principal financial officer pursuant to Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certificate of principal executive officer and principal financial officer pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
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.

* Filed herewith.
+ Indicates management contract or compensatory plan or arrangement.
# XBRL (Extensible Business Reporting Language) information is furnished and not filed herewith, is not a part of a registration statement or Prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

RITTER PHARMACEUTICALS, INC.

By: */s/ John W. Beck*
Name: John W. Beck
Title: Principal Financial Officer and Principal Accounting Officer

Date: April 24, 2020

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Ritter Pharmaceuticals, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Ritter Pharmaceuticals, Inc. (the "Company") as of December 31, 2019 and 2018, and the related statements of operations and comprehensive loss, changes in stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has incurred recurring operating losses and is dependent on additional financing to fund operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are described in Note 2 to the financial statements. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

Basis for Opinion

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

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

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

We have served as the Company's auditor since 2014.

/s/ Mayer Hoffman McCann P.C.

Los Angeles, California
March 31, 2020

RITTER PHARMACEUTICALS, INC.
BALANCE SHEETS

	December 31, 2019	December 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	$ 1,699,971	$ 7,812,259
Accrued interest receivable	771	54,456
Investment in marketable securities	—	6,988,780
Prepaid expenses and other current assets	509,519	421,522
Total current assets	2,210,261	15,277,017
Other assets		
Right-of-use assets	93,032	—
Other assets	478,075	22,725
Total other assets	571,107	22,725
Property and equipment, net	15,656	20,160
Total Assets	**$ 2,797,024**	**$ 15,319,902**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 1,417,317	$ 4,512,316
Accrued expenses	179,258	1,407,843
Lease liabilities	100,471	—
Other liabilities	—	13,359
Total current liabilities	1,697,046	5,933,518
Stockholders' equity		
Series A preferred stock, $0.001 par value; 9,500 shares authorized; 0 and 4,080 shares issued and outstanding as of December 31, 2019 and 2018, respectively	—	2,289,324
Series B preferred stock, $0.001 par value; 6,000 shares authorized; 1,850 and 5,608 shares issued and outstanding as of December 31, 2019 and 2018, respectively	1,288,956	3,906,931
Series C preferred stock, $0.001 par value; 1,880 shares authorized; 240 and 1,880 shares issued and outstanding as of December 31, 2019 and 2018, respectively	240,000	1,880,000
Common stock, $0.001 par value; 225,000,000 shares authorized; 19,108,331 and 6,036,562 shares issued and outstanding as of December 31, 2019 and 2018, respectively	19,108	6,037
Additional paid-in capital	79,885,078	71,505,160
Accumulated other comprehensive loss	—	(923)
Accumulated deficit	(80,333,164)	(70,200,145)
Total stockholders' equity	1,099,978	9,386,384
Total Liabilities and Stockholders' Equity	**$ 2,797,024**	**$ 15,319,902**

The accompanying notes are an integral part of these financial statements.

RITTER PHARMACEUTICALS, INC.
STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

	For the Year Ended December 31,	
	2019	**2018**
Operating costs and expenses:		
Research and development (a)	$ 6,126,972	$ 12,259,940
Patent costs	146,281	204,396
General and administrative	4,570,932	5,425,033
Total operating costs and expenses	10,844,185	17,889,369
Operating loss	(10,844,185)	(17,889,369)
Other income:		
Interest income	123,052	126,835
Settlement of accounts payable (a)	588,114	893,823
Total other income	711,166	1,020,658
Net loss	**$ (10,133,019)**	**$ (16,868,711)**
Other comprehensive gain (loss):		
Unrealized gain (loss) on debt securities	923	(923)
Comprehensive loss	$ (10,132,096)	$ (16,869,634)
Net Loss	(10,133,019)	(16,868,711)
Deemed dividend of preferred stock	—	(2,537,844)
Net loss applicable to common stockholders	$ (10,133,019)	$ (19,406,555)
Net loss per common share – basic and diluted	$ (1.06)	$ (3.66)
Weighted average common shares outstanding – basic and diluted	9,570,061	5,304,667

(a) For comparative presentation purposes, settlement of accounts payable of $893,823 for the year ended December 31, 2018 was reclassified out of research and development and into settlement of accounts payable under other income.

The accompanying notes are an integral part of these financial statements.

RITTER PHARMACEUTICALS, INC.
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Series A Preferred Stock		Series B Preferred Stock		Series C Preferred Stock		Common Stock		Additional Paid-in Capital	Additional Accumulated Deficit	Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2017	**9,140**	**$ 5,128,536**	**—**	**$ —**	**—**	**$ —**	**4,939,639**	**$ 4,940**	**$ 68,323,940**	**$ (53,331,434)**	**$ —**	**$ 20,125,982**
Payout to shareholders for fractional shares	—	—	—	—	—	—	—	—	(3,256)	—	—	(3,256)
Issuance of Series B preferred shares upon closing of private placement	—	—	6,000	4,570,848	—	—	—	—	792,037	—	—	5,362,885
Commissions and offering costs of private placement	—	—	—	(390,449)	—	—	—	—	(122,081)	—	—	(512,530)
Deemed dividend of preferred stock	(1,880)	(1,054,886)	—	—	1,880	1,880,000	—	—	(188,000)	—	—	637,114
Stock-based compensation	—	—	—	—	—	—	—	—	645,823	—	—	645,823
Conversion of Series A preferred shares into common stock	(3,180)	(1,784,326)	—	—	—	—	795,000	795	1,783,531	—	—	—
Conversion of Series B preferred shares into common stock	—	—	(392)	(273,468)	—	—	301,923	302	273,166	—	—	—
Change in unrealized loss on investment in marketable debt securities	—	—	—	—	—	—	—	—	—	—	(923)	(923)
Net loss	—	—	—	—	—	—	—	—	—	(16,868,711)	—	(16,868,711)
Balance at December 31, 2018	**4,080**	**$ 2,289,324**	**5,608**	**$ 3,906,931**	**1,880**	**$ 1,880,000**	**6,036,562**	**$ 6,037**	**$ 71,505,160**	**$ (70,200,145)**	**$ (923)**	**$ 9,386,384**
Shareholders fractional adjustment	—	—	—	—	—	—	(2)	—	—	—	—	—
Issuance of common shares from ATM Agreement	—	—	—	—	—	—	8,126,375	8,126	1,448,942	—	—	1,457,068
Stock issuance costs of ATM Agreement	—	—	—	—	—	—	—	—	(49,626)	—	—	(49,626)
Conversion of Series A preferred shares into common stock	(4,080)	(2,289,324)	—	—	—	—	1,020,000	1,020	2,288,304	—	—	—
Conversion of Series B preferred shares into common stock	—	—	(3,758)	(2,617,975)	—	—	2,890,396	2,890	2,615,085	—	—	—
Conversion of Series C preferred shares into common stock	—	—	—	—	(1,640)	(1,640,000)	1,000,000	1,000	1,639,000	—	—	—
Settlement of RSUs	—	—	—	—	—	—	35,000	35	(35)	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	438,248	—	—	438,248
Change in unrealized loss on available-for-sale securities	—	—	—	—	—	—	—	—	—	—	923	923
Net loss	—	—	—	—	—	—	—	—	—	(10,133,019)	—	(10,133,019)
Balance at December 31, 2019	**—**	**$ —**	**1,850**	**$ 1,288,956**	**240**	**$ 240,000**	**19,108,331**	**$ 19,108**	**$ 79,885,078**	**$ (80,333,164)**	**$ —**	**$ 1,099,978**

The accompanying notes are an integral part of these financial statements.

RITTER PHARMACEUTICALS, INC.
STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,	
	2019	**2018**
Cash flows from operating activities		
Net loss	$ (10,133,019)	$ (16,868,711)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	6,093	5,721
Amortization of right-of-use assets	105,287	—
Stock-based compensation	438,248	645,823
Settlement of accounts payable	(588,114)	(893,823)
Amortization of discount on available-for-sale debt securities	(9,769)	(19,789)
Change in unrealized gain (loss) on investment in marketable debt securities	923	(923)
Changes in operating assets and liabilities:		
Accrued interest receivable	53,685	(54,456)
Prepaid expenses and other current assets	(87,997)	(254,122)
Other assets	(455,350)	(12,399)
Accounts payable	(2,506,885)	3,168,559
Accrued expenses	(1,228,585)	953,591
Lease liabilities	(97,848)	—
Other liabilities	(13,359)	(2,398)
Net cash and cash equivalents used in operating activities	**(14,516,690)**	**(13,332,927)**
Cash flows from investing activities		
Purchase of property and equipment	(1,589)	(2,008)
Purchase of investment in marketable securities	—	(6,968,991)
Sale of investments in marketable debt securities	6,998,549	—
Net cash and cash equivalents provided by (used in) investing activities	**6,996,960**	**(6,970,999)**
Cash flows from financing activities		
Proceeds from the issuance of preferred shares upon closing of private placement	—	6,000,000
Commission and issuance costs of private placement	—	(512,530)
Proceeds from the issuance of shares from ATM Agreement	1,457,068	—
Stock issuance costs of ATM Agreement	(49,626)	—
Payout to shareholders for fractional shares	—	(3,256)
Net cash and cash equivalents provided by financing activities	**1,407,442**	**5,484,214**
Net decrease in cash and cash equivalents	**(6,112,288)**	**(14,819,712)**
Cash and cash equivalents at beginning of year	**7,812,259**	**22,631,971**
Cash and cash equivalents at end of year	**$ 1,699,971**	**$ 7,812,259**
Supplemental disclosure of cash flow activities:		
Cash paid for taxes	$ 187,095	$ 2,233
Supplemental disclosure of non-cash investing and financing activities:		
Deemed dividend on preferred stock	$ —	$ 2,537,844
Conversion of preferred stock to common stock	$ 6,547,299	$ 2,057,794
Conversion of Series A preferred stock to Series C preferred stock	$ —	$ 1,880,000
Right-of-use assets obtained in exchange for lease liabilities	$ (198,319)	$ —
Lease liabilities arising from obtaining right-of-use assets	$ 100,471	$ —

The accompanying notes are an integral part of these financial statements.

NOTE 1 — ORGANIZATION AND PRINCIPAL ACTIVITIES

Since its inception, Ritter Pharmaceuticals, Inc. ("Ritter" or the "Company") has focused on the development of therapeutic products that modulate the gut microbiome to treat gastrointestinal diseases. The Company's only product candidate, RP-G28, is an orally administered, high purity galacto-oligosaccharide ("GOS"), for the treatment of lactose intolerance ("LI"), a condition that affects millions of people worldwide. RP-G28 is designed to selectively stimulate the growth of lactose-metabolizing bacteria in the colon, thereby effectively adapting the gut microbiome to assist in digesting lactose (the sugar found in milk) that reaches the large intestine.

Ritter was formed as a Nevada limited liability company on March 29, 2004 under the name Ritter Natural Sciences, LLC. Its first prototype LI product, Lactagen™, was an alternative LI treatment method with a mechanism of action similar to RP-G28. In 2004, clinical testing was conducted with Lactagen, which included a 61-subject double-blind placebo controlled clinical trial. The results were published in the Federation of American Societies for Experimental Biology in May 2005.

In early 2008, the Company initiated a prescription drug development program by developing RP-G28, an improved, second-generation version of Lactagen, based on the belief that if it was successful in gaining approval from the U.S. Food and Drug Administration ("FDA"), it would be able to make stronger claims of both efficacy and safety, garner more medical community support and reach a wider market in the effort to treat LI.

In November 2010, Ritter was awarded a grant from the United States government's Health Care Bill program, the Qualifying Therapeutic Discovery Project, to help fund the development of RP-G28. This grant program provides support for innovative projects that are determined by the U.S. Department of Health and Human Services to have reasonable potential to result in new therapies that treat areas of unmet medical need and/or prevent, detect or treat chronic or acute diseases and conditions.

In November 2011, the Company completed a Phase 2a clinical trial of RP-G28. Positive trends were seen when the entire per protocol study population was analyzed, including some statistically significant subgroup. The combined data demonstrated proof of concept and suggested that RP-G28 administration produced a positive therapeutic effect. RP-G28 was also well tolerated with no significant study-drug related adverse effects.

In October 2016, the Company completed a Phase 2b multi-center, randomized, double-blind, placebo-controlled, parallel group trial of RP-G28. Topline results of the trial were announced in March 2017. Results showed a clinically meaningful benefit to subjects in the reduction of LI symptoms across a variety of outcome measures. The majority of analyses showed positive outcome measures and the robustness of the data point to a clear drug effect. Treatment patients not only reported meaningful reduced symptoms, but also 30 days after taking the treatment, patients reported adequate relief from LI symptoms and satisfaction with the results of the treatment, with RP-G28 preventing or treating their LI symptoms. Greater milk and dairy product consumption was also reported by patients.

In August 2017, the Company held an End-of-Phase 2 meeting with the FDA's Division of Gastroenterology and Inborn Errors Products. The purpose of the meeting was to obtain the FDA's feedback on its Phase 3 program. The Company reached general consensus with the FDA on certain elements of its Phase 3 program and clear guidance and recommendations on many necessary components of its Phase 3 program; including the clinical, non-clinical, and chemistry, manufacturing and controls ("CMC") requirements needed to support a new drug application ("NDA") submission.

In June 2018, the Company initiated the first pivotal Phase 3 clinical trial of RP-G28. Called "Liberatus", this study was to determine the efficacy, safety and tolerability of RP-G28 to treat LI when compared to placebo. The study was a multicenter, randomized, double-blind, placebo-controlled, parallel-group study conducted in the United States. Trial enrollment exceeded expectations, concluding with approximately 557 subjects randomized. More than 30 U.S. sites participated in the study. The protocol design included a 2-week screening period that included one week of study drug administration, a randomized 30-day study drug treatment period and a 90-day "real world experience" period to assess study drug response and durability of effect after treatment as patients consumed their normal diets including dairy products. The primary endpoint of the study was the mean change in LI symptom composite score 30-days post-treatment compared to baseline. Secondary endpoints were to examine the safety, tolerability and meaningfulness of treatment benefit with RP-G28 and the durability of effect of treatment with RP-G28 on reduction of LI symptoms after real-world lactose exposure. The study utilized the prior validated symptom assessment measure and patient questionnaires to capture relevant outcomes. In addition, risk-based data review was used to monitor and assess potential protocol deviations and site quality indicators.

The Company completed enrollment of the Liberatus Phase 3 clinical trial of RP-G28 in March 2019 and last patient visit in July 2019. In September 2019, the Company announced that its Phase 3 clinical trial of RP-G28 for LI failed to demonstrate statistical significance in its pre-specified primary and secondary endpoints.

On October 7, 2019, the Company announced publicly that it had engaged AGP as a financial advisor to explore and evaluate potential strategic alternatives, as it continued to analyze the results of the trial to better understand the data and clinical outcome to assess a path forward for RP-G28. All further development efforts for RP-G28 have been suspended, until such time as the Company determines a path forward.

On January 15, 2020, Ritter entered into an Agreement and Plan of Merger (the "Merger Agreement") with Qualigen Inc. ("Qualigen"), pursuant to which a wholly owned Company Merger Sub will merge with and into Qualigen, with Qualigen surviving as a wholly owned subsidiary of Ritter Pharmaceuticals, Inc.

If the merger is consummated, the combined company does not intend to continue the clinical development of RP-G28. Pursuant to the terms of the Merger Agreement, at the Effective Time (as defined in the Merger Agreement), Ritter and John Beck, the Company's Chief Financial Officer, acting as the initial contingent value right ("CVR") holders' representative and in his capacity as a consultant to Ritter, will enter into a Contingent Value Rights Agreement (the "CVR Agreement"), pursuant to which, each stockholder of record as of immediately prior to the Effective Time (after giving effect to the exercise of any outstanding stock options or warrants and the conversion of any outstanding preferred stock, but not to be adjusted for any reverse split to be effected in connection with the merger) will receive one CVR for each share of capital stock held by such stockholder, entitling the holder to receive the net proceeds, if any, from any sale, license, transfer, spin-off or other monetizing event of all or any part of our current business or all or any part of our intellectual property or technology (a "Legacy Monetization") that is entered into during the period beginning on the date the Merger Agreement was signed and ending on the third anniversary of the closing date of the merger. Under the CVR Agreement, the combined company agreed to commit up to $350,000 (subject to reduction pursuant to the terms of the Merger Agreement) for certain expenses to be incurred by us in pursuing and closing any Legacy Monetization. The CVRs will not be transferable by the holders of CVRs ("CVR Holders"), except in certain limited circumstances, will not be certificated or evidenced by any instrument, will not accrue interest and will not be registered with the Securities and Exchange Commission (the "SEC") or listed for trading on any exchange. The CVRs will terminate on the tenth anniversary of the Effective Time (the "CVR Termination Date"). No payments with respect to the CVRs will be payable in respect of any Legacy Monetization proceeds actually received after the CVR Termination Date by us. From and after the CVR Termination Date, any further proceeds received by us arising from any Legacy Monetization will be retained by Ritter and will not be distributed to the CVR Holders.

The Company may not be successful in completing the merger. If the merger is not completed, Ritter may seek to pursue the development and commercialization of RP-G28 as either a prescription drug, OTC product or dietary supplement for the consumer healthcare industry, which would, in any case, require significant additional funding. If Ritter is unable to obtain funding for the development of RP-G28, whether through potential collaborative, partnering or other strategic arrangements or otherwise, it will likely be required to cease operations

The Company currently operates in one business segment focusing on the potential future development and commercialization of RP-G28. The Company is not organized by market and is managed and operated as one business. A single management team reports to the chief operating decision maker, the Chief Executive Officer. The Company does not currently operate any separate lines of business or separate business entities.

NOTE 2 — BASIS OF PRESENTATION

The accompanying financial statements have been prepared in accordance with GAAP and include all adjustments necessary for the fair presentation of the Company's financial position for the periods presented.

Going Concern and Liquidity

The accompanying financial statements have been prepared assuming the Company will continue as a going concern, which contemplates, among other things, the realization of assets and satisfaction of liabilities in the normal course of business. The Company has not generated any product revenue and has not achieved profitable operations. The Company had net losses of approximately $10.1 million and $16.9 million for the years ended December 31, 2019 and 2018, respectively, and had net cash used in operating activities of approximately $14.5 million and $13.3 million, for the years ended December 31, 2019 and 2018, respectively. At December 31, 2019, the Company had working capital of approximately $0.5 million, an accumulated deficit of approximately $80.3 million, cash and cash equivalents of approximately $1.7 million. There is no assurance that profitable operations will ever be achieved, and, if achieved, could be sustained on a continuing basis. In addition, development activities, clinical and pre-clinical testing, and commercialization of the Company's products will require significant financing. If the Plan of Merger is not successful, the Company may close down operations and operate as a shell company if the Company cannot raise the cash to continue operations. These matters, among others, raise substantial doubt about the Company's ability to continue as a going concern.

Since inception, the operations of the Company have been funded through the sale of common shares, preferred shares, warrants and convertible debt. Management cannot be certain that additional funding will be available on acceptable terms, or at all. To the extent that the Company raises additional funds by issuing equity securities, the Company's stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants that could impact the Company's ability to conduct business. If the Company is not able to raise additional capital when required or on acceptable terms, the Company may have to (i) significantly delay, scale back or discontinue the development and/or commercialization of one or more product candidates; (ii) seek collaborators for product candidates at an earlier stage than otherwise would be desirable and on terms that are less favorable than might otherwise be available; or (iii) relinquish or otherwise dispose of rights to technologies, product candidates or products that the Company would otherwise seek to develop or commercialize.

The financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and such differences may be material to the financial statements. The more significant estimates and assumptions by management include among others; the valuation allowance of deferred tax assets resulting from net operating losses and the valuation of options on the Company's common stock.

Cash and Cash Equivalents

Cash consists of amounts held in financial institutions and consists of immediately available fund balances. The funds are maintained at stable financial institutions, generally at amounts in excess of federally insured limits. Cash equivalents include money market funds and held-to-maturity securities with a maturity date of 90 days or less. As of December 31, 2019, cash and cash equivalents consisted of bank deposits, cash and investments in money market funds.

Investment in Marketable Securities

Investment in marketable securities is held in a custodial account at a financial institution and managed by the Company's capital advisors based on the Company's investment guidelines. All of the Company's investments in marketable securities are classified as available-for-sale debt securities and are carried at fair value. Interest on these securities, as well as the amortization of discounts and premiums, is included in interest income in the Statements of Operations and comprehensive loss. The unrealized gains and losses on these securities are excluded from earnings and reported in other comprehensive loss until realized, except when it considers declines in value to be other than temporary. Other than temporary impairment losses related to credit losses are considered to be realized losses. When available-for-sale debt securities are sold, the cost of the securities is specifically identified and is used to determine the realized gain or loss. Securities classified as current assets have maturity dates of less than or equal to one year from the balance sheet date.

Property and Equipment

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method (see Note 4). Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is credited or charged to income. Maintenance and repairs are charged to expense as incurred while expenditures for refurbishments and improvements that significantly add to the productive capacity or extend the useful life of an asset are capitalized.

Impairment of Long-Lived Assets

The Company periodically assesses the impairment of long-lived assets in accordance with Accounting Standards Codification ("ASC") Topic 360,*Property Plant and Equipment.* When indicators of impairment are present, the Company evaluates the carrying value of these assets in relation to the operating performance of the business and future undiscounted cash flows expected to result from the use of these assets. No such impairments have been recognized during the years ended December 31, 2019 or 2018.

Clinical Trial and Pre-Clinical Study Accruals

The Company makes estimates of accrued expenses as of each balance sheet date in its financial statements based on the facts and circumstances known to it at that time. Accrued expenses for pre-clinical studies and clinical trials are based on estimates of costs incurred and fees that may be associated with services provided by contract research organizations, clinical trial investigational sites, and other related vendors. Payments under certain contracts with such parties depend on factors such as successful enrollment of patients, site initiation and the completion of milestones. In accruing service fees, management estimates the time period over which services will be performed and the level of effort to be expended in each period. If possible, the Company obtains information regarding unbilled services directly from these service providers. However, the Company may be required to estimate these services based on other information available to it. If the Company underestimates or overestimates the activity or fees associated with a study or service at a given point in time, adjustments to research and development expenses may be necessary in future periods. Historically, estimated accrued liabilities have approximated actual expense incurred. Subsequent changes in estimates may result in a material change in the Company's accruals.

Research and Development

The Company expenses the cost of research and development as incurred. Research and development expenses comprise costs incurred in performing research and development activities, including clinical trial costs, manufacturing costs for both clinical and pre-clinical materials as well as other contracted services, license fees, and other external costs. Nonrefundable advance payments for goods and services that will be used in future research and development activities are expensed when the activity is performed or when the goods have been received, rather than when payment is made, in accordance with ASC Topic 730, *Research and Development*.

Patent Costs

The Company has no historical data to support a probable future economic benefit for the arising patent applications, filing and prosecution costs. Therefore, patent costs are expensed as incurred. Should the Company experience a legal cost to defend a patent in the future, that cost would be capitalized only when it is part of the cost of retaining and obtaining the future economic benefit of the patent. Costs related to an unsuccessful outcome would be expensed.

Stock-based Compensation

Stock-based compensation cost for stock awards issued to employees, members of the Company's board of directors and non-employees, is measured at the grant date based on the fair value of the award and is recognized as expense over the required service period, which is generally equal to the vesting period. Stock-based compensation is recognized only for those awards that are ultimately expected to vest. Common stock, stock options or warrants issued to non-employees, including consultants and members of the Company's Scientific Advisory Board as consideration for goods or services received by the Company, are accounted for based on the fair value of the equity instruments issued unless the fair value consideration received can be more reliably measured. The fair value of stock options is determined using the Black-Scholes option-pricing model. The fair value of any options issued to non-employees is recorded as expense over the vesting period. See Note 8 for further information.

Fair Value Measurements

The fair value of the Company's financial instruments reflects the amounts that it estimates it would receive in connection with the sale of an asset or pay in connection with the transfer of a liability in an orderly transaction between market participants at the measurement date (exit price). The Company discloses and recognizes the fair value of its assets and liabilities using a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to valuations based upon unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to valuations based upon unobservable inputs that are significant to the valuation (Level 3 measurements). The guidance establishes three levels of the fair value hierarchy as follows:

Level 1 - Inputs that reflect unadjusted quoted prices in active markets for identical assets or liabilities that we have the ability to access at the measurement date;

Level 2 - Inputs other than quoted prices that are observable for the assets or liability either directly or indirectly, including inputs in markets that are not considered to be active;

Level 3 - Inputs that are unobservable.

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability.

The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers within the hierarchy during the year ended December 31, 2019.

A summary of the assets and liabilities carried at fair value in accordance with the hierarchy defined above is as follows:

	Fair Value Measurements Using			
	Level 1	**Level 2**	**Level 3**	**Total**
December 31, 2019				
Assets:				
Money market fund	$ 1,552,115	$ —	$ —	$ 1,552,115
Total assets	$ 1,552,115	$ —	$ —	$ 1,552,115

	Fair Value Measurements Using			
	Level 1	**Level 2**	**Level 3**	**Total**
December 31, 2018				
Assets:				
Cash and money market fund	$ 2,353,825	$ —	$ —	$ 2,353,825
Corporate debt securities	—	6,908,710	—	6,908,710
Commercial paper	—	2,979,213	—	2,979,213
Total assets	$ 2,353,825	$ 9,887,923	$ —	$ 12,241,748

The Company uses a market approach for determining the fair value of all its Level 1 money market funds and marketable securities. To value its money market funds, the Company values the funds at $1 stable net asset value, which is the market pricing convention for identical assets that the Company has the ability to access.

The investments were classified as available-for-sale debt securities. At December 31, 2019, the balance in the Company's accumulated other comprehensive loss was comprised primarily of activity related to the Company's available-for-sale debt securities and some activity related to held-to-maturity debt securities. Realized gains and losses are included in earnings The Company had no available-for-sale or held-to-maturity debt securities as of December 31, 2019.

Convertible Preferred Stock

The Company follows authoritative accounting guidance to distinguish liabilities from equity when assessing the classification and measurement of preferred stock. Preferred shares subject to mandatory redemptions are considered liabilities and measured at fair value. Conditionally redeemable preferred shares are considered temporary equity. All other preferred shares are considered as stockholders' equity.

Accounting for Income Taxes

Deferred tax assets and liabilities are recognized for the expected future consequences of events that have been reflected in the financial statements. Deferred tax assets and liabilities are determined based on the differences between the book and tax basis of assets and liabilities and operating loss carryforwards, using tax rates expected to be in effect for the years in which the differences are expected to reverse. Such differences arise primarily from stock-based compensation and net operating loss carryforwards. The Company records a valuation allowance to reduce deferred income tax assets when it is more likely than not that some portion or all of the deferred tax asset will not be realized. Prior to September 15, 2008, the Company was a limited liability company and the Company's tax losses and credits generally flowed directly to the members.

Net Loss Per Share

The Company determines basic net loss per share and diluted net loss per share in accordance with the provisions of ASC 260, "Earnings per Share." Basic net loss per share was calculated by dividing net loss by the weighted-average common shares outstanding during the period. Diluted net loss per share was calculated by dividing net loss by the weighted-average common shares outstanding during the period using the treasury stock method or the two-class method, whichever is more dilutive. The potentially dilutive stock options issued under the 2015 Stock Plan (described in Note 8), Series A, Series B and Series C Convertible Preferred Stock (described in Note 6) and warrants on the Company's common stock (described in Notes 6 and 7) were not considered in the computation of diluted net loss per share because they would be anti-dilutive.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company is required to record all components of comprehensive loss in the financial statements in the period in which they are recognized. Net income (loss) and other comprehensive loss, including foreign currency translation adjustments and unrealized gains and losses on investments are reported, net of their related tax effect, to arrive at a comprehensive loss. For the years ended December 31, 2019 and 2018, comprehensive loss comprised of unrealized losses on investments in available-for-sale debt securities and held-to-maturity debt securities.

Recent Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, an amendment that modifies the measurement recognition of credit losses for most financial assets and certain other instruments. The amendment updates the guidance for measuring and recording credit losses on financial assets measured at amortized cost by replacing the "incurred loss" model with an "expected loss" model. Accordingly, these financial assets will be presented at the net amount expected to be collected. The amendment also requires that credit losses related to available-for-sale debt securities be recorded as an allowance through net income rather than reducing the carrying amount under the current, other-than-temporary-impairment model. The FASB also issued subsequent amendments to the initial guidance: ASU 2018-19, ASU 2019-04, and ASU 2019-05 (collectively, "Topic 326"). Topic 326 requires measurement and recognition of expected credit losses for financial assets held. The effective date and transition methodology for the amendments in Topic 326 are the same as in ASU 2016-13. The guidance is effective for public business entities that are SEC filers. The amendments in ASU No. 2016-13 are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. For all other public business entities, the amendments in this ASU are effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. The Company does not expect the adoption of this guidance will have a material impact on its financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *"Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement"*, an amendment to the accounting guidance on fair value measurements. The guidance modifies the disclosure requirements on fair value measurements, including the removal of disclosures of the amount of and reasons for transfers between Level 1 of the fair value hierarchy, the policy for timing of transfers between levels, and the valuation processes for Level 3 fair value measurements. The guidance also adds certain disclosure requirements related to Level 3 fair value measurements. The guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company does not expect the adoption of this guidance will have a material impact on its financial statements.

In December 2019, the FASB issued ASU No. 2019-12, "*Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*" which is intended to simplify various aspects related to accounting for income taxes. The ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. The ASU 2019-12 is effective for the Company beginning after December 15, 2021. The Company is evaluating the impact of the adoption of ASU 2019-12 on its financial statements, but does not expect such adoption to have a material impact.

Other accounting standard updates effective after December 31, 2019 are not expected to have a material impact on the Company's financial statements.

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. Under this guidance, an entity is required to recognize right-of-use ("ROU") assets and corresponding lease liabilities on its balance sheets and disclose key information about leasing arrangements. In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842) Targeted Improvements*, which provides for an alternative transition method by allowing companies to continue to use the legacy guidance in Topic 840, Leases, including its disclosure requirements, in the comparative periods presented in the year of adoption of the new leases standard and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption rather than the earliest period presented.

The Company elected the available package of practical expedients , but not the hindsight practical expedient, and adopted this guidance as of January 1, 2019.

The standard had a material impact on the Company's balance sheets, but did not have an impact on its statements of operations and comprehensive loss. The most significant impact was the recognition of a ROU asset and lease liability for the Company's sole operating lease—the Company had no finance leases. Adoption of the standard did not require the Company to restate previously reported results as it elected to apply a modified retrospective approach at the beginning of the period of adoption rather than at the beginning of the earliest comparative period presented.

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting*, which expands the scope of Topic 718 *Compensation—Stock Compensation*, to include share-based payments issued to nonemployees for goods or services. Consequently, the accounting for share-based payments to nonemployees and employees will be substantially aligned. ASU No. 2018-07 supersedes Subtopic 505-50 *Equity—Equity-Based Payments to Non-Employees*. The amendments implemented by ASU No. 2018-07 are effective for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. The Company adopted ASU 2018-07 on January 1, 2019 and it did not have a material effect on its results of operations, financial position or cash flows.

NOTE 4 — PROPERTY AND EQUIPMENT

Property and equipment consists of the following:

	Estimated Life	December 31, 2019	December 31, 2018
Computer equipment	5 years	$ 17,178	$ 15,589
Furniture and fixtures	7 years	19,158	19,158
Total property and equipment		36,336	34,747
Accumulated depreciation		(20,680)	(14,587)
Property and equipment, net		$ 15,656	$ 20,160

Depreciation expense of approximately $6,100 and $5,700 was recognized for each of the years ended December 31, 2019 and 2018, respectively, and is classified in general and administrative expense in the accompanying Statements of Operations and Comprehensive Loss.

NOTE 5 — COMMITMENTS AND CONTINGENCIES

Master Services Agreement

In May 2018, Ritter entered into an Amended and Restated Master Services Agreement ("Service Agreement") with a clinical research organization ("CRO"), pursuant to which the CRO agreed to perform certain services related to the management and execution of certain clinical trials involving RP-G28. The Services Agreement supersedes the Master Service Agreement, dated August 30, 2016, that Ritter entered into with the CRO. The precise services to be performed by the CRO under the Services Agreement will be mutually agreed upon by the parties in writing and set forth in one or more task orders. Ritter is not obligated to purchase any minimum or specific volume or dollar amount of services under the Services Agreement.

The term of the Services Agreement is four years from the effective date of the Service Agreement unless earlier terminated. Ritter may terminate the Services Agreement or any task without cause immediately upon giving the CRO notice of such termination. The CRO may, with advance notice to Ritter, terminate a task order if Ritter has materially defaulted on its obligations under the Services Agreement or any task order and has not cured such material default, as described in the Services Agreement.

Clinical Supply and Cooperation Agreement with Ricerche Sperimentali Montale SpA ("RSM")

Under the terms of the Supply Agreement with RSM on July 22, 2015, Ritter is required to pay RSM $400,000 within 10 days following FDA approval of an NDA for the first product owned or controlled by Ritter using Improved GOS as its active pharmaceutical ingredient.

Offer Letter Amendments

On October 15, 2019, Ritter entered into amendments to the respective employment offer letters of Andrew J. Ritter, its Chief Executive Officer, John W. Beck, its Chief Financial Officer, and Ira E. Ritter, its Chief Strategic Officer (the "Offer Letter Amendments"). Pursuant to the terms of the Offer Letter Amendments, each of Ritter's executive officers agreed to defer a portion of his annual base salary (the "Deferred Amounts"), as set forth below, until such time as the board of directors, in its sole discretion, decides to pay the Deferred Amounts (or any portion of the Deferred Amounts) to the executive officers, if ever.

Name of Executive Officer	Annual Deferred Amount
Andrew J. Ritter	$ 70,200
John W. Beck	$ 33,000
Ira E. Ritter	$ 53,820

Lease Agreement

On July 9, 2015, the Company entered into a lease with a California limited partnership, pursuant to which the Company leased approximately 2,780 square feet of office space in Los Angeles, California for its headquarters. The lease provides for a term of sixty-one (61) months, commencing on October 1, 2015. The Company paid no rent for the first month of the term and paid base rent of $9,174 per month for months 2 through 13 of the term, with increasing base rent for each twelve-month period thereafter under the term of the lease to a maximum of $10,325 per month for months 50 through 61. The base rent payments do not include the Company's proportionate share of any operating expenses, including real estate taxes. The Company has the option to extend the term of the lease for one five-year term, provided that the rent would be subject to market adjustment at the beginning of the renewal term. Rent expense, recognized on a straight-line basis, was approximately $117,000 and $118,000 for the years ended December 31, 2019 and 2018, respectively, and is recorded in general and administrative expenses in the accompanying statements of operations and comprehensive loss.

Other information related to our leases is provided below.

	Year Ended December 31, 2019
Supplemental Cash Flows Information	
Cash paid for amounts included in the measurement of lease liability:	
Operating cash flows from operating lease	$ 114,978
Operating lease asset obtained in exchange for lease obligation:	
Operating lease	$ 198,319
Remaining lease term	
Operating lease	0.8 years
Discount rate	
Operating lease	6.0%

Future payments under non-cancelable extended operating leases having initial or remaining terms of one year or more are as follows for the remaining fiscal year and thereafter:

Future minimum lease payments year ending December 31,	
2020 (10 months)	$ 103,254
Total future minimum lease payments, undiscounted	103,254
Less imputed interest	(2,783)
Present value of lease liabilities	$ 100,471
Operating lease liabilities reported as of December 31, 2019:	
Operating lease liabilities-current	$ 100,471

Operating lease liabilities-non-current	—
Total	$ 100,471

The following table summarizes our lease obligations at December 31, 2019:

	LEASE COMMITMENTS
Years ended December 31,	**Operating Lease**
2020	$ 103,254
Total minimum lease payments	$ 103,254

Legal

From time to time, we are party to legal claims and proceedings that arise in the ordinary course of business, which may relate to our operations or assets. These may include disputes and lawsuits related to intellectual property, licensing, contract law and employee relations matters. Periodically, the Company reviews the status of significant matters, if any exist, and assesses its potential financial exposure. If the potential loss from any claim or legal claim is considered probable and the amount can be estimated, the Company accrues a liability for the estimated loss. Legal proceedings are subject to uncertainties, and the outcomes are difficult to predict. Because of such uncertainties, accruals are based on the best information available at the time. As additional information becomes available, the Company reassesses the potential liability related to pending claims and litigation. We do not believe that any individual legal claim or proceeding that is currently pending is material to the Company or that these claims and proceedings in the aggregate are material to the Company.

NOTE 6— STOCKHOLDERS' EQUITY

Authorized Shares

In September 2017, the Company amended its Amended and Restated Certificate of Incorporation to authorize the issuance of up to 225,000,000 shares of common stock, $0.001 par value per share, and 15,000,000 of which are designated as preferred stock, consisting of (i) 9,500 shares that have been designated Series A convertible preferred stock, (ii) 6,000 shares that have been designated as Series B convertible preferred stock, and (iii) 1,880 shares that have been designated as Series C convertible preferred stock. Pursuant to the terms of the Certificate of Incorporation, the board of directors has the authority to issue preferred stock in one or more classes or series and to fix the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, including dividend rights, conversion right, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any class or series, without further vote or action by the stockholders.

All common share amounts and per share amounts were retroactively restated to reflect a 1-for-10 reverse stock split that was effective March 23, 2018.

As of December 31, 2019, the Company had 19,108,331 shares of common stock, 0 shares of Series A convertible preferred stock, 1,850 shares of Series B convertible preferred stock and 240 shares of Series C convertible preferred stock issued and outstanding. Each share of the Company's common stock is entitled to one vote, and all shares rank equally as to voting and other matters. Each share of Series A preferred stock is convertible by the holder at $4.00 per share; subject to adjustment for stock splits, stock dividends, subsequent rights offerings, pro rata distributions, and fundamental transactions. Each share of Series B preferred stock is convertible by the holder at $1.30 per share; subject to customary adjustment in the event of future stock dividends and stock splits. Each share of Series C preferred stock is convertible by the holder at $1.64 per share; subject to customary adjustment in the event of future stock dividends and stock splits. Holders are entitled to receive, and the Company shall pay, dividends on outstanding shares of Series A preferred stock, on an as-if-converted-to-common-stock basis, equal to and in the same form as dividends actually paid on outstanding common shares when, as and if such dividends are paid on outstanding common shares. Upon any liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, the holders of Series A, Series B and Series C preferred stock shall be entitled to receive out of the assets, whether capital or surplus, of the Company the same amount that a holder of common stock would receive if the Series A, Series B and Series C preferred stock were fully converted to common stock, which amounts shall be paid pari passu with all common stockholders. Holders of Series A, Series B and Series C preferred stock have no voting rights. However, as long as any shares of Series A, Series B and Series C preferred stock are outstanding, the Company shall not, without the affirmative vote of the holders of a majority of the then outstanding shares of Series A, Series B and Series C preferred stock, (a) alter or change adversely the powers, preferences or rights given to the Series A, Series B and Series C preferred stock or alter or amend the applicable Certificate of Designation, (b) amend the Company's certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series A, Series B and Series C preferred stock, (c) increase the number of authorized shares of Series A, Series B and Series C preferred stock, or (d) enter into any agreement with respect to any of the foregoing.

Aspire Capital Common Stock Purchase Agreement

On May 4, 2017, the Company entered into a common stock purchase agreement with Aspire Capital Fund, LLC ("Aspire Capital"), which the Company and Aspire amended and restated on March 29, 2019 and on July 23, 2019 (as amended and restated, the "Aspire Purchase Agreement"). The Aspire Purchase Agreement was amended and restated to adjust certain provisions to improve the Company's access to funding under the agreement. The Company was not required to pay a commitment fee to Aspire Capital to affect the amendment to the Aspire Purchase Agreement. The Aspire Purchase Agreement provides access to the Company of up to an aggregate of $6.5 million in proceeds through the sale of shares of its common stock through March 31, 2021.

Under the Aspire Purchase Agreement, as amended, on any trading day the Company selected, it had the right, in its sole discretion, to present Aspire Capital with a purchase notice (each, a "Purchase Notice"), directing Aspire Capital (as principal) to purchase up to 100,000 shares of its common stock per trading day (which could be increased by as much as an additional 2,000,000 shares per trading day by mutual agreement), up to an aggregate of $6,500,000 of its common stock, at a per share price (the "Purchase Price") equal to the lesser of: (i) the lowest sale price of the Company's common stock on the sale date, or (ii) the arithmetic average of the three lowest closing sale prices for the Company's common stock during the ten (10) consecutive trading days ending on the trading day immediately preceding the sale date. The aggregate purchase price payable by Aspire Capital on any one purchase date could not exceed $500,000, unless otherwise mutually agreed. In addition, on any date on which the Company submitted a Purchase Notice to Aspire Capital in an amount of at least 100,000 shares and its stock price was not less than $0.25 per share, the Company could also, in its sole discretion, present Aspire Capital with a volume-weighted average price purchase notice (each, a "VWAP Purchase Notice") directing Aspire Capital to purchase an amount of its common stock equal to up to 30% of the aggregate shares of the Company's common stock traded on its principal market on the next trading day (the "VWAP Purchase Date"), as determined by the Company. Under the terms of the Aspire Purchase Agreement, the number of shares that could be sold pursuant to Aspire Capital was limited to 1,807,562 (the "Exchange Cap"), which represented 19.99% of the Company's outstanding shares of common stock as of March 29, 2019, the date the agreement was first amended and restated, unless stockholder approval or an exception pursuant to the rules of the Nasdaq Capital Market was obtained to issue more than 19.99%. This limitation would not apply if, at any time the Exchange Cap was reached and at all times thereafter, the average price paid for all shares issued under the Aspire Purchase Agreement was equal to or greater than $0.86 (the "Minimum Price"), which was the closing price of the Company's common stock immediately preceding the signing of the agreement. As of December 31, 2019, the Company has not sold any shares of common stock under this agreement. Subsequent to December 31, 2019 the Company sold approximately 1.8 million shares of common stock under this agreement resulting in proceeds of approximately $0.5 million.

November 2018 Private Placement Financing

On November 5, 2018, the Company closed a PIPE financing with certain institutional investors, a key vendor and a member of its board of directors. Net proceeds from the PIPE financing were approximately $5.5 million, after deducting placement agent fees and other offering expenses. The securities sold by the Company consisted of 6,000 shares of a newly designated class of Series B convertible preferred stock of the Company, with a stated value of $1,000 per share and an initial conversion price per share of $1.30 (subject to customary adjustment for stock dividends and stock splits) and warrants to purchase an aggregate of 2,307,685 shares of the Company's common stock. Each investor received a warrant to purchase a number of shares of common stock equal to one half the number of shares of common stock into which their Series B convertible preferred stock is initially convertible. The warrants are exercisable immediately for a five-year period and have an exercise price of $1.30 per share (subject to customary adjustment for stock dividends and stock splits but without the down-round protective provisions of previously issued warrants). The proceeds received in the PIPE financing were allocated to each instrument on a relative fair value basis. Total proceeds of $6.0 million were allocated as follows: $1.4 million to warrants issued and $4.6 million to Series B convertible preferred stock. The allocation resulted in an effective conversion price for the Series B preferred stock that was below the quoted market price of the Company's common stock on the closing date. As such, the issuance was considered a beneficial conversion feature equal to the intrinsic value of the conversion feature on the closing date, resulting in a deemed dividend for the Series B convertible preferred stock of approximately $0.7 million, recognized on the closing date and recorded as a reduction of income available to common stockholders in computing basic and diluted loss per share.

Certain investors in the PIPE financing who at the time of closing of the PIPE financing owned shares of the Company's Series A convertible preferred stock, exchanged, on a 1 for 1 share basis, their shares of Series A convertible preferred stock for shares of a newly designated class of Series C convertible preferred stock of the Company, with a stated value of $1,000 per share and convertible into shares of the Company's common stock at an initial conversion price per share of $1.64 (subject to customary adjustment for stock dividends and stock splits), ("the Exchange"). As the Series A convertible preferred stock contained a beneficial conversion feature, the Exchange was considered an extinguishment equal to the excess of (a) the fair value of the consideration transferred to the holders of the Series A convertible preferred stock over (b) the carrying amount of the Series A convertible preferred stock on the Company's balance sheet plus (c) the amount previously recognized for the beneficial conversion feature, or approximately $0.2 million, which was recognized on the closing date and recorded as a reduction of income available to common stockholders in computing basic and diluted loss per share.

At-the-Market Offering Agreement

On November 6, 2019, the Company entered into an at the market sales agreement ("ATM Agreement") with AGP, pursuant to which it may offer and sell, from time to time through AGP, shares of its common stock (the "Placement Shares") having an aggregate offering price of up to $3,673,159 (which was subsequently increased to $8,030,917), subject to the terms and conditions of the ATM Agreement. Unless earlier terminated pursuant to the terms of the ATM Agreement, the ATM Agreement will automatically terminate upon the earlier to occur of (i) issuance and sale of all of the Placement Shares to or through AGP and (ii) August 1, 2022. As of December 31, 2019, the Company sold approximately 8.1 million shares of common stock under the ATM Agreement resulting net proceeds to of approximately $1.4 million after commissions and expenses of approximately $50,000. Subsequent to December 31, 2019 the Company sold approximately 16.8 million shares of common stock under this agreement resulting in net proceeds of approximately $4.4 million after commissions and expenses of approximately $0.2 million.

NOTE 7 — WARRANTS

Warrants to purchase an aggregate of 8,413,017 shares of the Company's common stock were outstanding at December 31, 2019. These warrants are all vested and exercisable, have exercise prices ranging from $0.15 to $93.00 per share, with a weighted average exercise price of $0.95, and expire at various dates through November 2023.

NOTE 8 — STOCK-BASED COMPENSATION

Equity Incentive Plans

The Company has issued equity awards pursuant to its 2015 Equity Incentive Plan (the "2015 Plan"), 2009 Stock Plan and 2008 Stock Plan (collectively the "Plans"). The Plans permit the Company to grant non-statutory stock options, incentive stock options and other equity awards to the Company's employees, outside directors and consultants; however, incentive stock options may only be granted to the Company's employees. Beginning June 29, 2015, no further awards may be granted under the 2009 Stock Plan or 2008 Stock Plan. However, to the extent awards under the 2008 Plan or 2009 Plan are forfeited or lapse unexercised or are settled in cash, the common stock subject to such awards will be available for future issuance under the 2015 Plan.

In June 2017, the stockholders of the Company approved an amendment to the 2015 Plan at the 2017 annual meeting of stockholders, which among other things, increased the number of shares that may be issued pursuant to awards under the 2015 Plan by 83,800 shares of common stock.

In September 2017, the stockholders of the Company approved an amendment to the 2015 Plan at a special meeting of stockholders, which among other things, increased the number of shares that may be issued pursuant to awards under the 2015 Plan by 2,585,871 shares of common stock. As of December 31, 2019, the aggregate number of shares of common stock authorized for issuance under the 2015 Plan, as amended, was 2,750,000, and 1,737,615 shares were available for issuance as of December 31, 2019.

The following represents a summary of the options granted to employees and non-employees that are outstanding at December 31, 2019 and changes during the period then ended:

	Number of Shares	Weighted- Average Exercise Price	Aggregate Intrinsic Value	Weighted- Average Remaining Contractual Life (in years)
Outstanding at December 31, 2018	673,885	$ 19.82	$ —	8.2
Options granted	698,750	0.62	—	8.6
Options forfeited	(207,991)	27.50	—	—
Outstanding at December 31, 2019	1,164,644	6.93	—	8.4
Exercisable at December 31, 2019	481,883	$ 20.54	$ —	7.8

The exercise price for an option issued under the Plans is determined by the Board of Directors, but will be (i) in the case of an incentive stock option (A) granted to an employee who, at the time of grant of such option, is a 10% stockholder, no less than 110% of the fair market value per share on the date of grant; or (B) granted to any other employee, no less than 100% of the fair market value per share on the date of grant; and (ii) in the case of a non-statutory stock option, no less than 100% of the fair market value per share on the date of grant. The options awarded under the Plans will vest as determined by the Board of Directors but will not exceed a ten-year period. The weighted average grant date fair value per share of options granted during the year ended December 31, 2019 was $0.62.

Fair Value of Equity Awards

The Company utilizes the Black-Scholes option pricing model to value awards under its Plans. Key valuation assumptions include:

- *Expected dividend yield.* The expected dividend is assumed to be zero as the Company has never paid dividends and has no current plans to pay any dividends on the Company's common stock.

- *Expected stock-price volatility.* As the Company's common stock only recently became publicly traded, the expected volatility is derived from the average historical volatilities of publicly traded companies within the Company's industry that the Company considers to be comparable to the Company's business over a period approximately equal to the expected term.

- *Risk-free interest rate.* The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term.

- *Expected term*. The expected term represents the period that the stock-based awards are expected to be outstanding. The Company's historical share option exercise experience does not provide a reasonable basis upon which to estimate an expected term because of a lack of sufficient data. Therefore, the Company estimates the expected term by using the simplified method provided by the SEC. The simplified method calculates the expected term as the average of the time-to-vesting and the contractual life of the options.

The material factors incorporated in the Black-Scholes model in estimating the fair value of the options granted for the periods presented were as follows (adjusted for 1-for-10 reverse stock split):

	For the year ended December 31,	
	2019	2018
Expected dividend yield	0.00%	0.00%
Expected stock-price volatility	46.33% - 69.38%	46.47% - 53.11%
Risk-free interest rate	1.47% - 2.60%	2.46% - 3.07%
Term of options	5 - 7	5 - 10
Stock price	$ 0.60 - $1.04	$ 1.85 - $3.40

Stock-Based Compensation

The Company recognized stock-based compensation expense for services within general and administrative expense in the accompanying statements of operations of approximately $438,000 and $646,000 for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019, there was approximately $254,000 of total unrecognized compensation cost related to unvested stock-based compensation arrangements. This cost is expected to be recognized over a weighted average period of 1.4 years.

No stock options were exercised during the year ended December 31, 2019 and 2018.

NOTE 9 — RELATED PARTY TRANSACTIONS

A director of the Company is a managing director of Javelin Venture Partners GP, LLC, the general partner of Javelin Venture Partners GP, L.P., which holds a significant investment in the Company's common stock and warrants. Two directors of the Company have acted as a managing director of Stonehenge Partners, LLC, which holds an investment in the Company's common stock.

Other than disclosed, the Company has not entered into or been a participant in any transaction in which a related party had or will have a direct or indirect material interest.

NOTE 10 — INCOME TAXES

As of December 31, 2019, the Company has net operating loss carryforwards of approximately $63.5 million available to reduce future taxable income, if any, for Federal and state income tax purposes. The U.S. federal and state net operating loss carryforwards will begin to expire in 2028.

As of December 31, 2019, the Company has Federal and state research and development credit carryforwards of approximately $3.2 million and $3.1 million, respectively, available to reduce future taxable income, if any, for Federal and state income tax purposes. The Federal credit carryforwards begin to expire in 2029. California credits have no expiration date.

Under the Internal Revenue Code ("IRC") Sections 382 and 383, annual use of the Company's net operating loss and research tax credit carryforwards to offset taxable income may be limited based on cumulative changes in ownership. The Company has not completed an analysis to determine whether any such limitations have been triggered as of December 31, 2019. The Company has no income tax affect due to the recognition of a full valuation allowance on the expected tax benefits of future loss carry forwards based on uncertainty surrounding realization of such assets.

A reconciliation of the statutory income tax rates and the Company's effective tax rate is as follows:

	December 31,	
	2019	**2018**
Statutory U.S. federal rate	21.0%	21.0%
State income tax, net of federal benefit	7.0%	7.0%
Meals & entertainment	(0.1)%	(0.1)%
Valuation allowance	(27.9)%	(27.9)%
Provision for income taxes	0.0%	0.0%

The tax effects of the temporary differences and carry forwards that give rise to deferred tax assets consist of the following:

	As of December 31,	
	2019	2018
Deferred tax assets:		
Net operating loss carry forwards	$ 17,773,202	$ 15,108,073
Patent costs	423,747	382,812
Accrued Vacation	12,832	11,516
Research and development credit	5,241,066	4,314,813
Stock-based compensation	2,025,742	1,903,104
Other	10,200	8,495
Gross deferred tax assets	25,486,789	21,728,813
Valuation allowance	(25,486,789)	(21,728,813)
Net deferred tax assets	$ —	$ —

The Company did not record any accruals for income tax accounting uncertainties for the years ended December 31, 2019 and 2018.

Authoritative guidance requires companies to accrue interest and related penalties, if applicable, on all tax positions for which reserves have been established consistent with jurisdictional tax laws. The Company's policy is to recognize interest and penalties that would be assessed in relation to the settlement value of unrecognized tax benefits as a component of income tax expense. The Company did not accrue either interest or penalties from inception through December 31, 2019.

The Company does not have any unrecognized tax benefits that will significantly decrease or increase within 12 months of December 31, 2019.

The Company's major tax jurisdictions are the United States and California. All of the Company's tax years will remain open three and four years for examination by the Federal and state tax authorities, respectively, from the date of utilization of the net operating loss. The Company does not have any tax audits pending.

NOTE 11 — SUBSEQUENT EVENTS

On January 15, 2020, Ritter entered into an Agreement and Plan of Merger (the "Merger Agreement") with Qualigen Inc. ("Qualigen"), pursuant to which the Merger Sub will merge with and into Qualigen, with Qualigen surviving as a wholly owned subsidiary of Ritter. Upon closing, on a pro forma basis and based upon the number of shares of Ritter common stock expected to be issued in the merger, the pre-merger Ritter securityholders are expected to own approximately 7.5% of the combined company, on a fully diluted basis, and the pre-merger Qualigen securityholders are expected to own approximately 92.5% of the combined company, on a fully diluted basis. To consummate the merger, Ritter and Qualigen stockholders must adopt and approve the Merger Agreement and a series of Merger-related proposals. In addition to obtaining such stockholder approvals and appropriate regulatory approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

Risks Related to COVID-19 Pandemic

The recent outbreak of COVID-19 originated in Wuhan, China, in December 2019 and has since spread to multiple countries, including the United States and several European countries. On March 11, 2020, the World Health Organization declared the outbreak a pandemic. The COVID-19 pandemic is affecting the United States and global economies and may affect the Company's operations and those of third parties on which the Company relies. While the potential economic impact brought by, and the duration of, the COVID-19 pandemic is difficult to assess or predict, the impact of the COVID-19 pandemic on the global financial markets may reduce the Company's ability to access capital, which could negatively impact the Company's short-term and long-term liquidity and the Company's and Qualigen's ability to complete the Plan of Merger on a timely basis or at all. The ultimate impact of the COVID-19 pandemic is highly uncertain and subject to change. The Company does not yet know the full extent of potential delays or impacts on its business, financing or other activities or on healthcare systems or the global economy as a whole. However, these effects could have a material impact on the Company's liquidity, capital resources, operations and business and those of the third parties on which we rely.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the incorporation by reference in Registration Statement No. 333-236235 on Form S-4, Registration Statement Nos. 333-228501, and 333-232798 on Form S-3 and Registration Statement Nos. 333-212062, 333-207709, 333-218636, and 333-220907 on Form S-8 pertaining to the 2008 Stock Plan, 2009 Stock Plan, and 2015 Equity Incentive Plan of Ritter Pharmaceuticals, Inc. of our report dated March 31, 2020, with respect to the financial statements of Ritter Pharmaceuticals, Inc. (which report includes an explanatory paragraph relating to the uncertainty of the Company's ability to continue as a going concern) for each of the years in the two year period ended December 31, 2019, included in this annual report on Form 10-K/A of Ritter Pharmaceuticals, Inc. for the year ended December 31, 2019.

/s/ Mayer Hoffman McCann P.C.

Los Angeles, California
April 24, 2020

Exhibit 31.1

CERTIFICATIONS

I, Andrew J. Ritter, certify that:

1. I have reviewed this Amendment No. 1 to Annual Report on Form 10-K of Ritter 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 Annual Report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Annual Report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Annual Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 24, 2020

By: */s/ Andrew J. Ritter*
Andrew J. Ritter
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, John W. Beck, certify that:

1. I have reviewed this Amendment No. 1 to Annual Report on Form 10-K of Ritter 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;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Annual Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 24, 2020

By: */s/ John W. Beck*
John W. Beck
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATIONS PURSUANT TO 18 U.S.C. 1350

Pursuant to the requirement set forth in Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934, as amended, and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350), as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 Andrew J. Ritter, the Chief Executive Officer (principal executive officer) of Ritter Pharmaceuticals, Inc. (the "Company"), and John W. Beck, the Chief Financial Officer (principal financial officer) of the Company, each hereby certifies that, to his/her knowledge on the date hereof:

(a) The Amendment No. 1 to Annual Report on Form 10-K of the Company for the period ended December 31, 2019 filed on the date hereof with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(b) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the period covered by the Report.

These certifications accompanying the Report to which they relate, are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained and furnished to the Securities and Exchange Commission or its staff upon request.

By: */s/ Andrew J. Ritter*
Andrew J. Ritter
Chief Executive Officer
(Principal Executive Officer)
April 24, 2020

By: */s/ John W. Beck*
John W. Beck
Chief Financial Officer
(Principal Financial Officer)
April 24, 2020