UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

(Mark One)

☒ **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**

FOR THE TRANSITION PERIOD FROM TO

Commission file number: 001-36003

CONATUS PHARMACEUTICALS INC.

(Exact name of registrant as specified in its charter)

Delaware	**20-3183915**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
16745 West Bernardo Dr., Suite 250 San Diego, CA	**92127**
(Address of Principal Executive Offices)	**(Zip Code)**

(858) 376-2600
(Registrant's Telephone Number, Including Area Code)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	CNAT	The Nasdaq Capital Market

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

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

Indicate by a check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ 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 ☒ 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.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
Emerging growth company	☐		

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

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter was approximately $8.4 million, based on the closing price of the registrant's common stock on the Nasdaq Global Market of $0.26 per share.

As of March 2, 2020, the registrant had 33,170,487 shares of common stock ($0.0001 par value) outstanding.

CONATUS PHARMACEUTICALS INC.

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PART I

FORWARD-LOOKING STATEMENTS AND MARKET DATA

This annual report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts contained in this annual report, including statements regarding Conatus Pharmaceuticals Inc., or Conatus, and its future results of operations and financial position, business strategy, prospective products, product approvals, research and development costs, timing and likelihood of success, plans and objectives of management for future operations and future results of anticipated products, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause Conatus' actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. This annual report on Form 10-K also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about Conatus' industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of Conatus' future performance and the future performance of the markets in which Conatus operates are necessarily subject to a high degree of uncertainty and risk.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions. The forward-looking statements in this annual report are only predictions. Conatus has based these forward-looking statements largely on Conatus' current expectations and projections about future events and financial trends that Conatus believes may affect its business, financial condition and results of operations. These forward-looking statements speak only as of the date of this annual report and are subject to a number of risks, uncertainties and assumptions, including those described in Part I, Item 1A, "Risk Factors." The events and circumstances reflected in Conatus' forward-looking statements may not be achieved or occur, and actual results could differ materially from those projected in the forward-looking statements. Moreover, Conatus operates in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, Conatus does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Conatus use its registered trademark, CONATUS PHARMACEUTICALS, in this annual report. This annual report also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this annual report appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that Conatus will not assert, to the fullest extent under applicable law, its rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

Conatus maintains a website at www.conatuspharma.com, to which Conatus regularly post copies of its press releases as well as additional information about Conatus. Conatus' filings with the Securities and Exchange Commission, or SEC, are available free of charge through its website as soon as reasonably practicable after being electronically filed with or furnished to the SEC. Interested persons can subscribe on Conatus' website to email alerts that are sent automatically when Conatus issues press releases, files its reports with the SEC or posts certain other information to its website. Information contained in its website does not constitute a part of this report or its other filings with the SEC.

ITEM 1. BUSINESS

Overview

Conatus is a biotechnology company that has been focused on the development and commercialization of novel medicines to treat chronic diseases with significant unmet need. Conatus has been developing emricasan, an orally active pan-caspase inhibitor, for the treatment of patients with chronic liver disease. Emricasan is designed to reduce the activities of human caspases, which are enzymes that mediate inflammation and apoptosis. Conatus has also been developing CTS-2090, an orally active selective caspase inhibitor, for diseases involving inflammasome pathways.

In June 2019, Conatus announced that top-line results from its ENCORE-LF clinical trial of emricasan did not meet the primary endpoint. The ENCORE-LF trial was the third and last of its ENCORE clinical trials, which tested emricasan in NASH patients with varying degrees for fibrosis or cirrhosis. The two prior trials, the ENCORE-PH and ENCORE-NF trials, also failed to meet the primary endpoint in each study. In connection with the emricasan trial results, Conatus began discontinuing development activities for emricasan, as well as its inflammasome disease product candidate, CTS-2090.

Conatus also commenced a restructuring plan in June 2019 that included reducing staff by approximately 40% and suspending development of CTS-2090 and a restructuring plan in September 2019 that included reducing staff by another approximately 40% in

order to extend Conatus' resources. In addition, Conatus engaged a financial advisor to assist in the exploration and evaluation of strategic alternatives to enhance shareholder value, including a merger, an acquisition or sale of assets or a dissolution and liquidation of the company.

In September 2019, Conatus and Novartis Pharma AG, or Novartis, entered into an amendment to the Option, Collaboration and License Agreement entered into between Conatus and Novartis in December 2016, or the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement. Under the Collaboration Agreement, Conatus granted Novartis an exclusive license for the global development and commercialization of emricasan.

On January 28, 2020, Conatus, Chinook Merger Sub, Inc., or Merger Sub, a wholly owned subsidiary of Conatus, and Histogen Inc., or Histogen, entered into an Agreement and Plan of Merger and Reorganization, or the Merger Agreement, pursuant to which, among other matters, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into Histogen, with Histogen continuing as Conatus' wholly owned subsidiary and the surviving corporation of the merger. If the merger is completed, the business of Conatus will become the business of Histogen as described in Conatus' Form S-4 (registration file number 333-236332) initially filed with the SEC on February 7, 2020, as amended, or the Form S-4.

If the proposed merger is not completed, Conatus will reconsider its strategic alternatives and could pursue one of the following courses of action, which Conatus currently believes to be the most likely alternatives if the merger with Histogen is not completed:

- *Pursue another strategic transaction.* Conatus may resume its process of evaluating a potential merger, reorganization or other business combination transaction.

- *Pursue development of CTS-2090 or emricasan.* Conatus may re-initiate development of CTS-2090, which is a pre-IND product candidate for inflammatory diseases or of emricasan, for which Conatus would expect to pursue orphan indications.

- *Dissolve and liquidate its assets.* If Conatus does not believe it can find a suitable alternate merger partner in the near-term, Conatus may dissolve and liquidate its assets. Conatus would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash remaining to distribute to stockholders after paying the Conatus obligations and setting aside funds for reserves.

Until the proposed merger with Histogen is completed, Conatus cannot predict whether or to what extent it might resume development activities, or what its future cash needs would be for any such activities.

Emricasan

Emricasan is a proprietary and orally active caspase protease inhibitor designed to slow or halt the progression of chronic liver disease caused by fibrosis and cirrhosis. Emricasan has also been extensively profiled in in vitro tests and studied in many preclinical models of human disease. Preclinical studies and clinical trials yielded results that suggested emricasan may have clinical utility in slowing the progression of liver disease regardless of the original cause of the disease. To date, emricasan has been administered to over 1,000 subjects in eight completed Phase 1 and twelve completed Phase 2 clinical trials and has been generally well-tolerated in both healthy volunteers and patients with liver disease. Conatus most recently completed three EmricasaN, a Caspase inhibitOR, for Evaluation Phase 2b clinical trials, or the ENCORE trials, designed to provide further information on doses leading to clinically relevant efficacy, including improvement in severe portal hypertension and hepatic function in patients with NASH cirrhosis and improvement in biopsy-proven fibrosis and inflammation in patients with NASH fibrosis.

In November 2016, Conatus initiated the ENCORE-PH clinical trial, a randomized, double-blind, placebo-controlled Phase 2b clinical trial to evaluate the effect of emricasan in reducing hepatic venous pressure gradient ("HVPG"), in approximately 240 compensated or early decompensated NASH cirrhosis patients with severe portal hypertension, established by baseline HVPG values of 12 mmHg or higher. Patients were randomized 1:1:1:1 to receive 5 mg of emricasan, 25 mg of emricasan, 50 mg of emricasan, or placebo twice daily for 24 weeks. The primary endpoint was the mean change in HVPG from week 0 to week 24 for each dosing group compared with placebo. In December 2018, Conatus announced the trial did not meet its primary endpoint.

In January 2016, Conatus initiated the ENCORE-NF clinical trial, a Phase 2b clinical trial to evaluate emricasan's potential long-term benefits for patients with liver fibrosis resulting from NASH. This randomized, double-blind, placebo-controlled clinical trial evaluated the effect of emricasan in reducing fibrosis and steatohepatitis in approximately 330 patients with NASH fibrosis, but not cirrhosis. Patients were randomized 1:1:1 to receive 5 mg of emricasan, 50 mg of emricasan, or placebo twice daily for 72 weeks. The primary endpoint was a biopsy-based one point or greater improvement in NASH Clinical Research Network fibrosis score compared with placebo at week 72, with no worsening of steatohepatitis. In March 2019, Conatus announced the trial did not meet the primary endpoint.

In May 2017, Conatus initiated the ENCORE-LF clinical trial, a randomized, double-blind, placebo-controlled Phase 2b clinical trial to evaluate emricasan in approximately 210 patients with decompensated NASH cirrhosis. Patients were randomized 1:1:1 to receive 5 mg of emricasan, 25 mg of emricasan, or placebo twice daily for at least 48 weeks. The primary endpoint was event-free survival for each treatment group compared with the placebo group. In June 2019, Conatus announced the trial did not meet the primary endpoint.

In May 2017, Novartis exercised its option under the Option, Collaboration and License Agreement, or the Collaboration Agreement, Conatus entered into with Novartis in December 2016. Pursuant to such exercise, Conatus granted Novartis an exclusive, worldwide license to Conatus' intellectual property rights relating to emricasan to collaborate with Conatus for the global development and commercialization of products containing emricasan either as a single active ingredient or in combination with other Novartis compounds for liver cirrhosis or liver fibrosis, including but not limited to Farnesoid X receptor agonists that Novartis is currently developing for the treatment of chronic liver diseases.

In June 2019, Conatus announced that top-line results from its ENCORE-LF clinical trial of emricasan did not meet its primary endpoint, and, Conatus and its partner, Novartis had no further plans for emricasan and in September 2019, Conatus and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement.

CTS-2090

Inflammasomes are a collection of large multiprotein structures responsible for the activation of inflammatory responses. There are six known inflammasome subtypes - NLRP1, NLRP3, NLRC4, NLRP6, AIM2 and IFI 16 - that respond to different stimuli. A primary function of the inflammasomes is to generate active caspase 1 from procaspase 1 in response to various pathogens and other stimuli. The ultimate products produced by the activation of caspase 1 are highly pro-inflammatory cytokines, IL-1ß and IL-18. In addition, caspase 1 initiates pyroptosis, a highly inflammatory form of cell death, through the cleavage of gasdermin D.

The NLRP3 inflammasome pathway, for example, is dependent upon caspase 1, which activates IL-1ß. As such, caspase 1 occupies a uniquely central position in the inflammasome pathway, and Conatus has leveraged its scientific expertise in caspase research and development to design potent, selective and orally bioavailable inhibitors of caspase 1. Excess IL-1ß has been linked to a variety of diseases including rare genetic inflammatory diseases, cancer, liver and other gastrointestinal diseases, and cardiovascular diseases. Inhibition of IL-1ß is a clinically validated approach to treating inflammatory diseases, with several injectable biologic products using that mechanism of action already on the market. Currently, there are marketed biologic treatments directed at blocking

IL-1ß activity, but to Conatus' knowledge, there are no approved small molecules specifically targeted at reducing IL-1ß activation. Conatus believes an effective, oral caspase 1 inhibitor could have impact across a number of inflammasome-related diseases.

Conatus has assembled an internal development program containing proprietary portfolio of orally active molecules that inhibit inflammasome pathways and the activation of the potent inflammatory cytokine interleukin-1ß, or IL-1ß. In March 2019, Conatus announced the selection of its first internally developed product candidate, CTS-2090, based on the product candidate's preclinical profile, including oral availability and high selectivity for caspase 1, and drug-like properties. In connection with the emricasan trial results and Conatus' decision to pursue strategic alternatives, Conatus discontinued development of CTS-2090 in June 2019.

Competition

The biopharmaceutical industry is characterized by intense competition and rapid innovation. Although Conatus believes that it holds a leading position in its understanding of caspase inhibition related to liver disease, its competitors may be able to develop other compounds or drugs that are able to achieve similar or better results. Potential competitors include major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies and universities and other research institutions. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies. Conatus believes the key competitive factors that will affect the development and commercial success of its product candidates are efficacy, safety and tolerability profile, reliability, convenience of dosing, price and reimbursement.

Material Contracts

Pfizer Inc.

In July 2010, Conatus entered into a Stock Purchase Agreement with Pfizer pursuant to which Conatus acquired all of the outstanding capital stock of Idun, a wholly-owned subsidiary of Pfizer at the time, in consideration for an upfront payment of $250,000 and a promissory note in the principal amount of $1.0 million. In July 2013, the promissory note was amended to become convertible into shares of Conatus common stock following the completion of its initial public offering, at the option of the holder, at a price per share equal to the fair market value of Conatus common stock on the date of conversion. Conatus had the right to prepay the promissory note at any time, and in January 2017, Conatus voluntarily prepaid the entire balance of the principal and accrued interest of the promissory note. The promissory note bore interest at a per annum interest rate equal to 7%, compounded quarterly, and interest was payable on a quarterly basis during the term of the promissory note. Pursuant to the Stock Purchase Agreement, Conatus will be required to make additional payments to Pfizer totaling $18.0 million upon the achievement of specified regulatory milestones relating to emricasan.

Idun Distribution Agreement

In January 2013, Conatus conducted a spin-off of its subsidiary Idun, which Conatus had acquired from Pfizer in the transaction described above, to Conatus stockholders at that time. Immediately prior to the spin-off, all rights relating to emricasan were distributed to Conatus pursuant to a distribution agreement.

Novartis Pharma AG

In December 2016, Conatus entered into the Collaboration Agreement with Novartis, pursuant to which Conatus granted Novartis an exclusive option to collaborate with Conatus to develop products containing emricasan. In May 2017, Novartis exercised its option under the Collaboration Agreement. Pursuant to such exercise, Conatus granted Novartis an exclusive, worldwide license to its intellectual property rights relating to emricasan to collaborate with Conatus for the global development and commercialization of products containing emricasan either as a single active ingredient or in combination with other Novartis compounds for liver cirrhosis or liver fibrosis, for the treatment, diagnosis and prevention of disease in all indications in humans. The license became effective upon Conatus' receipt of a $7.0 million option exercise payment in July 2017. In September 2019, Conatus and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement.

Under the Collaboration Agreement, Conatus was responsible for completing the three ENCORE trials. Conatus shared the costs of these three trials equally with Novartis. In addition, until the completion of the three Phase 2b trials, Conatus and Novartis were to share the costs of the non-treatment observational study that will follow patients from the three ENCORE Phase 2b trials and the previously completed Phase 2b POLT-HCV-SVR trial. After the completion of the three ENCORE Phase 2b trials, Novartis would have assumed 100% of the observational study costs. Novartis was also responsible for 100% of certain expenses for required registration-supportive nonclinical activities. Novartis was responsible for Phase 3 development of products containing only emricasan as an active ingredient, or Emricasan Only Products, and all development for products containing emricasan and one or more other Novartis active ingredients, or Combination Products. Emricasan Only Products and Combination Products are collectively referred to

as Emricasan Products. A joint steering committee comprised of senior personnel from Conatus and Novartis oversaw the collaboration, development and commercialization of the Emricasan Products. Pursuant to the terms of termination, Novartis and Conatus will continue to share the costs of the Phase 2b trials equally until December 31, 2019 and Novartis will pay up to $150,000 for its share of the costs of the Phase 2b trials, if any, in 2020.

Pursuant to the Collaboration Agreement, Conatus received an upfront payment of $50.0 million and the option exercise payment of $7.0 million from Novartis. Conatus was eligible to receive up to an aggregate of $650.0 million in milestone payments over the term of the Collaboration Agreement, contingent on the achievement of certain development, regulatory and commercial milestones. Novartis would have been required to pay Conatus tiered royalties ranging from the high-teens to the high-twenties as a percentage of net sales of Emricasan Only Products, and tiered royalties ranging from the high-single digits to the mid-teens as a percentage of net sales of Combination Products, subject to reduction in certain cases. After the initiation of the first Phase 3 clinical trial for an Emricasan Product, Conatus had an option to elect to enter into a co-commercialization agreement with Novartis under which Conatus was eligible receive up to 30% of the commercial profits less the same percentage of the commercial losses for Emricasan Products in the United States, subject to certain reductions in milestone and royalty payments. As a result of the termination of the Collaboration Agreement, Conatus will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement.

Concurrent with the entry into the Collaboration Agreement, Conatus entered into an Investment Agreement with Novartis, or the Investment Agreement, whereby Conatus agreed to sell and Novartis agreed to purchase, convertible promissory notes, in one or two closings, for an aggregate principal amount of up to $15.0 million. In February 2017, Conatus issued a convertible promissory note, or the Novartis Note, in the principal amount of $15.0 million, pursuant to the Investment Agreement. The maturity date of the Novartis Note was December 31, 2019, and it bore interest on the unpaid principal balance at a rate of 6% per annum. In December 2018, Conatus, at its option, converted the entire outstanding principal of $15.0 million and accrued and unpaid interest of the Novartis Note into 2,882,519 shares of Conatus common stock. Pursuant to the terms of the Novartis Note, the principal and accrued and unpaid interest converted into shares of Conatus common stock at a conversion price equal to 120% of the 20-day trailing average closing price per share of the common stock immediately prior to the conversion date.

Intellectual Property

The proprietary nature of, and protection for, Conatus' product candidates and discovery programs and know-how are important to its business. Conatus has sought patent protection in the United States and internationally for emricasan, crystalline forms of emricasan and certain methods of treatment with emricasan. In addition, Conatus has patent protection covering certain other preclinical stage compounds. Conatus' policy is to pursue, maintain and defend patent rights whether developed internally or licensed from third parties and to protect the technology, inventions and improvements that are commercially important to the development of its business.

Conatus' commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of its current and future product candidates and the methods used to develop and manufacture them, as well as successfully defending these patents against third-party challenges. Conatus' ability to stop third parties from making, using, selling, offering to sell or importing its products depends on the extent to which it has rights under valid and enforceable patents that cover these activities. Conatus cannot be sure that patents will be granted with respect to any of its pending patent applications or with respect to any patent applications filed by it in the future, nor can it be sure that any of its existing patents or any patents that may be granted to it in the future will be commercially useful in protecting its product candidates, discovery programs and processes. For this and more comprehensive risks related to Conatus' intellectual property, please see "Risk Factors—Risks Related to Conatus' Intellectual Property."

Conatus' patent portfolio includes patents directed to crystalline forms of emricasan. As of December 31, 2019, Conatus had received one United States patent and corresponding foreign patents directed to crystalline forms of emricasan. Foreign patents have been granted in Australia, Canada, China, Denmark, France, Germany, Great Britain, Greece, Hong Kong, Ireland, Israel, Italy, Japan, Mexico, Netherlands, Portugal, Romania, Singapore, South Korea, Spain, Sweden, Switzerland, Taiwan and Turkey. Conatus expects that the crystalline forms and methods of use patent, if the appropriate maintenance, renewal, annuity or other governmental fees are paid, will expire in 2028 (United States) and 2027 (international). It is possible that the term of a crystalline forms patent in the United States could be extended up to five additional years under the provisions of the Hatch-Waxman Act. Patent term extension may be available in certain foreign countries upon regulatory approval. Conatus' patent portfolio also includes patent applications directed to composition of matter and methods of use for its internally developed caspase inhibitors, including CTS-2090.

Government Regulation

Government authorities in the United States (at the federal, state and local level) and in other countries extensively regulate, among other things, the research, development, testing, manufacturing, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of drug products such as those Conatus develops. Emricasan, CTS-2090 and any other product candidates that Conatus develops must be approved by the FDA before they may be legally marketed in the United States and by the appropriate foreign regulatory agency before they may be legally marketed in foreign countries.

United States Drug Development Process

In the United States, the FDA regulates drugs under the Federal Food, Drug and Cosmetic Act, ("FDCA"), and implementing regulations. Drugs are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. FDA sanctions could include, among other actions, refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on Conatus. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of extensive preclinical laboratory tests, preclinical animal studies and formulation studies in accordance with applicable regulations, including the FDA's Good Laboratory Practice, or GLP, regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials in accordance with applicable regulations, including the FDA's current good clinical practice regulations, or GCPs, to establish the safety and efficacy of the proposed drug for its proposed indication;
- submission to the FDA of a new drug application, or NDA, for a new drug product;
- a determination by the FDA within 60 days of its receipt of an NDA to accept the NDA for filing and review;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the drug is produced to assess compliance with the FDA's cGMP, which are regulations to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity;
- potential FDA audit of the preclinical and/or clinical trial sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA.

Before testing any compounds with potential therapeutic value in humans, a product candidate enters the preclinical testing stage. Preclinical tests include laboratory evaluations of drug chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLPs. The sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of an IND. An IND is a request for authorization from the FDA to administer an investigational drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for human studies. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions regarding the proposed clinical trials and places the IND on clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may also impose clinical holds on a product candidate at any time before or during clinical trials due to safety concerns or non-compliance. Accordingly, Conatus cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials.

Clinical trials involve the administration of the product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the clinical trial sponsor's control, in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial participants and considers issues such as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must

monitor the clinical trial until completed. There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- Phase 1: The drug is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion, the side effects associated with increasing doses, and if possible, to gain early evidence of effectiveness. In the case of some drugs for severe or life-threatening diseases, especially when the drug may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- Phase 2: The drug is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the drug for specific targeted diseases or conditions and to determine dosage tolerance, optimal dosage and dosing schedule. Phase 2 clinical trials can be further divided into Phase 2a and Phase 2b clinical trials. Phase 2a clinical trials are typically smaller and shorter in duration and generally consist of patient exposure-response trials, which focus on proving the hypothesized mechanism of action. Phase 2b clinical trials are typically higher enrolling and longer in duration and generally consist of patient dose-ranging trials, which focus on finding the optimum dose at which the drug shows clinical benefit with minimal side effects.
- Phase 3: Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the drug and provide an adequate basis for drug approval. Generally, two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of an NDA. Phase 3 clinical trials usually involve several hundred to several thousand participants.
- Phase 4 or post-approval studies: Clinical trials may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 studies.

The FDCA permits the FDA and an IND sponsor to agree in writing on the design and size of clinical trials intended to form the primary basis of a claim of effectiveness in an NDA. This process is known as a Special Protocol Assessment, or SPA. An SPA agreement may not be changed by the sponsor or the FDA after the clinical trial begins except with the written agreement of the sponsor and the FDA, or if the FDA determines that a substantial scientific issue essential to determining the safety or effectiveness of the drug was identified after the testing began. For certain types of protocols, including carcinogenicity protocols, stability protocols and Phase 3 protocols for clinical trials that will form the primary basis of an efficacy claim, the FDA has agreed under its performance goals associated with the Prescription Drug User Fee Act, ("PDUFA"), to provide a written response on most protocols within 45 days of receipt. However, the FDA does not always meet its PDUFA goals, and additional FDA questions and resolution of issues leading up to an SPA agreement may result in the overall SPA process being much longer, if an agreement is reached at all.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA, and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events or any finding from tests in laboratory animals that suggests a significant risk for human subjects. Phase 1, Phase 2 and Phase 3 clinical trials may fail to be completed successfully within any specified period, if at all. The FDA, the IRB or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or data monitoring committee. This group provides authorization for whether or not a trial may move forward at designated checkpoints based on access to certain data from the clinical trial. A trial may also be suspended or terminated based on evolving business objectives and/or competitive climate.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug as well as finalize a process for manufacturing the drug in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final drug. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

FDA Review and Approval Processes

The results of drug development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of a drug, proposed labeling and other relevant information, are submitted to the FDA as part of an NDA requesting approval to market the drug. The application includes both negative and ambiguous results of preclinical and clinical trials as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a drug or from a number of alternative sources, including studies initiated by investigators. To support

marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the investigational product candidate to the satisfaction of the FDA. The submission of an NDA is subject to the payment of substantial user fees; a waiver of such fees may be obtained under certain limited circumstances.

In addition, under the Pediatric Research Equity Act, ("PREA"), an NDA or supplement to an NDA must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does not apply to any drug for an indication for which orphan designation has been granted. However, if only one indication for a drug has orphan designation, a pediatric assessment may still be required for any applications to market that same drug for the non-orphan indication(s).

The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. The FDA must make a decision on accepting an NDA for filing within 60 days of receipt. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months from the 60-day filing date in which to complete its initial review of a standard NDA and respond to the applicant and six months for a priority NDA, if the drug is a new molecular entity. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs, and the review process is often significantly extended by FDA requests for additional information or clarification.

After the NDA submission is accepted for filing, the FDA reviews the NDA to determine, among other things, whether the drug is safe and effective for its intended use and whether the drug is being manufactured in accordance with cGMP to assure and preserve the drug's identity, strength, quality and purity. The FDA may refer applications for drug or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA will inspect the facilities at which the drug is manufactured. The FDA will not approve the drug unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the drug within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical sites to assure compliance with GCP requirements. After the FDA evaluates the application, manufacturing process and manufacturing facilities, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application is not ready for approval. A Complete Response Letter usually describes all of the specific deficiencies in the NDA identified by the FDA. The Complete Response Letter may require additional clinical data and/or an additional pivotal Phase 3 clinical trial(s) and/or other significant and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive, and the FDA may interpret data differently than Conatus interprets the same data.

If a drug receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the drug. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling or may condition the approval of the NDA on other changes to the proposed labeling, development of adequate controls and specifications or a commitment to conduct one or more post-market studies or clinical trials. For example, the FDA may require Phase 4 testing, which involves clinical trials designed to further assess a drug's safety and effectiveness, and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized. The FDA may also determine that a risk evaluation and mitigation strategy, or REMS, is necessary to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS; the FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Following approval of an NDA with a REMS, the sponsor is responsible for marketing the drug in compliance with the REMS and must submit periodic REMS assessments to the FDA.

Orphan Drug Designation

In the United States, under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition. Such diseases and conditions are those that affect fewer than 200,000 individuals in the United States, or if they affect more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and making a drug available in the United States for these types of diseases or conditions will be recovered from sales of the drug. Orphan Drug Designation must be requested before submitting an NDA. If the FDA grants Orphan Drug Designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by that agency. Orphan Drug Designation does not convey any advantage in or shorten the duration of the regulatory review and approval process, but it can lead to financial incentives, such as opportunities for grant funding toward clinical trial costs, tax advantages and user-fee waivers.

If a drug that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the drug is entitled to orphan drug marketing exclusivity for a period of seven years. Orphan drug marketing exclusivity generally prevents the FDA from approving another application, including a full NDA, to market the same drug or biological product for the same indication for seven years, except in limited circumstances, including if the FDA concludes that the later drug is safer, more effective or makes a major contribution to patient care. For purposes of small molecule drugs, the FDA defines "same drug" as a drug that contains the same active chemical entity and is intended for the same use as the drug in question. A designated orphan drug may not receive orphan drug marketing exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Orphan drug marketing exclusivity rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

Conatus submitted applications for orphan drug designation for emricasan for the treatment of fibrosis in HCV-POLT patients in the United States and the EU. In late 2013, Conatus received orphan drug designation from the FDA for the treatment of POLT patients with reestablished fibrosis in their liver to delay the progression to cirrhosis and end-stage liver disease. In the EU, Conatus withdrew the application based on feedback from the applicable regulatory body that emricasan may have efficacy in fibrosis outside of the HCV-POLT patient population.

Expedited Development and Review Programs

The FDA has a Fast Track program that is intended to expedite or facilitate the process for reviewing new drugs that meet certain criteria. Specifically, new drugs are eligible for Fast Track designation if they are intended, alone or in combination with one or more drugs, to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast Track designation applies to the combination of the product candidate and the specific indication for which it is being studied. If a product candidate receives Fast Track designation, the FDA may consider for review sections of the NDA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable and the sponsor pays any required user fees upon submission of the first section of the NDA.

Any drug submitted to the FDA for approval, including a drug with a Fast Track designation, may also be eligible for other types of FDA programs intended to expedite development and review, such as Priority Review and Accelerated Approval. A drug is eligible for Priority Review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug designated for Priority Review in an effort to facilitate the review. Additionally, a drug may be eligible for Accelerated Approval. Drugs studied for their safety and effectiveness in treating serious or life-threatening diseases or conditions may receive Accelerated Approval upon a determination that the drug has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug or biological product receiving Accelerated Approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires, as a condition for Accelerated Approval, pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the drug.

The FDA may also accelerate the approval of a designated Breakthrough Therapy, which is a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvementover existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The sponsor of a Breakthrough Therapy may request the FDA to designate the drug as a Breakthrough Therapy at the time of, or any time after, the submission of an IND for the drug. If the FDA designates a drug as a Breakthrough Therapy, it must take actions appropriate to expedite the development and review of the application, which may include holding meetings with the sponsor and the review team throughout the development of the drug; providing timely advice to, and interactive communication with, the sponsor regarding the development of the drug to ensure that the development program to gather the nonclinical and clinical data necessary for approval is as efficient as practicable; involving senior managers and experienced review staff, as appropriate, in a collaborative, cross-disciplinary review; assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor; and taking steps to ensure that the design of the clinical trials is as efficient as practicable, when scientifically appropriate, such as by minimizing the number of patients exposed to a potentially less efficacious treatment.

Fast Track designation, Priority Review, Accelerated Approval and Breakthrough Therapy designation do not change the standards for approval but may expedite the development or approval process. In February 2016, Conatus announced that the FDA granted Fast Track designation to the emricasan development program for the treatment of liver cirrhosis caused by NASH.

Post-Approval Requirements

Any drugs for which Conatus receives FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements and complying with FDA promotion and advertising requirements, which include, among other requirements, standards for direct-to-consumer advertising, restrictions on promoting drugs for uses or in patient populations that are not described in the drug's approved labeling (known as "off-label use"), limitations on industry sponsored scientific and educational activities and requirements for promotional activities involving the internet. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses.

In addition, quality control and manufacturing procedures must continue to conform to applicable manufacturing requirements after approval. Conatus relies, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of its product candidates and products in accordance with cGMP regulations. cGMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer or holder of an approved NDA, including, among other things, recall or withdrawal of the product from the market. In addition, changes to the manufacturing process are strictly regulated and depending on the significance of the change, may require prior FDA approval before being implemented. Other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

The FDA also may require Phase 4 testing and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product. Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, warning letters from the FDA, mandated corrective advertising or communications with doctors and civil or criminal penalties, among others.

Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures, such as a REMS. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of Conatus' product candidates under development.

United States Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of the use of Conatus' product candidates, some of its United States patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved drug is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, Conatus may apply for restoration of patent term for one of its currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA.

Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain competing marketing applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, ("ANDA"), or a 505(b)(2) NDA submitted by another company for another drug based on the same active moiety, regardless of whether the drug is intended for the same indication as the original innovative drug or for another indication, where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder. The FDCA also provides three years of marketing exclusivity for an NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, clinical investigations to support new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the modification for which the drug received approval on the basis of the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of any full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical and clinical trials necessary to demonstrate safety and effectiveness.

Other types of non-patent marketing exclusivity include orphan drug exclusivity under the Orphan Drug Act, which may offer a seven-year period of marketing exclusivity as described above, and pediatric exclusivity under the Best Pharmaceuticals for Children Act, which may add six months to existing exclusivity periods and patent terms. This six-month pediatric exclusivity may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

Foreign Government Regulation

In addition to regulations in the United States, Conatus will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials, marketing authorization, manufacturing and any commercial sales, promotion and distribution of its products.

Whether or not Conatus obtains FDA approval for a product candidate, it must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like an IND prior to the commencement of human clinical trials. In the EU, for example, a clinical trial application, or CTA, must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and IRB requirements in the United States, respectively. Once the CTA is approved in accordance with a country's requirements, clinical trials may proceed.

The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical trials are conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

In the European Economic Area, or EEA (comprised of the 28 EU Member States plus Iceland, Liechtenstein and Norway), medicinal products must be authorized for marketing by using either the centralized authorization procedure or national authorization procedures.

Centralized procedure: Under the centralized procedure, following the opining of the European Medicines Agency's, ("EMA's"), Committee for Medicinal Products for Human Use, (the "CHMP"), the European Commission issues a single marketing authorization valid across the EEA. The centralized procedure is compulsory for human medicines derived from biotechnology processes advanced therapy medicinal products (such as gene therapy, somatic cell therapy and tissue engineered products), products that contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative disorders, diabetes, autoimmune diseases and other immune dysfunctions, viral diseases, and officially designated orphan medicines. For medicines that do not fall within these categories, an applicant has the option of submitting an application for a centralized marketing authorization to the EMA, as long as the medicine concerned contains a new active substance not yet authorized in the EEA, is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health in the EEA. Under the centralized procedure the maximum timeframe for the evaluation of a marketing authorization application, or MAA, by the EMA is 210 days, excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. Accelerated assessment might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of a major public health interest, particularly from the point of view of therapeutic innovation. The timeframe for the evaluation of an MAA under the accelerated assessment procedure is 150 days, excluding clock stops.

National authorization procedures: There are also two other possible routes to authorize medicinal products in several countries, which are available for products that fall outside the scope of the centralized procedure:

- Decentralized procedure. Using the decentralized procedure, an applicant may apply for simultaneous authorization in more than one EU country of medicinal products that have not yet been authorized in any EU country and that do not fall within the mandatory scope of the centralized procedure.
- Mutual recognition procedure. In the mutual recognition procedure, a medicine is first authorized in one EU Member State, in accordance with the national procedures of that country. Following this, further marketing authorizations can be sought from other EU countries in a procedure whereby the countries concerned recognize the validity of the original, national marketing authorization.

In the EEA, new products authorized for marketing, or reference products, qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic or biosimilar applicants from relying on the preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization in the EU during a period of eight years from the date on which the reference product was first authorized in the EU. The market exclusivity period prevents a successful generic or biosimilar applicant from commercializing its product in the EU until 10 years have elapsed from the initial authorization of the reference product in the EU. The 10-year market exclusivity period can be extended to a maximum of 11 years if, during the first eight years of those 10 years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

The criteria for designating an "orphan medicinal product" in the EEA are similar in principle to those in the United States. In the EEA, a medicinal product may be designated as orphan if (a) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; (b) either (i) such condition affects no more than five in 10,000 persons in the EU when the application is made, or (ii) the product, without the benefits derived from orphan status, would not generate sufficient return in the EU to justify investment; and (c) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the EU, or if such a method exists, the product will be of significant benefit to those affected by the condition. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years of market exclusivity for the approved therapeutic indication. During this ten-year orphan market exclusivity period, no similar medicinal product for the same indication may be placed on the market. An orphan product can also obtain an additional two years of market exclusivity in the EU for pediatric studies. The ten-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, marketing authorization may be granted to a similar product for the same indication at any time if the: (a) second applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior; (b) applicant consents to a second orphan medicinal product application; or (c) applicant cannot supply enough orphan medicinal product.

If Conatus fails to comply with applicable foreign regulatory requirements, it may be subject in those countries to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Coverage and Reimbursement

Sales of Conatus' products will depend, in part, on the extent to which its products will be covered by third-party payors, such as government health care programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly limiting coverage and/or reducing reimbursements for medical products and services. In addition, the United States government, state legislatures and foreign governments have continued implementing cost-containment programs, including price

controls, restrictions on coverage and reimbursement and requirements for substitution of generic products. Adoption of price controlsand cost-containment measures and adoption of more restrictive policies in jurisdictions with existing controls and measures could further limit Conatus' net revenue and results. Decreases in third-party reimbursement for Conatus' product candidates or a decision by a third-party payor not to cover its product candidates could reduce physician usage of its products once approved and have a material adverse effect on its sales, results of operations and financial condition.

Healthcare Reform

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products, implementing reductions in Medicare and other healthcare funding, and applying new payment methodologies. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Affordable Care Act, was enacted, which, among other things, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; introduced a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care plans; imposed mandatory discounts for certain Medicare Part D beneficiaries as a condition for manufacturers' outpatient drugs coverage under Medicare Part D; subjected drug manufacturers to new annual fees based on pharmaceutical companies' share of sales to federal healthcare programs; created a new Patient Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and establishment of a Center for Medicare Innovation at the Centers for Medicare & Medicaid Services, or CMS, to test innovative payment and service delivery models to lower Medicare and Medicaid spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the Affordable Care Act. Conatus expects that the current presidential administration and U.S. Congress will likely continue to seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the Affordable Care Act. Recently, the Tax Cuts and Jobs Act, or the Tax Act, was enacted, which, among other things, removes penalties for not complying with the Affordable Care Act's individual mandate to carry health insurance. On December 14, 2018, a U.S. District Court Judge in the Northern District of Texas, ruled that the individual mandate is a critical and inseverable feature of the Affordable Care Act, and therefore, because it was repealed as part of the Tax Act, the remaining provisions of the Affordable Care Act are invalid as well. While the Trump Administration and CMS have both stated that the ruling will have no immediate effect, it is unclear how this decision, subsequent appeals, if any, and other efforts to repeal and replace the Affordable Care Act will impact the Affordable Care Act and Conatus' business. As such, there is still uncertainty with respect to the impact President Trump's administration and the U.S. Congress may have, if any, and any changes will likely take time to unfold, and could have an impact on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the Affordable Care Act. Conatus cannot predict the ultimate content, timing or effect of any healthcare reform legislation or the impact of potential legislation on it.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act to reduce healthcare expenditures. These changes include aggregate reductions of Medicare payments to providers of 2% per fiscal year that, due to subsequent legislative amendments, will remain in effect through 2027 unless additional action is taken by Congress. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. Recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies. Individual states in the United States have also become increasingly active in implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

Fraud and Abuse Laws

Conatus will also be subject to healthcare fraud and abuse laws and other regulations and enforcement by the federal government as well as the state and foreign governments in which Conatus will conduct its business if a product candidate developed by Conatus is approved and commercialization of such product candidate begins. Such laws include, without limitation, state and federal anti-kickback, false claims, privacy and security and physician sunshine laws and regulations. Violations of any of such laws or any other governmental regulations may result in penalties, including civil and criminal penalties, damages, fines, the curtailment or restructuring of operations, the exclusion from participation in federal and state healthcare programs or similar programs in other countries or jurisdictions, integrity oversight and reporting obligations, and individual imprisonment.

Geographic and Financial Segment Information

To date, Conatus has viewed its operations and managed its business as one segment operating primarily in the United States.

Employees

As of March 2, 2020, Conatus had 6 employees, 5 of whom are full-time, 3 of whom hold Ph.D. or M.D. degrees, 1 of whom was engaged in research and development activities and 5 of whom were in general and administrative positions. None of its employees are subject to a collective bargaining agreement. Conatus considers its relationship with its employees to be good.

About Conatus

Conatus was incorporated under the laws of the state of Delaware in 2005. Conatus' principal executive offices are located at 16745 West Bernardo Dr., Suite 250, San Diego, California 92127, and its telephone number is (858) 376-2600. Conatus' website address is www.conatuspharma.com. The information in or accessible through Conatus' website is not incorporated into and is not considered part of this filing.

Available Information

Conatus files electronically with the Securities and Exchange Commission, or SEC, its annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Conatus makes available on its website at www.conatuspharma.com, free of charge, copies of these reports, as soon as reasonably practicable after it electronically file such material with, or furnish it to, the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The address of that website is www.sec.gov. The information in or accessible through the SEC and Conatus' website are not incorporated into, and are not considered part of, this filing. Further, the references to the URLs for these websites are intended to be inactive textual references only.

ITEM 1A. RISK FACTORS

In January 2020, Conatus entered into a Merger Agreement with Histogen, pursuant to which, subject to the approval of Conatus stockholders and the satisfaction or waiver of the conditions set forth in the Merger Agreement, Histogen would become a wholly-owned subsidiary of Conatus, referred to herein as the merger. If the merger is completed, which could be as early as the second quarter of 2020, the business of Histogen will become the business of Conatus. Additional information regarding the merger including risk factors related to Histogen can be found in Conatus' registration statement on Form S-4. You should carefully consider the following risk factors, together with the other information contained in this annual report on Form 10-K, including Conatus' financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before making a decision to purchase or sell shares of Conatus common stock. Conatus cannot assure you that any of the events discussed in the risk factors below will not occur. These risks could have a material and adverse impact on Conatus' business, results of operations, financial condition and growth prospects. If that were to happen, the trading price of Conatus common stock could decline. Additional risks and uncertainties not presently known to Conatus or that Conatus currently deems immaterial also may impair Conatus' business operations or financial condition.

Risks Related to the Merger

The exchange ratio is not adjustable based on the market price of Conatus common stock, so the merger consideration at the closing may have a greater or lesser value than at the time the Merger Agreement was signed.

The Merger Agreement has set the exchange ratio formula for the Histogen common stock, and the exchange ratio is based on the fully-diluted outstanding capital stock of Histogen and the fully-diluted outstanding common stock of Conatus, after taking into account each company's outstanding options and warrants, irrespective of the exercise prices of such options and warrants, and

Conatus' and Histogen's net cash balances, in each case immediately prior to the closing of the merger. Any changes in the market price of Conatus common stock before the completion of the merger will not affect the number of shares of Conatus common stock issuable to Histogen's stockholders pursuant to the Merger Agreement. Therefore, if before the completion of the merger the market price of Conatus common stock declines from the market price on the date of the Merger Agreement, then Histogen's stockholders could receive merger consideration with substantially lower value than the value of such merger consideration on the date of the Merger Agreement. Similarly, if before the completion of the merger the market price of Conatus common stock increases from the market price of Conatus common stock on the date of the Merger Agreement, then Histogen's stockholders could receive merger consideration with substantially greater value than the value of such merger consideration on the date of the Merger Agreement. The Merger Agreement does not include a price-based termination right. Because the exchange ratio does not adjust as a result of changes in the market price of Conatus common stock, for each one percentage point change in the market price of Conatus common stock, there is a corresponding one percentage point rise or decline, respectively, in the value of the total merger consideration payable to Histogen's stockholders pursuant to the Merger Agreement.

The net cash balances of Conatus and Histogen at the closing of the merger could result in their respective securityholders owning a smaller or larger percentage of the combined organization and could even result in the termination of the Merger Agreement.

The estimates of the respective ownership percentages of the Conatus and Histogen securityholders contained in annual report on Form 10-K are subject to adjustment prior to closing of the merger, including an upward adjustment to the exchange ratio to the extent that Conatus' net cash at the effective time of the merger, or the Effective Time, is less than $12.6 million or Histogen's net cash at the Effective Time is more than $2.2 million (in each case as net cash is defined in the Merger Agreement and as adjusted based on the closing date of the merger), or a downward adjustment to the exchange ratio to the extent that Conatus' net cash at the Effective Time is more than $13.4 million or Histogen's net cash at the Effective Time of the merger is less than $1.4 million (in each case as adjusted based on the closing date of the merger). As a result, Conatus and Histogen stockholders could own more or less, respectively, of the combined organization based on the final net cash positions of the companies. Additionally, the net cash amounts at which adjustments to the exchange ratio may be triggered will be reduced by each company's average daily net cash burn rate in December 2019 for each day from January 31, 2020 until the closing date of the merger.

Additionally, Conatus is required to have net cash of at least $12.5 million at the closing of the merger, as adjusted based on the closing date of the merger; if Conatus' net cash falls below $12.5 million (as adjusted based on the closing date of the merger) Histogen could decide not to consummate the transaction and the Merger Agreement could be terminated.

Failure to complete the merger may result in Conatus or Histogen paying a termination fee or expenses to the other party and could significantly harm the market price of Conatus common stock and negatively affect the future business and operations of each company.

If the merger is not completed and the Merger Agreement is terminated under certain circumstances, Conatus or Histogen may be required to pay the other party a termination fee of $500,000 or reimburse the transaction expenses of the other party, up to a maximum of $350,000. Even if a termination fee is not payable or transaction expenses are not reimbursable in connection with a termination of the Merger Agreement, each of Conatus and Histogen will have incurred significant fees and expenses, such as legal and accounting fees, which must be paid whether or not the merger is completed. Further, if the merger is not completed, it could significantly harm the market price of Conatus' common stock.

In addition, if the Merger Agreement is terminated and the board of directors of Conatus or Histogen determines to seek another business combination, there can be no assurance that either Conatus or Histogen will be able to find a partner and close an alternative transaction on terms that are as favorable or more favorable than the terms set forth in the Merger Agreement.

The merger may be completed even though certain events occur prior to the closing that materially and adversely affect Conatus or Histogen.

The Merger Agreement provides that either Conatus or Histogen can refuse to complete the merger if there is a material adverse change affecting the other party between January 28, 2020, the date of the Merger Agreement, and the closing of the merger. However, certain types of changes do not permit either party to refuse to complete the merger, even if such change could be said to have a material adverse effect on Conatus or Histogen, including:

- any effect resulting from the announcement or pendency of the merger or any related transactions;
- the taking of any action, or the failure to take any action, by either Conatus or Histogen required to comply with the terms of the Merger Agreement;
- any natural disaster or any act or threat of terrorism or war anywhere in the world, any armed hostilities or terrorist activities anywhere in the world, any threat or escalation or armed hostilities or terrorist activities anywhere in the world, or any governmental or other response or reaction to any of the foregoing;
- general economic or political conditions or conditions generally affecting the industries in which Conatus or Histogen, as applicable, operates;
- any rejection by a governmental body of a registration or filing by Conatus or Histogen relating to certain intellectual property rights of Conatus or Histogen;

- any change in accounting requirements or principles or any change in applicable laws, rules, or regulations or the interpretation thereof;
- with respect to Conatus, any change in the stock price or trading volume of Conatus excluding any underlying effect that may have caused such change;
- with respect to Conatus, the termination, sublease, or assignment of Conatus' facility lease, or failure to do the foregoing;
- with respect to Conatus, continued losses from operations or decreases in cash balances of Conatus;
- with respect to Conatus, the winding down of Conatus' operations; and
- with respect to Histogen, any change in the cash position of Histogen resulting from operations in the ordinary course of business.

If adverse changes occur and Conatus and Histogen still complete the merger, the market price of the combined organization's common stock may suffer. This in turn may reduce the value of the merger to the stockholders of Conatus, Histogen or both.

Even if the merger is completed, the combined organization will need to raise additional capital by issuing securities or debt or through licensing or similar arrangements, which may cause significant dilution to the combined organization's stockholders, restrict the combined organization's operations or require the combined organization to relinquish proprietary rights. Future issuances of the combined company's common stock pursuant to options and warrants outstanding following the merger and its equity incentive plans, including the Conatus 2020 Plan, could result in additional dilution.

Following the completion of the merger, Conatus expects the combined organization will need to raise additional capital to fund its operations beyond 2020. Additional financing may not be available to the combined organization when it needs it or may not be available on favorable terms. To the extent that the combined organization raises additional capital by issuing equity securities, the terms of such an issuance may cause more significant dilution to the combined organization's stockholders' ownership, and the terms of any new equity securities may have preferences over the combined organization's common stock. Any debt financing the combined organization enters into may involve covenants that restrict its operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of the combined organization's assets, as well as prohibitions on its ability to create liens, pay dividends, redeem its stock or make investments. In addition, if the combined organization raises additional funds through licensing or similar arrangements, it may be necessary to relinquish potentially valuable rights to current product candidates and potential products or proprietary technologies, or grant licenses on terms that are not favorable to the combined organization.

In addition, the exercise or conversion of some or all of the combined company's outstanding options or warrants (or, after the merger, the issuance of equity awards under the Conatus 2020 Plan) could result in additional dilution in the percentage ownership interest of Conatus or Histogen stockholders.

Some Conatus and Histogen officers and directors have interests in the merger that are different from yours and that may influence them to support or approve the merger without regard to your interests.

Certain officers and directors of Conatus and Histogen participate in arrangements that provide them with interests in the merger that are different from yours, including, among others, the continued service as an officer or director of the combined organization, severance benefits, the acceleration of RSUs and stock option vesting, continued indemnification and the potential ability to sell an increased number of shares of common stock of the combined organization in accordance with Rule 144 under the Securities Act of 1933, as amended, or the Securities Act.

For example, Conatus has entered into certain employment and severance benefits agreements with certain of its executive officers that may result in the receipt by such executive officers of cash severance payments and other benefits in the event of a covered termination of employment of each executive officer's employment. The closing of the merger will also result in the acceleration of vesting of RSUs and options to purchase shares of Conatus common stock held by Conatus' executive officers and directors, whether or not there is a covered termination of such officer's employment. For more information concerning the treatment of Conatus' RSUs and stock options in connection with the merger, see the section entitled "The Merger Agreement—Treatment of Conatus Stock Awards and Warrants" in the Form S-4.

In addition, and for example, Histogen's Chairman and Chief Executive Officer, Richard Pascoe is expected to become a director and the Chief Executive Officer of Conatus upon the closing of the merger, and Histogen's directors and executive officers are entitled to certain indemnification and liability insurance coverage pursuant to the terms of the Merger Agreement. These interests, among others, may influence the officers and directors of Conatus and Histogen to support or approve the merger. For more information concerning the interests of Conatus' and Histogen's executive officers and directors, see the sections entitled "The Merger—Interests of the Conatus Directors and Executive Officers in the Merger" and "The Merger—Interests of Histogen Directors and Executive Officers in the Merger" in the Form S-4.

The market price of Conatus' common stock following the merger may decline as a result of the merger.

The market price of Conatus' common stock may decline as a result of the merger for a number of reasons including if:

- investors react negatively to the prospects of the combined organization's product candidates, business and financial condition following the merger;
- the effect of the merger on the combined organization's business and prospects is not consistent with the expectations of financial or industry analysts; or
- the combined organization does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts.

Conatus and Histogen stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

If the combined organization is unable to realize the strategic and financial benefits currently anticipated from the merger, Conatus' and Histogen's stockholders will have experienced substantial dilution of their ownership interests in their respective companies without receiving the expected commensurate benefit, or only receiving part of the commensurate benefit to the extent the combined organization is able to realize only part of the expected strategic and financial benefits currently anticipated from the merger.

During the pendency of the merger, Conatus and Histogen may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses.

Covenants in the Merger Agreement impede the ability of Conatus and Histogen to make acquisitions, subject to certain exceptions relating to fiduciary duties, as set forth below, or to complete other transactions that are not in the ordinary course of business pending completion of the merger. As a result, if the merger is not completed, the parties may be at a disadvantage to their competitors during such period. In addition, while the Merger Agreement is in effect, each party is generally prohibited from soliciting, initiating, encouraging or entering into certain extraordinary transactions, such as a merger, sale of assets, or other business combination outside the ordinary course of business with any third party, subject to certain exceptions relating to fiduciary duties, as set forth below. Any such transactions could be favorable to such party's stockholders.

Certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement.

The terms of the Merger Agreement prohibit each of Conatus and Histogen from soliciting alternative takeover proposals or cooperating with persons making unsolicited takeover proposals, except in limited circumstances when such party's board of directors determines in good faith that an unsolicited alternative takeover proposal is or is reasonably likely to lead to a superior takeover proposal and that failure to cooperate with the proponent of the proposal would be reasonably likely to be inconsistent with the board of directors' fiduciary duties.

Because the lack of a public market for Histogen's capital stock makes it difficult to evaluate the value of Histogen's capital stock, the stockholders of Histogen may receive shares of Conatus common stock in the merger that have a value that is less than, or greater than, the fair market value of Histogen's capital stock.

The outstanding capital stock of Histogen is privately held and is not traded in any public market. The lack of a public market makes it extremely difficult to determine the fair market value of Histogen. Because the percentage of Conatus common stock to be issued to Histogen's stockholders was determined based on negotiations between the parties, it is possible that the value of Conatus common stock to be received by Histogen's stockholders will be less than the fair market value of Histogen, or Conatus may pay more than the aggregate fair market value for Histogen.

If the conditions to the merger are not satisfied or waived, the merger will not occur.

Even if the merger is approved by the stockholders of Conatus and Histogen, other conditions must be satisfied or waived to complete the merger. These conditions are set forth in the Merger Agreement and described in the section entitled "The Merger Agreement—Conditions to the Completion of the Merger" in the Form S-4. Conatus and Histogen cannot assure you that all of the conditions will be satisfied or waived. Certain of the closing conditions are incapable of being waived. If the conditions are not satisfied or waived, the merger will not occur or will be delayed, and Conatus and Histogen each may lose some or all of the intended benefits of the merger.

The Merger may fail to qualify as a "reorganization" for U.S. federal income tax purposes, resulting in recognition of taxable gain or loss by holders of Histogen capital stock.

Conatus and Histogen intend for the merger to qualify as a "reorganization" within the meaning of Section 368(a) of the Code, as described in the section entitled "The Merger—Material U.S. Federal Income Tax Consequences of the Merger" inthe Form S-4. In the event that the merger does not qualify as a "reorganization," the merger would result in taxable gain or loss for each holder of Histogen capital stock, with the amount of such gain or loss determined by the amount that each Histogen stockholder's adjusted tax basis in the Histogen capital stock surrendered is less or more than the fair market value of the Conatus common stock and any cash in lieu of a fractional share received in exchange therefor. Each holder of Histogen capital stock is urged to consult with his, her or its own tax advisor with respect to the tax consequences of the merger.

The combined organization may become involved in securities class action litigation that could divert management's attention and harm the combined organization's business and insurance coverage may not be sufficient to cover all costs and damages.

In the past, securities class action or shareholder derivative litigation often follows certain significant business transactions, such as the sale of a business division or announcement of a merger. The combined organization may become involved in this type of litigation in the future. Litigation is often expensive and diverts management's attention and resources, which could adversely affect the combined organization's business.

Risks Related to Conatus' Evaluation of Strategic Alternatives

Conatus' activities to evaluate and pursue strategic alternatives may not be successful.

In June 2019, Conatus announced that top-line results from its ENCORE-LF clinical trial of emricasan did not meet the primary endpoint, and it was discontinuing further treatment of patients enrolled in the ENCORE-LF clinical trial. In addition, results from the 24-week extension in Conatus' ENCORE-PH clinical trial of emricasan were consistent with results from the initial 24-week treatment period and did not meet predefined objectives. Previously, in March 2019, Conatus announced that top-line results from the Phase 2b ENCORE-NF clinical trial of emricasan also did not meet the primary endpoint. Consequently, Conatus and Novartis Pharma AG, or Novartis, entered into an amendment to the Option, Collaboration and License Agreement, or the Collaboration Agreement, with Novartis, pursuant to which Conatus and Novartis mutually agreed to terminate the Collaboration Agreement, effective September 30, 2019.

In connection with the recent emricasan clinical trial results and plans to evaluate strategic alternatives, Conatus commenced a restructuring plan in June 2019 that included reducing staff by approximately 40% and suspending development of its inflammasome disease candidate, CTS-2090, and another restructuring plan in September 2019 that included further reducing staff by approximately 40%, in order to extend its resources.

Conatus has engaged Oppenheimer & Co. Inc. as a financial advisor to assist in the exploration and evaluation of strategic alternatives to enhance shareholder value, including a merger, an acquisition or sale of assets or a dissolution and liquidation of Conatus. There can be no assurance that Conatus' process to identify and evaluate potential strategic alternatives will result in any definitive offer to consummate a strategic transaction, or if made, what the terms thereof will be or that any transaction will be approved or consummated. In addition, potential strategic transactions that require stockholder approval may not be approved by Conatus stockholders. A strategic transaction would also likely result in substantial dilution to Conatus stockholders and could result in other restrictions that may affect its business. Further, any strategic transaction that is completed ultimately may not deliver the anticipated benefits or enhance stockholder value.

Conatus may also acquire additional businesses, products or product candidates. Integrating any newly acquired business, product or product candidate could be expensive and time-consuming. Conatus may not be able to integrate any acquired business, product or product candidate successfully. Conatus' future financial performance will depend, in part, on its ability to manage any future growth effectively and its ability to integrate any acquired businesses.

Any strategic transaction may require Conatus to incur non-recurring or other charges, may increase its near- and long-term expenditures and may pose significant integration challenges or disrupt Conatus' management or business, which could adversely affect its operations and financial results. For example, these transactions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- incurrence of substantial debt or dilutive issuances of equity securities to pay for acquisitions;
- higher than expected acquisition and integration costs;
- write downs of assets or goodwill or impairment charges;
- increased amortization expenses;
- difficulty and cost in combining the operations and personnel of any acquired businesses with its operations and personnel;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- the inability to retain key employees of Conatus or any acquired businesses.

Accordingly, there can be no assurance that Conatus will undertakeor successfully complete any strategic transactions of the nature described above. Any transactions that Conatus does complete may be subject to the foregoing or other risks and could have a material adverse effect on its business, financial condition and prospects.

In connection with the recent clinical failures of emricasan, Conatus began evaluating strategic alternatives, and recently entered into the Merger Agreement with Histogen. Conatus' merger with Histogen may not be consummated and, if consummated, will result in substantial dilution to Conatus stockholders and may not deliver the anticipated benefits Conatus expects.

In June 2019, in connection with the failure of emricasan to meet the primary endpoints in the ENCORE trials, Conatus announced plans to evaluate strategic alternatives. Conatus engaged Oppenheimer & Co. Inc. to assist in the exploration and evaluation of strategic alternatives to enhance shareholder value, including a merger, an acquisition or sale of assets or a dissolution and liquidation of Conatus. In December 2019, Conatus entered into the Merger Agreement pursuant to which, among other things, Merger Sub, a wholly owned subsidiary of Conatus, will merge with and into Histogen, with Histogen surviving as a wholly owned subsidiary of Conatus. Consummation of the merger is subject to certain closing conditions, including approval from Conatus' stockholders, satisfaction of which conditions may take a significant amount of time and will further decrease Conatus' cash resources. There can be no assurance that Conatus will be able to successfully complete the merger and investors may disagree with the new focus of its business. The transaction will result in dilution to Conatus' stockholders and could result in other restrictions that may affect its business. Further, if completed, the merger ultimately may not deliver the anticipated benefits or enhance stockholder value.

If Conatus is unable to complete the merger, Conatus cannot predict whether and to what extent it would be successful in consummating an alternative transaction, the timing of such a transaction or its future cash needs required to complete such a transaction. Therefore, Conatus may be required to pursue a dissolution and liquidation. In such an event, the amount of cash, if any, available for distribution to its shareholders will depend heavily on the timing of such decision and Conatus' other financial obligations. In addition, with the passage of time, the amount of cash, if any, available for distribution will be reduced as Conatus continues to fund its operations. Furthermore, Conatus may be subject to litigation or other claims related to the Merger Agreement.

Business development activity involves numerous risks, including the risks that Conatus may be unable to integrate an acquired business successfully and that Conatus may assume liabilities that could adversely affect it.

In order to enhance shareholder value, on January 28, 2020, Conatus entered into the Merger Agreement with Histogen. Conatus cannot be sure the merger will result in a successful acquisition, development or launch of products that will prove to be commercially successful or will improve the long-term profitability of Conatus' business. Acquisitions or licenses could require Conatus to raise significant capital and potentially incur significant dilution through the issuance of new shares of capital stock. These strategic transactions involve many risks, including, but not limited to, the following:

- difficulties in achieving identified financial revenue synergies, growth opportunities, operating synergies and cost savings;
- difficulties in assimilating the personnel, operations and products of an acquired company, and the potential loss of key employees;
- difficulties in consolidating information technology platforms, business applications and corporate infrastructure;
- difficulties in integrating Conatus' corporate culture with local customs and cultures;
- possible overlap between Conatus products or customers and those of an acquired entity that may create conflicts in relationships or other commitments detrimental to the integrated businesses;
- Conatus' inability to achieve expected revenues and gross margins for any products Conatus may acquire;
- the diversion of management's attention from other business concerns;
- risks and challenges of entering or operating in markets in which Conatus has limited or no prior experience, including the unanticipated effects of export controls, exchange rate fluctuations, foreign legal and regulatory requirements, and foreign political and economic conditions; and
- difficulties in reorganizing, winding-down or liquidating operations if not successful.

In addition, foreign acquisitions involve numerous risks, including those related to changes in local laws and market conditions and due to the absence of policies and procedures sufficient to assure compliance by a foreign entity with United States regulatory and legal requirements. Business development activities require significant transaction costs, including substantial fees for investment bankers, attorneys, and accountants. Any acquisition could result in Conatus' assumption of material unknown and/or unexpected liabilities. Conatus also cannot provide assurance that it will achieve any cost savings or synergies relating to recent or future acquisitions. Additionally, in any acquisition agreement, the negotiated representations, warranties and agreements of the selling parties may not entirely protect Conatus, and liabilities resulting from any breaches could exceed negotiated indemnity limitations. These factors could impair Conatus' growth and ability to compete, divert resources from other potentially more profitable areas, or otherwise cause a material adverse effect on its business, financial position and results of operations.

The financial statements of acquired companies, or those that may be acquired in the future, are prepared by management of such companies and are not independently verified by Conatus' management. In addition, any pro forma financial statements prepared

by Conatus to give effect to such acquisitions may not accurately reflect the results of operations of such companies that would have been achieved had the acquisition of such entities been completed at the beginning of the applicable periods.

If Conatus does not successfully consummate a strategic transaction, its board of directors may decide to pursue a dissolution and liquidation of Conatus. In such an event, the amount of cash available for distribution to Conatus stockholders will depend heavily on the timing of such liquidation as well as the amount of cash that will need to be reserved for commitments and contingent liabilities.

There can be no assurance that the process to identify a strategic transaction will result in a successfully consummated transaction. If no transaction is completed, Conatus' board of directors, or the Conatus Board, may decide to pursue a dissolution and liquidation of the company. In such an event, the amount of cash available for distribution to Conatus stockholders will depend heavily on the timing of such decision and, ultimately, such liquidation, since the amount of cash available for distribution continues to decrease as Conatus funds its operations while it evaluates its strategic alternatives. In addition, if the Conatus Board was to approve and recommend, and its stockholders were to approve, a dissolution and liquidation of the company, Conatus would be required under Delaware corporate law to pay its outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to its stockholders. Conatus' commitments and contingent liabilities may include (i) regulatory and clinical obligations; (ii) obligations under its employment and related agreements with certain employees that provide for severance and other payments following a termination of employment occurring for various reasons, including a change in control of Conatus; (iii) potential litigation against Conatus, and other various claims and legal actions arising in the ordinary course of business; and (iv) non-cancelable facility lease obligations. As a result of this requirement, a portion of Conatus' assets may need to be reserved pending the resolution of such obligations. In addition, Conatus may be subject to litigation or other claims related to a dissolution and liquidation of the company. If a dissolution and liquidation were pursued, the Conatus Board, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of Conatus common stock could lose all or a significant portion of their investment in the event of a liquidation, dissolution or winding up of the company.

Conatus is substantially dependent on its remaining employees to facilitate the consummation of a strategic transaction. Conatus could lose such key employees, in particular, as a result of the recent emricasan trial results and the restructuring plans it commenced in June 2019 and September 2019.

In order to extend its resources, Conatus commenced a restructuring plan in June 2019 that included reducing staff by approximately 40% and suspending development of its inflammasome disease candidate, CTS-2090, and another restructuring plan in September 2019 that included further reducing staff by another approximately 40%. Conatus' cash conservation activities may yield unintended consequences, such as attrition beyond its planned reduction in workforce and reduced employee morale, which may cause remaining employees to seek alternative employment. Conatus' ability to successfully complete a strategic transaction depends in large part on its ability to retain certain of its remaining personnel. Despite Conatus' efforts to retain these employees, one or more may terminate their employment with it on short notice. The loss of the services of any of these employees could potentially harm Conatus' ability to evaluate and pursue strategic alternatives, as well as fulfill its reporting obligations as a public company.

Conatus conducts its operations at its leased facility in San Diego, California. This region is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel in its market is very intense and may limit Conatus' ability to hire and retain highly qualified personnel on acceptable terms, and the ability to retain its key employees is critical to its ability to effectively manage its resources and to consummate a strategic transaction. Although Conatus is completing clinical trial closeout activities for emricasan and has suspended development of CTS-2090, if it resumes the development of emricasan, CTS-2090 or new therapeutic products, such development requires expertise from a number of different disciplines, some of which are not widely available. The inability to recruit or loss of the services of any executive, key employee, consultant or advisor may impede Conatus' ability to identify and execute on a strategic path forward.

Conatus' key employees have a significant amount of know-how and experience in its company, and the loss of one or more of them could have a material and adverse effect on its operations or ability to consummate a strategic transaction.

In order to induce valuable employees to remain with Conatus, in addition to salary and cash incentives, Conatus has provided equity options that vest over time. In August 2019, Conatus effected a one-time option exchange, wherein certain employees were offered the opportunity to exchange eligible outstanding stock options with exercise prices that are significantly higher than the current fair market value of its common stock for the grant of a lesser number of RSUs. The participants received one new RSU for every two stock options tendered for exchange. The value to employees of the RSUs may be significantly affected by movements in Conatus' stock price that are beyond its control and may at any time be insufficient to counteract more lucrative offers from other companies, particularly in light of the recent emricasan trial results and restructuring plans.

The loss of the services of existing personnel or the failure to recruit additional, suitable key scientific, managerial, clinical, regulatory, operational and other personnel in a timely manner could harm Conatus' business. Conatus may experience difficulty in hiring and retaining highly-skilled employees with appropriate qualifications as needed, particularly in light of the recent emricasan

trial results. If Conatus fails to attract new personnel or fails to retain and motivate its current personnel, its business and future growth prospects and its ability to consummate a strategic transaction would be harmed.

Although Conatus has employment agreements with its key employees, these employment agreements provide for at-will employment, which means that any of its employees can leave Conatus' employment at any time, with or without notice. Conatus does not maintain "key man" insurance policies on the lives of these individuals or the lives of any of its other employees. Conatus' success also depends on its ability to continue to attract, retain and motivate highly skilled junior, mid-level and senior managers as well as junior, mid-level and senior scientific and medical personnel.

Risks Related to Conatus' Business and Industry

Although Conatus has suspended its research and development activities related to emricasan, if it resumes the clinical development of emricasan, its business may be dependent on the success of a single clinical-stage product candidate, emricasan, which will require significant additional clinical testing before Conatus can seek regulatory approval and potentially launch commercial sales.

Although Conatus has suspended its research and development activities related to emricasan, if it resumes the clinical development of emricasan, Conatus' future success will depend on its ability to obtain regulatory approval for, and then successfully commercialize, its only clinical-stage product candidate, emricasan. Conatus has not completed the development of any product candidates. Conatus generates no revenues from sales of any drugs, and it may never be able to develop a marketable drug. Emricasan will require additional clinical and non-clinical development, regulatory review and approval in multiple jurisdictions, substantial investment, access to sufficient commercial manufacturing capacity and significant marketing efforts before Conatus can generate any revenues from product sales.

In December 2016, Conatus entered into the Collaboration Agreement with Novartis pursuant to which it granted Novartis an exclusive license to collaborate with Conatus to develop products containing emricasan either as a single active ingredient or in combination with other Novartis compounds for liver cirrhosis or liver fibrosis. In June 2019, Conatus announced that top-line results from its ENCORE-LF clinical trial of emricasan did not meet the primary endpoint, and were discontinuing further treatment of patients enrolled in the ENCORE-LF clinical trial. In addition, results from the 24-week extension in Conatus' ENCORE-PH clinical trial of emricasan were consistent with results from the initial 24-week treatment period and did not meet predefined objectives. Previously, in March 2019, Conatus announced that top-line results from the Phase 2b ENCORE-NF clinical trial of emricasan also did not meet the primary endpoint. Consequently, Conatus and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement, and Conatus has no further development plans for emricasan.

If Conatus resumes clinical development of emricasan, there is no guarantee that future clinical trials will be completed on time or at all or that any future clinical trials will commence on time or at all, and the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of its clinical trials. Even if such regulatory authorities agree with the design and implementation of Conatus' clinical trials, it cannot guarantee you that such regulatory authorities will not change their requirements in the future. In addition, even if future clinical trials are successfully completed, Conatus cannot guarantee that the FDA or foreign regulatory authorities will interpret the results as it does, and more trials would likely be required before Conatus submits emricasan for approval. To the extent that the results of the clinical trials are not satisfactory to the FDA or foreign regulatory authorities for support of a marketing application, approval of emricasan may be significantly delayed, or Conatus may be required to expend significant additional resources, which may not be available to Conatus, to conduct additional trials in support of potential approval of emricasan.

If Conatus resumes clinical development of emricasan, Conatus cannot anticipate when or if it will seek regulatory review of emricasan for any indication. Conatus has not previously submitted a new drug application, or NDA, to the FDA, or similar drug approval filings to comparable foreign authorities. An NDA must include extensive preclinical and clinical data and supporting information to establish the product candidate's safety and effectiveness for each desired indication. An NDA must also include significant information regarding the chemistry, manufacturing and controls for the product. Obtaining approval of an NDA is a lengthy, expensive and uncertain process and may not be obtained. Conatus has not received marketing approval for any product candidate, and Conatus cannot be certain that emricasan will be successful in future clinical trials or receive regulatory approval for any indication. If Conatus does not receive regulatory approvals for and successfully commercialize emricasan on a timely basis or at all, Conatus may not be able to continue its operations. Even if Conatus successfully obtains regulatory approvals to market emricasan, its revenues will be dependent on the ability to commercialize emricasan as well as the size of the markets in the territories for which Conatus gains regulatory approval and has commercial rights.

If Conatus resumes the development of any product candidates, additional capital that Conatus may need to operate or expand its business may not be available.

Conatus may require additional capital to operate or expand its business. The failure of emricasan in recent trials to meet the primary endpoints may make it very difficult for Conatus to seek and obtain financing from the capital markets on favorable terms, or at all. If Conatus raises additional funds through the issuance of equity or convertible securities, the percentage ownership of holders

of its common stock could be substantially diluted, and these newly issued securities may have rights, preferences or privileges senior to those of holders of its common stock. Furthermore, volatility in the credit or equity markets may have an adverse effect on Conatus' ability to obtain debt or equity financing or the cost of such financing. If Conatus does not have funds available to enhance any potential product candidates, maintain the competitiveness of its technology and pursue business opportunities, this could have an adverse effect on its business, operating results and financial condition.

Emricasan was the subject of a clinical hold imposed by the FDA while under development by Pfizer Inc. due to a preclinical observation. Although the clinical hold has been lifted, any adverse side effects or other safety risks associated with emricasan could, if Conatus resumes the development of emricasan, delay or preclude approval of the product candidate, cause Conatus to suspend or discontinue its clinical trials or limit the commercial profile of emricasan.

When Conatus acquired emricasan from Pfizer in 2010, emricasan was on clinical hold in the United States due to an observation of inflammatory infiltrates in mice that Pfizer saw in a preclinical study and reported to the FDA in 2007. Pfizer performed additional preclinical studies attempting to characterize the nature of the inflammatory infiltrates, but did not carry out a formal carcinogenicity study to evaluate whether or not the infiltrates progressed to cancer. These infiltrates observed in mice were not observed in any other species. In 2008, Pfizer stopped work on the program. After acquiring emricasan, Conatus conducted a thorough internal review of these studies, commissioned several independent experts to review the data and, based on guidance from the FDA, conducted a 6-month carcinogenicity study in the Tg.rasH2 transgenic mouse model, which is known to be predisposed toward tumor development. This study was completed in 2012. There was no evidence of drug-related tumorgenicity in its carcinogenicity study, and after further discussions with the FDA, Conatus was cleared in January 2013 to proceed with Conatus' previously planned HCV-POLT clinical trial, formally lifting emricasan from clinical hold in the United States. Emricasan was never placed on clinical hold outside the United States. Conatus cannot assure you that emricasan will not be placed on clinical hold in the future for similar or unrelated reasons.

In addition, undesirable side effects caused by emricasan could result in the delay, suspension or termination of clinical trials by Conatus, the FDA or other regulatory authorities or institutional review boards, or IRBs, for a number of reasons. To date, over 1,000 subjects have received emricasan in Phase 1 and Phase 2 clinical trials. Although most of the adverse events reported in relation to emricasan in these trials were mild to moderate, results of future trials could reveal a high and unacceptable severity and prevalence of these or other side effects, including, potentially, more severe side effects. In such an event, Conatus' trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order Conatus to cease further development of, or deny approval of, emricasan for any or all targeted indications. In addition, the drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims. Even if regulatory authorities granted approval of emricasan, if adverse events caused regulatory authorities to impose a restrictive label or if physicians' perceptions of emricasan's safety caused them to limit their use of the drug, Conatus' ability to generate sufficient sales of emricasan could be limited. Any of these occurrences may harm Conatus' business, prospects, financial condition and results of operations significantly.

Clinical drug development involves uncertain outcomes, and results of earlier studies and trials may not be predictive of future trial results.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. For example, in late 2011, Conatus ceased clinical development of a product candidate, CTS-1027, for which it had incurred $31.3 million in research and development expenses prior to such time. The results of preclinical studies and early clinical trials of emricasan may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or safety profiles, notwithstanding promising results in earlier trials.

Emricasan has been the subject of eight completed Phase 1 and twelve completed Phase 2 clinical trials. Conatus cannot be certain that any of its future clinical trials will be successful. Failure in one indication may have negative consequences for the development of emricasan for other indications. Any such failure may harm Conatus' business, prospects and financial condition. For example, the Phase 2b POLT-HCV-SVR, the Phase 2b ENCORE-PH, the Phase 2b ENCORE-NF and the Phase 2b ENCORE-LF clinical trials did not meet their primary endpoints. As a result of the recent clinical failures of emricasan, Conatus discontinued development of emricasan in 2019.

The FDA regulatory approval process is lengthy and time-consuming, and if Conatus resumes development of emricasan or CTS-2090, it could experience significant delays in the clinical development and regulatory approval of emricasan or CTS-2090, its business will be substantially harmed.

Conatus may experience delays in commencing and completing clinical trials of emricasan or CTS-2090. For example, based on data in 2013 regarding a new HCV antiviral being developed by another company, Conatus chose to delay and change its previously planned Phase 2b/3 HCV-POLT clinical trial to the Phase 2b POLT-HCV-SVR clinical trial. Conatus does not know whether planned

clinical trials will begin on time, need to be redesigned, enroll patients on time or be completed on schedule, if at all. Any of Conatus future clinical trials may be delayed for a variety of reasons, including delays related to:

- the availability of financial resources for Conatus to commence and complete its planned clinical trials;
- reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- obtaining IRB approval at each clinical trial site;
- obtaining regulatory approval for clinical trials in each country;
- recruiting suitable patients to participate in clinical trials;
- having patients complete a clinical trial or return for post-treatment follow-up;
- clinical trial sites deviating from trial protocol or dropping out of a trial;
- adding new clinical trial sites;
- developing one or more new formulations or routes of administration; or
- manufacturing sufficient quantities of its product candidate for use in clinical trials.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the clinical trial, the design of the clinical trial, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications Conatus is investigating. In addition, significant numbers of patients who enroll in Conatus' clinical trials may drop out during the clinical trials for various reasons. Conatus believes it appropriately accounts for such increased risk of dropout rates in its trials when determining expected clinical trial timelines, but Conatus cannot assure you that its assumptions are correct, or that it will not experience higher numbers of dropouts than anticipated, which would result in the delay of completion of such trials beyond its expected timelines. For example, Conatus' previous Phase 2b ACLF clinical trial experienced lower than expected enrollment rates, and Conatus elected to complete the trial prior to reaching the initial targeted number of patients.

Conatus could encounter delays if physicians encounter unresolved ethical issues associated with enrolling patients in clinical trials of emricasan or CTS-2090 in lieu of prescribing existing treatments that have established safety and efficacy profiles. Further, a clinical trial may be suspended or terminated by Conatus, the IRBs in the institutions in which such trials are being conducted, the data monitoring committee for such trial, or by the FDA or other regulatory authorities due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or Conatus' clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If Conatus experiences termination of, or delays in the completion of, any clinical trial of its product candidates, the commercial prospects for such product candidate will be harmed, and Conatus' ability to generate product revenues will be delayed. In addition, any delays in completing Conatus' clinical trials will increase its costs, slow down its product development and approval process and jeopardize its ability to commence product sales and generate revenues. Any of these occurrences may harm Conatus' business, prospects, financial condition and results of operations significantly. Furthermore, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate.

The clinical trials for emricasan and CTS-2090 involve a high degree of uncertainty and risk of failure, and some of Conatus' development activities involve indications with little or no previous product candidate development activities as well as patient populations with critical illnesses and potential challenges for enrollment and participation in clinical trials.

In connection with clinical trials, Conatus faces risks that:

- IRBs may delay approval of, or fail to approve, a clinical trial at a prospective site;
- there may be a limited number of, and significant competition for, suitable patients for enrollment in the clinical trials;
- there may be slower than expected rates of patient recruitment and enrollment;
- patients may fail to complete the clinical trials;
- there may be an inability or unwillingness of patients or medical investigators to follow Conatus' clinical trial protocols;
- there may be an inability to monitor patients adequately during or after treatment;
- there may be termination of the clinical trials by one or more clinical trial sites;
- unforeseen ethical or safety issues may arise;
- conditions of patients may deteriorate rapidly or unexpectedly, which may cause the patients to become ineligible for a clinical trial or may prevent emricasan or CTS-2090 from demonstrating efficacy or safety;
- patients may die or suffer other adverse effects for reasons that may or may not be related to Conatus' product candidate being tested;
- Conatus may not be able to sufficiently standardize certain of the tests and procedures that are part of Conatus' clinical trials because such tests and procedures are highly specialized and involve a high degree of expertise;
- a product candidate may not prove to be efficacious in all or some patient populations;
- the results of the clinical trials may not confirm the results of earlier trials;

- the results of the clinical trials may not meet the level of statistical significance required by the FDA or other regulatory agencies; and
- a product candidate may not have a favorable risk/benefit assessment in the disease areas studied.

Conatus cannot assure you that any future clinical trial for emricasan or CTS-2090 will be started or completed on schedule, or at all. Any failure or significant delay in completing clinical trials for Conatus' product candidates would harm the commercial prospects for such product candidate and adversely affect Conatus' financial results. Difficulties and failures can occur at any stage of clinical development, and Conatus cannot assure you that it will be able to successfully complete the development and commercialization of any product candidate in any indication.

If Conatus resumes development of emricasan and is unable to obtain regulatory approval of emricasan, Conatus will not be able to commercialize this product candidate and its business will be adversely impacted.

Conatus has not obtained regulatory approval for any product candidate. If Conatus fails to obtain regulatory approval to market emricasan, its only clinical-stage product candidate, it will be unable to sell emricasan, which will significantly impair its ability to generate revenues. To receive approval, Conatus must, among other things, demonstrate with substantial evidence from clinical trials that the product candidate is both safe and effective for each indication for which approval is sought, and failure can occur in any stage of development. Satisfaction of the approval requirements typically takes several years, and the time and money needed to satisfy them may vary substantially, based on the type, complexity and novelty of the pharmaceutical product. Conatus has not commenced any Phase 3 clinical trials of emricasan to date, and Conatus cannot predict if, or when, its future clinical trials will generate the data necessary to support an NDA and if, or when, it might receive regulatory approvals for emricasan.

The FDA generally requires two confirmatory clinical trials for approval of an NDA. Under the FDA's Accelerated Approval Program, the FDA may grant "accelerated approval" to product candidates that have been studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit to patients over existing treatments. Accelerated approval provides a pathway for an investigational product to be approved on the basis of adequate and well-controlled clinical studies establishing that the product candidate has an effect on a surrogate endpoint that the FDA considers reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. The Accelerated Approval Program does not change the statutory requirements for marketing approval. In addition, as a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform adequate and well-controlled post-marketing clinical studies. The FDA also generally requires pre-approval of promotional materials as a condition of accelerated approval.

Emricasan could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of clinical trials;
- Conatus may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that emricasan is safe and effective for any of its proposed indications;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- Conatus may be unable to demonstrate that emricasan's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with Conatus' interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of emricasan may not be sufficient to the satisfaction of the FDA or comparable foreign regulatory authorities to support the submission of an NDA or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which Conatus contracts for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering Conatus' clinical data insufficient for approval.

This lengthy approval process as well as the unpredictability of future clinical trial results may result in Conatus' failure to obtain regulatory approval to market emricasan, which would significantly harm its business, prospects, financial condition and results of operations. In addition, even if Conatus were to obtain approval, regulatory authorities may grant approval contingent on the performance of costly post-marketing clinical trials or the imposition of a risk evaluation and mitigation strategy, or REMS, requiring substantial additional post-approval safety measures. Moreover, any approvals that Conatus may obtain may not cover all of the clinical indications for which it is seeking approval or could contain significant limitations in the form of narrow indications, warnings, precautions or contra-indications with respect to conditions of use. In such event, Conatus' ability to generate revenues would be greatly reduced and its business would be harmed.

Changes in funding for the FDA and other government agencies could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact Conatus' business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including (i) government budget and funding levels, (ii) the ability to hire and retain key personnel and accept the payment of user fees and (iii) statutory, regulatory and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect its business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process Conatus' regulatory submissions, which could have a material adverse effect on its business.

Even if Conatus resumes development of any product candidate and obtains and maintains regulatory approval for a product candidate in one jurisdiction, it may never obtain regulatory approval for such product candidate in any other jurisdiction, which would limit its market opportunities and adversely affect Conatus' business.

Obtaining and maintaining regulatory approval for a product candidate in one jurisdiction does not guarantee that Conatus will be able to obtain or maintain regulatory approval in any other jurisdiction. For example, even if the FDA grants marketing approval for a product candidate, comparable regulatory authorities in foreign countries must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials. In many countries outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that country. In some cases, the price that Conatus intends to charge for its products is also subject to approval. Conatus is expected to submit a marketing authorization application, or MMA, to the European Medicines Agency, or the EMA, for approval of a product candidate in the European Union, or the EU. As with the FDA, obtaining approval of an MAA from the EMA is a similarly lengthy and expensive process, and the EMA has its own procedures for approval of product candidates. Even if a product is approved, the FDA or the EMA, as the case may be, may limit the indications for which the product may be marketed, require extensive warnings on the product labeling, require a REMS or require expensive and time-consuming clinical trials or reporting as conditions of approval. Regulatory authorities in countries outside of the United States and the EU also have requirements for approval of product candidates with which Conatus must comply prior to marketing in those countries. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for Conatus and could delay or prevent the introduction of its products in certain countries.

Further, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not ensure approval in any other country, while a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory approval process in others. Also, regulatory approval for any product candidate may be withdrawn. If Conatus fails to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, its target market will be reduced and its ability to realize the full market potential of a product candidate will be harmed, which would adversely affect its business, prospects, financial condition and results of operations.

If Conatus resumes the clinical development and receives regulatory approval for a product candidate, Conatus will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, a product candidate, if approved, could be subject to labeling and other restrictions and market withdrawal, and Conatus may be subject to penalties if it fails to comply with regulatory requirements or experiences unanticipated problems with such product candidate.

Any regulatory approvals that Conatus receives for a product candidate may be subject to limitations on the approved indicated uses for which such product candidate may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS in order to approve a product candidate, which could entail requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves a product candidate, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for such product candidate will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current good manufacturing practices, or cGMPs, and good clinical practice regulations, or GCPs, for any clinical trials that it conducts post-approval. Later discovery of previously unknown problems with a product candidate, including adverse events of

unanticipated severity or frequency, or with its third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA or comparable foreign regulatory authorities to approve pending applications or supplements to approved applications filed by Conatus or suspension or revocation of license approvals;
- product seizure or detention, or refusal to permit the import or export of the product; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's and other regulatory authorities' policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of a product candidate. For example, in December 2016, the 21st Century Cures Act, or Cures Act, was signed into law. The Cures Act, among other things, is intended to modernize the regulation of drugs and spur innovation. If Conatus is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if Conatus is not able to maintain regulatory compliance, it may lose any marketing approval that it may have obtained, and it may not achieve or sustain profitability, which would adversely affect its business, prospects, financial condition and results of operations.

Conatus also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. For example, certain policies of the Trump administration may impact its business and industry. Namely, the Trump administration has taken several executive actions, including the issuance of a number of executive orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine regulatory and oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. It is difficult to predict how these executive orders will be implemented and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose constraints on the FDA's ability to engage in oversight and implementation activities in the normal course, Conatus' business may be negatively impacted.

Even if Conatus resumes development of and obtains regulatory approval for a product candidate, the product may not gain market acceptance among physicians, patients and others in the medical community.

If a product candidate is approved for commercialization, its acceptance will depend on a number of factors, including:

- the clinical indications for which the product is approved;
- physicians and patients considering a product candidate as a safe and effective treatment;
- the potential and perceived advantages of the product over alternative treatments;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- the timing of market introduction of the product as well as competitive products;
- the cost of treatment in relation to alternative treatments;
- the availability of adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration; and
- the effectiveness of Conatus' sales and marketing efforts.

If a product candidate is approved but fails to achieve market acceptance among physicians, patients or others in the medical community, Conatus will not be able to generate significant revenues, which would have a material adverse effect on its business, prospects, financial condition and results of operations.

Coverage and reimbursement may be limited or unavailable in certain market segments for a product, which could make it difficult for Conatus to sell the product profitably.

Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will cover and the amount of reimbursement. Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time-consuming and costly process that could require Conatus to provide to the payor supporting scientific, clinical and cost-effectiveness data for the use of its products. Conatus may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. If reimbursement of Conatus' future products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, Conatus may be unable to achieve or sustain profitability.

Conatus may seek approval to market a product candidate in both the United States and in select foreign jurisdictions. If Conatus obtain approval in one or more foreign jurisdictions for a product candidate, it will be subject to rules and regulations in those jurisdictions. In some foreign countries, particularly those in the EU, the pricing of prescription pharmaceuticals and biologics is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after obtaining marketing approval for a product candidate. In addition, market acceptance and sales of the product will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for the product and may be affected by existing and future health care reform measures.

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could impact Conatus' ability to sell its products profitably. In particular, in 2010, the Affordable Care Act, was enacted, which, among other things, increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extended the rebate program to individuals enrolled in Medicaid managed care organizations, established annual fees on manufacturers of certain branded prescription drugs, required manufacturers to participate in a discount program for certain outpatient drugs under Medicare Part D and promoted programs that increase the federal government's comparative effectiveness research, which will impact existing government healthcare programs and will result in the development of new programs. An expansion in the government's role in the United States healthcare industry may further lower rates of reimbursement for pharmaceutical products.

Other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. For example, the Budget Control Act of 2011 resulted in aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2027 unless additional Congressional action is taken. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

There have been, and likely will continue to be, legislative and regulatory proposals at the federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. For instance, there have recently been public hearings in the U.S. Congress concerning pharmaceutical product pricing, which have resulted in several Congressional inquiries and proposed and enacted legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. Individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Conatus cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- the demand for a Conatus product candidate, if Conatus obtains regulatory approval;
- Conatus' ability to set a price that it believes is fair for its products;
- product candidate ability to generate revenues and achieve or maintain profitability;
- the level of taxes that Conatus is are required to pay; and
- the availability of capital.

Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors, which may adversely affect Conatus' future profitability.

A variety of risks associated with marketing products internationally could materially adversely affect Conatus' business.

Conatus may seek regulatory approval for a product candidate outside of the United States and, accordingly, Conatus expects that it will be subject to additional risks related to operating in foreign countries if Conatus obtains the necessary approvals, including:

- differing regulatory requirements in foreign countries;
- the potential for so-called parallel importing, which occurs when a local seller, faced with high or higher local prices, opts to import goods from a foreign market (with low or lower prices) rather than buying them locally;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the Foreign Corrupt Practices Act of 1977 or comparable foreign regulations;

- challenges enforcing its contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with its international operations may materially adversely affect Conatus' ability to attain or maintain profitable operations.

If Conatus resumes the development of emricasan or CTS-2090 and fails to develop and commercialize any other product candidates, Conatus may be unable to grow its business.

Emricasan and CTS-2090 are Conatus' only product candidates. In order to develop and commercialize any additional product candidates, Conatus may be required to invest significant resources to acquire or in-license the rights to such product candidates or to conduct drug discovery activities. In addition, any other product candidates will require additional, time-consuming development efforts prior to commercial sale, including preclinical studies, extensive clinical trials and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to the risks of failure that are inherent in pharmaceutical product development, including the possibility that the product candidate will not be shown to be sufficiently safe and/or effective for approval by regulatory authorities. In addition, Conatus cannot assure you that it will be able to acquire, discover or develop any additional product candidates, or that any additional product candidates Conatus may develop will be approved, manufactured or produced economically, be successfully commercialized or widely accepted in the marketplace or be more effective than other commercially available alternatives. Research programs to identify new product candidates require substantial technical, financial and human resources whether or not Conatus ultimately identifies any candidates. If Conatus is unable to develop or commercialize emricasan, CTS-2090 or any other product candidates, its business and prospects will suffer.

Conatus cannot be certain that emricasan, CTS-2090 or any other product candidates that it develops will produce commercially viable drugs that safely and effectively treat liver, inflammasome-related or other diseases. Even if Conatus is successful in completing preclinical and clinical development and receiving regulatory approval for one commercially viable drug for the treatment of one disease, Conatus cannot be certain that it will also be able to develop and receive regulatory approval for other product candidates for the treatment of other forms of that disease or other diseases. If Conatus fails to develop a pipeline of potential product candidates other than emricasan or CTS-2090, Conatus will not have any prospects for commercially viable drugs should its efforts to develop and commercialize emricasan or CTS-2090 be unsuccessful, and its business prospects would be harmed significantly.

If Conatus resumes development of emricasan, it may not be able to obtain orphan drug exclusivity for emricasan for any indication.

In the United States, under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition. Such diseases and conditions are those that affect fewer than 200,000 individuals in the United States, or if they affect more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and making a drug product available in the United States for these types of diseases or conditions will be recovered from sales of the product. Orphan Drug Designation must be requested before submitting an NDA. If the FDA grants Orphan Drug Designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by that agency. Orphan Drug Designation does not convey any advantage in or shorten the duration of the regulatory review and approval process, but it can lead to financial incentives, such as opportunities for grant funding toward clinical trial costs, tax advantages and user-fee waivers.

If a drug that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the drug is entitled to orphan drug marketing exclusivity for a period of seven years. Orphan drug marketing exclusivity generally prevents the FDA from approving another application, including a full NDA, to market the same drug or biological product for the same indication for seven years, except in limited circumstances, including if the FDA concludes that the later drug is safer, more effective or makes a major contribution to patient care. For purposes of small molecule drugs, the FDA defines "same drug" as a drug that contains the same active chemical entity and is intended for the same use as the drug in question. A designated orphan drug may not receive orphan drug marketing exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Orphan drug marketing exclusivity rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

The criteria for designating an orphan medicinal product in the EU are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as orphan if (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; (2) either (a) such condition affects no more than five in 10,000 persons in the EU when the application is made, or (b) the product, without the benefits derived from orphan status, would not generate sufficient return in the EU to justify investment; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the EU, or if such a method exists, the product will be of significant benefit to those affected by the condition, as defined in Regulation (EC) 847/2000. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years

of market exclusivity for the approved therapeutic indication. The application for orphan designation must be submitted before the application for marketing authorization. The applicant will receive a fee reduction for the marketing authorization application if the orphan designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

The ten-year market exclusivity in the EU may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, marketing authorization may be granted to a similar product for the same indication at any time if:

- the second applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior;
- the applicant consents to a second orphan medicinal product application; or
- the applicant cannot supply enough orphan medicinal product.

Conatus originally applied for Orphan Drug Designation for emricasan for the treatment of fibrosis in HCV-POLT patients in the United States and the EU. In late 2013, the FDA granted an Orphan Drug Designation for emricasan for the treatment of POLT patients with reestablished fibrosis to delay the progression to cirrhosis and end-stage liver disease. In the EU, Conatus withdrew the application based on feedback from the applicable regulatory body that emricasan may have efficacy in fibrosis outside of the HCV-POLT patient population.

Conatus cannot assure you that it will be able to obtain orphan drug exclusivity for emricasan in any jurisdiction for the target indications in a timely manner or at all or that a competitor will not obtain orphan drug exclusivity that could block the regulatory approval of emricasan for several years. If Conatus is unable to obtain Orphan Drug Designation in the United States or in the EU, it will not receive market exclusivity, which might affect its ability to generate sufficient revenues. If a competitor is able to obtain orphan exclusivity that would block emricasan's regulatory approval, its ability to generate revenues could be significantly reduced, which could harm Conatus' business prospects, financial condition and results of operations.

If Conatus resumes development of emricasan, Conatus may be unable to maintain or effectively utilize orphan drug exclusivity for emricasan for any indication.

Conatus received Orphan Drug Designation from the FDA for emricasan for the treatment of POLT patients with reestablished fibrosis to delay the progression to cirrhosis and end-stage liver disease. Conatus may be unable to obtain regulatory approval for emricasan for this orphan population or any other orphan population, or Conatus may be unable to successfully commercialize emricasan for such orphan population due to risks that include:

- the orphan patient population may change in size;
- there may be changes in the treatment options for patients that may provide alternative treatments to emricasan;
- the development costs may be greater than projected revenue of drug sales for the orphan indications;
- the regulatory agencies may disagree with the design or implementation of Conatus' clinical trials;
- there may be difficulties in enrolling patients for clinical trials;
- emricasan or may not prove to be efficacious in the orphan patient population;
- clinical trial results may not meet the level of statistical significance required by the regulatory agencies; and
- emricasan may not have a favorable risk/benefit assessment in the respective orphan indication.

If Conatus is unable to obtain regulatory approval for emricasan for any orphan population or is unable to successfully commercialize emricasan for such orphan population, it could harm Conatus' business prospects, financial condition and results of operations.

Conatus may form or seek strategic alliances or collaborations in the future. Such alliances and collaborations may inhibit future opportunities, or Conatus may not realize the benefits of such collaborations or alliances.

Conatus may form or seek strategic alliances, joint ventures or collaborations or enter into licensing arrangements with other third parties that it believes will complement or augment its development and commercialization efforts with respect to its product candidates that it may develop. Future efforts for alliances or collaborations may also require Conatus to incur non-recurring and other charges, increase its near- and long-term expenditures, issue securities that dilute its existing stockholders or disrupt its management and business. In addition, Conatus faces significant competition in seeking appropriate strategic partners, and the negotiation process is time-consuming and complex. Furthermore, Conatus may not be able to realize the benefit of such transactions if it is unable to successfully integrate them with its existing operations and company culture. Conatus cannot be certain that, following a strategic transaction or license, it will achieve the revenues or specific net income that justifies such transaction.

Conatus' business and operations would suffer in the event of system failures.

Despite the implementation of security measures, Conatus' internal computer systems and those of its current and future CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While Conatus has not experienced any such material system failure, accident or security breach to date, if such an event were to occur and cause interruptions in its operations, it could result in a material disruption of its development programs and its business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in Conatus' regulatory approval efforts and significantly increase its costs to recover or reproduce the data. Likewise, Conatus relies on third parties to manufacture its product candidates and conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on its business. To the extent that any disruption or security breach were to result in a loss of, or damage to, Conatus' data or applications, or inappropriate disclosure of confidential or proprietary information, Conatus could incur liability and the further development and commercialization of its product candidates could be delayed.

Business disruptions could seriously harm Conatus' future revenues and financial condition and increase its costs and expenses.

Conatus' operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or manmade disasters or business interruptions, for which it is predominantly self-insured. For example, in December 2019, a novel strain of coronavirus was reported to have surfaced in Wuhan, China. The coronavirus has impacted the global economy, including limiting travel to China, and may impact our operations including potential interruption of our clinical operations and supply chain. The extent to which the coronavirus will impact our results of operations will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus and the actions to contain the coronavirus or treat its impact, among others. The occurrence of any of these business disruptions could seriously harm Conatus' operations and financial condition and increase its costs and expenses. Conatus relies on third-party manufacturers to produce its product candidates. Conatus' ability to obtain clinical supplies of its product candidates could be disrupted if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption. Conatus' corporate headquarters is located in California near major earthquake faults and fire zones. The ultimate impact on Conatus, its significant suppliers and its general infrastructure of being located near major earthquake faults and fire zones and being consolidated in certain geographical areas is unknown, but Conatus' operations and financial condition could suffer in the event of a major earthquake, fire or other natural disaster.

Conatus relies significantly on information technology, which faces certain risks, and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm its ability to operate its business effectively.

Conatus relies significantly on its information technology to effectively manage and conduct its business and operations. Any failure, inadequacy or interruption of that infrastructure or security lapse of that technology, including cybersecurity incidents, could harm Conatus' ability to operate its business effectively. In the ordinary course of business, Conatus collects, stores and transmits confidential information, and it is critical that Conatus does so in a secure manner in order to maintain the confidentiality and integrity of such confidential information. Significant disruptions to Conatus' information technology systems or breaches of information security could adversely affect its business. Conatus' information technology systems are potentially vulnerable to service interruptions and security breaches from inadvertent or intentional actions by its employees, partners, vendors, or from attacks by malicious third parties. Maintaining the secrecy of this confidential, proprietary, and/or trade secret information is important to Conatus' competitive business position. While Conatus has taken steps to protect such information and invested in information technology, there can be no assurance that its efforts will prevent service interruptions or security breaches in its systems or the unauthorized or inadvertent wrongful access or disclosure of confidential information that could adversely affect its business operations or result in the loss, dissemination, or misuse of critical or sensitive information. Cybersecurity attacks in particular are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data and other electronic security breaches that could lead to disruptions in systems, misappropriation of its confidential or otherwise protected information and corruption of data. A breach of Conatus' security measures or the accidental loss, inadvertent disclosure, unapproved dissemination or misappropriation or misuse of trade secrets, proprietary information, or other confidential information, whether as a result of theft, hacking, or other forms of deception, or for any other cause, could enable others to produce competing products, use its proprietary technology and/or adversely affect its business position. Further, a breach in security, unauthorized access resulting in misappropriation, theft, or sabotage with respect to its proprietary and confidential information, including research or clinical data, could require significant capital investments to remediate and could adversely affect Conatus' business, financial condition and results of operations.

Conatus' employees, independent contractors, principal investigators, consultants, commercial collaborators, service providers and other vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

Conatus is exposed to the risk that its employees, independent contractors, principal investigators, consultants, commercial collaborators, service providers and other vendors may engage in fraudulent or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to Conatus that violate FDA laws and regulations, including those laws that require the reporting of true, complete and accurate information to the FDA, manufacturing standards, federal and state healthcare fraud and abuse laws and regulations, or laws that require the true, complete and accurate reporting of financial information or data. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to Conatus' reputation. Conatus has adopted a code of business conduct and ethics, but it is not always possible to identify and deter third-party misconduct, and the precautions Conatus takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting it from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against Conatus, and Conatus is not successful in defending itself or asserting its rights, those actions could have a significant impact on its business, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, reputational harm, diminished profits and future earnings, and curtailment of its operations, any of which could adversely affect its ability to operate its business and its results of operations.

Conatus' current and future relationships with investigators, health care professionals, consultants, third-party payors and customers will be subject to applicable healthcare regulatory laws. Conatus or its collaborators' failure to comply with those laws could have a material adverse effect on its results of operations and financial condition.

Conatus' business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors and customers, may expose it to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which Conatus conducts its operations, including how it researches, markets, sells and distributes its product candidates for which it obtains marketing approval. Such laws include, without limitation:

- the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, which governs the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information;
- the federal healthcare programs' Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;
- federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent;
- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;
- the federal Physician Payment Sunshine Act, which requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the government information related to payments or other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and requires applicable manufacturers and group purchasing organizations to report annually to the government ownership and investment interests held by the physicians described above and their immediate family members and payments or other "transfers of value" to such physician owners (manufacturers are required to submit reports to the government by the 90th day of each calendar year);
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures and pricing information; and state and foreign laws governing the privacy and security of health

information in some circumstances, many of which differ from each other in significant ways and often are not preempted by the Health Insurance Portability and Accountability Act, thus complicating compliance efforts; and

- similar healthcare laws and regulations in the European Union and other non-U.S. jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of certain protected information, such as the General Data Protection Regulation, or GDPR, which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the EU (including health data).

If Conatus or its collaborators' operations are found to be in violation of any of such laws or any other governmental regulations that apply to Conatus, it may be subject to penalties, including civil and criminal penalties, damages, fines, the curtailment or restructuring of its operations, the exclusion from participation in federal and state healthcare programs or similar programs in other countries or jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, and individual imprisonment, any of which could adversely affect its ability to operate Conatus' business and its results of operations.

Risks Related to Conatus' Reliance on Third Parties

Since Conatus and Novartis terminated the Collaboration Agreement, Conatus will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement, and Conatus may not be able to enter into a similar agreement on favorable terms, or at all.

In June 2019, Conatus announced that top-line results from its ENCORE-LF clinical trial of emricasan did not meet the primary endpoint, and Conatus was discontinuing further treatment of patients enrolled in the ENCORE-LF clinical trial. In addition, results from the 24-week extension in Conatus' ENCORE-PH clinical trial of emricasan were consistent with results from the initial 24-week treatment period and did not meet predefined objectives. Previously, in March 2019, Conatus announced that top-line results from the Phase 2b ENCORE-NF clinical trial of emricasan also did not meet the primary endpoint. Consequently, Conatus and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement in September 2019.

As a result, Conatus will not receive additional milestones under the Collaboration Agreement, and Conatus may be unable to raise the additional capital required to further develop and commercialize emricasan, if it resumes development, or enter into a collaboration agreement with another pharmaceutical company with equivalent or comparable terms, or at all. Further, any delays in entering into new strategic partnership agreements related to emricasan could delay the development and commercialization of emricasan, which would harm Conatus' business, prospects, financial condition and results of operations. In addition, a strategic transaction may not result in any future development and commercialization of emricasan, which would harm Conatus' business, prospects, financial condition and results of operations.

Conatus relies on third parties to conduct its clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, Conatus may not be able to obtain regulatory approval for or commercialize a product candidate, and its business could be substantially harmed.

Conatus anticipates that it will continue to engage one or more third-party CROs in connection with future clinical trials for any product candidate. Conatus relies heavily on these parties for execution of its clinical trials, and it controls only certain aspects of their activities. Nevertheless, Conatus is responsible for ensuring that each of its trials is conducted in accordance with applicable protocol, legal, regulatory and scientific standards, and its reliance on its CROs does not relieve it of its regulatory responsibilities. Conatus and its CROs are required to comply with GCPs, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If Conatus or any of its CROs fail to comply with applicable GCPs, the clinical data generated in its clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require Conatus to perform additional clinical trials before approving its marketing applications. Conatus cannot assure you that, upon inspection, such regulatory authorities will determine that any of its clinical trials comply with the GCPs. In addition, Conatus' clinical trials must be conducted with drug product produced under cGMP regulations and will require a large number of test subjects. Conatus' failure or any failure by its CROs to comply with these regulations or to recruit a sufficient number of patients may require Conatus to repeat clinical trials, which would delay the regulatory approval process. Moreover, Conatus' business may be implicated if any of its CROs violate federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws. Conatus' CROs are not its employees and, except for remedies available to Conatus under its agreements with such CROs, it cannot control whether or not they devote sufficient time and resources to Conatus' ongoing preclinical, clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including its competitors, for whom they may also be conducting clinical trials or other drug development activities, which could affect their performance on Conatus' behalf. Conatus' clinical trials may be extended, delayed or terminated if CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to Conatus' clinical protocols or regulatory requirements or for other reasons. As a result, Conatus may not be able to complete development of, obtain regulatory approval for or successfully commercialize any product candidate. Therefore,

Conatus' financial results and the commercial prospects for any product candidate would be harmed, Conatus' costs could increase and its ability to generate revenues could be delayed.

Switching or adding CROs involves substantial cost and requires extensive management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact Conatus' ability to meet its desired clinical development timelines. Although Conatus carefully manages its relationships with its CROs, there can be no assurance that Conatus will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on its business, prospects, financial condition and results of operations.

Conatus relies completely on third parties to manufacture its preclinical and clinical drug supplies, and Conatus intends to rely on third parties to produce commercial supplies of any product candidates, if approved. The development and commercialization of any product candidate could be stopped, delayed or made less profitable if those third parties fail to obtain and maintain regulatory approval of their facilities, fail to provide Conatus with sufficient quantities of drug product or fail to do so at acceptable quality levels or prices.

Risks Related to Conatus' Financial Position and Capital Requirements

To conserve capital, Conatus may undertake additional workforce and cost reduction activities in the future. These activities may cause Conatus to be unable to fully support and manage its operations.

In June 2019 and September 2019, Conatus implemented restructuring plans to conserve capital, and it may, in the future, need to undertake additional workforce reductions or restructuring activities. As a result of the reduction in its workforce, Conatus faces an increased risk of employment litigation. Conatus also needs to effectively manage its operations and facilities. Following Conatus' workforce reductions in June 2019 and September 2019, it is possible that its infrastructure may be inadequate to support its future efforts and business strategy or to maintain operational, financial and management controls and reporting systems and procedures. If Conatus cannot successfully manage its operations, it may be unsuccessful in executing its business strategy, including potential strategic alternatives.

Conatus has a limited operating history, has incurred significant operating losses since its inception and anticipates that it will continue to incur losses for the foreseeable future.

Conatus' operations began in 2005, and it has only a limited operating history upon which you can evaluate its business and prospects. Conatus' operations to date have been limited to conducting product development activities and performing research and development with respect to its clinical and preclinical programs. In addition, as an early-stage company, Conatus has limited experience and has not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the pharmaceutical area. Nor has Conatus demonstrated an ability to obtain regulatory approval for or to commercialize a product candidate. Consequently, any predictions about its future performance may not be as accurate as they would be if Conatus had a history of successfully developing and commercializing pharmaceutical products.

Conatus has incurred significant operating losses since its inception, including net losses of $11.4 million, $18.0 million and $17.4 million for the years ended December 31, 2019, 2018 and 2017, respectively. As of December 31, 2019, Conatus had an accumulated deficit of $198.0 million. Conatus' prior losses, combined with expected future losses, have had and will continue to have an adverse effect on its stockholders' equity and working capital. Conatus' losses have resulted principally from costs incurred in its research and development activities. In addition, if Conatus obtains regulatory approval of any product candidate, Conatus may incur significant sales and marketing expenses. Because of the numerous risks and uncertainties associated with developing pharmaceutical products, Conatus is unable to predict the extent of any future losses or whether or when it will become profitable, if ever.

Conatus has not generated any revenues to date from product sales. Conatus may never achieve or sustain profitability, which could depress the market price of its common stock and could cause its stockholders to lose all or a part of their investment.

Conatus' ability to become profitable depends in part on its ability to develop and commercialize emricasan or CTS-2090. To date, Conatus has no products approved for commercial sale and has not generated any revenues from sales of any product candidate, and it does not know when, or if, it will generate revenues in the future. Conatus does not anticipate generating revenues, if any, from sales of emricasan or CTS-2090 for at least the next several years, and it will never generate revenues from emricasan or CTS-2090 if it does not obtain regulatory approval of such product candidates. Conatus' ability to generate future revenues depends heavily on its success in:

- developing and securing United States and/or foreign regulatory approvals for its product candidates;
- manufacturing commercial quantities of its product candidates at acceptable cost;
- achieving broad market acceptance of its product candidates in the medical community and with third-party payors and patients;

- commercializing its product candidates, assuming its product candidates receive regulatory approval; and
- pursuing clinical development of its product candidates in additional indications.

Even if Conatus does generate product sales, it may never achieve or sustain profitability. Conatus' failure to become and remain profitable would depress the market price of its common stock and could impair its ability to raise capital, expand its business, diversify its product offerings or continue its operations.

Raising additional capital may cause dilution to existing Conatus stockholders, restrict Conatus' operations or require it to relinquish rights to its technologies or product candidate.

Conatus may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. To the extent that Conatus raises additional capital through the sale of equity or convertible debt securities, the ownership interests of its stockholders will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of its stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could involve certain restrictive covenants, such as limitations on Conatus' ability to incur additional debt, limitations on its ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact its ability to conduct its business. If Conatus raises additional funds through strategic partnerships and alliances and licensing arrangements with third parties, it may have to relinquish valuable rights to its technologies or product candidate, or grant licenses on terms unfavorable to it.

Conatus' ability to utilize its net operating loss, or NOL, carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Code, if a corporation undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period), the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes to offset its post-change income may be limited. Conatus previously completed a study to assess whether an ownership change, as defined by Section 382 of the Code, had occurred from its formation through December 31, 2017. Based upon this study, Conatus determined that ownership changes had occurred in 2006 and 2013 but concluded that the annual utilization limitation would be sufficient to utilize its pre-ownership change NOLs and research and development credits prior to expiration, with the exception of a de minimis amount. Future ownership changes may limit Conatus' ability to utilize remaining tax attributes. As of December 31, 2019, Conatus had federal and state NOL carryforwards of $145.5 million and $76.4 million, respectively. Conatus also had federal, including orphan drug, and state research and development credit carryforwards of $8.3 million and $2.4 million, respectively. Furthermore, under recently enacted U.S. tax legislation, although the treatment of tax losses generated in taxable years ending before December 31, 2017 has generally not changed, tax losses generated in taxable years beginning after December 31, 2017 may only be utilized to offset 80% of taxable income annually. This change may require Conatus to pay federal income taxes in future years despite generating a loss for federal income tax purposes in prior years.

Unstable market and economic conditions may have serious adverse consequences on Conatus' business, financial condition and stock price.

As widely reported, global credit and financial markets have experienced extreme disruptions in the past several years, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Conatus' general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, or do not improve, it may make any necessary equity or debt financing more difficult, more costly and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on Conatus' growth strategy, financial performance and stock price and could require Conatus to delay or abandon clinical development plans. In addition, there is a risk that one or more of Conatus' current service providers, manufacturers and other partners may not survive these difficult economic times, which could directly affect Conatus ability to attain its operating goals on schedule and on budget.

At December 31, 2019, Conatus had $20.7 million of cash and cash equivalents. While Conatus is not aware of any downgrades, material losses, or other significant deterioration in the fair value of its cash equivalents since December 31, 2019, no assurance can be given that deterioration of the global credit and financial markets would not negatively impact its current portfolio of cash equivalents or its ability to meet its financing objectives. Furthermore, its stock price may decline due in part to the volatility of the stock market.

Risks Related to Conatus' Intellectual Property

If Conatus' efforts to protect the proprietary nature of the intellectual property related to its technologies are not adequate, it may not be able to compete effectively in its market.

Conatus relies upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to its technologies. Any disclosure to or misappropriation by third parties of its confidential proprietary information could enable competitors to quickly duplicate or surpass its technological achievements, thus eroding its competitive position in its market.

Composition-of-matter patents on the API and crystalline forms are generally considered to be the strongest form of intellectual property protection for pharmaceutical products, as such patents provide protection without regard to any method of use. Conatus cannot be certain that the claims in its patent applications covering composition-of-matter or crystalline forms of emricasan or CTS-2090 will be considered patentable by the United States Patent and Trademark Office, or the USPTO, courts in the United States, or by the patent offices and courts in foreign countries. Method-of-use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to its product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for its targeted indications, physicians may prescribe these products "off-label." Although off-label prescriptions may infringe or contribute to the infringement of method-of-use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. Some of Conatus' patents related to emricasan were acquired from a predecessor owner and were therefore not written by it or its attorneys, and it did not have control over the drafting and prosecution of these patent applications. Further, the former patent owners might not have given the same attention to the drafting and early prosecution of these patents and applications as Conatus would have if it had been the owners of the patents and applications and had control over the drafting and prosecution. In addition, the former patent owners may not have been completely familiar with United States patent law, possibly resulting in inadequate disclosure and/or claims. This could result in findings of invalidity or unenforceability of the patents Conatus owns or patents issuing with reduced claim scope.

In addition, the patent applications that Conatus owns or that it may license may fail to result in issued patents in the United States or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, Conatus' patents and patent applications may not adequately protect its intellectual property or prevent others from designing around its claims.

In addition to the protection afforded by patents, Conatus seeks to rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of its drug discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. Although Conatus requires all of its employees to assign their inventions to it, and require all of its employees, advisors and any third parties who have access to its proprietary know-how, information or technology to enter into confidentiality agreements, Conatus cannot be certain that its trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to its trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, Conatus may encounter significant problems in protecting and defending its intellectual property both in the United States and abroad. If Conatus is unable to prevent unauthorized material disclosure of its intellectual property to third parties, Conatus will not be able to establish or maintain a competitive advantage in its market, which could materially adversely affect its business, operating results and financial condition.

Third-party claims of intellectual property infringement may prevent or delay Conatus' drug discovery and development efforts.

Conatus' commercial success depends in part on its and its collaborators avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. Under United States patent reform, new procedures including inter partes review and post grant review have been implemented. As stated above, this reform brings uncertainty to the possibility of challenge to its patents in the future. Numerous United States and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which it or its collaborators are developing product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that a product candidate may give rise to claims of infringement of the patent rights of others.

Third parties may assert that Conatus or its collaborators are employing their proprietary technology without authorization. There may be third-party patents of which Conatus or its collaborators are currently unaware with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of a Conatus product candidate. Because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that a product candidate may infringe. In addition, third parties may obtain patents in the future and claim that use of Conatus or its collaborators' technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of a product candidate, any molecules formed during the manufacturing process or any final product itself, the holders of any such patents may be able to block the ability to commercialize the product candidate unless Conatus or its

collaborators obtain a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of its formulations, processes for manufacture or methods of Conatus, including combination therapy or patient selection methods, the holders of any such patent may be able to block the ability to develop and commercialize the product candidate, unless Conatus or its collaborators obtain a license or until such patent expires or is finally determined to be held invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all. If Conatus or its collaborators are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, Conatus' ability to commercialize a product candidate may be impaired or delayed, which could in turn significantly harm Conatus' business.

Parties making claims against Conatus may seek and obtain injunctive or other equitable relief, which could effectively block the ability to further develop and commercialize a product candidate. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from its business. In the event of a successful claim of infringement against Conatus, it may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign its infringing products, which may be impossible or require substantial time and monetary expenditure. Conatus cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, Conatus or its collaborators may need to obtain licenses from third parties to advance Conatus' research or allow commercialization of a product candidate. Conatus may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, Conatus or its collaborators would be unable to further develop and commercialize a product candidate, which could harm Conatus' business significantly.

Conatus or its collaborators may be involved in lawsuits to protect or enforce its patents, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe Conatus' patents. To counter infringement or unauthorized use, Conatus or its collaborators may be required to file infringement claims, which can be expensive and time-consuming. In an infringement proceeding, a court may decide that one or more of Conatus' patents is not valid or is unenforceable or may refuse to stop the other party from using the technology at issue on the grounds that Conatus' patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of Conatus' patents at risk of being invalidated, held unenforceable, or interpreted narrowly and could put Conatus' patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from Conatus' business. In the event of a successful claim of infringement against Conatus, it or its collaborators may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign its infringing products, which may be impossible or require substantial time and monetary expenditure.

Interference proceedings provoked by third parties or brought by the USPTO may be necessary to determine the priority of inventions with respect to Conatus' patents or patent applications. An unfavorable outcome could require Conatus to cease using the related technology or to attempt to license rights to it from the prevailing party. Conatus' business could be harmed if the prevailing party does not offer it a license on commercially reasonable terms. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract Conatus' management and other employees. Conatus may not be able to prevent misappropriation of its trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Conatus' confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of Conatus' common stock.

Obtaining and maintaining Conatus' patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and Conatus' patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, Conatus' competitors might be able to enter the market, which would have a material adverse effect on Conatus' business.

Conatus may be subject to claims that its employees or independent contractors have wrongfully used or disclosed confidential information of third parties.

Conatus has received confidential and proprietary information from third parties. In addition, Conatus employs individuals who were previously employed at other biotechnology or pharmaceutical companies. Conatus may be subject to claims that it or its employees or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or Conatus employees' former employers. Litigation may be necessary to defend against these claims. Even if Conatus is successful in defending against these claims, litigation could result in substantial cost and be a distraction to its management and employees.

Risks Related to Ownership of Conatus' Common Stock

If Conatus is not able to comply with the applicable continued listing requirements or standards of the Nasdaq Capital Market, its common stock could be delisted.

Conatus' common stock is currently listed on the Nasdaq Capital Market. In order to maintain that listing, Conatus must satisfy minimum financial and other continued listing requirements and standards, including those regarding director independence and independent committee requirements, minimum stockholders' equity, minimum share price, and certain corporate governance requirements. There can be no assurances that Conatus will be able to comply with the applicable listing standards.

On May 29, 2019, Conatus received a letter from the Nasdaq staff indicating that, for the last thirty consecutive business days, the bid price for its common stock had closed below the minimum $1.00 per share requirement for continued listing on the Nasdaq Global Market under Nasdaq Listing Rule 5450(a)(1). Conatus had a period of 180 calendar days, or until November 25, 2019, to regain compliance. On November 25, 2019, Conatus filed an application to transfer the listing of its common stock from the Nasdaq Global Market to the Nasdaq Capital Market.

On November 27, 2019, Conatus received approval from Nasdaq to transfer the listing of Conatus' common stock from the Nasdaq Global Market to the Nasdaq Capital Market. Conatus' common stock was transferred to the Nasdaq Capital Market effective as of the open of business on November 29, 2019, and continues to trade under the symbol "CNAT." The Nasdaq Capital Market operates in substantially the same manner as the Nasdaq Global Market and listed companies must meet certain financial requirements and comply with Nasdaq's corporate governance requirements.

In connection with the transfer to the Nasdaq Capital Market, Conatus has been granted an additional 180-day grace period, until May 25, 2020, to regain compliance with the minimum $1.00 per share requirement for continued listing on the Nasdaq Capital Market under Nasdaq Listing Rule 5810(c)(3)(A). If compliance cannot be demonstrated by May 25, 2020, or Conatus does not comply with the terms of this extension, the Nasdaq staff will provide written notification that Conatus' securities will be delisted. In the event of such a notification, Conatus may appeal the Nasdaq staff's determination to delist its securities, but there can be no assurance the Nasdaq staff would grant Conatus' request for continued listing.

In the event that its common stock is delisted from the Nasdaq Capital Market and is not eligible for quotation or listing on another market or exchange, trading of its common stock could be conducted only in the over-the-counter market or on an electronic bulletin board established for unlisted securities, such as the Pink Sheets or the OTC Bulletin Board. In such event, it could become more difficult to dispose of, or obtain accurate price quotations for, its common stock, and there would likely also be a reduction in its coverage by securities analysts and the news media, which could cause the price of its common stock to decline further. Also, it may be difficult for Conatus to raise additional capital if it is not listed on a major exchange.

The price of Conatus' stock may be volatile.

Prior to Conatus' IPO, there was no public market for its common stock. Since the commencement of trading in connection with Conatus' IPO in July 2013 through January 31, 2020, the sale price per share of its common stock on Nasdaq has ranged from a low of $0.25 to a high of $15.67. The trading price of Conatus' common stock is likely to continue to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond its control, including limited trading volume. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this annual report, these factors include:

- any potential strategic alternative that Conatus pursue, including the proposed merger with Histogen;
- actual or anticipated variations in quarterly operating results;
- Conatus' cash position;
- Conatus' failure to meet the estimates and projections of the investment community or that it may otherwise provide to the public;
- publication of research reports about Conatus or its industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- changes in the market valuations of similar companies
- overall performance of the equity markets;
- sales of Conatus' common stock by it or its stockholders in the future;

- trading volume of Conatus' common stock;
- changes in accounting practices;
- ineffectiveness of Conatus' internal controls;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and Conatus' ability to obtain patent protection for its technologies;
- significant lawsuits, including patent or stockholder litigation;
- general political and economic conditions; and
- other events or factors, many of which are beyond Conatus' control.

In addition, the stock market in general, and Nasdaq and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of its common stock, regardless of its actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this "Risk Factors" section and elsewhere in this annual report, could have a dramatic and material adverse impact on the market price of Conatus' common stock.

Conatus does not intend to pay dividends on its common stock so any returns will be limited to the value of its stock.

Conatus has never declared or paid any cash dividend on its common stock. Conatus currently anticipates that it will retain future earnings for the development, operation and expansion of its business and does not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

Conatus' principal stockholders and management own a significant percentage of its stock and will be able to exert significant control over matters subject to stockholder approval.

As of December 31, 2019, Conatus' executive officers, directors, 5% stockholders and their affiliates owned approximately 11.5% of Conatus' outstanding voting stock. Therefore, these stockholders have the ability to influence Conatus through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of its organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for Conatus' common stock that its stockholders may feel are in their best interests.

Conatus is required to maintain compliance with Section 404 of the Sarbanes-Oxley Act of 2002, or Conatus may be subject to sanctions by regulatory authorities.

Section 404(a) of the Sarbanes-Oxley Act of 2002 requires that Conatus evaluates and determines the effectiveness of its internal controls over financial reporting and provide a management report on the internal control over financial reporting. Conatus has performed the system and process evaluation and testing required to comply with the management certification. In the future, Conatus may also be required to comply with auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002. If Conatus does not properly implement the requirements of Section 404 with adequate compliance, and maintain such compliance, Conatus may be subject to sanctions or investigation by regulatory authorities, such as the SEC or Nasdaq. Any such action could adversely affect Conatus' financial results or investors' confidence in Conatus and could cause its stock price to fall. If Conatus has a material weakness in its internal controls over financial reporting, Conatus may not detect errors on a timely basis and its consolidated financial statements may be materially misstated. If Conatus or its independent registered public accounting firm identifies deficiencies in its internal controls that are deemed to be material weaknesses, Conatus could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities, which would entail expenditure of additional financial and management resources and could materially adversely affect Conatus' stock price.

Conatus incurs significant increased costs as a result of operating as a public company, and its management is required to devote substantial time to compliance initiatives.

As a public company, Conatus incurs significant legal, accounting and other expenses that it did not incur as a private company. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and Nasdaq to implement provisions of the Sarbanes-Oxley Act, imposes significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which Conatus operates its business in ways it cannot currently anticipate.

The rules and regulations applicable to public companies may substantially increase Conatus' legal and financial compliance costs and make some activities more time-consuming and costly. If these requirements divert the attention of Conatus management and personnel from other business concerns, they could have a material adverse effect on Conatus' business, financial condition and results of operations. The increased costs will decrease Conatus' net income or increase its net loss and may require it to reduce costs in other areas of its business or increase the prices of its products or services. For example, these rules and regulations may make it more difficult and more expensive for Conatus to obtain director and officer liability insurance, and it may be required to incur substantial costs to maintain the same or similar coverage. Conatus cannot predict or estimate the amount or timing of additional costs it may incur to respond to these requirements. The impact of these requirements could also make it more difficult for Conatus to attract and retain qualified persons to serve on Conatus' Board, its board committees or as executive officers.

Future sales and issuances of the Conatus common stock or rights to purchase common stock, including pursuant its equity incentive plans could result in additional dilution of the percentage ownership of its stockholders and could cause its stock price to fall.

To raise capital, Conatus may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner it determines from time to time. If Conatus sells common stock, convertible securities or other equity securities, its stockholders may be materially diluted by subsequent sales, and new investors could gain rights preferences and privileges senior to the holders of its common stock.

Pursuant to Conatus' 2013 equity incentive award plan, or the Conatus 2013 Plan, which became effective in July 2013, its management, is authorized to grant stock options and other equity awards to its employees, directors and consultants. The number of shares available for future grant under the Conatus 2013 Plan automatically increases each year by an amount equal to the least of (1) 1,000,000 shares of its common stock, (2) 5% of the outstanding shares of its common stock as of the last day of its immediately preceding fiscal year, or (3) such other amount as its board of directors may determine. Unless Conatus' Board elects not to increase the number of shares available for future grant each year, its stockholders may experience additional dilution, which could cause its stock price to fall.

Conatus could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for Conatus because pharmaceutical companies have experienced significant stock price volatility in recent years. If Conatus faces such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm its business.

Anti-takeover provisions under Conatus' charter documents and Delaware law could delay or prevent a change of control, which could limit the market price of its common stock and may prevent or frustrate attempts by its stockholders to replace or remove its current management.

Conatus amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change of control of the company or changes in its board of directors that its stockholders might consider favorable to its board of directors and its management. Some of these provisions include:

- a board of directors divided into three classes serving staggered three-year terms, such that not all members of the board will be elected at one time;
- a prohibition on stockholder action through written consent, which requires that all stockholder actions be taken at a meeting of its stockholders;
- a requirement that special meetings of stockholders be called only by the chairman of the board of directors, the chief executive officer, the president or by a majority of the total number of authorized directors;
- advance notice requirements for stockholder proposals and nominations for election to its board of directors;
- a requirement that no member of its board of directors may be removed from office by its stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds of all outstanding shares of its voting stock then entitled to vote in the election of directors;
- a requirement of approval of not less than two-thirds of all outstanding shares of its voting stock to amend any bylaws by stockholder action or to amend specific provisions of its certificate of incorporation; and
- the authority of the board of directors to issue preferred stock on terms determined by the board of directors without stockholder approval and such preferred stock may include rights superior to the rights of the holders of common stock.

In addition, because Conatus is incorporated in Delaware, it is governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of its outstanding voting stock. These anti-takeover provisions and other provisions in Conatus' amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult for stockholders or potential acquirors to obtain control of its board of

directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer or proxy contest involving Conatus. These provisions could also discourage proxy contests and make it more difficult for Conatus stockholders to elect directors of their choosing or cause it to take other corporate actions desired by certain stockholders. Any delay or prevention of a change of control transaction or changes in the Conatus Board could cause the market price of its common stock to decline.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about Conatus' business, its stock price and trading volume could decline.

The trading market for Conatus' common stock depends in part on the research and reports that securities or industry analysts publish about its business. Conatus currently has limited research coverage by securities and industry analysts. In the event one or more of the analysts who covers Conatus downgrades its stock or publishes inaccurate or unfavorable research about its business, its stock price may decline. If one or more of these analysts ceases coverage of Conatus or fails to publish reports on Conatus regularly, demand for its stock could decrease, which might cause its stock price and trading volume to decline.

The comprehensive U.S. tax reform bill passed in 2017 could adversely affect Conatus' business and financial condition.

On December 22, 2017, President Trump signed the Tax Cuts and Jobs Act, or the Tax Act, into law, which significantly revised the Code. The Tax Act, among other things, contained significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted taxable income (except for certain small businesses), limitation of the deduction for NOLs generated in tax years beginning after December 31, 2017 to 80% of current year taxable income and elimination of carrybacks of NOLs arising in taxable years ending after December 31, 2017, one-time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions). Notwithstanding the reduction in the corporate income tax rate, the overall impact of the Tax Act could adversely affect Conatus. In addition, it is uncertain if and to what extent various states will conform to the Tax Act. The impact of the Tax Act on holders of Conatus' common stock is also uncertain and could be adverse. Conatus urges its stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding Conatus common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Conatus leases 13,225 square feet of space for its headquarters in San Diego, California under an agreement that expires in September 2020. In December 2019, Conatus entered into a sublease agreement pursuant to which Conatus agreed to sublet this property. At the commencement of the sublease, Conatus sublet 9,954 rentable square feet of the property, and Conatus will sublet the remaining 3,271 rentable square feet of the property commencing on April 1, 2020.

ITEM 3. LEGAL PROCEEDINGS

Conatus is not currently a party to any material legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Conatus' common stock has been traded on the Nasdaq Capital Market since November 29, 2019 under the symbol "CNAT." Previously, Conatus' common stock traded on the Nasdaq Global Market from July 25, 2013 to November 28, 2019. Prior to July 25, 2013, there was no public market for Conatus common stock.

Holders of Common Stock

As of March 2, 2020, there were 33,170,487 shares of Conatus common stock outstanding and 23 holders of record of its common stock. This number was derived from Conatus shareholder records and does not include beneficial owners of Conatus common stock whose shares are held in the name of various dealers, clearing agencies, banks, brokers and other fiduciaries.

Dividend Policy

Conatus has never declared or paid any cash dividend on its common stock. Conatus currently anticipate that it will retain future earnings, if any, for the development, operation and expansion of its business and does not anticipate declaring or paying any cash dividends for the foreseeable future. Any future determination related to Conatus' dividend policy will be made at the discretion of its board of directors.

ITEM 6. SELECTED FINANCIAL DATA

Not required.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Disclosure Regarding Forward-Looking Statements

The following should be read in conjunction with the audited condensed consolidated financial statements and the related notes that appear elsewhere in this annual report on Form 10-K as well as in conjunction with the Risk Factors section in this annual report. This annual report includes forward-looking statements made based on current management expectations pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended.

Some of the statements contained in this annual report discuss future expectations, contain projections of results of operations or financial conditions or state other "forward-looking" information, including statements regarding the timing and completion of the proposed merger with Histogen Inc., expectations regarding ownership percentages of the combined organization, plans to develop or partner emricasan and CTS-2090, its plans to reduce operating expenses and achieve profitability, its strategic objectives, including efforts to maintain compliance with Nasdaq listing standards, the sufficiency of Conatus' current cash holdings and the availability of additional funds, and the development and/or acquisition of additional products. Those statements include statements regarding the intent, belief or current expectations of Conatus and its management team. Any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ materially from those projected in the forward-looking statements. In light of the significant risks and uncertainties inherent in the forward-looking statements included in this annual report, the inclusion of such statements should not be regarded as a representation by Conatus or any other person that Conatus' objectives and plans will be achieved. There are many factors that affect its business, condensed consolidated financial position, results of operations and cash flows, including but not limited to: the risk that the conditions to the closing of the merger are not satisfied, including the failure to timely or at all obtain shareholder approval for the merger, uncertainties as to the timing of the consummation of the merger and the ability of each of Conatus and Histogen to consummate the merger, risks related to Conatus' ability to correctly manage its operating expenses and its expenses associated with the transaction pending closing, potential adverse reactions or changes to business relationships resulting from the announcement or completion of the proposed merger; certain cash and non-cash adjustments set forth in the Merger Agreement that may alter the percentage of the combined organization held by Conatus stockholders, Conatus' ability to retain and attract key personnel, Conatus' ability to raise additional funding that it may need to continue to pursue its commercial and development plans, Conatus' ability to develop or partner emricasan or CTS-2090, Conatus' ability to enter into partnering agreements or raise financing on acceptable terms, if at all; and/or other factors, including those set forth under the "Risk Factors" section in this annual report, many of which are outside of Conatus' control.

Conatus operates in a rapidly changing business, and new risk factors emerge from time to time. Management cannot predict every risk factor, nor can it assess the impact, if any, of all such risk factors on Conatus' business or the extent to which any factor, or

combination of factors, may cause actual results to differ materially from those projected in any forward-looking statements. Accordingly, forward-looking statements should not be relied upon as a prediction of actual results and readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this annual report. Conatus undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

Overview

Conatus is a biotechnology company that has been focused on the development and commercialization of novel medicines to treat chronic diseases with significant unmet need. Conatus has been developing emricasan, an orally active pan-caspase inhibitor, for the treatment of patients with chronic liver disease. Emricasan is designed to reduce the activities of human caspases, which are enzymes that mediate inflammation and apoptosis. Conatus has also been developing CTS-2090, an orally active selective caspase inhibitor, for diseases involving inflammasome pathways.

In December 2016, Conatus entered into an Option, Collaboration and License Agreement, or the Collaboration Agreement, with Novartis Pharma AG, or Novartis, for the development and commercialization of emricasan. In June 2019, Conatus announced that top-line results from its ENCORE-LF clinical trial of emricasan did not meet the primary endpoint, and it was discontinuing further treatment of patients enrolled in the ENCORE-LF clinical trial. In addition, results from the 24-week extension in Conatus' ENCORE-PH clinical trial of emricasan were consistent with results from the initial 24-week treatment period and did not meet predefined objectives. In March 2019, Conatus announced that top-line results from the ENCORE-NF clinical trial of emricasan also did not meet the primary endpoint. Conatus and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement in September 2019. Therefore, Conatus will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement. Pursuant to the terms of termination, Novartis and Conatus shared the costs of the Phase 2b trials equally until December 31, 2019 and Novartis will pay up to $150,000 for its share of the costs of the Phase 2b trials, if any, in 2020. Conatus has discontinued development activities for emricasan and plans to re-position or partner emricasan, as well as its inflammasome disease candidate, CTS-2090.

In connection with the decision to discontinue development of emricasan, Conatus also commenced a restructuring plan in June 2019 that included reducing staff by approximately 40% and suspending development of CTS-2090, and a restructuring plan in September 2019 that included reducing staff by another approximately 40% in order to extend Conatus' resources. Conatus also engaged a financial advisor to assist in the exploration and evaluation of strategic alternatives to enhance shareholder value, including a merger, an acquisition or sale of assets or a dissolution and liquidation of the company. However, there can be no assurance any transaction will result from Conatus' evaluation of strategic alternatives.

On January 28, 2020, Conatus, Merger Sub, and Histogen, entered into the Merger Agreement, pursuant to which, among other matters, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into Histogen, with Histogen continuing as Conatus' wholly owned subsidiary and the surviving corporation of the merger.

At the Effective Time, each share of Histogen's common stock and Histogen's preferred stock outstanding immediately prior to the Effective Time (excluding certain shares to be canceled pursuant to the Merger Agreement, and shares held by Histogen stockholders who have exercised and perfected appraisal rights as more fully described in the section entitled "The Merger—Appraisal Rights" in the Form S-4) will be converted into the right to receive approximately 1.483 shares of Conatus' common stock, subject to adjustment to account for the Conatus Reverse Stock Split. This exchange ratio is an estimate only and is based upon Conatus and Histogen's capitalization at January 31, 2020. The final exchange ratio will be determined pursuant to a formula described in more detail in the Merger Agreement and in the attached proxy statement/prospectus/information statement, which formula accounts for adjustments due to changes in Conatus and Histogen's capitalization prior to the consummation of the merger as well as the respective net cash balances of Conatus and Histogen prior to the merger. As a result of the merger, current holders of Histogen's capital stock and options and warrants to purchase Histogen's capital stock are expected to own, or hold rights to acquire, in the aggregate approximately 74% of the Fully-Diluted Common Stock of Conatus, which for these purposes is defined as the outstanding common stock of Conatus (including the shares of common stock issued in the merger), plus all options and warrants of Conatus outstanding immediately prior to the merger, plus all options and warrants of Histogen converted into options and warrants of Conatus in connection with the merger, and Conatus' current stockholders, optionholders and warrantholders are expected to own, or hold rights to acquire, in the aggregate approximately 26% of the Fully-Diluted Common Stock of Conatus and, in each case, following the Effective Time. These estimates are subject to adjustment prior to the closing of the merger, including an upward adjustment to the extent that Conatus' net cash at the Effective Time is less than $12.6 million or Histogen's net cash at the effective time of the merger is more than $2.2 million (and as a result, Conatus stockholders could own less, and Histogen stockholders could own more, of the combined organization), or a downward adjustment to the extent that Conatus' net cash at the Effective Time is more than $13.4 million or Histogen's net cash at the Effective Time is less than $1.4 million (and as a result, Conatus stockholders could own more, and Histogen stockholders could own less, of the combined organization). Additionally, the net cash amounts at which adjustments to the exchange ratio may be triggered will be reduced by each company's average daily net cash burn rate in December 2019 for each day from January 31, 2020 until the closing date of the merger.

Consummation of the merger is subject to certain closing conditions, including, among other things, approval by Conatus' and Histogen's stockholders. Should the Merger Agreement be terminated prior to consummation, the Merger Agreement contains certain termination rights for both Conatus and Histogen, and further provides that, upon termination of the Merger Agreement under specified circumstances, either party may be required to pay the other party a termination fee of $500,000, and in some circumstances reimburse the other party's expenses up to a maximum of $350,000.

At the Effective Time of the merger, the Conatus Board is expected to consist of eight members, six of whom will be designated by Histogen and two of whom will be designated by Conatus.

Despite devoting significant efforts to identify, evaluate and negotiate the Merger Agreement with Histogen, Conatus may not be successful in completing the merger. Further, even if the merger is completed, it ultimately may not deliver the anticipated benefits or enhance stockholder value. If the merger is not completed, Conatus cannot predict whether and to what extent Conatus would be successful in consummating an alternative transaction, the timing of such a transaction or Conatus' future cash needs required to complete such a transaction, and Conatus may choose or be forced to dissolve and liquidate its assets.

Since Conatus' inception, its primary activities have been organizational activities, including recruiting personnel, conducting research and development, including clinical trials, and raising capital. Conatus has no products approved for sale and has not generated any revenues from product sales to date. Conatus has never been profitable and has incurred significant operating losses since inception. Conatus incurred net losses of $11.4 million, $18.0 million and $17.4 million in the years ended December 31, 2019, 2018 and 2017, respectively. As of December 31, 2019, Conatus had an accumulated deficit of $198.0 million.

Conatus has funded its operations since inception primarily through sales of equity securities and convertible promissory notes and payments made under the Collaboration Agreement. As of December 31, 2019, Conatus had cash and cash equivalents of $20.7 million. Although it is difficult to predict future liquidity requirements, Conatus believes that its existing cash, cash equivalents and marketable securities will be sufficient to fund its operations for at least the next 12 months from the date of the filing of this Form 10-K. Conatus will need to raise additional capital to fund further operations. Conatus may obtain additional financing in the future through the issuance of its common stock in future public offerings, through other equity or debt financings or through collaborations or partnerships with other companies.

Successful transition to profitability is dependent upon achieving a level of revenues adequate to support its cost structure. Conatus cannot assure you that it will ever be profitable or generate sustained positive cash flow from operating activities and, unless and until it does, it will need to raise substantial additional capital through equity or debt financings or through collaborations or partnerships with other companies. Conatus may not be able to raise additional capital on terms acceptable to it, or at all, and any failure to raise capital as and when needed could have a material adverse effect on its results of operations, financial condition and its ability to execute on its business plan.

Financial Overview

Revenues

Conatus' revenues to date have been generated primarily from the Collaboration Agreement. Under the terms of the Collaboration Agreement, it received an upfront payment of $50.0 million. In May 2017, Novartis exercised its option, and Conatus received a $7.0 million option exercise payment in July 2017. In September 2019, Conatus and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which Conatus mutually agreed to terminate the Collaboration Agreement. Conatus was eligible to receive up to $650.0 million in additional payments for development, regulatory and commercial sales milestones, as well as royalties or profit and loss sharing on future product sales in the United States, if any. However, due to its termination, Conatus will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement.

Under the relevant revenue recognition guidance, Conatus recognizes collaboration revenue (i.e., the transaction price) in an amount proportional to the collaboration expenses incurred and the total estimated collaboration expenses. Conatus periodically reviews and updates the total estimated collaboration expenses and the estimated transaction price, when appropriate, which adjusts the revenue recognized for the period on a cumulative catch-up basis as a change in estimate. Such changes could materially impact the amount of revenue recorded in the period.

Conatus has no products approved for sale, and has not generated any revenues from product sales to date. Conatus has not submitted any product candidate for regulatory approval. If it fails to achieve clinical success for its product candidates in a timely manner and/or obtain regulatory approval for such product candidates, or to successfully develop other product candidates, its ability to generate future revenues would be materially adversely affected. Conatus has no further clinical development plans for emricasan, and it is not currently developing any other product candidates.

Research and Development Expenses

The majority of Conatus' operating expenses to date have been incurred in research and development activities. Starting in late 2011, research and development expenses have been focused on the development of emricasan. Since acquiring emricasan in 2010, Conatus has $168.4 million of research and development expenses in the development of emricasan through December 31, 2019. Its business model has been focused on the development of emricasan in various liver diseases in collaboration with Novartis and the development of CTS-2090 for diseases involving inflammasome pathways. Conatus' research and development expenses consist primarily of:

- expenses incurred under agreements with contract research organizations, or CROs, investigative sites and consultants that conduct its clinical trials and its preclinical studies;
- employee-related expenses, which include salaries and benefits;
- the cost of finalizing its chemistry, manufacturing and controls, or CMC, capabilities and providing clinical trial materials; and
- costs associated with other research activities and regulatory approvals.

Research and development costs are expensed as incurred.

Clinical development timelines, the probability of success and development costs can differ materially from expectations. The costs of clinical trials may vary significantly over the life of a project owing to factors that include but are not limited to the following:

- per patient trial costs;
- the number of patients that participate in the clinical trials;
- the number of sites included in the clinical trials;
- the countries in which the clinical trials are conducted;
- the length of time required to enroll eligible patients;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the duration of patient follow-up; and
- the efficacy and safety profile of the product candidate.

Conatus does not have any plans for further development of emricasan and has suspended development of its inflammasome disease candidate, CTS-2090.

General and Administrative Expenses

General and administrative expenses consist principally of salaries and related costs for personnel in executive, finance, business development and administrative functions. Other general and administrative expenses include costs related to being a public company, as well as insurance, facilities, travel, patent filing and maintenance, legal and consulting expenses.

Interest Income

Interest income consists primarily of interest income earned on its cash, cash equivalents and marketable securities.

Interest Expense

Interest expense consists of accrued interest on its $15.0 million convertible promissory note payable to Novartis, or the Novartis Note, which was issued in February 2017 and converted, at Conatus' option, into shares of its common stock in December 2018.

Other Income (Expense)

Other income (expense) includes non-operating transactions such as those caused by currency fluctuations between transaction dates and settlement dates.

Critical Accounting Policies and Significant Judgments and Estimates

Conatus' management's discussion and analysis of financial condition and results of operations is based on its financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these financial statements requires Conatus to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. These items are monitored and analyzed by Conatus for changes in facts and circumstances, and material changes in these estimates could occur in the future. Conatus bases its estimates on historical experience and on various other factors that it believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ materially from these estimates under different assumptions or conditions.

While Conatus' significant accounting policies are more fully described in the notes to its audited financial statements appearing elsewhere in this annual report, Conatus believes that the following accounting policies are critical to the process of making significant judgments and estimates in the preparation of its financial statements and understanding and evaluating its reported financial results.

Revenue Recognition

Under the relevant accounting literature, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. Conatus performs the following five steps in order to determine revenue recognition for contracts: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when, or as, it satisfies a performance obligation.

At contract inception, Conatus identifies the performance obligations in the contract by assessing whether the goods or services promised within each contract are distinct. Revenue is then recognized for the amount of the transaction price that is allocated to the respective performance obligation when, or as, the performance obligation is satisfied.

In a contract with multiple performance obligations, Conatus must develop estimates and assumptions that require judgment to determine the underlying stand-alone selling price for each performance obligation, which determines how the transaction price is allocated among the performance obligations. The estimation of the stand-alone selling price(s) may include estimates regarding forecasted revenues or costs, development timelines, discount rates, and probabilities of technical and regulatory success. Conatus evaluates each performance obligation to determine if it can be satisfied at a point in time or over time. Any change made to estimated progress towards completion of a performance obligation and, therefore, revenue recognized will be recorded as a change in estimate. In addition, variable consideration must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

If a license to Conatus' intellectual property is determined to be distinct from the other performance obligations identified in a contract, it recognize revenues from the transaction price allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, it utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from the allocated transaction price. Conatus evaluates the measure of progress at each reporting period and, if necessary, adjusts the measure of performance and related revenue or expense recognition as a change in estimate.

At the inception of each arrangement that includes milestone payments, Conatus evaluates whether the milestones are considered probable of being reached. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within Conatus' or a collaboration partner's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received. At the end of each reporting period, Conatus re-evaluates the probability of achievement of milestones that are within its or a collaboration partner's control, such as operational developmental milestones and any related constraint, and, if necessary, adjust its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which will affect collaboration revenues and earnings in the period of adjustment. Revisions to Conatus' estimates of the transaction price may also result in negative collaboration revenues and earnings in the period of adjustment.

For arrangements that include sales-based royalties, including commercial milestone payments based on the level of sales, and a license is deemed to be the predominant item to which the royalties relate, Conatus will recognize revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied, or partially satisfied. To date, Conatus has not recognized any royalty revenue from collaborative arrangements.

In December 2016, Conatus entered into the Collaboration Agreement and an Investment Agreement with Novartis, or the Investment Agreement. Conatus concluded that there were two significant performance obligations under the Collaboration Agreement: the license and the research and development services, but that the license is not distinct from the research and development services as Novartis cannot obtain value from the license without the research and development services, which Conatus is uniquely able to perform.

Conatus concluded that progress towards completion of the performance obligations related to the Collaboration Agreement is best measured in an amount proportional to the collaboration expenses incurred and the total estimated collaboration expenses. Conatus periodically reviews and updates the estimated collaboration expenses, when appropriate, which adjusts the percentage of revenue that is recognized for the period. While such changes to its estimates have no impact on its reported cash flows, the amount of revenue recorded in the period could be materially impacted. The transaction price to be recognized as revenue under the Collaboration Agreement consists of the upfront payment, option exercise fee, deemed revenue from the premium paid by Novartis under the Investment Agreement and estimated reimbursable research and development costs. Certain expenses directly related to execution of the Collaboration Agreement were capitalized as assets on the balance sheet and were expensed in a manner consistent with the methodology used for recognizing revenue.

The Collaboration Agreement was terminated, effective September 30, 2019, and Conatus will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement.

Accrued Research and Development Expenses

As part of the process of preparing its financial statements, Conatus is required to estimate its accrued research and development expenses. This process involves reviewing contracts and purchase orders, reviewing the terms of vendor agreements, communicating with its applicable personnel to identify services that have been performed on its behalf and estimating the level of service performed and the associated cost incurred for the service when it has not yet been invoiced or otherwise notified of actual cost. The majority of its service providers invoice monthly in arrears for services performed. Conatus makes estimates of its accrued expenses as of each balance sheet date in its financial statements based on facts and circumstances known to it at that time.

Examples of estimated accrued research and development expenses include:

- fees paid to CROs in connection with clinical trials;
- fees paid to investigative sites in connection with clinical trials;
- fees paid to vendors in connection with preclinical development activities; and
- fees paid to vendors related to product manufacturing, development and distribution of clinical supplies.

Conatus bases its expenses related to clinical trials on its estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and CROs that conduct and manage clinical trials on its behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows and expense recognition. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing service fees, Conatus estimates the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from its estimates, it adjusts the accrual accordingly. Conatus' understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in its reporting changes in estimates in any particular period. Conatus has not experienced any significant adjustments to its estimates to date. As of December 31, 2019, Conatus does not have any plans for further development of emricasan and has suspended development of its inflammasome disease candidate, CTS-2090.

Stock-Based Compensation

Stock-based compensation expense for stock option grants and restricted stock units, RSUs, under Conatus' equity plans is recorded at the estimated fair value of the award as of the grant date and is recognized as expense on a straight-line basis over the requisite service period of the stock-based award, and forfeitures are recognized as they occur. Stock-based compensation expense for employee stock purchases under its 2013 Employee Stock Purchase Plan, or the ESPP, is recorded at the estimated fair value of the purchase as of the plan enrollment date and is recognized as expense on a straight-line basis over the applicable six-month ESPP offering period. Conatus estimates the fair value of its stock-based awards using the Black-Scholes model. The Black-Scholes model requires the input of subjective assumptions, including the risk-free interest rate, expected dividend yield, expected volatility, expected term and the fair value of the underlying common stock on the date of grant, among other inputs.

Net Operating Loss and Research and Development Tax Credit Carryforwards

At December 31, 2019, Conatus has federal and state net operating loss, or NOL, carryforwards of $145.5 million and $76.4 million, respectively. The federal and state NOL carryforwards begin to expire in 2028, unless previously utilized. The federal NOL carryforwards generated after 2017 have an indefinite carryforward life. Conatus also has federal, including orphan drug, and state research credit carryforwards of $8.3 million and $2.4 million, respectively. The federal research credit carryforwards will begin expiring in 2027, unless previously utilized. The state research credit will carry forward indefinitely.

Conatus previously completed a study to assess whether an ownership change, as defined by Internal Revenue Code Section 382, had occurred from its formation through December 31, 2017. Based upon this study, Conatus determined that ownership changes had occurred in 2006 and 2013 but concluded that the annual utilization limitation would be sufficient to utilize its pre-ownership change NOLs and research and development credits prior to expiration, with the exception of a de minimis amount. All remaining NOLs and credits are eligible to be used during the carryforward period. Conatus utilized $13.1 million of NOLs to offset its 2017 taxable income. Future ownership changes may limit its ability to utilize remaining tax attributes.

Results of Operations

Comparison of the Years Ended December 31, 2019, 2018 and 2017

Total Revenues

Total revenues were $21.7 million for the year ended December 31, 2019, as compared to $33.6 million for the same period in 2018. The decrease of $11.9 million was primarily due to the decision to discontinue the development of emricasan in June 2019 and the subsequent termination of the Collaboration Agreement in September 2019.

Total revenues were $33.6 million for the year ended December 31, 2018, as compared to $35.4 million for the same period in 2017. The decrease of $1.8 million was primarily due to lower emricasan-related research and development expenses resulting in corresponding lower revenues related to the Collaboration Agreement, partially offset by the effect of the adoption of the revenue recognition standard described above in the Critical Accounting Policies and Significant Judgments and Estimates section.

Under prior guidance, Conatus recognized collaboration revenue under the Collaboration Agreement over the estimated time-based performance period for license-related payments and when costs were incurred for reimbursable costs. Under the current revenue recognition standard, which Conatus adopted on January 1, 2018, Conatus recognizes collaboration revenue and some related expenses in an amount proportional to the collaboration expenses incurred and the total estimated collaboration expenses. Conatus periodically reviews and updates the estimated collaboration expenses, when appropriate, which adjusts the percentage of revenue that is recognized for the period. Such changes could materially impact the amount of revenue recorded in the period.

Research and Development Expenses

Research and development expenses were $23.5 million for the year ended December 31, 2019, as compared to $41.4 million for the same period in 2018. The decrease of $17.9 million was primarily due to a decrease in external costs related to emricasan and new product candidate development and lower personnel costs resulting from the decision to discontinue the development of emricasan in June 2019 and the subsequent termination of the Collaboration Agreement in September 2019.

Research and development expenses were $41.4 million for the year ended December 31, 2018, as compared to $43.2 million for the same period in 2017. The decrease of $1.8 million was primarily due to a decrease in external costs related to emricasan, partially offset by an increase in external costs related to new product candidate development and higher personnel costs. In 2018, external research and development expenses for emricasan were $31.0 million, compared to $34.0 million in 2017. The decrease of $3.0 million was primarily due to lower costs related to its ENCORE-NF, ENCORE-PH and POLT-HCV-SVR clinical trials, as well as lower costs related to manufacturing activities, partially offset by higher costs related to its ENCORE-LF clinical trial. In 2018, external research and development expenses not related to emricasan were $2.3 million, compared to $1.3 million in 2017. The increase of $1.0 million was primarily due to the ramp up of its new product candidate development. Research and development related personnel expenses were $7.8 million in 2018 and $7.6 million in 2017. The increase of $0.2 million was primarily due to higher employee salaries and benefits, partially offset by lower stock compensation.

General and Administrative Expenses

General and administrative expenses were $10.2 million for the year ended December 31, 2019, as compared to $10.5 million for the same period in 2018. The decrease of $0.3 million was primarily due to lower personnel costs.

General and administrative expenses were $10.5 million for the year ended December 31, 2018, as compared to $9.7 million for the same period in 2017. The increase of $0.8 million was primarily due to higher personnel costs and collaboration execution costs, which are being amortized due to adoption of the new revenue recognition standard. General and administrative related personnel expenses were $6.0 million in 2018 and $5.5 million in 2017. The increase of $0.5 million was primarily due to higher employee salaries and benefits, partially offset by lower stock compensation.

Changes in components of Other Income (Expense) were as follows:

Interest Income

Interest income was $568,000, $962,000 and $892,000 for the years ended December 31, 2019, 2018 and 2017, respectively. Interest income consisted of interest earned on cash, cash equivalents and marketable securities and fluctuates based on changes in investment balances and interest rates.

Interest Expense

Interest expense was $0, $696,000 and $662,000 for the years ended December 31, 2019, 2018 and 2017, respectively. Interest expense consisted primarily of interest expense related to the Novartis Note, which was issued in February 2017 and converted, at Conatus' option, into shares of its common stock in December 2018.

Other Income (Expense)

Other income was $53,000 for the year ended December 31, 2019. Other income was $1,000 for the year ended December 31, 2018. Other expense was $76,000 for the year ended December 31, 2017. Other income (expense) represents non-operating transactions such as those caused by currency fluctuations between transaction dates and settlement dates.

Liquidity and Capital Resources

Since inception, Conatus has incurred losses and negative cash flows from operating activities, except for the year ended December 31, 2016, where it had positive net cash flows from operating activities due to the upfront payment related to the Collaboration Agreement. As of December 31, 2019, Conatus had an accumulated deficit of $198.0 million. Conatus anticipates that it will continue to incur net losses as it evaluates strategic alternatives to enhance shareholder value.

Prior to its IPO in July 2013, Conatus funded its operations primarily through private placements of equity and convertible debt securities. In July 2013, Conatus completed its IPO of 6,000,000 shares of common stock at an offering price of $11.00 per share. Conatus received net proceeds of $58.6 million, after deducting underwriting discounts and commissions and offering-related transaction costs.

In August 2014, Conatus entered into an At Market Issuance Sales Agreement, or the 2014 Sales Agreement, with MLV & Co. LLC, or MLV, pursuant to which it could sell from time to time, at its option, up to an aggregate of $50.0 million of shares of its common stock through MLV, as sales agent.Conatus terminated the 2014 Sales Agreement in December 2016. Conatus sold 6,305,526 shares of its common stock pursuant to the 2014 Sales Agreement at a weighted average price per share of $2.35 and received net proceeds of $14.2 million, after deducting offering-related transaction costs and commissions.

In April 2015, Conatus completed a public offering of 4,025,000 shares of its common stock at a public offering price of $5.75 per share. Conatus received net proceeds of $21.4 million, after deducting underwriting discounts and commissions and offering-related transaction costs. In May 2017, Conatus completed a public offering of 5,980,000 shares of its common stock at a public offering price of $5.50 per share. Conatus received net proceeds of $30.6 million, after deducting underwriting discounts and commissions and offering-related transaction costs. Immediately following the offering, Conatus used $11.2 million of the net proceeds to repurchase and retire 2,166,836 shares of its common stock from Advent at a price of $5.17 per share, which is equal to the net proceeds per share it received from the offering, before expenses, pursuant to a stock purchase agreement Conatus entered into with Advent in May 2017.

In December 2016, Conatus entered into the Collaboration Agreement, pursuant to which it granted Novartis an exclusive option to collaborate with it for the global development and commercialization of emricasan. Under the Collaboration Agreement, Novartis paid Conatus an upfront payment of $50.0 million. In May 2017, Novartis exercised its option, and Conatus received a $7.0 million option exercise payment in July 2017. Concurrent with the entry into the Collaboration Agreement, Conatus entered into the Investment Agreement, whereby it agreed to sell and Novartis agreed to purchase, convertible promissory notes, in one or two closings, for an aggregate principal amount of up to $15.0 million. In February 2017, Conatus issued the Novartis Note in the principal amount of $15.0 million, pursuant to the Investment Agreement. The maturity date of the Novartis Note was December 31, 2019, and it bore interest on the unpaid principal balance at a rate of 6% per annum. In December 2018, Conatus, at its option, converted the entire outstanding principal of $15.0 million and accrued and unpaid interest of the Novartis Note into 2,882,519 shares of its common stock. Pursuant to the terms of the Novartis Note, the principal and accrued and unpaid interest converted into shares of Conatus' common stock at a conversion price equal to 120% of the 20-day trailing average closing price per share of the common stock immediately prior to the conversion date.

On August 2, 2018, Conatus entered into the 2018 Sales Agreement, pursuant to which it may sell from time to time, at its option, up to an aggregate of $35.0 million of shares of its common stock through Stifel, as sales agent. Sales of its common stock made pursuant to the 2018 Sales Agreement, if any, will be made on The Nasdaq Capital Market, or Nasdaq, under its Registration Statement on Form S-3 filed on August 17, 2017 by means of ordinary brokers' transactions at market prices. Additionally, under the terms of the 2018 Sales Agreement, Conatus may also sell shares of its common stock through Stifel, on Nasdaq or otherwise, at negotiated prices or at prices related to the prevailing market price. Conatus will pay a commission rate equal to up to 3.0% of the gross sales price per share sold. The 2018 Sales Agreement will automatically terminate upon the sale of an aggregate of $35.0 million of shares of Conatus' common stock pursuant to the 2018 Sales Agreement. In addition, the 2018 Sales Agreement may be terminated by Conatus or Stifel at any time upon ten days' notice to the other party, or by Stifel at any time in certain circumstances, including the occurrence of an event that would be reasonably likely to have a material adverse effect on its assets, business, operations, earnings, properties, condition (financial or otherwise), prospects, stockholders' equity or results of operations. As of the date of the filing of this Form 10-K, Conatus has not sold any shares under the 2018 Sales Agreement. In addition, under current regulations of the Securities and Exchange Commission, or the SEC, at any time during which the aggregate market value of its common stock held by non-affiliates, or public float, is less than $75.0 million, the amount Conatus can raise through primary public offerings of securities in any twelve-month period using shelf registration statements, including sales under the 2018 Sales Agreement, is limited to an aggregate of one-third of its public float. As of March 2, 2020, Conatus' public float was 32.2 million shares, the value of which was $13.9 million based upon the closing price of its common stock of $0.43 per share on March 2, 2020. The value of one-third of its public float calculated on the same basis was $4.6 million.

On May 29, 2019, Conatus received a letter from the Nasdaq staff indicating that, for the prior thirty consecutive business days, the bid price for its common stock had closed below the minimum $1.00 per share requirement for continued listing on the Nasdaq Global Market under Nasdaq Listing Rule 5450(a)(1). Conatus had a period of 180 calendar days, or until November 25, 2019, to regain compliance. On November 25, 2019, Conatus filed an application to transfer the listing of its common stock from the Nasdaq Global Market to the Nasdaq Capital Market.

On November 27, 2019, Conatus received approval from Nasdaq to transfer the listing of Conatus' common stock from the Nasdaq Global Market to the Nasdaq Capital Market. Conatus' common stock was transferred to the Nasdaq Capital Market effective as of the open of business on November 29, 2019, and continues to trade under the symbol "CNAT." The Nasdaq Capital Market operates in substantially the same manner as the Nasdaq Global Market and listed companies must meet certain financial requirements and comply with Nasdaq's corporate governance requirements.

In connection with the transfer to the Nasdaq Capital Market, Conatus has been granted an additional 180-day grace period, until May 25, 2020, to regain compliance with the minimum $1.00 per share requirement for continued listing on the Nasdaq Capital Market under Nasdaq Listing Rule 5810(c)(3)(A). If compliance cannot be demonstrated by May 25, 2020, or Conatus does not comply with the terms of this extension, the Nasdaq staff will provide written notification that Conatus' securities will be delisted. In

the event of such a notification, Conatus may appeal the Nasdaq staff's determination to delist its securities, but there can be no assurance the Nasdaq staff would grant Conatus' request for continued listing.

At December 31, 2019, Conatus had cash and cash equivalents of $20.7 million. Conatus believes its existing cash and cash equivalents will be sufficient to fund its operations for at least the next 12 months from the date of the filing of this Form 10-K. To fund further operations, it will need to raise additional capital. Conatus plans to continue to fund losses from operations and capital funding needs through future equity and debt financing, as well as potential collaborations or partnerships with other companies. The sale of additional equity or convertible debt could result in additional dilution to its stockholders. The incurrence of indebtedness would result in debt service obligations and could result in operating and financing covenants that would restrict its operations. No assurances can be provided that financing will be available in the amounts it needs or on terms acceptable to it, if at all. If Conatus is not able to secure adequate additional funding, it may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible, and/or suspend or curtail planned programs. Conatus engaged a financial advisor to assist in the exploration and evaluation of strategic alternatives to enhance shareholder value, including a merger, an acquisition or sale of assets or a dissolution and liquidation of the company. On January 28, 2020, Conatus, Merger Sub, and Histogen entered into a Merger Agreement, pursuant to which, among other matters, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into Histogen, with Histogen continuing as Conatus' wholly owned subsidiary and the surviving corporation of the merger.

The following table sets forth a summary of the net cash flow activity for each of the periods set forth below (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Net cash used in operating activities	$ (20,202)	$ (34,857)	$ (33,209)
Net cash provided by (used in) investing activities	29,337	29,982	(39,871)
Net cash provided by financing activities	3	361	31,076
Net (decrease) increase in cash and cash equivalents	$ 9,138	$ (4,514)	$ (42,004)

Net cash used in operating activities was $20.2 million, $34.9 million and $33.2 million for the years ended December 31, 2019, 2018 and 2017, respectively, which consisted primarily of cash used to fund its operations related to the development of emricasan, as well as internally developed product candidates, including CTS-2090.

Net cash provided by investing activities was $29.3 million and $30.0 million for the years ended December 31, 2019 and 2018, respectively, which consisted primarily of proceeds from maturities of marketable securities, partially offset by cash used to purchase marketable securities. Net cash used in investing activities was $39.9 million for the year ended December 31, 2017, which consisted primarily of cash used to purchase marketable securities, partially offset by proceeds from maturities of marketable securities.

Net cash provided by financing activities was $3,000 for the year ended December 31, 2019. For the year ended December 31, 2018, net cash provided by financing activities was $0.4 million, which consisted primarily of proceeds from the exercise of stock options. For the year ended December 31, 2017, net cash provided by financing activities was $31.1 million, which consisted primarily of net proceeds from its public offering in May 2017 and proceeds from issuance of the Novartis Note in February 2017, partially offset by the repurchase of shares from Advent in May 2017 and voluntary prepayment of the Pfizer Note in January 2017.

Contractual Obligations and Commitments

The following table summarizes Conatus' contractual obligations at December 31, 2019 (in thousands):

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Operating lease obligations	$ 351	$ 351	$ —	$ —	$ —
Total	$ 351	$ 351	$ —	$ —	$ —

Conatus' commitments for operating leases relate primarily to its lease of office space in San Diego, California. In February 2014, Conatus entered into a lease agreement, or the Lease, with The Point Office Partners, LLC for 9,954 rentable square feet of office space located in San Diego, California, with a lease term from July 2014 through December 2019 and a renewal option for an additional five years. In May 2015, Conatus entered into a first amendment to the Lease, or the First Lease Amendment, for additional office space of 3,271 rentable square feet starting in September 2015 through September 2020. The First Lease Amendment also extended the term of the Lease to September 2020. The monthly base rent under the Lease and the First Lease Amendment increases approximately 3% annually from approximately $33,000 in 2015 to approximately $39,000 in 2020. In December 2019, Conatus entered into a sublease agreement pursuant to which Conatus agreed to sublet this property. At the commencement of the sublease,

Conatus sublet 9,954 rentable square feet of the property, and Conatus will sublet the remaining 3,271 rentable square feet of the property commencing on April 1, 2020.

Under its July 2010 stock purchase agreement with Pfizer, Conatus may be required to make payments to Pfizer totaling $18.0 million upon the achievement of specified regulatory milestones related to emricasan. As the timing of when these payments will actually be made is uncertain and the payments are contingent upon the completion of future activities, these potential payments have been excluded from the contractual obligations table above.

Off-Balance Sheet Arrangements

Conatus does not have any off-balance sheet arrangements (as defined by applicable regulations of the SEC) that are reasonably likely to have a current or future material effect on its financial condition, results of operations, liquidity, capital expenditures or capital resources.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements and the reports of Conatus' independent registered public accounting firm required pursuant to this item are included in this report beginning on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

As of December 31, 2019, Conatus' management, with the participation of its principal executive officer and principal financial officer, has evaluated the effectiveness of its disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this annual report on Form 10-K. Based on such evaluation, its principal executive officer and principal financial officer have concluded that, as of such date, its disclosure controls and procedures were effective.

Management's Annual Report on Internal Control Over Financial Reporting

Conatus' management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Internal control over financial reporting is a process designed under the supervision and with the participation of its management, including its principal executive officer and principal financial officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States, or GAAP. Conatus' internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of its assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that its receipts and expenditures are being made only in accordance with authorizations of its management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of its assets that could have a material effect on its financial statements.

As of December 31, 2019, Conatus' management assessed the effectiveness of its internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013). Based on this assessment, Conatus' management concluded that, as of December 31, 2019, its internal control over financial reporting was effective based on those criteria.

Inherent Limitations of Disclosure Controls and Procedures and Internal Control Over Financial Reporting

Conatus' management, including its principal executive officer and its principal financial officer, does not expect that its disclosure controls and procedures or its internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within Conatus have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Attestation Report of the Registered Public Accounting Firm

This Annual Report on Form 10-K does not include an attestation report of Conatus' independent registered public accounting firm regarding internal control over financial reporting. Conatus was not required to have, nor has it, engaged its independent registered public accounting firm to perform an audit of internal control over financial reporting pursuant to SEC rules that permit Conatus to provide only management's report in this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There has been no change in Conatus' internal control over financial reporting during the quarter ended December 31, 2019, that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information Regarding Directors

The information set forth below as to the directors and nominees for director has been furnished to Conatus by the directors and nominees for director:

Term Expiring at the 2020 Annual Meeting of Stockholders (Class I)

Name	Age	Present Position with Conatus Pharmaceuticals Inc.
Preston S. Klassen, M.D., M.H.S.	51	Director
William R. LaRue	68	Director

Preston S. Klassen, M.D., M.H.S. has served as a member of the Conatus board of directors since February 2014. Dr. Klassen has served as Executive Vice President, Research and Development and Chief Medical Officer at Arena Pharmaceuticals, Inc. since 2017. He served as Chief Medical Officer at Laboratoris Sanifit S.L. from 2016 to 2017. He served as Executive Vice President, Global Development from 2015 to 2016 and as Senior Vice President, Global Development from 2009 to 2015 at Orexigen Therapeutics, Inc. He advanced from 2002 to 2009 through several medical director positions at Amgen, Inc., most recently as Therapeutic Area Head for Nephrology and Executive Medical Director. His experience at Amgen included global regulatory filings, design and conduct of large clinical trials, clinical commercialization of multiple products, and active leadership in regulatory agency interactions. Dr. Klassen was a faculty member in the Division of Nephrology at Duke University Medical Center from 1997 to 2002. He received his M.D. from the University of Nebraska College of Medicine and completed his residency in Internal Medicine, fellowship in Nephrology, and M.H.S. degree at Duke University.

William R. LaRue has served as a member of the Conatus board of directors since February 2017. Mr. LaRue currently serves as an independent board member for multiple companies in the life science industry. He served as Senior Vice President and Chief Financial Officer at Cadence Pharmaceuticals, Inc., a biopharmaceutical company, starting in June 2006, and expanded his role to serve as Assistant Secretary at Cadence in April 2007, serving in both capacities until the company's acquisition by Mallinckrodt plc in March 2014. At Cadence, Mr. LaRue was a member of the Executive Committee with direct responsibility for the company's financial leadership including corporate financing, investor relations, financial planning and reporting, SEC reporting, accounting, treasury, risk management, tax and information technology. During his tenure, Cadence raised over $375 million in public and private equity and senior debt, including an IPO in October 2006 as the company transitioned from a development stage to a commercial stage company. Prior to joining Cadence, Mr. LaRue served as the Senior Vice President and Chief Financial Officer of CancerVax Corporation, a biotechnology company, from 2001 until its merger with Micromet, Inc. in May 2006. Mr. LaRue currently serves as a member of the Board of Directors and Chair of the Audit Committee of Tracon Pharmaceuticals, Inc., a publicly traded biopharmaceutical company, and as a member of the Board of Directors and Chair of Audit Committee of Alastin Skincare Inc., a private, skincare product company, and as a member of the Board of Directors and Chair of Audit Committee of Oncternal Therapeutics, Inc., a public oncology therapeutics company. He previously served on the boards of directors of Cadence Pharmaceuticals, Inc. and Neurelis, Inc., a specialty pharmaceutical company. Mr. LaRue received a B.S. in business administration and an M.B.A. from the University of Southern California.

Term Expiring at the 2021 Annual Meeting of Stockholders (Class II)

Name	Age	Present Position with Conatus Pharmaceuticals Inc.
Daniel L. Kisner, M.D.	73	Director
Kathleen D. Scott	51	Director

Daniel L. Kisner, M.D. has served as a member of the Conatus board of directors since February 2014. He currently serves as an independent consultant in the life science industry. He was a partner at Aberdare Ventures from 2003 to 2011. Dr. Kisner served as Chairman of the Board of Directors of Caliper Life Sciences from 2002 to 2008, and as President and CEO of its predecessor company, Caliper Technologies, from 1999 to 2002. He held positions of increasing responsibility at Isis Pharmaceuticals, Inc., from 1991 to 1999, most recently as President and COO. Dr. Kisner previously served in pharmaceutical research and development executive positions at Abbott Laboratories from 1988 to 1991 and at SmithKline Beckman Laboratories from 1985 to 1988. He held a

tenured faculty position in the Division of Medical Oncology at the University of Texas, San Antonio School of Medicine until 1985 after a five-year advancement through the Cancer Treatment Evaluation Program of the National Cancer Institute. Dr. Kisner is board certified in internal medicine and medical oncology. Dr. Kisner holds a B.A. from Rutgers University and an M.D. from Georgetown University. Dr. Kisner currently serves as a director at Zynerba Pharmaceuticals, Dynavax Technologies Corporation and Oncternal Therapeutics, and has extensive prior private and public company board experience, including serving as Chairman of the Board of Directors at Tekmira Pharmaceuticals.

Kathleen D. Scott has served as a member of the Conatus board of directors since November 2019. She is currently a Managing Director at Hale BioPharma Ventures, and Chief Financial Officer for some of its portfolio companies in the life science industry including Adigica Health, an e-commerce company focused on selling health care products direct to the consumer; Recros Medica, a development stage company designing a medical device to be used by plastic surgeons and dematologists for skin tightening; and Neurana Pharmaceuticals, a specialty pharmaceutical company developing therapeutic products to treat unmet needs in diseases and conditions of the central nervous system. Ms. Scott also was previously the Chief Financial Officer of Oncternal Therapeutics, Clarify Medical and MDRejuvena. Ms. Scott has over 25 years of experience in finance, accounting, M&A, and restructurings for public and private companies. Previously Ms. Scott was a Partner at RA Capital Advisors, a San Diego private investment bank providing financial advisory services. She spent over 15 years with RA Capital Advisors, completing billions of dollars of mergers, acquisitions, divestitures, and restructurings for a broad range of corporate clients. Ms. Scott started her career as an auditor in Arthur Andersen's San Diego office, focusing on both public and private clients. Ms. Scott is a CPA and CFA charter holder. She is currently chair of the board of directors of the YMCA of San Diego County and a board member of Corporate Directors' Forum. Ms. Scott holds a BA in Economics / Business from the University of California, Los Angeles

Term Expiring at the
2022 Annual Meeting of Stockholders (Class III)

Name	Age	Present Position with Conatus Pharmaceuticals Inc.
David F. Hale	71	Chairman of the Board of Directors
Steven J. Mento, Ph.D.	68	President, Chief Executive Officer and Director
Harold Van Wart, Ph.D.	72	Director

David F. Hale has served as a member of the Conatus board of directors since October 2006 and chairman of the board since December 2012. Since May 2006, Mr. Hale has served as Chairman & CEO of Hale BioPharma Ventures, LLC. He is a serial entrepreneur who has been involved in the formation and development of a number of biotechnology, specialty pharma, medical device and diagnostic companies. He was previously President and CEO of CancerVax Corporation which merged with Micromet, Inc., a cancer therapeutic company, from October 2000 through May 2006, when he became Chairman until the sale of the company to Amgen Inc in 2012. After joining Hybritech, Inc., in 1982, the first biotech company in San Diego, he was President & Chief Operating Officer and became CEO in 1986, when Hybritech was acquired by Eli Lilly and Co. From 1987 to 1997 he was Chairman, President and CEO of Gensia, Inc., which merged with SICOR to become Gensia Sicor, Inc., which was acquired by Teva Pharmaceuticals. He was a co-founder and Chairman of Viagene, Inc. from 1987 to 1995, when Viagene was acquired by Chiron, Inc. He was President and CEO of Women First HealthCare, Inc. from late 1997 to June 2000. Prior to joining Hybritech, Mr. Hale was Vice President and General Manager of BBL Microbiology Systems, a division of Becton, Dickinson & Co. and from 1971 to 1980, held various marketing and sales management positions with Ortho Pharmaceutical Corporation, a division of Johnson & Johnson, Inc. Mr. Hale also serves as Chairman of Biocept, Inc. Mr. Hale previously served as Chairman of Santarus, Inc., until its acquisition by Salix, Inc. in January 2014, as Chairman of Somaxon, Inc., until its acquisition by Pernix, Inc. in 2013 and as Chairman of SkinMedica, Inc., until its acquisition by Allergan in 2012. He also serves as Chairman of a number of privately held companies, including Neurelis, Inc., MDR Aesthetics Inc., Recros Medica, Inc., Clarify Medical, Inc., Neurana Pharmaceuticals, Inc. and Adigica Health, Inc. Mr. Hale also is a co-founder and serves on the Board of Directors of BIOCOM, is a former member of the Board of the Biotechnology Industry Organization, or BIO, and the Biotechnology Institute. Mr. Hale also serves on the Board of Directors of the San Diego Economic Development Corporation, and as a Board Trustee of Rady Children's Hospital of San Diego and as Chairman of the Board of Rady Children's Institute of Pediatric Genomics and as a Trustee of the Salk Institute. He is a co-founder of the CONNECT Program in Technology and Entrepreneurship. Mr. Hale holds a B.A. in Biology and Chemistry from Jacksonville State University.

Steven J. Mento, Ph.D. is one of the Conatus co-founders and has served as its President and Chief Executive Officer and as a member of its board of directors since July 2005. From July 2005 until December 2012, Dr. Mento also served as chairman of the Conatus board of directors. Dr. Mento has over 30 years of combined experience in the biotechnology and pharmaceutical industries. From 1997 to 2005, Dr. Mento was President, Chief Executive Officer and a member of the Board of Directors of Idun Pharmaceuticals, Inc. Dr. Mento guided Idun during its transition from a discovery focused organization to a drug development company with multiple products in or near human clinical testing. In April 2005, Idun was sold to Pfizer Inc. Previously, Dr. Mento served as President of Chiron Viagene, Inc. (subsequently Chiron Technologies, Center for Gene Therapy), and Vice President of Chiron Corporation from 1995 to 1997. Dr. Mento was Vice President of R&D at Viagene from 1992 to 1995. Prior to Viagene, Dr.

Mento held various positions at American Cyanamid Company from 1982 to 1992. His last position was Director of Viral Vaccine Research and Development at Lederle-Praxis Biologicals, a business unit of American Cyanamid. Dr. Mento previously served on the board of directors of Sangamo Biosciences, Inc., BIO, BIO Emerging Company Section Governing Body and BIO Health Section Governing Body, and currently serves on the boards of directors of BIOCOM and various academic and charitable organizations. Mento holds a B.A. in Microbiology from Rutgers College, and an M.S. and Ph.D. both in Microbiology from Rutgers University.

Harold Van Wart, Ph.D. has served as a member of the Conatus board of directors since March 2007. Dr. Van Wart served as Chief Executive Officer of CymaBay Therapeutics Inc. (formerly Metabolex, Inc.) and as a member of its board of directors from 2003 to 2017, and as President from 2001 to his retirement in 2017. He served as Chief Operating Officer from December 2001 to January 2003 and Senior Vice President, Research and Development, from October 2000 to December 2002 at CymaBay Therapeutics Inc. From 1999 to 2000, Dr. Van Wart was vice president and therapy head for arthritis and fibrotic diseases at Roche Biosciences, a division of Syntex (U.S.A.) Inc., a biopharmaceutical company. From 1992 to 1999, he was vice president and director of the institute of biochemistry and cell biology at Syntex (U.S.A.) Inc., a biopharmaceutical company acquired by an affiliate of Roche Holding Ltd in 1994. From 1978 to 1992, Dr. Van Wart served on the faculty of Florida State University. Dr. Van Wart holds a Ph.D. from Cornell University and a B.A. from SUNY Binghamton. He previously served on the Emerging Companies and Health Section Governing Boards of BIO, as well as on its board of directors.

Conatus Executive Officers

The following table sets forth information regarding Conatus' executive officers as of March 2, 2020:

Name	Age	Position(s)
Steven J. Mento, Ph.D.	68	President, Chief Executive Officer and Director
Keith W. Marshall, Ph.D., M.B.A.	52	Executive Vice President, Chief Operating Officer and Chief Financial Officer
Alfred P. Spada, Ph.D.	62	Executive Vice President, Research and Development, and Chief Scientific Officer

The biography of Steven J. Mento, Ph.D. can be found under the heading "Information Regarding Directors."

Keith W. Marshall, Ph.D., M.B.A. has served as Conatus' Executive Vice President, Chief Operating Officer, and Chief Financial Officer since August 2017. Dr. Marshall previously served as Chief Financial Officer and Head of Corporate Development from 2015 to 2017 at Torque Therapeutics, where his responsibilities included finance, operations, human resources, corporate strategy and business development. He served as Managing Director and Advisor in Healthcare Investment Banking from 2012 to 2014 at GCA Savvian Advisors, where he provided strategic counsel to healthcare companies, and continued from 2014 to 2015 at TAG Healthcare Advisors under an alliance with GCA Savvian. Dr. Marshall was Managing Director from 2011 to 2012 at Sagent Advisors; Managing Director, Co-founder, and Chief Financial Officer from 2008 to 2011 at Montgomery, Marshall Healthcare Partners; Managing Director of Healthcare Investment Banking from 2003 to 2008 at Montgomery & Co.; and Associate in Healthcare Investment Banking from 2001 to 2003 at JPMorgan H&Q with additional responsibilities at JPMorgan Partners. Dr. Marshall previously worked as a Research Associate from 1990 to 1993 at ImmuLogic Pharmaceutical Corporation, where he performed research under a collaboration with Merck around inhibition of MHC Class II molecules for autoimmune disease therapy. He holds an M.B.A. with concentrations in Finance, Strategy, and Entrepreneurship from the University of Chicago – Booth School of Business; a Ph.D. in Pharmaceutical Chemistry from the University of California, San Francisco; and an A.B. in Biology from Washington University in St. Louis.

Alfred P. Spada, Ph.D. is one of Conatus' co-founders and has served as its Executive Vice President, Research and Development since February 2015, and as its Chief Scientific Officer since April 2012. Dr. Spada served as Conatus' Senior Vice President, Research and Development from July 2005 through February 2015. Dr. Spada has over 30 years of experience in the pharmaceutical and biotechnology industries. He has co-authored more than 50 scientific publications and is an inventor on more than 70 patents. From 2000 to 2005, Dr. Spada was Vice President of Pharmaceutical and Preclinical Development at Idun Pharmaceuticals where he was responsible for managing internal research and development activities, and Idun's external partnerships, including the collaboration with Abbott Laboratories. Prior to joining Idun, Dr. Spada was a Department Director at Aventis Pharmaceuticals (formerly Rhone-Poulenc Rorer), where he was responsible for medicinal and analytical chemistry. From 1990 to 2000, his teams worked on a wide variety of enzyme-based and G-protein coupled receptors targets, resulting in the identification of clinical candidates for treatment of acute myocardial infarction, thrombotic disorders, coronary restenosis, lipid lowering, diabetes and cancer. His team discovered otamixaban, a direct acting factor Xa inhibitor which reached Phase 3 clinical trials for the treatment of acute coronary syndrome. Dr. Spada holds a B.S. in Chemistry from Worcester Polytechnic Institute and a Ph.D. in Chemistry from the Massachusetts Institute of Technology.

Corporate Governance

Conatus' Code of Business Conduct and Ethics, Corporate Governance Guidelines, Audit Committee Charter, Compensation Committee Charter and Nominating and Corporate Governance Committee Charter are available, free of charge, on its website at www.conatuspharma.com. Please note, however, that the information contained on the website is not incorporated by reference in, or considered part of, this annual report. Conatus will also provide copies of these documents as well as its other corporate governance documents, free of charge, to any stockholder upon written request to Conatus Pharmaceuticals Inc., 16745 West Bernardo Drive, Suite 250, San Diego, CA 92127.

Code of Business Conduct and Ethics

Conatus has adopted a Code of Business Conduct and Ethics that applies to its officers, directors and employees, which is available on its website at www.conatuspharma.com. The Code of Business Conduct and Ethics contains general guidelines for conducting the business of Conatus consistent with the highest standards of business ethics and is intended to qualify as a "code of ethics" within the meaning of Section 406 of the Sarbanes-Oxley Act of 2002 and Item 406 of Regulation S-K. In addition, Conatus intends to promptly disclose (1) the nature of any amendment to its Code of Business Conduct and Ethics that applies to its principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions and (2) the nature of any waiver, including an implicit waiver, from a provision of its code of ethics that is granted to one of these specified officers, the name of such person who is granted the waiver and the date of the waiver on its website in the future.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires Conatus' officers and directors, and persons who own more than ten percent of a registered class of Conatus' equity securities, to file reports of ownership and changes in ownership with the SEC. Such officers, directors and ten-percent stockholders are also required by SEC rules to furnish Conatus with copies of all forms that they file pursuant to Section 16(a). Based on Conatus' review of the copies of such forms received by it and written representations from certain reporting persons, Conatus believes that during the year ended December 31, 2019, its executive officers, directors and ten-percent stockholders complied with all other applicable filing requirements.

Stockholder Recommendation of Nominees for Director

There have been no material changes to the procedures by which stockholders may recommend nominees to the board of directors since Conatus filed its proxy statement related to the 2019 annual meeting of stockholders with the SEC on April 30, 2019. The nominating and corporate governance committee of Conatus evaluates nominees recommended by stockholders in the same manner as it evaluates other nominees. Conatus has not received director candidate recommendations from its stockholders and does not have a formal policy regarding consideration of such recommendations. However, any recommendations received from stockholders will be evaluated in the same manner that potential nominees suggested by board members, management or other parties are evaluated. Conatus does not intend to treat stockholder recommendations in any manner different from other recommendations.

Under Conatus' amended and restated bylaws, a stockholder wishing to suggest a candidate for director should write to Conatus' corporate secretary and provide such information about the stockholder and the proposed candidate as is set forth in its amended and restated bylaws and as would be required by SEC rules to be included in a proxy statement. In addition, the stockholder must include the consent of the candidate and describe any arrangements or undertakings between the stockholder and the candidate regarding the nomination.

Audit Committee Information

The audit committee of the Contatus board of directors currently consists of Mr. LaRue (chairperson and audit committee financial expert), Dr. Kisner, Mr. Hale and Ms. Scott. Conatus' board of directors has determined that all members of the audit committee are independent directors, as defined in the Nasdaq qualification standards and by Section 10A of the Exchange Act. In addition, Conatus' board of directors has determined that Mr. LaRue qualifies as an "audit committee financial expert" as that phrase is defined under the regulations promulgated by the SEC. The audit committee is governed by a written charter adopted by Conatus' board of directors. Conatus' audit committee is responsible for overseeing its accounting and financial reporting processes and audits of its consolidated financial statements on behalf of its board of directors.

ITEM 11. EXECUTIVE COMPENSATION

Conatus Executive Compensation

Summary Compensation Table

The following table shows information regarding the compensation of Conatus' named executive officers during the fiscal years ended December 31, 2019 and 2018.

Name and Principal Position	Year	Salary ($)	Stock Awards ($)[1]	Option Awards ($)[1]	Non-Equity Incentive Plan Compen-sation ($)[2]	All Other Compen-sation ($)[3]	Total ($)
Steven J. Mento, Ph.D.	2019	553,188	201,500	573,403	—	16,988	1,345,079
President and Chief Executive Officer	2018	537,076	—	482,753	214,830	16,708	1,251,367
Keith W. Marshall, Ph.D., M.B.A.	2019	431,750	119,350	286,702	—	15,572	853,374
Executive Vice President, Chief Operating Officer and Chief Financial Officer	2018	419,175	—	281,606	137,478	36,869[4]	875,139
Alfred Spada, Ph.D.	2019	424,585	97,165	286,702	—	18,062	826,514
Executive Vice President, Research and Development, and Chief Scientific Officer							
David T. Hagerty, M.D.	2019	320,483	—	286,702	—	506,134[5]	1,113,319
Executive Vice President, Clinical Development	2018	414,864	—	281,606	137,735	14,846	849,051

(1) Amounts shown represent the aggregate grant date fair value of the stock or option awards granted during the relevant fiscal year computed in accordance with FASB Topic ASC 718. These amounts do not correspond to the actual value that will be recognized by the named executive officer with respect to such awards. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in Note 2 to Conatus' financial statements included in this annual report. In August 2019, Conatus allowed seven of its then-current employees, including Drs. Mento, Marshall and Spada, to exchange existing options to purchase Conatus common stock for a lesser number of new RSUs. All of the existing stock options that the employees surrendered had exercise prices significantly greater than the recent trading price of Conatus' common stock. Such employees received one new RSU for every two stock options surrendered. As a result, 3,200,375 stock options were exchanged for 1,600,186 replacement RSUs. Dr. Hagerty did not participate in this stock option exchange.

(2) Amounts shown represent performance bonuses for the relevant fiscal year, which were paid in cash in a lump sum in the first quarter of the following fiscal year. The material terms of the non-equity incentive plan compensation paid to Conatus' named executive officers in its last completed fiscal year are described below in the section entitled "Executive Compensation Elements—Annual Incentive Plan."

(3) Except as described in footnote (4) below with respect to Dr. Marshall and footnote (5) below for Dr. Hagerty, amounts shown for 2019 represent term life insurance, short and long-term disability insurance, long-term care insurance and matching contributions under the terms of Conatus' 401(k) plan paid by Conatus on behalf of such named executive officer.

Name	Term Life Insurance ($)	Short Term Disability Insurance ($)	Long Term Disability Insurance ($)	Long Term Care Insurance ($)	401(k) Employer Matching Contribution ($)
Steven J. Mento, Ph.D.	883	625	2,346	1,934	11,200
Keith W. Marshall, Ph.D., M.B.A.	1,358	668	2,346	—	11,200
Alfred Spada, Ph.D.	1,358	668	3,050	1,786	11,200
David T. Hagerty, M.D.	700	469	1,760	—	11,200

(4) Amount for Dr. Marshall for 2018 also includes (a) $16,950 in relocation reimbursements and (b) $4,717 in related tax gross-ups, paid to Dr. Marshall in connection with his relocation pursuant to his employment agreement.

(5) Amount for Dr. Hagerty for 2019 also includes $39,467 in accrued paid time off and an aggregate of $452,538 in severance benefits paid or payable to Dr. Hagerty pursuant to his separation agreement executed in connection with his termination of employment on September 30, 2019, as further described below.

Employment Agreements

Conatus entered into employment agreements with each of its named executive officers. These agreements set forth the individual's base salary, annual incentive opportunities, equity compensation and other employee benefits, which are described in this *Conatus Executive Compensation* section. All employment agreements provide for "at-will" employment, meaning that either party can terminate the employment relationship at any time, although Conatus' agreements with its named executive officers provide that they would be eligible for severance benefits in certain circumstances following a termination of employment without cause. Conatus' Compensation Committee approved the severance benefits to mitigate certain risks associated with working in a biopharmaceutical company at Conatus' current stage of development and to help attract and retain qualified executives.

Pursuant to each of the employment agreements, Drs. Mento, Marshall and Spada currently receive annual base salaries of $553,188, $431,750 and $424,585, respectively, which amounts are subject to annual review by and at the sole discretion of Conatus'

board of directors or its designee. Each of Drs. Mento, Marshall and Spada are also be eligible to earn an annual cash performance bonus equal to up to 50%, 40% and 40%, respectively, of his then-current annual base salary. The annual cash performance bonus will be based on his and/or Conatus' attainment of financial or other operating criteria established by Conatus' board of directors or its designee, as determined by Conatus' board of directors or its designee.

Pursuant to each of the employment agreements, if Conatus terminates such executive officer's employment without cause (as defined below) or such officer resigns for good reason (as defined below), the executive officer will be entitled to the following payments and benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan or practice to which he is entitled; (2) a lump sum cash payment in an amount equal to his monthly base salary as in effect immediately prior to the date of termination for the 12-month period (or 18-month period for Dr. Mento) following the date of termination; and (3) a lump sum cash payment equal to the premiums for continuation of health benefits for a period of 12 months (or 18 months for Dr. Mento) following the date of termination.

Each of the employment agreements provides that the executive officer's stock awards will immediately vest and become exercisable: (1) (A) as to 50% of the then-unvested and outstanding portion of such stock awards on the date of a change of control, and (B) the remaining 50% of the then-unvested stock awards on the first to occur of (x) the first anniversary of the change of control or (y) the date of the executive officer's termination of employment without cause or for good reason; and (2) in the event the executive officer's employment is terminated by Conatus other than for cause or by the executive officer for good reason, as to the number of stock awards that would have vested over the 12-month period following termination had such executive officer remained continuously employed by Conatus during such period. As noted above, however, all outstanding equity awards held by Conatus' executive officers will vest as of immediately prior to the Effective Time pursuant to the Merger Agreement. In addition, each of Dr. Mento's and Dr. Spada's vested stock options will remain exercisable for a period of one year following his termination of employment or service (or, if earlier, the original expiration date of such stock options). Please see tables under the section entitled "*—Conatus Named Executive Officer Golden Parachute Compensation*" of this proxy statement/prospectus/information statement for quantification of severance benefits.

For purposes of the executive employment agreements, "cause" generally means the executive's: (1) commission of an act of fraud, embezzlement or dishonesty that has a material adverse impact on us or any successor or affiliate of Conatus'; (2) conviction of, or entry into a plea of "guilty" or "no contest" to, a felony or any crime involving fraud, misappropriation, embezzlement or moral turpitude; (3) unauthorized use or disclosure of Conatus' confidential information or trade secrets or that of any successor or affiliate of Conatus' that has a material adverse impact on any such entity; (4) gross negligence, insubordination or material violation of any duty of loyalty, or any other material misconduct on the part of the executive; (5) ongoing and repeated failure or refusal to perform or neglect of his duties as required by his employment agreement, which failure, refusal or neglect continues for 15 days following his receipt of written notice from Conatus' board of directors or from Conatus' chief executive officer, stating with specificity the nature of such failure, refusal or neglect; or (6) breach of any material provision of his employment agreement.

For purposes of the executive employment agreements, "good reason" generally means: (1) a material diminution in the executive's authority, duties or responsibilities; (2) a material diminution in the executive's base compensation, except in connection with a general reduction in the base compensation of Conatus' or any successor's or affiliate's personnel with similar status and responsibilities; (3) a material change in the geographic location at which the executive must perform his duties (and Conatus and the executive have agreed that any requirement that the executive be based at any place outside a 25-mile radius of his place of employment as of the effective date of the employment agreement, except for reasonably required travel on Conatus' or any successor's or affiliate's business that is not materially greater than such travel requirements prior to the effective date of the employment agreement, shall be considered a material change); or (4) any other action or inaction that constitutes a material breach by us or any successor or affiliate of its obligations to the executive under the employment agreement.

For purposes of the executive employment agreements, the merger will constitute a "change in control," which is defined to mean: (1) a transaction or series of related transactions whereby any person or entity or related group of persons or entities (other than Conatus, Conatus' subsidiaries, an employee benefit plan maintained by Conatus or any of Conatus' subsidiaries or a person or entity that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, Conatus) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of 50% or more of the total combined voting power of Conatus' securities outstanding immediately after such acquisition; (2) during any two-year period, individuals who, at the beginning of such period, constitute Conatus' board of directors together with any new director(s) whose election by Conatus' board of directors or nomination for election by Conatus' stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority of Conatus' board of directors; (3) Conatus' consummation (whether Conatus is directly or indirectly involved through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination, (y) the sale or other disposition of all or substantially all of Conatus' assets or (z) the acquisition of assets or stock of another entity, in each case other than a transaction that results in Conatus' voting securities outstanding immediately before the transaction continuing to represent, directly or indirectly, at least 50% of the combined voting

power of the successor entity's outstanding voting securities immediately after the transaction, and after which no person or entity beneficially owns voting securities representing 50% or more of the combined voting power of the acquiring company that is not attributable to voting power held in the company prior to such transaction; or (4) the approval by Conatus' stockholders of a liquidation or dissolution of Conatus.

Separation Agreement with David T. Hagerty, M.D.

On September 30, 2019, David T. Hagerty, M.D. resigned as Executive Vice President, Clinical Development of Conatus. Pursuant to his separation agreement with Conatus, Dr. Hagerty received the following severance benefits: (1) his fully earned but unpaid base salary through the date of termination at the rate then in effect, plus all other amounts under any compensation plan or practice to which he was entitled; (2) a lump sum cash payment in the amount of $427,310; (3) continuation of health benefits for a period of 12 months following the date of termination; and (4) the automatic acceleration of the vesting and exercisability of 123,320 outstanding unvested stock awards, representing the number of stock awards that would have vested over the 12-month period following his last day of employment had Dr. Hagerty remained continuously employed by Conatus during such period.

Executive Compensation Elements

The following describes the material terms of the elements of Conatus' executive compensation program during 2019.

2019 Base Salaries

In February 2019, the compensation committee set annual base salaries for our named executive officers for 2019 to be in effect until the next annual review. The 2019 base salary for each of Drs. Mento, Marshall Spada and Hagerty represented approximately 3% increases above each executive officer's 2018 base salary. The 2019 annual base salaries Drs. Mento, Marshall, Spada and Hagerty are set forth in the Summary Compensation Table above.

Annual Incentive Plan

Conatus' board of directors has adopted the Conatus Pharmaceuticals Inc. Annual Incentive Plan, as amended, or the Bonus Plan. The material terms of the Bonus Plan are summarized below.

Each named executive officer is eligible for a performance bonus based upon the achievement of certain corporate performance goals and objectives approved by Conatus' compensation committee and, with respect to Conatus' named executive officers other than Conatus' chief executive officer, individual performance.

Bonuses are set based on the executive officer's base salary as of the end of the bonus year and are expected to be paid out in the first quarter of the following year. Based on the employment agreements with Conatus' named executive officers, the target levels for executive bonuses are currently as follows: 50% of base salary for the chief executive officer (100% of which is based on corporate objectives), 40% of base salary for any executive vice president and 35% for any senior vice president (80% of which is based on corporate objectives and 20% of which is based on individual performance). At the beginning of each year, management recommends corporate goals and milestones to Conatus' compensation committee to be reviewed and approved for the year. These goals and milestones and the proportional emphasis placed on each are expected to be set by Conatus' compensation committee after considering management input and Conatus' overall strategic objectives. It is expected that these goals will generally relate to factors such as clinical development, regulatory, business development, financial and operational goals.

The compensation committee determines the level of achievement of the corporate goals for each year. This achievement level is then applied to each named executive officer's target bonus to determine that year's total bonus opportunity, before any determination of the individual component of the award. The individual component of each named executive's bonus award is not necessarily based solely on the achievement of any predetermined criteria or guidelines. The compensation committee's assessment of each of the named executive officer may also include a quantitative analysis of the officer's overall performance of his or her duties during the year. In coming to this determination, the compensation committee does not follow any specific guidelines regarding the exercise of such discretion.

No annual bonuses will be paid to the named executive officers for 2019.

Equity Compensation

Conatus offers stock options to Conatus' employees, including Conatus' named executive officers, as the long-term incentive component of Conatus' compensation program. Conatus typically grants equity awards to new hires upon their commencing employment with Conatus. Conatus' stock options allow employees to purchase shares of Conatus' common stock at a price per share

equal to the fair market value of Conatus' common stock on the date of grant and may or may not be intended to qualify as "incentive stock options" for U.S. federal income tax purposes. Generally, the stock options Conatus grants vest as to 25% of the total number of option shares on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to the employee's continued employment with Conatus on the vesting date. Stock options granted to Conatus' named executive officers may be subject to accelerated vesting in certain circumstances. For additional discussion, please see "Employment Agreements" above and "Change in Control Benefits" below.

Conatus' board of directors has adopted, and Conatus' stockholders have approved, Conatus' 2013 Incentive Award Plan in order to facilitate the grant of cash and equity incentives to directors, employees (including Conatus' named executive officers) and consultants of Conatus' company and certain of its affiliates and to enable Conatus' company and certain of its affiliates to obtain and retain services of these individuals, which is essential to Conatus' long-term success.

In February 2019, the board of directors awarded stock options to Drs. Mento, Marshall, Spada and Hagerty for 350,000 shares, 175,000 shares, 175,000 shares and 175,000 shares, respectively. The stock options were eligible to vest as to 25% of the total number of option shares on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to the executive officer's continued employment with Conatus on the vesting date.

The stock options granted in 2019 were also subject to accelerated vesting in certain circumstances. For additional discussion, please see "Employment Agreements" above and "Change in Control Benefits" below.

Stock Option Exchange

On August 1, 2019, Conatus agreed to allow seven of its then-current employees, including Drs. Mento, Marshall and Spada, to exchange all or a portion of their existing options to purchase shares of Conatus common stock granted under Conatus' 2013 Incentive Award Plan or granted as an employment inducement award pursuant to Nasdaq Listing Rule 5635(c)(4) for a lesser number of new RSUs, as described below, provided that options were not eligible for exchange if the grant of the new RSUs would have resulted in a violation of the annual award limits under Conatus' 2013 Incentive Award Plan. All of the existing stock options that were surrendered by the employees had exercise prices significantly above the recent trading prices of Conatus' common stock.

Employees received one new RSU for every two eligible options surrendered. This "exchange ratio" (1-for-2) was applied on a grant-by-grant basis. As a result, 3,200,375 stock options were exchanged for 1,600,186 replacement RSUs.

Each new RSU issued to the employees has a grant date of August 1, 2019. The restricted stock units will vest on the first anniversary of the grant date. In addition, the RSUs will vest upon a change in control, as defined in Conatus' 2013 Incentive Award Plan, or an employee's termination without cause or resignation for good reason. Upon any other termination of service of the employee, unvested RSUs will be forfeited.

The following table shows the number of options surrendered and received by the named executive officers pursuant to the stock option exchange. Dr. Hagerty did not participate in the stock option exchange.

Named Executive Officer	Stock Options Surrendered	RSUs Received
Steven J. Mento, Ph.D.	1,300,000	650,000
Keith W. Marshall, Ph.D., M.B.A.	770,000	385,000
Alfred P. Spada, Ph.D.	626,875	313,436

Retirement Plans

Conatus currently maintains a 401(k) retirement savings plan that allows eligible employees to defer a portion of their compensation, within limits prescribed by the Internal Revenue Code, on a pre-tax or after-tax basis through contributions to the plan. Conatus' named executive officers are eligible to participate in the 401(k) plan on the same terms as other full-time employees generally. Currently, Conatus matches contributions made by participants in the 401(k) plan up to a specified percentage, and these matching contributions are fully vested as of the date on which the contribution is made. Conatus believes that providing a vehicle for retirement savings through Conatus' 401(k) plan, and making fully vested matching contributions, adds to the overall desirability of Conatus' executive compensation package and further incentivizes Conatus' employees, including Conatus' named executive officers, in accordance with Conatus' compensation policies.

Employee Benefits and Perquisites

Conatus' named executive officers are eligible to participate in Conatus' health and welfare plans to the same extent as all full-time employees generally. Conatus also provides Drs. Mento, Marshall and Spada with term life insurance and disability

insurance at Conatus' expense. In addition, Conatus provides Drs. Mento and Spada with long-term care insurance at Conatus' expense. Conatus does not provide Conatus' named executive officers with any other significant perquisites or other personal benefits.

Change in Control Benefits

Conatus' named executive officers may become entitled to certain benefits or enhanced benefits in connection with a change in control of Conatus' company. The employment agreements of Drs. Mento, Marshall and Spada entitle them to accelerated vesting of certain outstanding equity awards upon a change in control of Conatus' company, as described above under "Employment Agreements." In addition, stock options granted to Conatus' employees, including Conatus' named executive officers, are subject to acceleration in connection with a change in control and certain terminations of employment.

With respect to stock options granted to Conatus' named executive officers since October 2014, 50% of the then-unvested shares subject to the option will vest on the date of a change in control, and the remaining shares subject to the option will vest on the first anniversary of the change in control, subject to earlier acceleration as provided below. In the event of a named executive officer's termination of employment without cause or for good reason more than 90 days prior to the occurrence of a change in control, the vesting of the option will be automatically accelerated on the date of such termination as to the number of shares subject to the option that would have vested over the 12-month period following the date of termination had the named executive officer remained continuously employed by Conatus during such period. In addition, in the event of a named executive officer's termination of employment without cause or for good reason during the 90-day period preceding the occurrence of a change in control or following the occurrence of a change in control, all of the shares subject to the option will vest on the later of (1) the date of termination or (2) the occurrence of the change in control.

With respect to RSUs granted to Conatus' named executive officers, all of such RSUs will vest immediately prior to a change in control.

Outstanding Equity Awards at December 31, 2019

The following table sets forth specified information concerning outstanding equity incentive plan awards for each of the named executive officers outstanding as of December 31, 2019.

	Option Awards[1]					Stock Awards	
Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Non-Exercisable (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)[3]	Market Value of Shares or Units of Stock That Have Not Vested ($)[4]
Steven J. Mento, Ph.D.	2/17/11	147,070[2]	—	0.99	2/16/21	650,000	260,000
	2/4/16	167,500	—	1.85	2/3/26	—	—
Keith W. Marshall, Ph.D., M.B.A.	—	—	—	—	—	385,000	154,000
Alfred P. Spada, Ph.D.	2/17/11	42,424[2]	—	0.99	2/16/21	313,436	125,374
David T. Hagerty, M.D.	—	—	—	—	—	—	—

(1) Except as described below, the options vest at the rate of 25% of the total number of shares subject to the option on the first anniversary of the date of grant, and 1/48th of the total number of shares subject to the option on the last day of each month thereafter. The stock options are also subject to accelerated vesting in certain circumstances. For additional discussion, please see "Employment Agreements" and "Change in Control Benefits" above.

(2) The options were exercisable in full as of the grant date and vested at the rate of 1/24th of the total number of shares subject to the option on the last day of each month thereafter.

(3) This RSU was granted pursuant to the stock option exchange completed on August 1, 2019 pursuant to which the named executive officer exchanged outstanding options for a lesser number of new RSUs. Employees received one new RSU for every two eligible options surrendered. This "exchange ratio" (1-for-2) was applied on a grant-by-grant basis. The RSUs will vest on the first anniversary of the grant date. In addition, the RSUs will vest upon a change in control, as defined in Conatus' 2013 Incentive Award Plan, or an employee's termination without cause or resignation for good reason. Upon any other termination of service of the employee, unvested RSUs will be forfeited.

(4) The market values shown were computed using $0.40 per share, the closing price per share of Conatus common stock on December 31, 2019.

Equity Compensation Plan Information

The following table summarizes securities available under Conatus' equity compensation plans as of December 31, 2019.

	Equity Compensation Plan Information		
Plan category	**Number of securities to be issued upon exercise of outstanding options, warrants and rights**	**Weighted-average exercise price of outstanding options, warrants and rights**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))**
	(a)	(b)	(c)
Equity compensation plans approved by security holders	2,752,448	$1.97	4,440,684(1)(2)
Equity compensation plans not approved by security holders	—	—	—
Total	2,752,448	$1.97	4,440,684

(1) Includes 3,951,438 shares available for future issuance under Conatus' 2013 Incentive Award Plan and 489,246 shares available for future issuance under Conatus' 2013 Employee Stock Purchase Plan (none of which were eligible to be purchased under Conatus' 2013 Employee Stock Purchase Plan pursuant to the offering period in effect on December 31, 2019 as the plan was frozen as of such date).

(2) Under the terms of the Conatus 2013 Plan, on the first day of each calendar year during the initial 10-year term of the Conatus 2013 Plan, the number of shares which may be issued or transferred thereunder automatically increases by the least of (A) 1,000,000 shares of Conatus' common stock, (B) five percent (5%) of the outstanding shares of Conatus' common stock on the final day of the immediately preceding calendar year, and (C) such lesser number of shares of Conatus' common stock as determined by Conatus' board of directors.

Director Compensation

Conatus compensates non-employee members of the Conatus' board of directors for their service. Directors who are also employees do not receive cash or equity compensation for service on the Conatus board of directors in addition to compensation payable for their service as Conatus' employees. The non-employee members of Conatus' board of directors are also reimbursed for travel, lodging and other reasonable expenses incurred in attending board of directors or committee meetings.

Under Conatus' non-employee director compensation policy, Conatus provides cash compensation in the form of an annual retainer of $40,000 for each non-employee director. In addition, the chair of the board of directors receives an additional annual retainer of $45,000. Conatus also pays an additional annual retainer of $15,000 to the chair of Conatus' audit committee, $7,500 to other non-employee directors who serve on Conatus' audit committee, $10,000 to the chair of Conatus' compensation committee, $6,000 to other non-employee directors who serve on Conatus' compensation committee, $7,000 to the chair of Conatus' nominating and corporate governance committee and $3,500 to other non-employee directors who serve on Conatus' nominating and corporate governance committee.

Also under Conatus' non-employee director compensation policy, any non-employee director who is first elected to the board of directors will be granted an option to purchase 30,000 shares of Conatus' common stock on the date of his or her initial election to the board of directors. Such options will have an exercise price per share equal to the fair market value of Conatus' common stock on the date of grant. In addition, non-employee directors who (1) have been serving on the board of directors for at least six months as of the date of any annual meeting and (2) will continue to serve immediately following such meeting, will receive a grant of options to purchase 20,000 shares of Conatus' common stock, and a non-employee director serving as chair of the board of directors will receive a grant of options to purchase an additional 25,000 shares of Conatus' common stock.

The initial options granted to non-employee directors described above will vest and become exercisable in substantially equal installments on each of the first three anniversaries of the date of grant, subject to the director's continuing service on Conatus' board of directors on those dates. The annual options granted to non-employee directors described above will vest and/or become exercisable on the first anniversary of the date of grant, subject to the director's continuing service on Conatus' board of directors (and, with respect to grants to a chairman of the board of directors or board committee, service as chairman of the board of directors or a committee) on those dates. All options will also vest in full upon the occurrence of a change in control (as defined in Conatus' 2013

Incentive Award Plan). The term of each option granted to a non-employee director shall be ten years. These options will be granted under Conatus' 2013 Incentive Award Plan.

The following table provides information related to the compensation of each of Conatus' non-employee directors during the year ended December 31, 2019.

	Fees Earned or Paid in Cash	Option Awards[1][2]	Total
David F. Hale	$106,000	$10,910	$116,910
Daniel L. Kisner, M.D.	53,500	4,849	58,349
Preston S. Klassen, M.D., M.H.S.	43,500	4,849	48,349
William R. LaRue	61,000	4,849	65,849
Kathleen Scott	5,726	8,529	14,255
Harold Van Wart, Ph.D.	47,000	4,849	51,849

(1) Amounts shown represent the aggregate grant date fair value of the option awards granted in 2019 to Conatus' non-employee directors computed in accordance with FASB Topic ASC 718. These amounts do not correspond to the actual value that will be recognized by the non-employee director with respect to such awards. The assumptions used in the valuation of these awards are consistent with the valuation methodologies specified in note 2 to Conatus' financial statements included in this annual report.

(2) Outstanding options held by Conatus' non-employee directors at December 31, 2019, were:

	Shares Underlying Options Outstanding At December 31, 2019
David F. Hale	300,000
Daniel L. Kisner, M.D.	125,000
Preston S. Klassen, M.D., M.H.S.	125,000
William R. LaRue	70,000
Kathleen Scott	30,000
Harold Van Wart, Ph.D.	152,121

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Equity Compensation Plan Information

The following table summarizes securities available under Conatus' equity compensation plans as of December 31, 2019:

	Equity Compensation Plan Information		
Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	2,752,448	$ 1.97	4,440,684
Equity compensation plans not approved by security holders	—	—	—
Total	2,752,448	$ —	4,440,684

Principal Stockholders of Conatus

The following table sets forth certain information with respect to the beneficial ownership of Conatus common stock as of March 2, 2020 (except where otherwise indicated) for:

- each person, or group of affiliated persons, who are known by Conatus to beneficially own more than 5% of the outstanding shares of Conatus common stock;
- each of Conatus' directors as of March 2, 2020;
- each of Conatus' named executive officers as of March 2, 2020; and
- all of the current directors and executive officers of Conatus 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 also any shares that the individual has the right to acquire within 60 days of March 2, 2020, through the exercise of any stock option or other right. Unless otherwise indicated, each person has sole investment and voting power, or shares such powers with his or her spouse, with respect to the shares set forth in the following table.

The percentage of ownership is based on 33,170,487 shares of common stock outstanding on March 2, 2020, adjusted as required by the rules promulgated by the SEC to determine beneficial ownership. Conatus does not know of any arrangements, including any pledge by any person of securities of Conatus, the operation of which may at a subsequent date result in a change of control of Conatus. Unless otherwise noted, the address of each director and current and former executive officer of Conatus is c/o Conatus Pharmaceuticals Inc., 16745 West Bernardo Dr., Suite 250, San Diego, CA 92127.

	Amount and Nature of Beneficial Ownership	Percentage of Beneficial Ownership (%)
5% Stockholders		
Novartis Pharma AG[1]	2,882,519	8.7
Directors and Named Executive Officers		
Steven J. Mento, Ph.D.[2]	801,653	2.4
Keith W. Marshall, Ph.D., M.B.A.[3]	—	*
David T. Hagerty, M.D.	—	*
David F. Hale[4]	422,981	1.3
Daniel L. Kisner, M.D.[5]	114,455	*
Preston S. Klassen, M.D., M.H.S.[6]	105,000	*
William R. LaRue[7]	50,000	*
Kathleen D. Scott	—	*
Alfred P. Spada, Ph.D.[8]	289,566	*
Harold Van Wart, Ph.D.[9]	150,302	*
All current executive officers and directors as a group (9 persons)[10]	1,933,957	5.7

* Indicates beneficial ownership of less than 1% of the total outstanding common stock.

(1) Represents 2,882,519 shares of common stock held by Novartis Pharma AG, which were issued in December 2018 pursuant to a convertible promissory note. Novartis Pharma AG's address is Lichtstrasse 35, 4056 Basel, Switzerland.

(2) Includes 314,570 shares Dr. Mento has the right to acquire pursuant to outstanding options which are exercisable within 60 days of March 2, 2020. 487,083 of the shares are held by family trusts, of which Dr. Mento is a trustee. Does not include 650,000 RSUs held by Dr. Mento that would vest upon a change of control of Conatus, including the consummation of the merger with Histogen.

(3) Does not include 385,000 RSUs held by Dr. Marshall that would vest upon a change of control of Conatus, including the consummation of the merger with Histogen.

(4) Includes 255,000 shares Mr. Hale has the right to acquire pursuant to outstanding options which are exercisable within 60 days of March 2, 2020. 143,739 of the shares are held by Hale BioPharma Ventures, LLC and 12,121 shares are held by Hale Trading Company, LP, of which Mr. Hale is a General Partner. Mr. Hale holds sole voting and investment power with respect to the shares held by these entities. 12,121 of the shares are held by a family trust, of which Mr. Hale is a trustee.

(5) Includes 105,000 shares Dr. Kisner has the right to acquire pursuant to outstanding options that are exercisable within 60 days of March 2, 2020. Dr. Kisner holds 9,455 of the shares directly.

(6) Represents 105,000 shares Dr. Klassen has the right to acquire pursuant to outstanding options that are exercisable within 60 days of March 2, 2020.
(7) Represents 50,000 shares Mr. LaRue has the right to acquire pursuant to outstanding options that are exercisable within 60 days of March 2, 2020.
(8) Includes 42,424 shares Dr. Spada has the right to acquire pursuant to outstanding options that are exercisable within 60 days of March 2, 2020. Dr. Spada holds 247,142 of the shares directly. Does not include 313,436 RSUs held by Dr. Spada that would vest upon a change of control of Conatus, including the consummation of the merger with Histogen.
(9) Includes 132,121 shares Dr. Van Wart has the right to acquire pursuant to outstanding options that are exercisable within 60 days of March 2, 2020. Dr. Van Wart holds 18,181 of the shares directly.
(10) Includes shares issued upon the early exercise of options, and shares issuable upon the exercise of outstanding options which are exercisable, as set forth in previous footnotes.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Certain Relationships and Related Transactions

The following is a description of transactions since January 1, 2019 to which Conatus has been a party, in which the amount involved exceeds $120,000, and in which any of its directors, executive officers or, to its knowledge, beneficial owners of more than 5% of Conatus capital stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest. Conatus believes the terms obtained or consideration that it paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, from unaffiliated third parties.

Investor Rights Agreement

Conatus entered into a first amended and restated investor rights agreement in February 2011 with the holders of its convertible preferred stock prior to its initial public offering, including entities with which certain of its directors are affiliated. This agreement provides for certain rights relating to the registration of their shares of common stock and common stock issued to them upon conversion of their convertible preferred stock. The registration rights will terminate in July 2020, or for any particular holder with registration rights, at such time following when all securities held by that holder subject to registration rights may be sold pursuant to Rule 144 under the Securities Act in a three-month period.

Director and Executive Officer Compensation

The information under the headings “Director Compensation” and “Executive Compensation” in Part III, Item 11 are incorporated herein by reference.

Employment Agreements

The information under the heading “Executive Compensation” in Part III, Item 11 is incorporated herein by reference.

Indemnification Agreements

Conatus’ amended and restated certificate of incorporation and its amended and restated bylaws provide that Conatus shall have the power to indemnify its employees and agents to the fullest extent permitted by law. Conatus has entered into separate indemnification agreements with its directors and executive officers, in addition to indemnification provided for in its amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, requires Conatus or will require Conatus to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys’ fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of Conatus, arising out of the person’s services as a director or executive officer.

Stock Option Grants to Executive Officers and Directors

The information under the headings “Director Compensation” and “Executive Compensation” in Part III, Item 11 are incorporated herein by reference.

Policies and Procedures for Related Party Transactions

Pursuant to Conatus' audit committee charter, Conatus' audit committee is responsible for reviewing and approving all transactions with related parties which are required to be reported under applicable SEC regulations, other than compensation-related matters. Conatus has adopted a written procedure for review of, or standards for approval of, these transactions by its audit committee.

Board Independence

Conatus' board of directors has determined that all of its directors are independent directors within the meaning of the applicable Nasdaq Stock Market LLC listing standards, except for Steven J. Mento, Ph.D., its President, Chief Executive Officer and Director.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Independent Registered Public Accountants' Fees

The following table represents aggregate fees billed to Conatus for services related to the fiscal years ended December 31, 2019 and 2018, by Ernst & Young LLP, Conatus' independent registered public accounting firm.

	Year Ended December 31,	
	2019	2018
Audit Fees(1)	$ 346,199	$ 502,275
Audit Related Fees	—	—
Tax Fees	—	—
All Other Fees	—	—
Total	$ 346,199	$ 502,275

(1) Audit Fees consist of fees billed for professional services performed by Ernst & Young LLP for the audit of Conatus' annual financial statements, the quarterly review of its financial statements and related services that are normally provided in connection with statutory and regulatory filings or engagements.

Pre-Approval Policies and Procedures

Conatus' audit committee has established a policy that all audit and permissible non-audit services provided by its independent registered public accounting firm will be pre-approved by the audit committee, and all such services were pre-approved in accordance with this policy during the fiscal years ended December 31, 2019 and 2018. These services may include audit services, audit-related services, tax services and other services. The audit committee considers whether the provision of each non-audit service is compatible with maintaining the independence of Conatus' auditors. Pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. Conatus' independent registered public accounting firm and management are required to periodically report to the audit committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

1. Financial Statements.

The following financial statements of Conatus Pharmaceuticals Inc., together with the report thereon of Ernst & Young LLP, an independent registered public accounting firm, are included in this annual report on Form 10-K:

2. Finance Statement Schedules.

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

3. Exhibits

A list of exhibits is set forth on the Exhibit Index immediately preceding the signature page of this annual report on Form 10-K and is incorporated herein by reference.

ITEM 16. FORM 10-K SUMMARY

None.

Conatus Pharmaceuticals Inc.

Index to Financial Statements

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Conatus Pharmaceuticals Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Conatus Pharmaceuticals Inc. (the Company) as of December 31, 2019 and 2018, the related statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the three 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 three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

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 audit 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.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2007.

San Diego, California

March 11, 2020

Conatus Pharmaceuticals Inc.
Balance Sheets
(In thousands, except par value data)

	December 31,	
	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	$ 20,703	$ 11,565
Marketable securities	—	29,127
Collaboration receivables	122	3,677
Prepaid and other current assets	781	3,057
Total current assets	21,606	47,426
Property and equipment, net	—	154
Other assets	221	1,223
Total assets	$ 21,827	$ 48,803
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued expenses	$ 1,064	$ 6,216
Accrued compensation	238	2,230
Current portion of deferred revenue	—	10,075
Current portion of lease liabilities	338	—
Total current liabilities	1,640	18,521
Deferred revenue, less current portion	—	2,815
Deferred rent, less current portion	—	68
Stockholders' equity:		
Preferred stock, $0.0001 par value; 10,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.0001 par value; 200,000 shares authorized; 33,170 shares and 33,165 shares issued and outstanding at December 31, 2019 and 2018, respectively	3	3
Additional paid-in capital	218,198	214,042
Accumulated other comprehensive loss	—	(17)
Accumulated deficit	(198,014)	(186,629)
Total stockholders' equity	20,187	27,399
Total liabilities and stockholders' equity	$ 21,827	$ 48,803

See accompanying notes to financial statements.

Conatus Pharmaceuticals Inc.
Statements of Operations and Comprehensive Loss
(In thousands, except per share data)

	Year Ended December 31,		
	2019	**2018**	**2017**
Revenues:			
Collaboration revenue	$ 21,717	$ 33,586	$ 35,377
Total revenues	21,717	33,586	35,377
Operating expenses:			
Research and development	23,527	41,368	43,220
General and administrative	10,196	10,495	9,707
Total operating expenses	33,723	51,863	52,927
Loss from operations	(12,006)	(18,277)	(17,550)
Other income (expense):			
Interest income	568	962	892
Interest expense	—	(696)	(662)
Other income (expense)	53	1	(76)
Total other income	621	267	154
Net loss	$ (11,385)	$ (18,010)	$ (17,396)
Other comprehensive income (loss):			
Net unrealized gains (losses) on marketable securities	17	60	(71)
Comprehensive loss	$ (11,368)	$ (17,950)	$ (17,467)
Net loss per share, basic and diluted	$ (0.34)	$ (0.59)	$ (0.61)
Weighted average shares outstanding used in computing net loss per share, basic and diluted	33,169	30,370	28,587

See accompanying notes to financial statements.

Conatus Pharmaceuticals Inc.
Statements of Stockholders' Equity
(In thousands)

	Common Stock		Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Loss	Deficit	Equity
Balance at December 31, 2016	26,119	$ 3	$ 172,425	$ (6)	$ (150,633)	$ 21,789
Issuance of common stock upon exercise of stock options	79	—	104	—	—	104
Issuance of common stock for employee stock purchase plan	24	—	65	—	—	65
Share-based compensation	—	—	4,076	—	22	4,098
Issuance of common stock, net of offering costs	5,980	—	30,610	—	—	30,610
Repurchase of common stock	(2,167)	—	(11,203)	—	—	(11,203)
Net loss	—	—	—	—	(17,396)	(17,396)
Unrealized loss on marketable securities	—	—	—	(71)	—	(71)
Balance at December 31, 2017	30,035	3	196,077	(77)	(168,007)	27,996
Issuance of common stock upon exercise of stock options	211	—	362	—	—	362
Issuance of common stock for employee stock purchase plan	36	—	117	—	—	117
Share-based compensation	—	—	3,757	—	—	3,757
Conversion of convertible note payable to common stock	2,883	—	13,729	—	—	13,729
Cumulative effect of adoption of accounting standard	—	—	—	—	(612)	(612)
Net loss	—	—	—	—	(18,010)	(18,010)
Unrealized gain on marketable securities	—	—	—	60	—	60
Balance at December 31, 2018	33,165	3	214,042	(17)	(186,629)	27,399
Issuance of common stock for employee stock purchase plan	5	—	3	—	—	3
Share-based compensation	—	—	4,153	—	—	4,153
Net loss	—	—	—	—	(11,385)	(11,385)
Unrealized gain on marketable securities	—	—	—	17	—	17
Balance at December 31, 2019	33,170	$ 3	$ 218,198	$ —	$ (198,014)	$ 20,187

See accompanying notes to financial statements.

Conatus Pharmaceuticals Inc.
Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2019	2018	2017
Operating activities			
Net loss	$ (11,385)	$ (18,010)	$ (17,396)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	73	91	108
Stock-based compensation expense	4,153	3,757	4,098
Amortization of premiums and discounts on marketable securities, net	(204)	(341)	(68)
Write off of property and equipment and other assets	210	—	—
Impairment of right-of-use asset	50	—	—
Accrued interest included in convertible note payable	—	696	658
Changes in operating assets and liabilities:			
Collaboration receivables	3,555	(310)	(867)
Prepaid and other current assets	642	480	(123)
Other assets	—	(537)	(872)
Accounts payable and accrued expenses	(2,355)	(5,760)	6,638
Accrued compensation	(1,992)	222	(343)
Deferred revenue	(12,890)	(15,099)	(25,010)
Lease liabilities, net	(59)	—	—
Deferred rent	—	(46)	(32)
Net cash used in operating activities	(20,202)	(34,857)	(33,209)
Investing activities			
Maturities of marketable securities	44,842	69,685	81,877
Purchase of marketable securities	(15,494)	(39,637)	(121,723)
Capital expenditures	(11)	(66)	(25)
Net cash provided by (used in) investing activities	29,337	29,982	(39,871)
Financing activities			
Proceeds from issuance of convertible note payable, net	—	—	12,500
Principal payment on promissory note	—	—	(1,000)
Proceeds from issuance of common stock, net	—	—	30,610
Repurchase of common stock	—	—	(11,203)
Deferred financing costs	—	(118)	—
Proceeds from stock issuances related to exercise of stock options and employee stock purchase plan	3	479	169
Net cash provided by financing activities	3	361	31,076
Net (decrease) increase in cash and cash equivalents	9,138	(4,514)	(42,004)
Cash and cash equivalents at beginning of period	11,565	16,079	58,083
Cash and cash equivalents at end of period	$ 20,703	$ 11,565	$ 16,079
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ —	$ —	$ 5
Supplemental schedule of noncash financing activities:			
Conversion of convertible note payable to common stock	$ —	$ 13,729	$ —
Right-of-use asset	$ 590	$ —	$ —

See accompanying notes to financial statements.

1. Organization and Basis of Presentation

Conatus Pharmaceuticals Inc. (the Company) was incorporated in the state of Delaware on July 13, 2005. The Company is a biotechnology company that has been focused on the development and commercialization of novel medicines to treat chronic diseases with significant unmet need. In December 2016, the Company entered into an Option, Collaboration and License Agreement (the Collaboration Agreement) with Novartis Pharma AG (Novartis) for the development and commercialization of emricasan, an orally active pan-caspase inhibitor, for the treatment of patients with chronic liver disease.

In March 2019, the Company announced that top-line results from the ENCORE-NF clinical trial of emricasan did not meet the primary endpoint. In June 2019, the Company announced that top-line results from its ENCORE-LF clinical trial of emricasan also did not meet the primary endpoint. In addition, results from the 24-week extension in the Company's ENCORE-PH clinical trial of emricasan were consistent with results from the initial 24-week treatment period and did not meet predefined objectives.

Consequently, the Company and Novartis have no further development plans for emricasan, and the Company and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which the Company and Novartis mutually agreed to terminate the Collaboration Agreement, effective September 30, 2019. In order to extend the Company's resources, the Company commenced a restructuring plan in June 2019 that included reducing staff and suspending development of its inflammasome disease candidate, CTS-2090, and commenced a second restructuring plan in September 2019 that included reducing additional staff to further extend the Company's resources. The Company engaged a financial advisor to assist in the exploration and evaluation of strategic alternatives to enhance shareholder value, including a merger, an acquisition or sale of assets or a dissolution and liquidation of the Company. On January 28, 2020, Conatus, Chinook Merger Sub, Inc. (Merger Sub), and Histogen Inc. (Histogen) entered into the Agreement and Plan of Merger and Reorganization (Merger Agreement), pursuant to which, among other matters, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into Histogen, with Histogen continuing as Conatus' wholly owned subsidiary and the surviving corporation of the merger. See Note 14 – Subsequent Events for additional information.

As of December 31, 2019, the Company has devoted substantially all of its efforts to product development and has not realized product sales revenues from its planned principal operations. The Company has a limited operating history, and the sales and income potential of the Company's business and market are unproven. The Company has experienced net losses since its inception and, as of December 31, 2019, had an accumulated deficit of $198.0 million. The Company expects to continue to incur net losses for at least the next several years. Successful transition to attaining profitable operations is dependent upon achieving a level of revenues adequate to support the Company's cost structure. As of December 31, 2019, the Company had cash and cash equivalents of $20.7 million and working capital of $20.0 million. Based on the Company's current business plan, management believes that its existing cash and cash equivalents will be sufficient to fund the Company's obligations for at least twelve months from the issuance date of these financial statements. If the Company is unable to generate revenues adequate to support its cost structure, the Company may need to raise additional equity or debt financing or seek to complete one of the strategic alternatives described above.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at 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.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents and marketable securities. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to significant risk on its cash. Additionally, the Company established guidelines regarding approved investments and maturities of investments, which are designed to maintain safety and liquidity.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity from the date of purchase of three months or less to be cash equivalents. Cash and cash equivalents include cash in readily available checking and money market accounts.

Marketable Securities

The Company classifies its marketable securities as available-for-sale and records such assets at estimated fair value in the balance sheets, with unrealized gains and losses, if any, reported as a component of other comprehensive income (loss) within the statements of operations and comprehensive loss and as a separate component of stockholders' equity. The Company classifies marketable securities with remaining maturities greater than one year as current assets because such marketable securities are available to fund the Company's current operations. The Company invests its excess cash balances primarily in corporate debt securities and money market funds with strong credit ratings. Realized gains and losses are calculated on the specific identification method and recorded as interest income. There were no realized gains and losses for the years ended December 31, 2019, 2018 and 2017.

At each balance sheet date, the Company assesses available-for-sale securities in an unrealized loss position to determine whether the unrealized loss is other-than-temporary. The Company considers factors including: the significance of the decline in value compared to the cost basis, underlying factors contributing to a decline in the prices of securities in a single asset class, the length of time the market value of the security has been less than its cost basis, the security's relative performance versus its peers, sector or asset class, expected market volatility and the market and economy in general. When the Company determines that a decline in the fair value below its cost basis is other-than-temporary, the Company recognizes an impairment loss in the period in which the other-than-temporary decline occurred. There have been no other-than-temporary declines in the value of marketable securities for the years ended December 31, 2019, 2018 and 2017.

Fair Value of Financial Instruments

The carrying amounts of collaboration receivables, prepaid and other current assets, and accounts payable and accrued expenses are reasonable estimates of their fair value because of the short maturity of these items.

Property and Equipment

Property and equipment, which consisted of furniture and fixtures, computers and office equipment, scientific equipment and leasehold improvements, were stated at cost and depreciated over the estimated useful lives of the assets (three to five years) using the straight-line method. Leasehold improvements were amortized over the shorter of their estimated useful lives or the lease term.

Long-Lived Assets

The Company regularly reviews the carrying value and estimated lives of all of its long-lived assets, including property and equipment, to determine whether indicators of impairment may exist which warrant adjustments to carrying values or estimated useful lives. The determinants used for this evaluation include management's estimate of the asset's ability to generate positive income from operations and positive cash flow in future periods, as well as the strategic significance of the assets to the Company's business objective. Should an impairment exist, the impairment loss would be measured based on the excess of the carrying amount of the asset's fair value. Through December 31, 2019, the Company has recognized $50,000 in impairment losses.

Revenue Recognition

Under the relevant accounting literature, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. The Company performs the following five steps in order to determine revenue recognition for contracts: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when, or as, the entity satisfies a performance obligation.

At contract inception, the Company identifies the performance obligations in the contract by assessing whether the goods or services promised within each contract are distinct. Revenue is then recognized for the amount of the transaction price that is allocated to the respective performance obligation when, or as, the performance obligation is satisfied.

In a contract with multiple performance obligations, the Company must develop estimates and assumptions that require judgment to determine the underlying stand-alone selling price for each performance obligation, which determines how the transaction price is allocated among the performance obligations. The estimation of the stand-alone selling price(s) may include estimates regarding forecasted revenues or costs, development timelines, discount rates, and probabilities of technical and regulatory success. The Company evaluates each performance obligation to determine if it can be satisfied at a point in time or over time. Any change made to estimated progress towards completion of a performance obligation and, therefore, revenue recognized will be recorded as a change in estimate. In addition, variable consideration must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

If a license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in a contract, the Company recognizes revenues from the transaction price allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from the allocated transaction price. The Company evaluates the measure of progress at each reporting period and, if necessary, adjusts the measure of performance and related revenue or expense recognition as a change in estimate.

At the inception of each arrangement that includes milestone payments, the Company evaluates whether the milestones are considered probable of being reached. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company's or a collaboration partner's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received. At the end of each reporting period, the Company re-evaluates the probability of achievement of milestones that are within its or a collaboration partner's control, such as operational developmental milestones and any related constraint, and, if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which will affect collaboration revenues and earnings in the period of adjustment. Revisions to the Company's estimate of the transaction price may also result in negative collaboration revenues and earnings in the period of adjustment.

For arrangements that include sales-based royalties, including commercial milestone payments based on the level of sales, and a license is deemed to be the predominant item to which the royalties relate, the Company will recognize revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied, or partially satisfied. To date, the Company has not recognized any royalty revenue from collaborative arrangements.

In December 2016, the Company entered into an Option, Collaboration and License Agreement (the Collaboration Agreement) and an Investment Agreement (the Investment Agreement) with Novartis Pharma AG (Novartis). The Company concluded that there were two significant performance obligations under the Collaboration Agreement: the license and the research and development services, but that the license is not distinct from the research and development services as Novartis cannot obtain value from the license without the research and development services, which the Company is uniquely able to perform.

The Company concluded that progress towards completion of the performance obligations related to the Collaboration Agreement is best measured in an amount proportional to the collaboration expenses incurred and the total estimated collaboration expenses. The Company periodically reviews and updates the estimated collaboration expenses, when appropriate, which adjusts the percentage of revenue that is recognized for the period. While such changes to the Company's estimates have no impact on the Company's reported cash flows, the amount of revenue recorded in the period could be materially impacted. The transaction price to be recognized as revenue under the Collaboration Agreement consists of the upfront payment, option exercise fee, deemed revenue from the premium paid by Novartis under the Investment Agreement and estimated reimbursable research and development costs. Certain expenses directly related to execution of the Collaboration Agreement were capitalized as assets on the balance sheet and are being expensed in a manner consistent with the methodology used for recognizing revenue.

The Collaboration Agreement was terminated, effective September 30, 2019, and the Company will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement.

See Note 9 – Collaboration and License Agreements for further information.

Research and Development Expenses

All research and development costs are expensed as incurred.

Income Taxes

The Company's policy related to accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute criteria for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities. As of December 31, 2019, there are no unrecognized tax benefits included in the balance sheet that would, if recognized, affect the Company's effective tax rate. The Company has not recognized interest and penalties in the balance sheets or statements of operations and comprehensive loss. The Company is subject to U.S. and California taxation. As of December 31, 2019, the Company's tax years beginning 2005 to date are subject to examination by taxing authorities.

Stock-Based Compensation

Stock-based compensation expense for stock option grants and restricted stock units (RSUs) under the Company's equity plans is recorded at the estimated fair value of the award as of the grant date and is recognized as expense on a straight-line basis over the requisite service period of the stock-based award, and forfeitures are recognized as they occur. Stock-based compensation expense for employee stock purchases under the Company's 2013 Employee Stock Purchase Plan (the ESPP) is recorded at the estimated fair value of the purchase as of the plan enrollment date and is recognized as expense on a straight-line basis over the applicable six-month ESPP offering period. The estimation of fair value for stock-based compensation requires management to make estimates and judgments about, among other things, employee exercise behavior, forfeiture rates and volatility of the Company's common stock. The judgments directly affect the amount of compensation expense that will be recognized.

The fair value of stock options is estimated using the Black-Scholes model with the assumptions noted in the following table. The expected life of stock options is based on the simplified method. The expected volatility of stock options is based upon the historical volatility of the Company and a number of publicly traded companies in similar stages of clinical development. The risk-free interest rate is based on the average yield of five- and seven-year U.S. Treasury Bills as of the valuation date.

	Year Ended December 31,		
	2019	2018	2017
Assumptions			
Risk-free interest rate	1.82% - 2.50%	2.55% - 3.03%	1.83% - 2.13%
Expected dividend yield	0%	0%	0%
Expected volatility	105% - 119%	94% - 100%	93% - 97%
Expected term (in years)	5.5 - 6.1	5.5 - 6.1	5.5 - 6.1

Comprehensive Loss

The Company is required to report all components of comprehensive loss, including net loss, in the financial statements in the period in which they are recognized. Comprehensive loss is defined as the change in equity during a period from transactions and other events and circumstances from nonowner sources, including unrealized gains and losses on marketable securities. Comprehensive gains (losses) have been reflected in the statements of operations and comprehensive loss for all periods presented.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is used in making decisions regarding resource allocation and assessing performance. To date, the Company has viewed its operations and managed its business as one segment operating primarily in the United States.

Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing the net loss by the weighted average number of common shares and common share equivalents outstanding for the period. Common stock equivalents are only included when their effect is dilutive. The Company's potentially dilutive securities have been excluded from the computation of diluted net loss per share in the periods in which they would be anti-dilutive. For all periods presented, there is no difference in the number of shares used to compute basic and diluted shares outstanding due to the Company's net loss position.

The following table sets forth the outstanding potentially dilutive securities that have been excluded in the calculation of diluted net loss per share because to do so would be anti-dilutive (in thousands):

	December 31,		
	2019	2018	2017
Warrants to purchase common stock	13	13	150
Common stock options issued and outstanding	1,299	5,385	4,826
RSUs outstanding	1,453	—	—
Shares issuable upon conversion of convertible note payable	—	—	2,965
ESPP shares pending issuance	—	8	5
Total	2,765	5,406	7,946

Recent Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12, Simplifying the Accounting for Income Taxes, as part of its initiative to reduce complexity in accounting standards. The amendments in the ASU are effective for fiscal years beginning after December 15, 2020, including interim periods therein. Early adoption of the standard is permitted, including adoption in interim or annual periods for which financial statements have not yet been issued. We have not early adopted this ASU for 2019. The ASU is currently not expected to have a material impact on our financial statements.

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-02, Leases (Topic 842). This guidance requires lessees to recognize leases on the balance sheet and disclose key information about leasing arrangements. ASU 2016-02 establishes a right-of-use model (ROU) that requires a lessee to recognize an ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. The Company adopted this standard effective January 1, 2019, as required, retrospectively through a cumulative effect adjustment. The new standard provides a number of optional practical expedients in transition. The Company elected the "package of practical expedients," which permits the Company not to reassess, under ASU 2016-02, prior conclusions about lease identification, lease classification and initial direct costs. The new standard also provides practical expedients for an entity's ongoing accounting. The Company elected to utilize the short-term lease recognition exemption for all leases that qualify. This means, for those short-term leases that qualify, the Company will not recognize ROU assets or lease liabilities. The Company also elected not to separate lease and non-lease components for facility leases. Adoption of this guidance resulted in the recognition of lease liabilities of $0.7 million, based on the present value of the remaining minimum rental payments under current leasing standards for the Company's applicable existing office space operating lease, with corresponding ROU assets of $0.6 million.

See Note 11 – Commitments for further information.

3. Fair Value Measurements

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Includes financial instruments for which quoted market prices for identical instruments are available in active markets.

Level 2: Includes financial instruments for which there are inputs other than quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets with insufficient volume or infrequent transaction (less active markets) or model-driven valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

Level 3: Includes financial instruments for which fair value is derived from valuation techniques in which one or more significant inputs are unobservable, including management's own assumptions.

Below is a summary of assets, including cash, cash equivalents and marketable securities, measured at fair value as of December 31, 2019 and 2018 (in thousands):

		Fair Value Measurements Using		
	December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash	$ 1,870	$ 1,870	$ —	$ —
Money market funds	18,833	18,833	—	—
Total	$ 20,703	$ 20,703	$ —	$ —

	December 31, 2018	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash	$ 2,072	$ 2,072	$ —	$ —
Money market funds	8,000	8,000	—	—
Corporate debt securities	30,620	—	30,620	—
Total	$ 40,692	$ 10,072	$ 30,620	$ —

At December 31, 2018, the Company's marketable securities, consisting principally of debt securities, are classified as available-for-sale, are stated at fair value, and consist of Level 2 financial instruments in the fair value hierarchy. The Company determines the fair value of its debt security holdings based on pricing from a service provider. The service provider values the securities based on using market prices from a variety of industry-standard independent data providers. Such market prices may be quoted prices in active markets for identical assets (Level 1 inputs) or pricing determined using inputs other than quoted prices that are observable either directly or indirectly (Level 2 inputs), such as yield curve, volatility factors, credit spreads, default rates, loss severity, current market and contractual prices for the underlying instruments or debt, broker and dealer quotes, as well as other relevant economic measures.

4. Marketable Securities

The Company invests its excess cash in money market funds and debt instruments of financial institutions, corporations, government sponsored entities and municipalities. The Company had no investments in marketable securities at December 31, 2019, the following tables summarize the Company's investments in marketable securities at December 31, 2018 (in thousands):

As of December 31, 2018	Maturity (in years)	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Corporate debt securities	1 or less	$ 29,144	$ —	$ (17)	$ 29,127
Total		$ 29,144	$ —	$ (17)	$ 29,127

5. Property and Equipment

Property and equipment consist of the following (in thousands):

	December 31,	
	2019	2018
Furniture and fixtures	$ —	$ 334
Equipment	—	208
Leasehold improvements	—	147
	—	689
Less accumulated depreciation and amortization	—	(535)
Total	$ —	$ 154

Depreciation expense related to property and equipment was $73,000, $91,000 and $108,000 for the years ended December 31, 2019, 2018 and 2017, respectively. At December 31, 2019, the Company wrote off the remaining net book value of its property and equipment, which totaled approximately $0.1 million

6. Notes Payable

In July 2010, the Company issued to Pfizer Inc. (Pfizer) a $1.0 million promissory note (the Pfizer Note). The Pfizer Note bore interest at a rate of 7% per annum and was scheduled to mature on July 29, 2020. Interest was payable on a quarterly basis. On January 24, 2017, the Company voluntarily prepaid the entire balance of the outstanding principal and accrued and unpaid interest of the Pfizer Note in the amount of $1,004,861.

Prior to the prepayment of the Pfizer Note, the Company recorded the Pfizer Note on the balance sheet at face value. Based on borrowing rates available to the Company for loans with similar terms, the Company believed that the fair value of the Pfizer Note approximated its carrying value. The fair value measurement was categorized within Level 3 of the fair value hierarchy.

On February 15, 2017, the Company issued a convertible promissory note (the Novartis Note) in the principal amount of $15.0 million, pursuant to the Investment Agreement. The Novartis Note bore interest on the unpaid principal balance at a rate of 6% per annum and had a scheduled maturity date of December 31, 2019. The terms of the Novartis Note allowed the Company to convert the principal and accrued interest into the Company's common stock at a conversion price equal to 120% of the 20-day trailing average closing price per share of the common stock immediately prior to the conversion date. The ability to borrow and repay the debt at a discount using shares of the Company's common stock was deemed to be additional, foregone revenue attributable to the Collaboration Agreement, which the Company imputed and recorded as both a receivable from Novartis and a liability (deferred revenue) of $2.5 million at the inception of the Collaboration Agreement and the Investment Agreement. On February 15, 2017, the Company recorded the $15.0 million proceeds from the issuance of the Novartis Note as a convertible note payable in the amount of $12.5 million and a reduction of the outstanding receivable from Novartis of $2.5 million. On December 5, 2018, the Company, at its option, converted the entire outstanding principal of $15.0 million and accrued and unpaid interest of the Novartis Note into 2,882,519 shares of the Company's common stock at a conversion price of $5.77 per share.

The Company elected to account for the Novartis Note under the fair value option. Prior to conversion of the Novartis Note, the Company concluded that the fair value of the Novartis Note remained at $12.5 million, plus the related accrued interest, due to its conversion features. The fair value measurement was categorized within Level 2 of the fair value hierarchy.

7. Stockholders' Equity

Common Stock

In May 2017, the Company completed a public offering of 5,980,000 shares of its common stock at a public offering price of $5.50 per share. The shares were registered pursuant to the Company's Registration Statement on Form S-3 filed on August 14, 2014. The Company received net proceeds of $30.6 million, after deducting underwriting discounts and commissions and offering-related transaction costs. Immediately following the offering, the Company used $11.2 million of the net proceeds to repurchase and retire 2,166,836 shares of its common stock from funds affiliated with Advent Private Equity (collectively Advent) at a price of $5.17 per share, which is equal to the net proceeds per share that the Company received from the offering, before expenses, pursuant to a stock purchase agreement the Company entered into with Advent in May 2017.

On August 2, 2018, the Company entered into an At Market Issuance Sales Agreement (the Sales Agreement) with Stifel, Nicolaus & Company, Incorporated (Stifel), pursuant to which the Company may sell from time to time, at its option, up to an aggregate of $35.0 million of shares of its common stock through Stifel, as sales agent. Sales of the Company's common stock made pursuant to the Sales Agreement, if any, will be made on The Nasdaq Capital Market (Nasdaq), under the Company's Registration Statement on Form S-3 filed on August 17, 2017 and declared effective by the SEC on November 9, 2017, by means of ordinary brokers' transactions at market prices. Additionally, under the terms of the Sales Agreement, the Company may also sell shares of its common stock through Stifel, on Nasdaq or otherwise, at negotiated prices or at prices related to the prevailing market price. The Company will pay a commission rate equal to up to 3.0% of the gross sales price per share sold. As of December 31, 2019, no shares were issued pursuant to the Sales Agreement.

Warrants

In 2013, the Company issued warrants exercisable for 1,124,026 shares of Series B preferred stock, at an exercise price of $0.90 per share, to certain existing investors in conjunction with a private placement (the 2013 Warrants) and warrants exercisable for 111,112 shares of Series B preferred stock, at an exercise price of $0.90 per share, to Oxford Finance LLC and Silicon Valley Bank in conjunction with the Company's entry into a loan and security agreement (the Lender Warrants). Upon completion of the Company's initial public offering (IPO), the 2013 Warrants and the Lender Warrants became exercisable for 136,236 and 13,468 shares of common stock, respectively, at an exercise price of $7.43 per share. The 2013 Warrants expired on May 30, 2018, and the Lender Warrants will expire on July 3, 2023.

Stock Options

The Company adopted an Equity Incentive Plan in 2006 (the 2006 Plan) under which 1,030,303 shares of common stock were reserved for issuance to employees, nonemployee directors and consultants of the Company.

In July 2013, the Company adopted an Incentive Award Plan (the 2013 Plan), which provides for the grant of incentive stock options, nonstatutory stock options, rights to purchase restricted stock, stock appreciation rights, dividend equivalents, stock payments and restricted stock units to eligible recipients. Recipients of incentive stock options shall be eligible to purchase shares of the Company's common stock at an exercise price equal to no less than the estimated fair market value of such stock on the date of grant. The maximum term of options granted under the 2013 Plan is ten years. Except for annual grants to non-employee directors, which

vest one year from the grant date, options generally vest 25% on the first anniversary of the original vesting date, with the balance vesting monthly over the remaining three years.

Pursuant to the 2013 Plan, the Company's management is authorized to grant stock options to the Company's employees, directors and consultants. The number of shares available for future grant under the 2013 Plan will automatically increase each year by an amount equal to the least of (1) 1,000,000 shares of the Company's common stock, (2) 5% of the outstanding shares of the Company's common stock as of the last day of the Company's immediately preceding fiscal year, or (3) such other amount as the Company's board of directors may determine. Shares that remain available, that expire or otherwise terminate without having been exercised in full, and unvested shares that are forfeited to or repurchased by the Company under the 2006 Plan will roll into the 2013 Plan. As of December 31, 2019, a total of 3,951,438 options remain available for future grant under the 2013 Plan.

On August 31, 2017, in connection with the appointment of its new Executive Vice President, Chief Operating Officer and Chief Financial Officer, the Company granted stock options to purchase 525,000 shares of the Company's common stock outside of its stock option plans.

The following table summarizes the Company's stock option activity under all stock option plans for the three years ended December 31, 2019 (options in thousands):

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)
Outstanding at December 31, 2016	3,394	$ 5.10	
Granted	1,733	4.91	
Exercised	(79)	1.32	
Forfeited/cancelled/expired	(222)	6.09	
Outstanding at December 31, 2017	4,826	5.05	
Granted	943	5.08	
Exercised	(211)	1.71	
Forfeited/cancelled/expired	(173)	4.83	
Outstanding at December 31, 2018	5,385	5.20	
Granted	1,723	1.84	
Exercised	—	0.00	
Forfeited/cancelled/expired	(5,809)	4.51	
Outstanding at December 31, 2019	1,299	$ 3.82	5.2
Exercisable at December 31, 2019	1,134	$ 4.29	4.5

The weighted-average fair value of options granted for the years ended December 31, 2019, 2018 and 2017 were $1.84, $3.93 and $3.79, respectively. The total intrinsic value of stock options exercised during the years ended December 31, 2019, 2018 and 2017 were $0.0 million, $0.6 million and $0.3 million, respectively.

At December 31, 2019, the intrinsic value of options outstanding and exercisable were $16,000 and $1,000, respectively.

Restricted Stock Units

In August 2019, the Company effected a one-time option exchange, wherein certain employees were offered the opportunity to exchange eligible outstanding stock options, whether vested or unvested, with exercise prices that are significantly higher than the current fair market value of the Company's common stock for the grant of a lesser number of RSUs. The participants received one new RSU for every two stock options tendered for exchange. As a result, 3,200,375 stock options were exchanged for 1,600,186 RSUs. The RSUs have a one-year vesting schedule or vest upon a Change of Control, an employee's termination without Cause, or resignation for Good Reason, each as defined in the 2013 Incentive Award Plan. The one-time option exchange was accounted for as a modification of the original award, and the difference in the fair value of the cancelled options immediately prior to the cancellation and the fair value of the modified options resulted in incremental value of approximately $0.1 million, which was calculated using the Black-Scholes model. Total stock-based compensation expense to be recognized over the requisite service period is equal to remaining unrecognized expense for the exchanged option, as of the exchange date, plus the incremental value of the modification to the award and is expected to be recorded over the one-year service term commencing August 1, 2019.

The following table summarizes the Company's RSU activity under all equity plans for the three years ended December 31, 2019 (RSUs in thousands):

	Total RSUs	Weighted-Average Grant Date Fair Value per Share
Balance at December 31, 2018	—	$ —
Granted	1,600	0.31
Forfeited	(147)	0.31
Balance at December 31, 2019	1,453	$ 0.31

Unrecognized compensation expense related to outstanding RSUs at December 31, 2019 was $2.1 million, which is expected to be recognized over a weighted-average vesting term of 0.6 years.

Employee Stock Purchase Plan

In July 2013, the Company adopted the ESPP, which permits participants to contribute up to 20% of their eligible compensation during defined rolling six-month periods to purchase the Company's common stock. The purchase price of the shares will be 85% of the lower of the fair market value of the Company's common stock on the first day of trading of the offering period or on the applicable purchase date. The ESPP was activated in November 2014. The Company issued 5,365, 36,296 and 24,303 shares of common stock under the ESPP for the years ended December 31, 2019, 2018 and 2017, respectively. The Company had an outstanding liability of $0, $28,936 and $16,367 at December 31, 2019, 2018 and 2017, respectively, which is included in accounts payable and accrued expenses on the balance sheets, for employee contributions to the ESPP for shares pending issuance at the end of the offering period.

Stock-Based Compensation

The Company recorded stock-based compensation of $4.2 million, $3.8 million and $4.1 million for the years ended December 31, 2019, 2018 and 2017, respectively. Unrecognized compensation expense related to outstanding stock options at December 31, 2019 was $27,000, which is expected to be recognized over a weighted-average vesting term of 0.9 years.

Common Stock Reserved for Future Issuance

The following shares of common stock were reserved for future issuance at December 31, 2019 and 2018 (in thousands):

	December 31,	
	2019	2018
Warrants to purchase common stock	13	13
Common stock options issued and outstanding	1,299	5,385
Common stock authorized for future option grants	3,951	844
RSUs outstanding	1,453	—
Common stock authorized for the ESPP	489	495
Total	7,205	6,737

8. Income Taxes

Significant components of the Company's deferred tax assets at December 31, 2019 and 2018 are shown below (in thousands):

	December 31,	
	2019	2018
Deferred tax assets		
Net operating loss carryovers	$ 35,901	$ 31,135
Research and development tax credits	8,312	8,641
Intangibles	130	379
Stock options	438	2,255
Compensation	47	452
Deferred revenue	—	2,642
Other	88	62
Total gross deferred tax assets	44,916	45,566
Deferred tax liabilities		
Right-of-use asset	46	—
Total net deferred tax assets	44,870	45,566
Less valuation allowance	(44,870)	(45,566)
Net deferred tax assets	$ —	$ —

A reconciliation of the statutory tax rates and the effective tax rates for the years ended December 31, 2019, 2018 and 2017 is as follows:

	December 31,		
	2019	2018	2017
Statutory rate	21.0%	21.0%	34.0%
Valuation allowance	6.1%	(25.2)%	51.5%
Federal tax rate change	—%	—%	(93.3)%
General business credits	(2.9)%	6.2%	10.8%
Expiration of stock options	(21.4)%	—%	—%
Other	(2.8)%	(2.0)%	(3.0)%
Effective tax rate	—%	—%	—%

At December 31, 2019, the Company had federal and state NOL carryforwards of $145.5 million and $76.4 million, respectively. The federal and state NOL carryforwards begin to expire in 2028, unless previously utilized. The federal NOL carryforwards generated after 2017 have an indefinite carryforward life. The Company also has federal, including orphan drug, and state research credit carryforwards of $8.3 million and $2.4 million, respectively. The federal research credit carryforwards will begin expiring in 2027, unless previously utilized. The state research credit will carry forward indefinitely. The change in the valuation allowance is a decrease of $0.7 million for the year ended December 31, 2019, an increase of $4.4 million for the year ended December 31, 2018 and a decrease of $9.0 million for the year ended December 31, 2017.

Pursuant to Internal Revenue Code (IRC) Sections 382 and 383, annual use of the Company's NOL or research and development credit carryforwards may be limited in the event a cumulative change in ownership of more than 50% occurs within a three-year period. The Company previously completed a study to assess whether an ownership change, as defined by IRC Section 382, had occurred from its formation through December 31, 2017. Based upon this study, the Company determined that ownership changes had occurred in 2006 and 2013 but concluded that the annual utilization limitation would be sufficient to utilize the Company's pre-ownership change NOLs and research and development credits prior to expiration, with the exception of a de minimis amount. Future ownership changes may limit the Company's ability to utilize its remaining tax attributes. The Company recognizes the impact of uncertain income tax positions at the largest amount that is "more likely than not" to be sustained upon audit by the relevant taxing authority. An uncertain tax position will not be recognized if it has less than a 50% likelihood of being sustained.

The following table summarizes the activity related to the Company's unrecognized tax benefits(in thousands):

	2019	2018	2017
Balance at beginning of year	$ 2,221	$ 1,932	$ 1,319
Additions based on tax positions related to the current year	—	289	613
Reductions based on tax positions related to prior years	(80)	—	—
Balance at end of year	$ 2,141	$ 2,221	$ 1,932

The Company does not expect that the unrecognized tax benefits will change within 12 months of this reporting date. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact the Company's effective tax rate. The Company's policy is to recognize interest and penalties related to income tax matters in income tax expense. For the years ended December 31, 2019, 2018 and 2017, the Company has not recognized any interest or penalties related to income taxes.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by the federal and state jurisdictions where applicable. There are currently no pending income tax examinations. The Company's tax years for 2005 and forward are subject to examination by the federal and California tax authorities due to the carryforward of unutilized net operating losses (NOLs) and research and development credits.

9. Collaboration and License Agreements

In December 2016, the Company entered into the Collaboration Agreement, pursuant to which the Company granted Novartis an exclusive option to collaborate with the Company to develop products containing emricasan. Pursuant to the Collaboration Agreement, the Company received a non-refundable upfront payment of $50.0 million from Novartis.

In May 2017, Novartis exercised its option under the Collaboration Agreement. In July 2017, the Company received a $7.0 million option exercise payment, at which time the license under the Collaboration Agreement became effective (the License Effective Date). The Company and Novartis entered into an amendment to the Collaboration Agreement, pursuant to which they mutually agreed to terminate the Collaboration Agreement in September 2019.

Under the Collaboration Agreement, the Company was eligible to receive up to an aggregate of $650.0 million in milestone payments over the term of the Collaboration Agreement, contingent on the achievement of certain development, regulatory and commercial milestones, as well as royalties or profit and loss sharing on future product sales in the United States, if any.

Novartis was to pay 50% of the Company's Phase 2b and observational study costs pursuant to an agreed upon budget. Upon completion of the Phase 2b trials, Novartis would have assumed 100% of the observational study costs and full responsibility for emricasan's Phase 3 development and all combination product development. Due to the termination of the Collaboration Agreement, the Company will not receive any future milestone, royalty or profit and loss sharing payments under the Collaboration Agreement.

Pursuant to the terms of termination of the Collaboration Agreement, the Company and Novartis continued to share the costs of the Phase 2b trials equally until December 31, 2019, and Novartis will pay up to $150,000 for its share of the costs of the Phase 2b trials, if any, in 2020. The Company accounted for the termination of the Collaboration Agreement as a contract modification of an existing contract as the remaining services are not distinct and, therefore, form part of a single performance obligation that is partially satisfied as of the contract modification date.

Concurrent with entry into the Collaboration Agreement, the Company entered into the Investment Agreement, whereby the Company was able to borrow up to $15.0 million at a rate of 6% per annum, under one or two notes, with a maturity date of December 31, 2019. On February 15, 2017, the Company issued the Novartis Note in the principal amount of $15.0 million pursuant to the Investment Agreement. The terms of the Novartis Note allowed the Company to convert the principal and accrued interest into the Company's common stock at a conversion price equal to 120% of the 20-day trailing average closing price per share of the common stock immediately prior to the conversion date. On December 5, 2018, the Company, at its option, converted the entire outstanding principal of $15.0 million and accrued and unpaid interest of the Novartis Note into 2,882,519 shares of the Company's common stock at a conversion price of $5.77 per share.

Under the Collaboration Agreement, there were two significant performance obligations: the license and the research and development services, but the license was not distinct from the research and development services as Novartis could not obtain value from the license without the research and development services, which the Company was uniquely able to perform. The Company concluded that progress towards completion of the performance obligations related to the Collaboration Agreement was best measured in an amount proportional to the collaboration expenses incurred and the total estimated collaboration expenses. The transaction price

recognized as revenue under the Collaboration Agreement consisted of the upfront payment, option exercise fee, deemed revenue from the premium paid by Novartis under the Investment Agreement and estimated reimbursable research and development costs. Certain expenses directly related to execution of the Collaboration Agreement were capitalized as assets on the balance sheet and were expensed in a manner consistent with the methodology used for recognizing revenue.During the quarter ended June 30, 2019, as a result of the decision to discontinue the development of emricasan, the Company significantly reduced the transaction price and the total estimated reimbursable research and development expenses under the Collaboration Agreement. The net effect of these changes resulted in the recognition of a cumulative catch-up in revenue of $4.6 million, which was recorded as a change in estimate during the three months ended June 30, 2019.

A reconciliation of the opening and closing balances of deferred revenue related to the Collaboration Agreement, which represents the unrecognized balance of the transaction price, is as follows (in thousands):

	Deferred Revenue
Balance at December 31, 2017	$ 26,691
Cumulative effect of adoption of accounting standard	1,299
Additions to deferred revenue	18,486
Revenue recognized	(33,586)
Balance at December 31, 2018	12,890
Additions to deferred revenue	8,826
Revenue recognized	(21,716)
Balance at December 31, 2019	$ —

A reconciliation of the opening and closing balances of deferred costs related to execution of the Collaboration Agreement is as follows (in thousands):

	Deferred Costs
Balance at December 31, 2017	$ —
Cumulative effect of adoption of accounting standard	687
Costs recognized	(377)
Balance at December 31, 2018	310
Costs recognized	(310)
Balance at December 31, 2019	$ —

10. Employee Benefits

Effective December 4, 2006, the Company has a defined contribution 401(k) plan for its employees. Employees are eligible to participate in the plan beginning on the first day of employment. Under the terms of the plan, employees may make voluntary contributions as a percent of compensation. Effective January 1, 2007, the Company instituted a safe harbor matching contribution program. Contributions to the matching program totaled $192,000, $239,000 and $217,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

11. Commitments

Leases

The Company determines if an arrangement is a finance lease, operating lease or short-term lease at inception, or as applicable, and accounts for the arrangement under the relevant accounting literature. Currently, the Company is only party to a non-cancelable office space operating lease and short-term lease arrangements. Under the relevant guidance, the Company recognizes operating lease ROU assets and liabilities based on the present value of the future minimum lease payments over the lease term at the commencement date, using the Company's assumed incremental borrowing rate of 12%, and amortizes the ROU assets and liabilities over the lease term. Lease expense for operating leases is recognized on a straight-line basis over the lease term. The Company's short-term leases are not subject to recognition of an ROU asset or liability or straight-line lease expense requirements.

In February 2014, the Company entered into a noncancelable operating lease agreement (the Lease) for certain office space with a lease term from July 2014 through December 2019 and a renewal option for an additional five years. In May 2015, the Company entered into a first amendment to the Lease (the First Lease Amendment) for additional office space starting in September 2015

through September 2020. The First Lease Amendment also extended the term of the Lease to September 2020. The monthly base rent under the Lease and the First Lease Amendment increases approximately 3% annually from approximately $33,000 in 2015 to approximately $39,000 in 2020.

In December 2019, the Company agreed to sublet the office space, in two phases, under the Lease through September 30, 2020, the reminder of the lease term. As the amounts to be received under the sublease agreement were less than the Company's remaining payment obligations under the Lease, an impairment loss of $50,000 was recorded on the ROU asset, representing the excess of the carrying value of the ROU asset over its fair value.

As of December 31, 2019, the Company's ROU assets and liabilities related to the Lease and the First Lease Amendment are as follows (in thousands):

ROU assets (included in other assets)	$ 221
Current portion of lease liabilities	$ 338
Total lease liabilities	$ 338

The following table reconciles the undiscounted cash flows to the operating lease liabilities recorded in the balance sheet as of December 31, 2019 (in thousands):

Total lease payments	$ 351
Present value adjustment	(13)
Total lease liabilities	$ 338

Rent expense was as follows (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Operating lease	$ 378	$ 378	$ 378
Short-term leases	68	27	—
Total	$ 446	$ 405	$ 378

Other Commitments

In July 2010, the Company entered into a stock purchase agreement with Pfizer, pursuant to which the Company acquired all of the outstanding stock of Idun Pharmaceuticals, Inc., which was subsequently spun off to the Company's stockholders in January 2013. Under the stock purchase agreement, the Company may be required to make payments to Pfizer totaling $18.0 million upon the achievement of specified regulatory milestones.

12. Quarterly Financial Data (unaudited)

The following tables summarize the unaudited quarterly financial data for the last two fiscal years (in thousands, except per share data):

	2019			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Total revenues	$ 7,024	$ 10,791	$ 3,376	$ 526
Total operating expenses	11,974	11,619	6,759	3,371
Total other income	203	172	130	116
Net loss	(4,747)	(656)	(3,253)	(2,729)
Net loss per share, basic and diluted (1)	(0.14)	(0.02)	(0.10)	(0.08)

	2018			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Total revenues	$ 9,737	$ 8,774	$ 7,666	$ 7,409
Total operating expenses	14,794	13,331	12,324	11,414
Total other income	39	60	69	99
Net loss	(5,018)	(4,497)	(4,589)	(3,906)
Net loss per share, basic and diluted (1)	(0.17)	(0.15)	(0.15)	(0.13)

(1) Net loss per share is computed independently for each quarter and the full year based upon respective shares outstanding; therefore, the sum of the quarterly net loss per share amounts may not equal the annual amounts reported.

13. Restructuring Costs

In June 2019, the Company announced a restructuring plan that included reducing staff and suspending development of its inflammasome disease candidate, CTS-2090, in order to extend the Company's resources. As a result, during the three months ended June 30, 2019, the Company recognized one-time employee severance expenses of $1.2 million, which were included in accounts payable and accrued expenses on the balance sheet, and noncash stock compensation expenses related to accelerated vesting of certain employee stock options of $0.3 million, both of which were recorded as operating expenses on the statement of operations and comprehensive loss.

In September 2019, the Company announced a second restructuring plan that included reducing additional staff. As a result, during the three months ended September 30, 2019, the Company recognized one-time employee severance expenses of $0.9 million, which were included in accounts payable and accrued expenses on the balance sheet, and noncash stock compensation expenses related to accelerated vesting of certain employee stock options of $0.3 million, both of which were recorded as operating expenses on the statement of operations and comprehensive loss.

At December 31, 2019, the remaining accrued severance liability totals approximately $0.1 million.

14. Subsequent Events

On January 28, 2020, Conatus, Merger Sub, and Histogen, entered into a Merger Agreement, pursuant to which, among other matters, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into Histogen, with Histogen continuing as Conatus' wholly owned subsidiary and the surviving corporation of the merger.

Consummation of the merger is subject to certain closing conditions, including, among other things, approval by Conatus' and Histogen's stockholders. Should the Merger Agreement be terminated prior to consummation, the Merger Agreement contains certain termination rights for both Conatus and Histogen, and further provides that, upon termination of the Merger Agreement under specified circumstances, either party may be required to pay the other party a termination fee of $500,000, and in some circumstances reimburse the other party's expenses up to a maximum of $350,000.

EXHIBIT INDEX

Exhibit Number	Description
2.1(1)	Distribution Agreement, dated January 10, 2013, by and between Idun Pharmaceuticals, Inc. and the Registrant
2.2(2)	Agreement and Plan of Merger and Reorganization, dated as of January 28, 2020, by and among the Registrant, Chinook Merger Sub, Inc. and Histogen Inc.
2.3(2)	Support Agreement, by and among the Registrant, Histogen Inc. and certain stockholders of Histogen Inc., dated January 28, 2020
2.4(2)	Support Agreement, by and among the Registrant, Histogen Inc. and certain stockholders of the Registrant, dated January 28, 2020
3.1(3)	Amended and Restated Certificate of Incorporation
3.2(3)	Amended and Restated Bylaws
4.1(4)	Specimen Common Stock Certificate
4.2(1)	First Amended and Restated Investor Rights Agreement, dated February 9, 2011
4.3(1)	Form of Warrant issued to investors in the Registrant's 2013 bridge financing
4.4(4)	Form of Warrant issued to lenders under the Loan and Security Agreement, dated as of July 3, 2013, by and among the Registrant, Oxford Finance LLC, Silicon Valley Bank and the other lenders party thereto
4.5	Description of Capital Stock
10.1#(6)	Form of Indemnity Agreement for Directors and Officers
10.2#(1)	2006 Equity Incentive Plan, as amended, and form of option agreement thereunder
10.3#(4)	2013 Incentive Award Plan and form of option agreement thereunder
10.4#(5)	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under the 2013 Incentive Award Plan.
10.5#(4)	2013 Employee Stock Purchase Plan
10.6#(4)	Non-Employee Director Compensation Program
10.7#(7)	Amended and Restated Non-Employee Director Compensation Program, dated March 24, 2016
10.8#(15)	Amended and Restated Non-Employee Director Compensation Program, dated January 1, 2017
10.9#(4)	Employee Incentive Compensation Plan
10.10#(8)	Amended and Restated Annual Incentive Plan, dated January 1, 2014
10.11#(9)	Amended and Restated Annual Incentive Plan, dated January 1, 2015
10.12#(1)	Employment Agreement, dated December 17, 2008, by and between Steven J. Mento, Ph.D. and the Registrant
10.13#(1)	Employment Agreement, dated December 17, 2008, by and between Alfred P. Spada, Ph.D. and the Registrant
10.14#(10)	Employment Agreement, dated December 17, 2008, by and between Charles J. Cashion and the Registrant
10.15#(4)	Amendment to Employment Agreement, dated July 2, 2013, by and between Steven J. Mento, Ph.D. and the Registrant
10.16#(4)	Amendment to Employment Agreement, dated July 2, 2013, by and between Alfred P. Spada, Ph.D. and the Registrant
10.17#(10)	Amendment to Employment Agreement, dated July 2, 2013, by and between Charles J. Cashion and the Registrant
10.18#(11)	Employment Agreement, dated October 1, 2014, by and between David T. Hagerty, M.D. and the Registrant
10.19#(7)	Employment Agreement, dated April 1, 2016, by and between Edward F. Smith III, Ph.D. and the Registrant

10.20#(15)	Amended and Restated Employment Agreement, dated January 26, 2017, by and between Daniel L. Ripley and the Registrant
10.21#(18)	Employment Agreement, dated August 31, 2017, by and between Keith W. Marshall, Ph.D. and the Registrant
10.22#(5)	Amendment to Employment Agreement, dated July 31, 2019, by and between Steven J. Mento, Ph.D. and the Registrant
10.23#(19)	Amendment to Employment Agreement, dated January 27, 2020, by and between Steven J. Mento, Ph.D. and the Registrant
10.24#(20)	Amendment to Employment Agreement, dated July 31, 2019, by and between Alfred P. Spada, Ph.D. and the Registrant
10.25#(19)	Amendment to Employment Agreement, dated January 27, 2020, by and between Alfred P. Spada, Ph.D. and the Registrant
10.26#(20)	General Release of Claims, dated October 1, 2019, by and between David T. Hagerty, M.D. and the Registrant
10.27#(20)	General Release of Claims, dated July 1, 2019, by and between Edward F. Smith, III, Ph.D. and the Registrant
10.28#(20)	General Release of Claims, dated July 1, 2019, by and between Daniel L. Ripley and the Registrant.
10.29#(20)	Amendment to Employment Agreement, dated July 31, 2019, by and between Keith W. Marshall, Ph.D. and the Registrant
10.30#(19)	Amendment to Employment Agreement, dated January 27, 2020, by and between Keith W. Marshall, Ph.D. M.B.A. and the Registrant
10.31#(18)	Non-Qualified Inducement Stock Option Grant Notice and Stock Option Agreement, dated August 31, 2017, by and between Keith W. Marshall, Ph.D. and the Registrant
10.32#(15)	General Release of Claims, dated March 31, 2017, by and between Charles J. Cashion and the Registrant
10.33†(12)	Stock Purchase Agreement, dated July 29, 2010, by and between Pfizer Inc. and the Registrant
10.34(1)	Promissory Note, dated July 29, 2010, issued by the Registrant to Pfizer Inc.
10.35(4)	Amendment to Promissory Note, dated July 3, 2013, by and between the Registrant and Pfizer Inc.
10.36(17)	Stock Purchase Agreement, dated May 10, 2017, among the Registrant and funds affiliated with Advent Private Equity
10.37(8)	Office Lease Agreement, dated February 28, 2014, by and between the Registrant and The Point Office Partners, LLC
10.38(13)	First Amendment Lease Agreement, dated May 29, 2015, by and between the Registrant and The Point Office Partners, LLC
10.39	Sublease Agreement, dated December 18, 2019, by and between the Registrant and Pacific Real Estate Partnership
10.40(14)	At Market Issuance Sales Agreement, dated as of August 14, 2014, between the Registrant and MLV & Co. LLC
10.41†(16)	Option, Collaboration and License Agreement, dated December 19, 2016, between the Registrant and Novartis Pharma AG
10.42(21)	Amendment to Option, Collaboration and License Agreement, dated September 30, 2019, by and between Novartis Pharma AG and the Registrant
10.43(16)	Investment Agreement, dated December 19, 2016, between the Registrant and Novartis Pharma AG
10.44(16)	Convertible Promissory Note, dated February 15, 2017, issued by the Registrant to Novartis Pharma AG
10.45(22)	At Market Issuance Sales Agreement, dated August 2, 2018, between the Registrant and Stifel, Nicolaus & Company, Incorporated
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm
31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14 and 15d-14 promulgated pursuant to the Securities Exchange Act of 1934, as amended

31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14 and 15d-14 promulgated pursuant to the Securities Exchange Act of 1934, as amended
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of Chief Financial Officer 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

(1) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (Registration No. 333-189305), filed with the SEC on June 14, 2013.
(2) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the SEC on January 28, 2020.
(3) Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on August 1, 2013.
(4) Incorporated by reference to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-189305), filed with the SEC on July 8, 2013.
(5) Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on August 1, 2019.
(6) Incorporated by reference to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-189305), filed with the SEC on July 1, 2013.
(7) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed with the SEC on May 5, 2016.
(8) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013, filed with the SEC on March 28, 2014.
(9) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 8, 2015.
(10) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 11, 2016.
(11) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 13, 2015.
(12) Incorporated by reference to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-189305), filed with the SEC on July 23, 2013.
(13) Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on June 4, 2015.
(14) Incorporated by reference to the Registrant's Registration Statement on Form S-3 (Registration No. 333-198142), filed with the SEC on August 14, 2014.
(15) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 5, 2017.
(16) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 16, 2017.
(17) Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on May 11, 2017.
(18) Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on September 1, 2017.
(19) Incorporated by reference to the Registrant's Registration Statement on Form S-4 (Registration No. 333-236332), filed with the SEC on February 7, 2020.
(20) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed with the SEC on November 5, 2019.
(21) Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on October 4, 2019 The schedules to the agreement have been omitted pursuant to Item 601(a)(5) of Regulation S-K. A copy of any omitted schedule will be furnished to the SEC upon request.
(22) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, filed with the SEC on August 2, 2018.
# Indicates management contract or compensatory plan.
† Confidential treatment has been granted for portions of this exhibit. These portions have been omitted from the exhibit and filed separately with the SEC.
* These certifications are being furnished solely to accompany this annual report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of the Registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

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.

CONATUS PHARMACEUTICALS INC.

/s/ Steven J. Mento, Ph.D.
Steven J. Mento, Ph.D.
President and Chief Executive Officer

Date: March 11, 2020

Know all persons by these presents, that each person whose signature appears below constitutes and appoints Steven J. Mento, Ph.D. and Keith W. Marshall, Ph.D., jointly and severally, his or her attorneys-in-fact, each with the full power of substitution, for him or her in any and all capacities, to sign any amendments to this annual report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ Steven J. Mento, Ph.D. **Steven J. Mento, Ph.D.**	President, Chief Executive Officer and Director (Principal Executive Officer)	March 11, 2020
/s/ Keith W. Marshall, Ph.D. **Keith W. Marshall, Ph.D.**	Executive Vice President, Chief Operating Officer and Chief Financial Officer (Principal Financial Officer)	March 11, 2020
/s/ David F. Hale **David F. Hale**	Chairman of the Board	March 11, 2020
/s/ Daniel L. Kisner, M.D. **Daniel L. Kisner, M.D.**	Director	March 11, 2020
/s/ Preston S. Klassen, M.D., M.H.S. **Preston S. Klassen, M.D., M.H.S.**	Director	March 11, 2020
/s/ William R. LaRue **William R. LaRue**	Director	March 11, 2020
/s/ Kathleen D. Scott **Kathleen D. Scott**	Director	March 11, 2020
/s/ Harold Van Wart, Ph.D. **Harold Van Wart, Ph.D.**	Director	March 11, 2020

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Conatus Pharmaceuticals Inc. ("Conatus", "we", "our" or "us") has one class of securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended: common stock

Description of Common Stock

General

The following summary of the terms of our common stock is based upon our amended and restated certificate of incorporation and amended and restated bylaws. The summary is not complete, and is qualified in its entirety by reference to our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to our most recent Annual Report on Form 10-K and are incorporated by reference herein. We encourage you to read our amended and restated certificate of incorporation, our amended and restated bylaws for additional information.

Under our amended and restated certificate of incorporation, the total number of shares of all classes of stock that we have authority to issue is 210,000,000, consisting of 200,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share.

Common Stock

Voting rights

The holders of shares of Conatus' common stock are entitled to one vote per share on all matters to be voted upon by Conatus' stockholders and there are no cumulative rights.

Dividend rights

Subject to preferences that may be applicable to any outstanding preferred stock, the holders shares of Conatus' of common stock are entitled to receive ratably any dividends that may be declared from time to time by Conatus' board of directors out of funds legally available for that purpose. Any determination about the payment of dividends will be made at the discretion of Conatus' board of directors and will depend upon its earnings, if any, capital requirements, operating and financial conditions and on such other factors as Conatus' board of directors deems relevant.

Liquidation rights

In the event of liquidation of Conatus, dissolution or winding up, the holders of shares of Conatus' common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding.

Rights and preferences

Conatus' common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to Conatus' common stock.

Fully paid and nonassessable

The outstanding shares of Conatus' common stock are fully paid and non-assessable, and any shares of Conatus' common stock to be issued upon an offering pursuant will be fully paid and nonassessable upon issuance.

Anti-Takeover Effects of Provisions of Conatus Charter Documents

Conatus' amended and restated certificate of incorporation provides for Conatus' board of directors to be divided into three classes serving staggered terms. Approximately one-third of the board of directors will be elected each year. The provision for a classified board could prevent a party who acquires control of a majority of Conatus' outstanding voting stock from obtaining control of Conatus' board of directors until the second annual stockholders meeting following the date the acquirer obtains the controlling stock interest. The classified board provision could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of Conatus and could increase the likelihood that incumbent directors will retain their positions. Conatus' amended and restated certificate of incorporation provides that directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the voting power of the outstanding shares of capital stock of Conatus entitled to vote thereon.

Conatus' amended and restated certificate of incorporation provides that certain amendments of Conatus' certificate of incorporation and amendments by the stockholders of Conatus' amended and restated bylaws require the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of Conatus entitled to vote thereto. These provisions could discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of Conatus and could delay changes in management.

Conatus' amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of Conatus' stockholders, including proposed nominations of persons for election to Conatus' board of directors. At an annual meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of Conatus' board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder at the time of giving notice and at the time of the meeting, who is entitled to vote at the meeting and who has complied with the notice requirements of Conatus' amended and restated bylaws in all respects. The amended and restated bylaws do not give Conatus' board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of Conatus' stockholders. However, Conatus' amended and restated bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of Conatus.

Conatus' amended and restated bylaws provide that a special meeting of Conatus' stockholders may be called only by the Conatus board of directors, chairperson of the board, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by any other person or persons. Because Conatus' stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of Conatus' board of directors by calling a special meeting of stockholders prior to such time as a majority of Conatus' board of directors, the chairperson of Conatus' board of directors, the president or the chief executive officer believed the matter should be considered or until the next annual meeting, *provided* that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace Conatus' board of directors also could be delayed until the next annual meeting.

Conatus' amended and restated bylaws do not allow Conatus' stockholders to act by written consent without a meeting. Without the availability of stockholder action by written consent, a holder controlling a majority of Conatus' capital stock would not be able to amend Conatus' amended and restated bylaws or remove directors without holding a stockholders' meeting.

Anti-Takeover Effects of Delaware Law

Conatus is subject to the provisions of Section 203 of the General Corporation Law of Delaware ("Section 203"). Under Section 203, Conatus would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to this time, Conatus' board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of Conatus' voting stock outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers, and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by Conatus' board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 and 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder, subject to limited exceptions;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

The provisions of Delaware law and Conatus' amended and restated certificate of incorporation and amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of Conatus' common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in management. It is possible that these provisions may make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Listing

Conatus' common stock is listed on the Nasdaq Capital Market under the symbol "CNAT."

Transfer Agent

The transfer agent and registrar for Conatus' common stock is American Stock Transfer & Trust Company, LLC.

Exhibit 10.39

SUBLEASE AGREEMENT

THIS AGREEMENT OF SUBLEASE (the "Sublease") made as of this 18 day of December, 2019, by and between **CONATUS PHARMACEUTICALS INC.**, a Delaware corporation (hereinafter referred to as Sublessor) and **REAL ESTATE OF THE PACIFIC DBA PACIFIC SOTHEBY'S INTERNATIONAL REALTY** a California Corporation (hereinafter referred to as Sublessee).

WITNESSETH:

WHEREAS, on February 28, 2014, Sublessor, as Tenant, entered into a lease (which lease, including the First Amendment to Lease Agreement dated May 29, 2015, is hereinafter referred to as the "Master Lease") with The Point Office Partners, LLC, as Landlord (hereinafter referred to as the "Master Lessor"), which lease, concerns approximately 9,954 rentable square feet located in Suite 200 (the "Initial Premises") and 3,271 rentable square feet located in Suite 250 (the "Expansion Premises", together with the Initial Premises, 13,225 rentable square feet referred to as the "Subleased Premises") within that certain building located at 16745 West Bernardo Drive, San Diego, California (the "Building"); and,

WHEREAS, Sublessee desires to sublease the Subleased Premises from Sublessor, and Sublessor desires to sublease the Subleased Premises to Sublessee.

NOW, THEREFORE, in consideration of the rents and covenants hereinafter set forth to be paid and performed by Sublessee, Sublessor does hereby demise, lease and let unto Sublessee, and the Sublessee does hereby lease and take from Sublessor upon the terms and conditions hereinafter set forth the following described Subleased Premises:

Approximately 9,954 rentable square feet of space located in Suite 200 and 3,271 rentable square feet located in Suite 250 in the Building as shown on the sketch attached hereto as **Exhibit A** and incorporated herein by reference.

1. RELATIONSHIP TO MASTER LEASE. The Sublease and all its terms, covenants and provisions are and each of them is subject and subordinate to (i) the Master Lease (a copy of which is attached hereto as **Exhibit B** and made a part hereof by reference) under which Sublessor is in control of the Subleased Premises; (ii) the rights as contained in the Master Lease of the owner or owners of the Premises and/or the land and building of which the Subleased Premises are a part; (iii) all rights of Master Lessor as contained in the Master Lease; and (iv) to any and all mortgages or encumbrances now or hereafter affecting the Subleased Premises to which the Master Lease would be subordinated. Sublessee expressly agrees that, if Sublessor's tenancy, control or right to possession shall terminate by expiration or any other cause not due to the fault of Sublessor, this Sublease shall thereupon immediately cease and terminate and Sublessee shall give immediate possession to Sublessor; provided however, that the liability of the Sublessee to the Sublessor or the

liability of the Sublessor to the Sublessee for termination caused by the applicable party's default under this Sublease shall not be discharged by reason of such termination.

2. PERFORMANCE OF MASTER LEASE TERMS. With respect to the Subleased Premises, Sublessee shall receive all benefits which accrue to Sublessor under the Master Lease as it relates to the Subleased Premises, subject to the terms of this Sublease. Sublessee hereby expressly, and without condition or reservation, agrees to assume the obligation for performance of all Sublessor's responsibilities under the Master Lease with respect to the Subleased Premises and, during the term hereof, to be subject to and bound by, and to faithfully and punctually perform and comply with all of the covenants, conditions, stipulations, restrictions and agreements contained therein except as expressly excluded herein. Sublessee hereby agrees to indemnify and hold harmless Sublessor from and against any loss, claim, damage, expense or injury (including reasonable attorney's fees and court costs) which Sublessor may incur as a result of Sublessee's failure to perform such obligations on behalf of Sublessor. Sublessor covenants and agrees that if and so long as Sublessee pays the Base Rent required of Sublessee to be paid hereunder and Sublessee otherwise fully, faithfully and punctually observes the covenants and conditions hereof and the Master Lease, Sublessee shall quietly enjoy the Subleased Premises without interference from anyone claiming by or through Sublessor. Notwithstanding any other provision of this Sublease, Sublessor, as sublandlord under this Sublease, shall have the benefit of all rights, waivers, remedies and limitations of liability enjoyed by Master Lessor, as the Landlord under the Master Lease, the terms of which are hereby incorporated herein by this reference, but (i) Sublessor shall have no obligation under this Sublease to perform the obligations of Master Lessor, as Landlord under the Master Lease, including without limitation any obligation to provide services or maintain insurance with respect to the Subleased Premises; (ii) Sublessor shall not be bound by any representations or warranties of the Master Lessor under the Master Lease; (iii) in any instance where the consent of Master Lessor is required under the terms of the Master Lease, the consent of Sublessor and Master Lessor shall be required, and (iv) Sublessor shall not be liable to Sublessee for any failure or delay in Master Lessor’s performance of its obligations as Landlord under the Master Lease.

3. TERM. The term of this Sublease shall commence upon mutual execution of the Sublease and five (5) days after obtaining approval of Master Lessor ("Commencement Date") and expiring on September 30, 2020 (the “Sublease Term”). Notwithstanding the foregoing, Sublessee will commence subleasing the Expansion Premises on April 1, 2020 (“Expansion Premises Commencement Date”) and expiring on September 30, 2020.

4. RENT. Commencing on the Commencement Date, during the Sublease Term, Sublessee covenants to pay Sublessor Base Rent in monthly installments of $22,396.50 for the Initial Premises and commencing on the Expansion Premises Commencement Date, $3,271 for the Expansion Premises.

Sublessee shall pay Base Rent for the Initial Premises for the first month of the Sublease Term at the time of its execution of this Sublease.

In addition to Base Rent, Sublessee shall pay 100% of electricity used in the Subleased Premises, which shall be separately metered by SDG&E, any other utilities and services exclusively serving the Subleased Premises (if Sublessee does not contract directly with the utility provider, then Sublessee will pay Sublessor such amounts due within fifteen (15) days of being presented with a statement of electricity and utilities charges from Sublessor). Sublessee shall pay Sublessor the Base Rent without offset or deduction, prior notice or demand, in advance on the first day of each calendar month of the term hereof. If the Commencement Date is a day other than the first day of a month, Base Rent for the month in which the Commencement Date occurs shall be prorated. Where permitted by applicable law, if any payment of Base Rent is not paid when due, Sublessee shall pay the Sublessor upon demand, as a late charge, an amount equal to five percent (5%) of each Base Rent installment, or any part thereof, which is overdue for more than ten (10) days.

5. USE. Sublessee shall use the Subleased Premises only for the Permitted Use under the Master Lease and at all times in compliance with the Master Lease.

6. CONDITION OF PREMISES; SUBLESSEE'S UPFIT; SUBLESSEE (i) ACCEPTS THE SUBLEASED PREMISES IN THEIR "AS IS" CONDITION ON THE COMMENCEMENT DATE HEREOF, (ii) ACKNOWLEDGES THAT SUBLESSOR HAS MADE AND MAKES NO REPRESENTATIONS OR WARRANTIES CONCERNING THE CONDITION OF THE SUBLEASED PREMISES OR THEIR FITNESS FOR THE USE INTENDED BY SUBLESSEE, AND (iii) AGREES THAT TO THE MAXIMUM EXTENT PERMITTED BY LAW THE SUBLESSEE WAIVES ANY CLAIM IT HAS, MAY HAVE, OR OUGHT TO HAVE AGAINST THE SUBLESSOR, BASED ON OR ARISING OUT OF THE CONDITION OF THE SUBLEASED PREMISES. Sublessee shall, at all times during the term hereof, keep and maintain the Subleased Premises in good condition and repair as required by the Master Lease. Notwithstanding the foregoing, Sublessee shall have the right to make certain improvements to and installations in the Subleased Premises, all at Sublessee's sole cost and expense, provided that Sublessee has obtained the approval of Sublessor and Master Lessor to (i) a reasonably detailed set of plans and specifications, (ii) the contractor who will prepare such work (as well as the construction contract and budget, and (iii) the source of funds from which Sublessee will pay for such upfit work, all such plans, specifications and work to be in compliance with applicable laws and performed in a good and workmanlike manner (the "Upfit Work"). Sublessor or Master Lessor may require lien waiver(s) from all contractors in connection with progress payment and completion of the Upfit work.

7. INSURANCE AND INDEMNIFICATIONS. At all times during the term of this Sublease, Sublessee shall, at Sublessee's expense, keep in effect (i) a policy of comprehensive general liability insurance with a company and in amounts as required under the Master Lease, which policy shall name Sublessor and Master Lessor as additional insureds; (ii) a policy of workers' compensation insurance in at least the statutory amounts; and (iii) insurance covering loss to Sublessee's personal property by fire or other casualty in accordance with the provisions of the Master Lease. Sublessee shall indemnify, defend and hold harmless the Sublessor from and against any loss, claim, damage, expense or injury to persons or property caused by or arising out of (i) use and occupancy by Sublessee, its agents, employees, contractors, licensees, or invitees, of the Subleased Premises; (ii) Sublessee's default in the performance of its obligations hereunder or under

the terms of the Master Lease; or (iii) any negligent or intentional act or omission by Sublessee, its agents, employees, contractors, licensees or invitees.

8. SURRENDER. At the expiration or earlier termination of this Sublease, Sublessee shall surrender the Subleased Premises to Sublessor in broom clean condition in the same condition as on the Commencement Date hereof, ordinary wear and tear excepted. Sublessee warrants and covenants that it will pay the full cost of any repairs or maintenance necessary to restore the Subleased Premises to the same condition as on the Commencement Date hereof, ordinary wear and tear excepted, and subject to Master Lessor's requirements that Sublessee remove any of its Upfit work and restore the Subleased Premises.

9. ASSIGNMENT AND SUBLETTING. Sublessee will have sublease and assignment rights per the Master Lease, provided that in addition to obtaining necessary approvals from Master Lessor, Sublessor's approvals will also be required.

10. DEFAULT. If Sublessee shall default (i) in the payment of Base Rent as required hereunder, when and as due, or (ii) if Sublessee shall default in the performance of any of the other terms, covenants and conditions of this Sublease which remain uncured for fifteen (15) days after written notice, or (iii) if any act or omission of Sublessee would be a default under the Master Lease were Sublessee the tenant thereunder, then Sublessor may (aa) avail itself of any remedy available to the Master Lessor under the Master Lease; (bb) avail itself of any statutory remedy provided by the laws of the state in which the Subleased Premises are situated; (cc) re-enter, retake and repossess the Premises with or without notice or summary process; and/or (dd) terminate this Sublease.

11. ACCESS. Sublessor shall be permitted access to the Subleased Premises at all reasonable times upon reasonable advance notice, or at any time in case of emergency, or to inspect the Subleased Premises or access Sublessor's phone or internet hardware located in the Subleased Premises. Sublessor shall attempt to conduct all of its activities permitted under this paragraph in a manner which will not unreasonably inconvenience, annoy or disturb the Sublessee in its use and occupancy of the Subleased Premises.

12. NOTICE. Any notice required or permitted to be sent pursuant to this Sublease shall be sent by facsimile or certified mail, return receipt requested, postage prepaid to the parties at the following addresses or facsimile numbers and to such other addresses or facsimile numbers as they shall from time to time indicate:

Sublessee:	**Sublessor:**

Exhibit 10.39

Prior to the Commencement Date: _____ Attention:Brian Arrington Phone:858-705-6041 Email:barrington@pacificsir.com After the Commencement Date: At the Sublease Premises Attention:Brian Arrington Phone:858-705-6041 Fax: Email:barrington@pacificsir.com	16745 West Bernardo Drive, Suite 200 San Diego, CA 92127 Attention: Chief Financial Officer Phone: 858-376-2600 Email:

13. SUBLESSOR RELEASED FROM LIABILITY IN CERTAIN EVENTS. Sublessor shall not be responsible to Sublessee, at any time or in any event, for deterioration or change in the condition of the Subleased Premises not caused by Sublessor's gross negligence or willful misconduct. Sublessor shall also not be responsible for any damage to Sublessee's property contained therein, including injury to persons whether caused by riot or civil commotion, fire or earthquake damage, or overflow or leakage upon or into the Subleased Premises, of water, steam, gas or electricity, or by any breakage in pipes or plumbing, or breakage, leakage or obstruction of sewer pipes or other damage occasioned by water being upon or coming through the roof, skylight, trapdoors, walls, basement or otherwise, nor for failure of the heating (steam) plant, nor for loss of property by theft or otherwise, nor for any damage arising from any act or neglect of any co-tenant or other occupant of the Subleased Premises, or for that of any owner or occupants of adjoining or contiguous property unless said damage, loss or injury results from the gross negligence or willful misconduct of Sublessor or its agents, employees or contractors.

14. CONSENT OF MASTER LESSOR. This Sublease is Subject to and conditioned upon the consent of the Master Lessor.

15. ENTIRE AGREEMENT. This Sublease (including the provisions of the Master Lease incorporated herein by reference) contains the entire agreement between the parties and any agreement hereafter made shall be ineffective to change, modify or discharge it in whole or in part unless such agreement is in writing and signed by the parties hereto.

16. SUBLESSEE'S REPRESENTATIONS AND WARRANTIES. Sublessee represents and warrants that (i) Sublessee is a California Corp [entity] existing and in good standing under the laws of the State of California and Sublessee is duly authorized to enter into this Sublease; (ii) the officer executing this Sublease on behalf of Sublessee is duly authorized to do so and to bind the Sublessee hereto; and (iii) Sublessee shall provide Sublessor, upon request, with financial information on Sublessee reasonably satisfactory to Sublessor, including, without limitation, an Income Statement, a Balance Sheet, a Statement of Cash Flows, and Notes to Financial Statements.

17. MISCELLANEOUS.

a.If any term, covenant or condition of this Sublease or the application thereof to any circumstances or to any person, corporation or other entity shall be invalid or unenforceable to any extent, the remaining terms, covenants and conditions of this Sublease shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

b.The paragraph headings contained in this Sublease have been included for convenience only and shall not be used in the construction or interpretation of this Sublease.

c. This Sublease shall be governed by and construed in accordance with the laws of the State of California.

18. ATTORNEYS' FEES. In the event that any action or proceeding shall be brought by any party hereto against the other with respect to any matter arising under this Sublease, the prevailing party shall be entitled to recover from the other costs of suit and reasonable attorney's fees actually incurred.

19. SUCCESSORS AND ASSIGNS. This Sublease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

20. HOLDOVER & OPTION TO EXTEND. Sublessee shall not be permitted to holdover after the expiration or earlier termination of the Master Lease, and Sublessee shall indemnify Sublessor from and against any loss, cost or damage resulting therefrom.

21. BROKERAGE. Sublessee represents and warrants that it has dealt with no real estate broker or agent other than Pacific Sotheby's International Realty, and Sublessor warrants that it has dealt with no real estate broker or agent other than RE:Align, Inc. with respect to this transaction. Each party shall indemnify and hold harmless the other from and against all claims of any other broker or agent claiming to have represented Sublessee or Sublessor as the case may be in this matter.

22.SECURITY DEPOSIT. Sublessee has concurrently with the execution of this Sublease deposited with Sublessor the sum of $25,667.50 (hereinafter sometimes referred to as the "Security Deposit") as security for the full performance of every provision of this Sublease by Sublessor. If Sublessee shall fully perform each provision of this Sublease, any portion of the Security Deposit which has not been used by Sublessor to apply to any costs, charges or payments owing by Sublessee to Sublessor hereunder shall be returned to Sublessee without interest within thirty (30) days after the expiration of the Sublease Term. Sublessor may deliver the funds deposited hereunder by Sublessee to the purchaser or transferee of Sublessor's interest in the Premises in the event that such interest be sold or transferred, and, in the event the purchaser or transferee assumes the obligations of Sublessor, thereupon Sublessor shall be discharged from any further liability with respect to such Security Deposit.

23. PARKING; SIGNAGE. Sublessee shall be entitled to utilize its pro rata share of parking spaces with the same parking rights with respect to the Subleased Premises as Sublessor is entitled to under the terms of the Master Lease and no more. Subject to Master Lessor's approval, Sublessee will be entitled to install signage at the entrance to the Subleased Premises.

24. FURNITURE AND PERSONAL PROPERTY. Sublessor grants to Sublessee at no cost and for the Term of this Sublease a license to use the furniture, fixtures and data cabling existing in the Subleased Premises as of the Commencement Date and owned by Sublessor, (the "FFE"), including, without limitation, such FFE as is more particularly described in **Exhibit C**, attached hereto and made a part hereof. Sublessee understands and agrees that the FFE may or may not be 100% accurately described in **Exhibit C** and Sublessor agrees to make its best efforts to ensure that

the FFE described in **Exhibit** C reflects as accurately as possible the FFE existing on the Sublease Delivery Date, with no major items missing. Sublessee accepts the FFE in its "AS IS" condition, with no representation or warranty of any kind, express or implied, from Sublessor with respect to the same. At the expiration or earlier termination of the Sublease Term, Sublessee will purchase and own the FFE for $1.00.

[The following page is the signature page.]

Exhibit 10.39

IN WITNESS WHEREOF, Sublessor and Sublessee have duly executed this Agreement of Sublease effective as of the day and year first-above written.

SUBLESSOR: SUBLESSEE:

CONATUS PHARMACEUTICALS INC.

By: /s/ Keith W. Marshall, Ph.D.

Name: Keith W. Marshall, Ph.D.
Title: EVP, COO & CFO
Date: December 19, 2019

REAL ESTATE OF THE PACIFIC DBA PACIFIC SOTHEBY'S INTERNATIONAL REALTY

by: Real Estate of the Pacific Inc., a California corporation
By: /s/ Brian Arrington

Name: Brian Arrington
Title: President
Date: December 18, 2019

By: Pickford Realty, Inc, a California corporation
By: /s/ Brian Arrington
Name: Stephen C. Games
Title: President
Date: December 19, 2019

By: /s/ Nyda Jones Church
Name: Nyda Jones Church
Title: Vice President
Date: December 19, 2019

Exhibit 10.39

Exhibit 10.39

EXHIBIT A

Subleased Premises

= Initial Premises
= Expansion Premises

Exhibit 10.39

EXHIBIT B

Master Lease

Exhibit 10.39

EXHIBIT C

FFE

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Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-211162) pertaining to the Conatus Pharmaceuticals Inc. 2013 Incentive Award Plan,

(2) Registration Statement (Form S-8 No. 333-190134) pertaining to the Conatus Pharmaceuticals Inc. 2013 Incentive Award Plan, the Conatus Pharmaceuticals Inc. 2006 Equity Incentive Award Plan and the Conatus Pharmaceuticals Inc. 2013 Employee Stock Purchase Plan,

(3) Registration Statement (Form S-3 No. 333-220014) of Conatus Pharmaceuticals Inc.,

(4) Registration Statement (Form S-8 No. 333-223552) pertaining to the Conatus Pharmaceuticals Inc. 2013 Incentive Award Plan and a Non-Qualified Inducement Stock Option Grant Notice and Stock Option Agreement, and

(5) Registration Statement (Form S-4 No. 333-236332) of Conatus Pharmaceuticals Inc.;

of our report dated March 11, 2020, with respect to the financial statements of Conatus Pharmaceuticals Inc. included in this Annual Report (Form 10-K) of Conatus Pharmaceuticals Inc. for the year ended December 31, 2019.

/s/ Ernst & Young LLP

San Diego, California
March 11, 2020

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Steven J. Mento, Ph.D., certify that:

1. I have reviewed this annual report on Form 10-K of Conatus Pharmaceuticals Inc. for the fiscal year ended December 31, 2019;

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, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal 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 in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this 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: March 11, 2020

/s/ Steven J. Mento, Ph.D.
Steven J. Mento, Ph.D.
President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Keith W. Marshall, Ph.D., certify that:

1. I have reviewed this annual report on Form 10-K of Conatus Pharmaceuticals Inc. for the fiscal year ended December 31, 2019;

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, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal 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 in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this 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: March 11, 2020

/s/ Keith W. Marshall, Ph.D.
Keith W. Marshall, Ph.D.
Executive Vice President, Chief Operating Officer and
Chief Financial Officer
(principal financial officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of Conatus Pharmaceuticals Inc. (the "Company") on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Steven J. Mento, Ph.D., President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 11, 2020

/s/ Steven J. Mento, Ph.D.
Steven J. Mento, Ph.D.
President and Chief Executive Officer
(principal executive officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of Conatus Pharmaceuticals Inc. (the "Company") on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Keith W. Marshall, Ph.D., Executive Vice President, Chief Operating Officer and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 11, 2020

/s/ Keith W. Marshall, Ph.D.
Keith W. Marshall, Ph.D.
Executive Vice President, Chief Operating Officer and Chief Financial Officer
(principal financial officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.