

PROSPECTUS SUPPLEMENT  
(To Prospectus dated May 22, 2019)

## 1,317,060 Shares of Common Stock



We are offering 1,317,060 shares of our common stock, \$0.001 par value per share, to institutional and accredited investors pursuant to this prospectus supplement and the accompanying prospectus and a securities purchase agreement with such investors. In a concurrent private placement, we are selling to such investors warrants to purchase up to 100% of the number of shares of our common stock purchased by such investors in this offering (the “Warrants”). The Warrants and the shares of our common stock issuable upon the exercise of the Warrants are not being registered under the Securities Act of 1933, as amended, (the “Securities Act”), are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder.

Our common stock is listed on the Nasdaq Capital Market under the symbol “DFFN”. The Warrants being issued in the concurrent private placement are not listed on any securities exchange and we do not expect to list the Warrants. On May 22, 2019, the last reported sale price per share of our common stock was \$4.88 per share. As of May 23, 2019, the aggregate market value of our outstanding common stock held by non-affiliates was approximately \$19.34 million, based on an aggregate of 3,379,345 shares of common stock outstanding, of which 3,278,276 shares were held by non-affiliates, and a price per share of \$5.90, the closing price of our common stock on May 2, 2019, as reported on the Nasdaq Capital Market. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus supplement but excluding the shares being sold pursuant to this offering.

**Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-4 of this prospectus supplement.**

We engaged H.C. Wainwright & Co., LLC as our exclusive placement agent to use their reasonable best efforts to solicit offers to purchase the securities in this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. We expect that delivery of the shares being offered pursuant to this prospectus supplement and the accompanying prospectus will be made on or about May 28, 2019.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.**

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<b>Common Stock</b>	<b>Per Share</b>		<b>Maximum Offering</b>
Public offering price <sup>(1)</sup>	\$	4.77	\$ 6,282,376
Placement agent fees <sup>(1)(2)</sup>	\$	0.3816	\$ 502,590
Proceeds to us, before expenses <sup>(1)</sup>	\$	4.3884	\$ 5,779,786 <sup>(3)</sup>

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- (1) The public offering price excludes the price per warrant of \$0.125 to be purchased by any investor in the concurrent private placement and the placement agent fees to be paid and proceeds to be received from the sale of such warrants.
  - (2) We have also agreed to (i) grant warrants to purchase shares of common stock to the placement agent as described under “Plan of Distribution” in this prospectus supplement, and (ii) pay the placement agent a management fee equal to 1.0% of the gross proceeds of this offering, \$25,000 for non-accountable expenses, reimbursement for legal fees and expenses of the placement agent up to \$100,000, and \$10,000 for clearing expenses of the placement agent. For additional information about the compensation paid to the placement agent, see “Plan of Distribution.”
  - (3) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the Warrants being issued in the concurrent private placements or the warrants to be issued to the placement agent.

**H.C. Wainwright & Co.**

The date of this prospectus supplement is May 23, 2019.

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## ABOUT THIS PROSPECTUS SUPPLEMENT

You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus supplement, the accompanying prospectus, and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety before making an investment decision. You also should read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled “Information Incorporated by Reference” and “Where You Can Find More Information” and the sections of the accompanying prospectus entitled “Information Incorporated by Reference” and “Where You Can Find More Information.”

On May 16, 2019, we filed with the Securities and Exchange Commission, or the SEC, a registration statement on Form S-3 (File No. 333-231541) utilizing a “shelf” registration process relating to the securities described in this prospectus supplement, which registration statement was declared effective on May 22, 2019. Under this “shelf” registration process, we may, from time to time, sell common stock, preferred stock, warrants, units and/or rights, of which this offering is a part. This document contains two parts. The first part consists of this prospectus supplement, which provides you with specific information about this offering. The second part, the accompanying prospectus, dated May 22, 2019, provides more general information, some of which may not apply to this offering. Generally, when we refer only to the “prospectus,” we are referring to both parts combined. This prospectus supplement may add to, update or change information contained in the accompanying prospectus. To the extent that any statement we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference herein or therein, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference herein and therein.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

For investors outside the United States, we have not done anything that would permit this offering or possession or distribution of this prospectus supplement in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus supplement outside of the United States.

As permitted by the rules and regulations of the SEC, the registration statement, of which this prospectus supplement and the accompanying prospectus form a part, includes additional information not contained in this prospectus supplement or the accompanying prospectus. You may read the registration statement and the other reports we file with the Commission at the SEC’s website described below under the heading “Where You Can Find More Information.”

Unless we have indicated otherwise, or the context otherwise requires, references in this prospectus supplement and the accompanying prospectus to “Diffusion,” “the Company,” “we,” “us” and “our” or similar terms are to Diffusion Pharmaceuticals Inc. and its subsidiaries.

## FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the other information and documents incorporated by reference herein include forward-looking statements. We may, in some cases, use terms such as “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements appear in and are incorporated by reference into a number of places throughout this prospectus supplement and the accompanying prospectus and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, our intellectual property position, the degree of clinical utility of our products, particularly in specific patient populations, expectations regarding clinical trial data, our ability to commercialize our product candidates, our results of operations, cash needs, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in and incorporated by reference into this prospectus supplement and the accompanying prospectus. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in and incorporated by reference into this prospectus supplement and the accompanying prospectus, they may not be predictive of results or developments in future periods.

Actual results could differ materially from our forward-looking statements due to a number of factors, including risks related to:

- our ability to obtain additional financing;
- our estimates regarding expenses, capital requirements and needs for additional financing;
- the success and timing of our preclinical studies and clinical trials;
- the difficulties in obtaining and maintaining regulatory approval of our products and product candidates, and the labeling under any approval we may obtain;
- our plans and ability to develop and commercialize our product candidates;
- our failure to recruit or retain key scientific or management personnel or to retain our executive officers;
- the accuracy of our estimates of the size and characteristics of the potential markets for our product candidates and our ability to serve those markets;
- regulatory developments in the United States and foreign countries;
- the rate and degree of market acceptance of any of our product candidates;
- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- our ability to operate our business without infringing the intellectual property rights of others;
- recently enacted and future legislation regarding the healthcare system;

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- our ability to satisfy the continued listing requirements of the Nasdaq Capital Market or any other exchange that our securities may trade on in the future;
- our ability to continue as a going concern;
- the success of competing products that are or may become available; and
- the performance of third parties, including contract research organizations and manufacturers.

You should also read carefully the factors described in the “Risk Factors” section contained in this prospectus supplement, the accompanying prospectus, and incorporated by reference herein from our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements contained in or incorporated by reference into this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Any forward-looking statements that we make in or incorporate by reference into this prospectus speak only as of the date of such statement, and, except as required by applicable law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

## PROSPECTUS SUPPLEMENT SUMMARY

This summary description about us and our business highlights selected information contained elsewhere in this prospectus supplement and the accompanying base prospectus or incorporated by reference herein or therein. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should carefully read this entire prospectus supplement, the accompanying base prospectus and any related free writing prospectus, including each of the documents incorporated herein or therein by reference, before making an investment decision. Investors should carefully consider the information set forth under “Risk Factors” in this prospectus supplement and the accompanying prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement and the accompanying prospectus. You also should carefully read the information incorporated by reference into this prospectus supplement and the accompanying prospectus, including our financial statements, other information and the exhibits to the registration statement of which the accompanying base prospectus is a part.

### Diffusion Pharmaceuticals Inc.

#### Business Overview

We are a clinical stage biotechnology company developing new treatments for life threatening conditions by improving the body’s ability to bring oxygen to the areas where it is needed most. We are developing our lead product candidate, transcrocetinate sodium, also known as trans sodium crocetinate (“TSC”), for use in those life threatening conditions in which cellular oxygen deprivation (“hypoxia”) is the basis for significant unmet medical needs. TSC is designed to selectively target and re-oxygenate the micro-environment of hypoxic cells, and can potentially be used in many indications, including oncology and cardiovascular/stroke. In cancer, TSC re-oxygenates treatment-resistant cancerous tissue, making the cancer cells up to three times more susceptible to the therapeutic effects of standard-of-care radiation therapy and chemotherapy. In stroke, TSC helps promote the diffusion of oxygen into those brain cells in which oxygen-deprivation causes neuronal death resulting in patient mortality or morbidity.

A range of tissue types, including both normal and cancerous cells, has been shown to be safely re-oxygenated in our preclinical and clinical studies using TSC’s novel mechanism of action. We believe TSC’s ability to re-oxygenate normal tissue that has become oxygen-deprived provides opportunities for new therapeutic approaches to conditions ranging from stroke and emergency medicine to cardiovascular and neurodegenerative diseases. In oncology, Diffusion believes TSC’s therapeutic potential is not limited to one specific tumor type, thereby making it potentially useful to improve standard-of-care treatments in many life-threatening cancers. Given TSC’s safety profile and animal data, we could, with appropriate funding, move directly into Phase 2 studies for TSC in many such cancers. The successful completion of trials for TSC or any other potential product candidate in these or any other indication are dependent upon our ability to further raise necessary capital.

We believe that TSC has potential applications in stroke and emergency medicine. A Phase 2 trial in cooperation with UCLA and the University of Virginia to test TSC in the treatment of acute stroke has received approval for enrollment by the FDA, with the first enrolled patient expected in Q3 2019. This trial, which will feature in-ambulance dosing of TSC, is named the PreHospital Acute Stroke Therapy - TSC (PHAST - TSC) and is expected to enroll 160 patients, with 80 in the treatment arm and 80 in the control arm. We believe in-ambulance dosing of TSC could significantly cut the time in which the stroke-related oxygen deprivation to brain cells goes untreated, potentially leading to a better outcome for stroke victims treated in this manner. In the last quarter of 2018, we received FDA permission to begin patient enrollment in the PHAST - TSC Phase 2 trial and expect to begin enrollment in the third quarter 2019, following completion of institutional review board and contracting activities. Subject to receipt of adequate funding to support the PHAST – TSC trial, we intend to complete enrollment for the trial in the second half of 2020 and expect to begin data readout during the first half of 2021.

Our primary oncology program targets TSC against treatment-resistant brain cancer. A Phase 2 clinical program, completed in the second quarter of 2015, evaluated 59 patients with newly diagnosed glioblastoma multiforme (“GBM”), a particularly deadly form of primary brain cancer. GBM affects approximately 12,000 patients annually in the United States and approximately 35,000 patients annually worldwide. This open label, historically controlled study demonstrated a favorable safety and efficacy profile for TSC when combined with GBM’s standard of care, including a 37% improvement in overall survival over the control group at two years. A particularly strong efficacy signal was seen in the inoperable patients, where survival of TSC-treated patients at two years was increased by almost four-fold over the controls. In December 2017, the Company initiated the INvestigation of TSC Against Cancerous Tumors (INTACT) Phase 3 trial in the newly diagnosed inoperable GBM patient population. The trial is designed to enroll 236 patients in total, with 118 in the treatment arm and 118 in the control arm. The trial is beginning with an open label 8 patient safety run-in for which enrollment has completed and is now closed. With the FDA’s permission, a total of 22 patients were enrolled to ensure 8 complete data sets. We anticipate that data from this open label phase will be available during the third quarter of 2019. Commencement of enrollment in the randomization portion of the INTACT Phase 3 Trial is contingent upon our entering into a strategic partnership providing the necessary resources to undertake the full trial.

In addition to the TSC programs, we are exploring alternatives regarding how best to capitalize upon our product candidate RES-529, which may include possible out-licensing and other options. RES-529 is a novel PI3K/Akt/mTOR pathway inhibitor which has completed two Phase 1 clinical trials for age-related macular degeneration and was in preclinical development in oncology, specifically GBM. RES-529 has shown activity in both in vitro and in vivo glioblastoma animal models and has been demonstrated to be orally bioavailable and capable of crossing the blood brain barrier.

### **Corporate Information**

We are a Delaware corporation that was incorporated in June 2015. Prior to June 2015, we were a Nevada corporation. We maintain our principal executive offices at 1317 Carlton Avenue, Suite 200, Charlottesville, VA 22902. Our telephone number there is (434) 220-0718. The address of our website is [www.diffusionpharma.com](http://www.diffusionpharma.com). The information set forth on, or connected to, our website is expressly not incorporated by reference into, and does not constitute a part of, this prospectus.

We are a “smaller reporting company” as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and have elected to take advantage of certain of the scaled disclosure available for smaller reporting companies in this prospectus as well as our filings under the Exchange Act.



**THE OFFERING**

Shares of common stock offered by us	1,317,060 shares
Public offering price	\$4.77 per share and, including the related warrant to be issued in the concurrent private placement, \$4.895 per share
Common stock to be outstanding immediately after this offering <sup>(1)</sup>	4,696,405 shares
Use of Proceeds	We intend to use the net proceeds from this offering to fund research and development of our lead product candidate, TSC, including clinical trial activities, and for general corporate purposes. See “Use of Proceeds.”
Risk Factors	You should read the “Risk Factors” section of this prospectus supplement and the accompanying prospectus, as well as all other information included in this prospectus supplement and the accompanying prospectus, including the information in the documents incorporated by reference herein and therein, for a discussion of certain of the factors to consider carefully before deciding to purchase any shares of our common stock in this offering.
National Securities Exchange Listing	Our common stock is listed on the Nasdaq Capital Market under the symbol “DFFN.”
Concurrent Private Placement	In a concurrent private placement, we are selling to the purchasers of shares of our common stock in this offering warrants to purchase 100% the number of shares of our common stock purchased by such investors in this offering. We will receive proceeds from the concurrent private placement transaction of warrants to be purchased by any investor in the concurrent private placement of warrants, less placement agent fees to be paid and proceeds to be received from the sale of such warrants solely to the extent such warrants are exercised for cash. The warrants will be exercisable on the date of the issuance at an exercise price of \$5.00 per share and will expire on November 29, 2024. The warrants and the shares of our common stock issuable upon the exercise of the warrants are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder. See “Private Placement of Warrants.”

The number of shares of our common stock to be outstanding after this offering is based on 3,379,345 shares of common stock outstanding as of March 31, 2019 and excludes as of that date:

- 256,057 shares of common stock issuable upon the exercise of outstanding stock options under the Diffusion Pharmaceuticals Inc. 2015 Equity Incentive Plan, as amended (the “2015 Equity Plan”), at a weighted-average exercise price of \$66.99 per share;
- 2,087,012 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted-average exercise price of \$21.77 per share;
- 77,340 shares of common stock reserved for future issuance under the 2015 Equity Plan;
- 1,317,060 shares of common stock issuable upon exercise of warrants to be issued in a private placement, as described below under “Private Placement of Warrants”; and
- 65,853 shares of common stock issuable upon exercise of warrants to be issued to the placement agent as described in “Plan of Distribution.”

All share information contained in this prospectus supplement and the accompanying prospectus reflects the completion on December 13, 2018, of a 1-to-15 reverse stock split (the “Reverse Stock Split”) of our common stock. No fractional shares were issued in connection with the Reverse Stock Split. Stockholders who otherwise would have been entitled to receive fractional shares of common stock had their holdings rounded up to the next whole share. Proportional adjustments were made to the Company’s outstanding warrants, stock options and other equity securities and to the 2015 Equity Incentive Plan, as amended, to reflect the Reverse Stock Split, in each case, in accordance with the terms thereof.

## RISK FACTORS

*Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described below. You should also consider the risks, uncertainties and assumptions discussed under the heading “Risk Factors” included in our most recent annual report on Form 10-K which is on file with the SEC and is incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section above entitled “Forward-Looking Statements.”*

***We have significant discretion over the use of the net proceeds from this offering.***

Our net proceeds from this offering and the concurrent private placement are expected to be approximately \$5.5 million. We intend to use the net proceeds of this offering to fund research and development of our lead product candidate, TSC, including clinical trial activities, and for general corporate purposes. Accordingly, our management will have broad discretion as to the application of such proceeds. The proceeds shall be used to carry out our business plan, pay salaries to our employees, and satisfy all our expenses, foreseeable and unforeseeable. As is the case with any business, it should be expected that certain expenses unforeseeable to management at this juncture will arise in the future. There can be no assurance that management’s use of proceeds generated through this offering will prove optimal or translate into revenue or profitability for the Company. Investors are urged to consult with their attorneys, accountants and personal investment advisors prior to making any decision to invest in the Company.

***Even if this offering is successful, we will need to raise additional capital in the future to continue operations, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our product development efforts or other operations.***

To date, we have not sold, or received approval to sell, any pharmaceutical products. We do not expect to sell any pharmaceutical products for at least the next several years, if at all. Our net losses were approximately \$18.4 million and \$1.4 million for the years ended December 31, 2018 and 2017, respectively, and our net losses attributable to common stockholders were approximately \$26.6 million and \$2.6 million for the years ended December 31, 2018 and 2017, respectively. As of March 31, 2019 and December 31, 2018, we had incurred cumulative net losses totaling approximately \$82.7 million and \$79.9 million, respectively. Moreover, we expect that our net losses will continue and may increase for the foreseeable future. We may not be able to achieve projected results if we generate lower revenues (if any) or receive lower investment income than expected, or we incur greater expenses than expected, or all of the above. We may never generate sufficient product revenue (if any) to become profitable. We also expect to have quarter-to-quarter fluctuations in revenues, expenses, and losses, some of which could be significant.

We estimate that we will receive net proceeds of approximately \$5.5 million from the sale of the securities offered by us in this offering and the concurrent private placement, based on a price of \$4.895 per share of common stock and warrant and after deducting the estimated placement agent fees and estimated offering expenses payable by us.

We will need to raise more money to complete our planned clinical trials, continue the research and development necessary to bring our products to market and to establish marketing and additional manufacturing capabilities. Notably, the proceeds raised in this offering will not be enough to complete our planned Phase 2 clinical trial of TSC for stroke or our Phase 3 clinical trial of TSC for treatment of glioblastoma multiforme (GBM). We may seek additional funds through public and private stock offerings, government contracts and grants, arrangements with corporate collaborators, borrowings under lines of credit or other sources. Additionally, we do not intend to commence our Phase 3 clinical trial of TSC for treatment GBM prior to engaging in a strategic partnership. However, we may not be able to raise additional funds on acceptable terms, or at all, and even if conditions are favorable for raising additional funds, we have agreed with the investors in this offering not to do so for 45 days after May 28, 2019. Conditions in the capital markets and the financial services industry may make equity and debt financing more difficult to obtain, and may negatively impact our ability to complete financing transactions. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants, such as limitations on our ability to incur additional indebtedness and other operating restrictions that could adversely impact our ability to conduct our business.

If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates or one or more of our research and development initiatives, reduce our workforce, license to others products or technologies that we otherwise would seek to commercialize ourselves or, ultimately, cease operations. The amount of money we may need would depend on many factors, including:

- The costs and progress of our research and development programs;
- The scope and results of our preclinical studies and clinical trials;
- The amount of our legal expenses and any settlement or damages payments associated with litigation; and
- The time and costs involved in: obtaining necessary regulatory approvals; filing, prosecuting and enforcing patent claims; scaling up our manufacturing capabilities; and the commercial arrangements we may establish.

***An investment in our securities is speculative and there can be no assurance of any return on any such investment.***

An investment in our securities is speculative and there is no assurance that investors will obtain any return on their investment. Investors will be subject to substantial risks involved in an investment in the Company, including the risk of losing their entire investment.

***If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.***

The public offering price in this offering is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of \$2.875 per share, based on the price of \$4.895 per share of common stock and warrant.

As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. For a further description of the dilution that you will incur as a result of purchasing shares in this offering, see “Dilution.”

***There may be future sales of our securities or other dilution of our equity, which may adversely affect the market price of our common stock.***

We are generally not restricted from issuing additional common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The market price of our common stock could decline as a result of sales of common stock or securities that are convertible into or exchangeable for, or that represent the right to receive, common stock after this offering or the perception that such sales could occur.

***If we cannot continue to satisfy the Nasdaq Capital Market continued listing standards and other Nasdaq rules, our common stock could be delisted, which would harm our business, the trading price of our common stock, our ability to raise additional capital and the liquidity of the market for our common stock.***

Our common stock is currently listed on the Nasdaq Capital Market. To maintain the listing of our common stock on the Nasdaq Capital Market, we are required to meet certain listing requirements, including, among others, either: (i) a minimum closing bid price of \$1.00 per share, a market value of publicly held shares (excluding shares held by our executive officers, directors and 10% or more stockholders) of at least \$1 million and stockholders' equity of at least \$2.5 million; or (ii) a minimum closing bid price of \$1.00 per share, a market value of publicly held shares (excluding shares held by our executive officers, directors and 10% or more stockholders) of at least \$1 million and a total market value of listed securities of at least \$35 million.

There is no assurance that we will continue to meet the minimum closing price requirement and other listing requirements. In the event that our common stock is delisted from Nasdaq and is not eligible for quotation or listing on another market or exchange, trading of our common stock and warrants 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, our common stock and warrants, and there would likely also be a reduction in our coverage by securities analysts and the news media, which could cause the price of our common stock to decline further.

***We may be limited in our ability to utilize, or may not be able to utilize, net operating loss carryforwards to reduce our future tax liability as a result of this offering.***

As disclosed in our most recent Annual Report on Form 10-K, under Section 382 of Internal Revenue Code of 1986, as amended (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 net operating loss ("NOL") carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change income may be limited.

We believe that our reverse merger in January 2016 and other transactions that have occurred triggered an "ownership change" limitation that significantly limited our ability to utilize our NOL carryforwards. Our 2017 and 2018 financing transactions may have also triggered an ownership change, which could further limit our ability to utilize our NOL carryforwards. We have yet to determine this potential limitation. This offering may, alone or in conjunction with other changes in our stock ownership that we cannot control, result in an additional ownership change for purposes of Section 382. We may also experience ownership changes in the future as a result of strategic transactions or partnerships, equity offerings and other shifts in our stock ownership. As a result, if we earn net taxable income, our ability to use our pre-chase NOL carryforwards and other deferred tax assets to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, similar limitations may apply at the state level and there may be periods during which the use of NOL carryforwards is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

## USE OF PROCEEDS

We estimate that the net proceeds to us from this offering and the concurrent private placement, after deducting placement agent fees but before paying offering expenses, will be approximately \$5.5 million.

We intend to use the net proceeds from this offering primarily for research and development of our lead product candidate, TSC, including clinical trial activities and for general corporate purposes.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus supplement, we cannot currently allocate specific percentages of the net proceeds that we may use for the purposes specified above, and we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to obtain additional financing, the progress, cost and results of our preclinical and clinical development programs, and whether we are able to enter into future licensing or collaboration arrangements. We may find it necessary or advisable to use the net proceeds for other purposes, and our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds from this offering. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending the use of the net proceeds from this offering, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing securities or certificates of deposit.

**DIVIDEND POLICY**

We have never declared or paid cash dividends on our common stock in the past and do not intend to pay cash dividends on our common stock in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and other factors our board of directors deems relevant.

## PRIVATE PLACEMENT OF WARRANTS

Concurrently with the closing of the sale of shares of common stock in this offering, we also expect to issue and sell to the investors warrants to purchase an aggregate of 1,317,060 shares of our common stock at an initial exercise price equal to \$5.00 per share (the "Warrants"). The Warrants are exercisable for five and one-half years beginning on the date of their issuance.

The Warrants and the shares of our common stock issuable upon the exercise of the Warrants are not being offered pursuant to this prospectus supplement and the accompanying prospectus. The Warrants are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder.

The Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not then effective or available, the holder may exercise the warrant through a cashless exercise, in whole or in part, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, at the election of the holder, 9.99%) of the number of shares of our stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon notice to us, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

In the event of a fundamental transaction, as described in the Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the holders of the Warrants will be entitled to receive upon exercise of the Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Warrants immediately prior to such fundamental transaction. In addition, upon a fundamental transaction, the holder shall have the right to receive a payment in cash, or under certain circumstances in other consideration, from us at the Black Scholes value as described in the Warrants.



## DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the net tangible book value per share of our common stock upon consummation of this offering. Dilution results from the fact that the public offering price is substantially in excess of the book value per share attributable to the existing stockholders for the presently outstanding stock.

The historical net tangible book value of our common stock as of March 31, 2019 was approximately \$4.0 million, or approximately \$1.19 per share of common stock. Historical net tangible book value (deficit) per share is determined by dividing the number of outstanding shares of common stock into its total tangible assets (total assets less intangible assets) less total liabilities and preferred shares, if any.

Investors purchasing common stock in this offering will incur immediate and substantial dilution. After giving effect to the issuance and sale of securities offered in this offering and the concurrent private placement assuming a price of \$4.895 per share of common stock and the related warrant issued in the concurrent private placement, and after deducting the estimated placement agent fees and commissions and estimated offering costs payable by us, our as adjusted net tangible book value as of March 31, 2019 would have been approximately \$9.5 million, or approximately \$2.02 per share of common stock. This represents an immediate increase in net tangible book value of \$0.83 per share to existing stockholders, and an immediate dilution in the as adjusted net tangible book value of \$2.875 per share to investors purchasing shares of our common stock in this offering and the warrants in the concurrent private placement.

The following table illustrates this per share dilution:

Price per share of common stock and warrant		\$ 4.895
Historical net tangible book value per share as of March 31, 2019	\$ 1.19	
Increase in net tangible book value per share attributable to this offering and the concurrent private placement	0.83	
As adjusted net tangible book value as of March 31, 2019 (giving effect to this offering and the concurrent private placement)		2.02
Dilution per share to investors		\$ 2.875

The number of shares of our common stock to be outstanding after this offering is based on 3,379,345 shares of common stock outstanding as of March 31, 2019 and excludes as of that date:

- 256,057 shares of common stock issuable upon the exercise of outstanding stock options under the Diffusion Pharmaceuticals Inc. 2015 Equity Incentive Plan, as amended (the "2015 Equity Plan"), at a weighted-average exercise price of \$66.99 per share;
- 2,087,012 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted-average exercise price of \$21.77 per share;
- 77,340 shares of common stock reserved for future issuance under the 2015 Equity Plan;
- 1,317,060 shares of common stock issuable upon exercise of warrants to be issued in a private placement, as described below under "Private Placement of Warrants"; and
- 65,853 shares of common stock issuable upon exercise of warrants to be issued to the placement agent as described in "Plan of Distribution."

The exercise of any of the securities described above may increase dilution to purchasers in this offering.

## MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a general discussion of the material U.S. federal income considerations applicable to the ownership and disposition of shares of our common stock acquired in this offering. This discussion is for general information only and is not tax advice. Accordingly, all prospective holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock. This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences described in this prospectus. We assume in this discussion that each holder holds shares of our common stock as capital assets within the meaning of Section 1221 of the Code (generally property held for investment).

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular holder in light of that holder's individual circumstances, does not address the alternative minimum or Medicare contribution taxes, and does not address any aspects of U.S. state, local or non-U.S. taxes or any U.S. federal taxes other than income tax. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address aspects of U.S. federal income taxation that may be applicable to investors that are subject to special tax rules, including without limitation:

- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities;
- regulated investment companies;
- real estate investment trusts;
- pension plans, individual retirement accounts and other tax deferred accounts;
- persons that mark their securities to market;
- controlled foreign corporations;
- passive foreign investment companies;
- "dual resident" corporations;
- persons that receive our common stock as compensation for the performance of services;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- owners that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below);
- persons that have a functional currency other than the U.S. dollar; and
- certain U.S. expatriates.

In addition, this discussion does not address the tax treatment of partnerships or other pass-through entities for U.S. federal income tax purposes, or persons who hold our common stock through partnerships or other pass-through entities for U.S. federal income tax purposes. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

There can be no assurance that the Internal Revenue Service, which we refer to as the IRS, will not challenge one or more of the tax consequences described herein. We have not obtained, nor do we intend to obtain, a ruling from the IRS with respect to the U.S. federal income tax consequences of the purchase, ownership or disposition of our common stock.

**This general discussion does not include a discussion of the material U.S. federal income considerations applicable to ownership of the warrants of the Company issued in the concurrent private placement.**

#### ***U.S. Holders***

This section applies to you if you are a “U.S. holder.” For purposes of this discussion, a “U.S. holder” means a beneficial owner of our common stock who is for U.S. federal income tax purposes: (i) an individual who is a citizen or resident of the United States; (ii) a corporation, or any other organization taxable as a corporation for U.S. federal income tax purposes, created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia; (iii) an estate, the income of which is subject to U.S. federal income tax regardless of its source; or (iv) a trust if (1) a U.S. court is able to exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

#### ***Distributions on Our Common Stock***

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the U.S. holder's investment, up to such U.S. holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in “—Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock.” Dividends paid by us will generally be eligible for the reduced rates of tax for qualified dividend income allowed to individual U.S. holders and for the dividends received deduction allowed to corporate U.S. holders, in each case assuming that certain holding period and other requirements are satisfied.

#### ***Sale, Exchange or Other Taxable Disposition of Our Common Stock***

Upon the sale, exchange, or other taxable disposition of our common stock, a U.S. holder will recognize gain or loss equal to the difference between the amount realized upon the disposition and the U.S. holder's tax basis in the common stock sold or exchanged. Any gain or loss generally will be capital gain or loss, and will be long-term capital gain or loss if the U.S. holder's holding period for the common stock exceeded one year at the time of the disposition. Certain U.S. holders (including individuals) are currently eligible for preferential rates of U.S. federal income taxation in respect of long-term capital gains. The deductibility of capital losses is subject to significant limitations.

#### ***Information Reporting and Backup Withholding***

In general, information reporting requirements may apply to dividends paid to a U.S. holder on our common stock, and to the proceeds of the sale, exchange or other disposition of our common stock, unless the U.S. holder is an exempt recipient. Backup withholding may apply to such payments if the U.S. holder fails to provide a taxpayer identification number, a certification of exempt status or has been notified by the IRS that it is subject to backup withholding (and such notification has not been withdrawn). Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS.

## **Non-U.S. Holders**

This section applies to you if you are a “non-U.S. holder”. For purposes of this discussion, a “non-U.S. holder” means a person who is not a U.S. holder (as defined above under “U.S. Holders”).

### ***Distributions on Our Common Stock***

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder’s investment, up to such non-U.S. holder’s tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in “Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock.”

Subject to the discussions below regarding backup withholding and the Foreign Account Tax Compliance Act, or FATCA, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a rate of 30% of the gross amount or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence, unless such dividends are effectively connected with a trade or business conducted by a non U.S. holder within the U.S (as discussed below). A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder’s country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form), as applicable, and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may be able to obtain a refund or credit of any excess amounts withheld by timely filing the required information with the IRS.

Subject to the discussions below regarding backup withholding and FATCA, dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a “permanent establishment” or a “fixed base” maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. U.S. effectively connected income, net of specified deductions and credits, is generally taxed at the same graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also be subject to an additional “branch profits tax” at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence.

### ***Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock***

Subject to the discussions below regarding backup withholding and FATCA, in general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such holder’s sale, exchange or other taxable disposition of shares of our common stock unless:

- the gain is effectively connected with the non-U.S. holder’s conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a “permanent establishment” or a “fixed base” maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on such gain at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in “Distributions on Our Common Stock” also may apply to such gain;
- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the taxable disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder’s country of residence) on the net gain derived from the taxable disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any; or

- we are, or have been, at any time during the five-year period preceding such taxable disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the 5-year period ending on the date of the taxable disposition or the period that the non-U.S. holder held our common stock. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then a purchaser may withhold 15% of the proceeds payable to a non-U.S. holder from a sale of our common stock, and the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

### ***Backup Withholding and Information Reporting***

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions paid on our common stock to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Dividends paid to non-U.S. holders subject to the U.S. withholding tax, as described above in "Distributions on Our Common Stock," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS.

### **Withholding and Information Reporting Requirements—FATCA**

FATCA may impose a U.S. federal withholding tax at a rate of 30% on payments of dividends on our common stock paid to certain foreign entities, unless (i) if the foreign entity is a "foreign financial institution," such foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a "foreign financial institution," such foreign entity either certifies that it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign entity otherwise qualifies from an exemption these rules. Under applicable U.S. Treasury Regulations, withholding under FATCA currently applies to payments of dividends paid on our common stock. A Non-U.S. holder that is not subject to FATCA withholding generally may certify its exempt status by furnishing a properly executed IRS Form W-8BEN or Form W-8BEN-E (or successor form), as applicable. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of the tax. Certain intergovernmental agreements between the United States and other countries may modify these rules. Non-U.S. holders should consult their own tax advisors regarding the possible implications of this legislation on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

## PLAN OF DISTRIBUTION

Pursuant to an engagement agreement dated May 3, 2019, we have engaged H.C. Wainwright & Co., LLC, or the placement agent, to act as our exclusive placement agent in connection with this offering, on a reasonable best efforts basis, of our shares of common stock pursuant to this prospectus supplement and accompanying prospectus. The terms of this offering were subject to market conditions and negotiations between us, the placement agent and prospective investors. The engagement agreement does not give rise to any commitment by the placement agent to purchase any of our shares of common stock or the private placement warrants, and the placement agent will have no authority to bind us by virtue of the engagement agreement. Further, the placement agent does not guarantee that it will be able to raise new capital in any prospective offering. The placement agent may engage sub-agents or selected dealers to assist with the offering.

We will enter into a securities purchase agreement directly with investors in connection with this offering, and we will only sell to investors who have entered into a securities purchase agreement.

We will deliver the shares of common stock being issued to the investors electronically upon receipt of investor funds for the purchase of the shares of our common stock offered pursuant to this prospectus supplement. We expect to deliver the shares of our common stock being offered pursuant to this prospectus supplement on or about May 28, 2019.

We have agreed to pay the placement agent a total cash fee equal to 8.0% of the gross proceeds of this offering and the concurrent private placement. We will also pay the placement agent a management fee equal to 1.0% of the gross proceeds of this offering and the concurrent private placement, \$25,000 for non-accountable expenses, reimbursement for the placement agent's legal fees and expenses in the amount of \$100,000, and \$10,000 for clearing expenses of the placement agent.

In addition, we have agreed to issue to the placement agent warrants to purchase up to 5% of the aggregate number of shares of common stock sold in this offering. The placement agent warrants will have substantially the same terms as the private placement warrants being sold concurrently to the investors in this offering, except that such warrants will have a term of five years and an exercise price equal to \$6.11875. Pursuant to FINRA Rule 5110(g), the placement agent warrants and any shares issuable upon exercise of the placement agent warrants shall not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security: (i) by operation of law or by reason of our reorganization; (ii) to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction set forth above for the remainder of the time period; (iii) if the aggregate amount of our securities held by the placement agent or related persons do not exceed 1% of the securities being offered; (iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund and the participating members in the aggregate do not own more than 10% of the equity in the fund; or (v) the exercise or conversion of any security, if all securities remain subject to the lock-up restriction set forth above for the remainder of the time period.

We have also agreed to give the placement agent a twelve-month right of first refusal to act as our sole underwriter or placement agent for any further capital raising transactions undertaken by us; and a twelve-month tail fee equal to the cash and warrant compensation in this offering, if any investor with which we have had substantive discussions with respect to this offering, provides us with further capital during such twelve-month period following termination of our engagement.

None of the securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus supplement are advised to inform themselves about and to observe any restrictions relating to this offering of the shares and the distribution of this prospectus supplement. This prospectus supplement is neither an offer to sell nor a solicitation of any offer to buy the securities in any jurisdiction where that would not be permitted or legal.

We have agreed to indemnify the placement agent and specified other persons against some civil liabilities, including liabilities under the Securities Act, and the Securities Exchange Act of 1934, as amended, or the Exchange Act, and to contribute to payments that the placement agent may be required to make in respect of such liabilities.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock by the placement agent acting as principal. Under these rules and regulations, the placement agent:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

### **Nasdaq Capital Market Listing**

Our stock is currently traded on the Nasdaq Capital Market under the symbol "DDFN." On May 22, 2019, the last reported sale price of our common stock was \$4.88 per share. We do not plan to list the warrants sold in the private placement or the warrants to be issued to the placement agent on The Nasdaq Capital Market or any other securities exchange or trading market.

## LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon by Dechert LLP, New York, New York. Ellenoff Grossman & Schole LLP, New York, New York, is counsel to the placement agent in connection with this offering.

## EXPERTS

The consolidated financial statements of Diffusion Pharmaceuticals Inc. as of and for the years ended December 31, 2018 and 2017, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2018 consolidated financial statements contains an explanatory paragraph that states that the Company has suffered recurring losses from operations, has limited resources available to fund current research and development activities, and will require substantial additional financing to continue to fund its research and development activities that raise substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the Commission under the Securities Act of 1933, as amended, and do not contain all the information set forth or incorporated by reference in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

We file electronically with the SEC annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and other information and amendments to those reports filed or furnished pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. The SEC maintains an Internet site ([www.sec.gov](http://www.sec.gov)) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Copies of these reports, proxy and information statements and other information may be obtained by electronic request at the following e-mail address: [publicinfo@sec.gov](mailto:publicinfo@sec.gov).

We make available, free of charge and through our Internet web site at [www.diffusionpharma.com](http://www.diffusionpharma.com), our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to any such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We also make available, free of charge and through our Internet web site, to any stockholder who requests, the charters of our board committees, our Corporate Governance Guidelines and our Code of Business Conduct and Ethics. Requests for copies can be directed to Investor Relations at (434) 220-0718. The information set forth on, or connected to, our website is expressly not incorporated by reference into, and does not constitute a part of, this prospectus supplement.

## INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference information into this prospectus supplement. This means we can disclose information to you by referring you to another document we filed with the SEC. We will make those documents available to you without charge upon your oral or written request. Requests for those documents should be directed to Investor Relations Department, Diffusion Pharmaceuticals Inc., 1317 Carlton Avenue, Suite 200, Charlottesville, Virginia 22902, Attention: Secretary, telephone: (434) 220-0718. This prospectus supplement incorporates by reference the following documents (other than any portion of the respective filings furnished, rather than filed, under the applicable SEC rules) that we have filed with the SEC but have not included or delivered with this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 19, 2019;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2019 filed with the SEC on May 9, 2019;
- our Current Report on Form 8-K filed with the SEC on January 18, 2019; and
- the description of our common stock included in our amended registration statement on Form 8-A filed on November 8, 2016 under the Exchange Act, and any amendment or report we may file with the SEC for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering shall be deemed to be incorporated by reference into this prospectus (other than current reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K).

You may request a free copy of any or all of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

Diffusion Pharmaceuticals Inc.  
1317 Carlton Avenue, Suite 200  
Charlottesville, Virginia 22902  
(434) 220-0718  
Attention: Investor Relations

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

This prospectus supplement is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.



PROSPECTUS

\$50,000,000

**Diffusion<sub>2</sub>n**  
Pharmaceuticals Inc.

DIFFUSION PHARMACEUTICALS INC.

**Common Stock**  
**Preferred Stock**  
**Warrants**  
**Debt Securities**  
**Rights to Purchase Common Stock, Preferred Stock, Debt Securities or Units**  
**Units**

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We may offer and sell from time to time our shares of common stock, shares of preferred stock, warrants, debt securities and rights to purchase common stock, preferred stock, debt securities or units, as well as units that include any of these securities. We may sell any combination of these securities in one or more offerings with an aggregate initial offering price of up to \$50,000,000, or such lesser amount as we may be permitted to sell under General Instruction I.B.6 of Form S-3 at the time of a particular offering.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities pursuant to this prospectus, we will provide a prospectus supplement containing specific terms of the particular offering together with this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference herein or therein before you invest in any securities. **This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement.**

Our common stock is listed on the NASDAQ Capital Market under the symbol "DFFN." On May 14, 2019, the last reported sale price of our common stock was \$4.35. On May 14, 2019, there were an aggregate of 3,379,345 shares of our common stock issued and outstanding, of which shares 3,278,276 were held by non-affiliates. Accordingly, the aggregate market value of our common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$14,260,500.60, which was calculated based on a price of \$4.35 per share, the closing price of our common stock on May 14, 2019. As of the date hereof, we have not offered or sold any shares of our common stock pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date hereof.

**Investing in our securities involves significant risks. We strongly recommend that you read carefully the risks we describe in this prospectus and in any accompanying prospectus supplement, as well as the risk factors that are incorporated by reference into this prospectus from our filings made with the Securities and Exchange Commission. See "Risk Factors" on page 6 of this prospectus.**

We may sell the securities directly or to or through underwriters or dealers, and also to other purchasers or through agents. The names of any underwriters or agents that are included in a sale of securities to you, and any applicable commissions or discounts, will be stated in an accompanying prospectus supplement. In addition, the underwriters, if any, may over-allot a portion of the securities. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is May 22, 2019

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## ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$50,000,000, or such lesser amount as we may be permitted to sell under General Instruction I.B.6 of Form S-3 at the time of a particular offering. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference.”

### **This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.**

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus, the accompanying prospectus supplement or related free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

This prospectus, the accompanying supplement to this prospectus and any related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, the accompanying supplement to this prospectus or any related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference therein is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered or the applicable securities are sold on a later date.

We may sell our securities to or through underwriters, initial purchasers, dealers or agents, directly to purchasers or through a combination of any of these methods of sale, as designated from time to time. We and our agents reserve the sole right to accept or reject in whole or in part any proposed purchase of our securities. An applicable prospectus supplement, which we will provide each time we offer the securities, will set forth the names of any underwriters, initial purchasers, dealers or agents involved in the sale of our securities, and any related fee, commission or discount arrangements. See “Plan of Distribution.”

## MARKET AND INDUSTRY DATA

Certain market and industry data included in this prospectus were obtained from independent third-party surveys, market research, publicly available information, reports of governmental agencies and industry publications and surveys. All of the market and industry data used in this prospectus involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Although we are responsible for all of the disclosure contained in this prospectus and we believe the information from the industry publication and other third-party sources included in this prospectus is reliable, such information is inherently imprecise. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section titled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

## PROSPECTUS SUMMARY

*This summary highlights information contained in other parts of this prospectus or incorporated by reference into this prospectus from our filings with the Securities and Exchange Commission (the “SEC”). As it is only a summary, it does not contain all of the information that you should consider before purchasing our securities and it is qualified in its entirety by, and should be read in conjunction with, the applicable prospectus supplement and the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire prospectus, the applicable prospectus supplement, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety, including the “Risk Factors” and our financial statements and the related notes contained in and incorporated by reference into this prospectus, before purchasing our securities. Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus to “Diffusion,” “we,” “our,” “us” or similar references mean Diffusion Pharmaceuticals Inc.*

### Diffusion Pharmaceuticals Inc.

#### Business Overview

We are a clinical stage biotechnology company developing new treatments for life threatening conditions by improving the body’s ability to bring oxygen to the areas where it is needed most. We are developing our lead product candidate, transcrocetinate sodium, also known as trans sodium crocetininate (“TSC”), for use in those life threatening conditions in which cellular oxygen deprivation (“hypoxia”) is the basis for significant unmet medical needs. TSC is designed to selectively target and re-oxygenate the micro-environment of hypoxic cells, and can potentially be used in many indications, including oncology and cardiovascular/stroke. In cancer, TSC re-oxygenates treatment-resistant cancerous tissue, making the cancer cells up to three times more susceptible to the therapeutic effects of standard-of-care radiation therapy and chemotherapy. In stroke, TSC helps promote the diffusion of oxygen into those brain cells in which oxygen-deprivation causes neuronal death resulting in patient mortality or morbidity.

A range of tissue types, including both normal and cancerous cells, has been shown to be safely re-oxygenated in our preclinical and clinical studies using TSC’s novel mechanism of action. We believe TSC’s ability to re-oxygenate normal tissue that has become oxygen-deprived provides opportunities for new therapeutic approaches to conditions ranging from stroke and emergency medicine to cardiovascular and neurodegenerative diseases. In oncology, Diffusion believes TSC’s therapeutic potential is not limited to one specific tumor type, thereby making it potentially useful to improve standard-of-care treatments in many life-threatening cancers. Given TSC’s safety profile and animal data, we could, with appropriate funding, move directly into Phase 2 studies for TSC in many such cancers. The successful completion of trials for TSC or any other potential product candidate in these or any other indication are dependent upon our ability to further raise necessary capital.

We believe that TSC has potential applications in stroke and emergency medicine. A Phase 2 trial in cooperation with UCLA and the University of Virginia to test TSC in the treatment of acute stroke has received approval for enrollment by the FDA, with the first enrolled patient expected in Q3 2019. This trial, which will feature in-ambulance dosing of TSC, is named the PreHospital Acute Stroke Therapy - TSC (PHAST - TSC) and is expected to enroll 160 patients, with 80 in the treatment arm and 80 in the control arm. We believe in-ambulance dosing of TSC could significantly cut the time in which the stroke-related oxygen deprivation to brain cells goes untreated, potentially leading to a better outcome for stroke victims treated in this manner. In the last quarter of 2018, we received FDA permission to begin patient enrollment in the PHAST - TSC Phase 2 trial and expect to begin enrollment in the third quarter 2019, following completion of institutional review board and contracting activities. Subject to receipt of adequate funding to support the PHAST – TSC trial, we intend to complete enrollment for the trial in the second half of 2020 and expect to begin data readout during the first half of 2021.

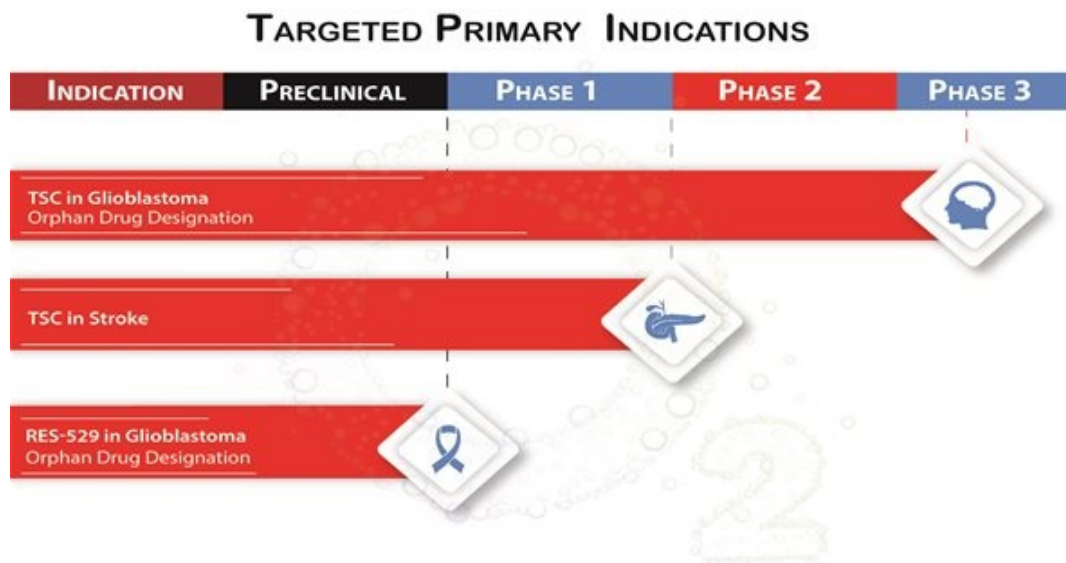
Our primary oncology program targets TSC against treatment-resistant brain cancer. A Phase 2 clinical program, completed in the second quarter of 2015, evaluated 59 patients with newly diagnosed glioblastoma multiforme (“GBM”), a particularly deadly form of primary brain cancer. GBM affects approximately 12,000 patients annually in the United States and approximately 35,000 patients annually worldwide. This open label, historically controlled study demonstrated a favorable safety and efficacy profile for TSC when combined with GBM’s standard of care, including a 37% improvement in overall survival over the control group at two years. A particularly strong efficacy signal was seen in the inoperable patients, where survival of TSC-treated patients at two years was increased by almost four-fold over the controls. In December 2017, the Company initiated the INvestigation of TSC Against Cancerous Tumors (INTACT) Phase 3 trial in the newly diagnosed inoperable GBM patient population. The trial is designed to enroll 236 patients in total, with 118 in the treatment arm and 118 in the control arm. The trial is beginning with an open label 8 patient safety run-in for which enrollment has completed and is now closed. With the FDA’s permission, a total of 22 patients were enrolled to ensure 8 complete data sets. We anticipate that data from this open label phase will be available during the third quarter of 2019. Commencement of enrollment in the randomization portion of the INTACT Phase 3 Trial is contingent upon our entering into a strategic partnership providing the necessary resources to undertake the full trial.

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In addition to the TSC programs, we are exploring alternatives regarding how best to capitalize upon our product candidate RES-529, which may include possible out-licensing and other options. RES-529 is a novel PI3K/Akt/mTOR pathway inhibitor which has completed two Phase 1 clinical trials for age-related macular degeneration and was in preclinical development in oncology, specifically GBM. RES-529 has shown activity in both in vitro and in vivo glioblastoma animal models and has been demonstrated to be orally bioavailable and capable of crossing the blood brain barrier.

**Summary of Current Product Candidate Pipeline**

The following table, as of March 31, 2019, summarizes the targeted clinical indications for Diffusion’s lead molecule, TSC, and RES-529:

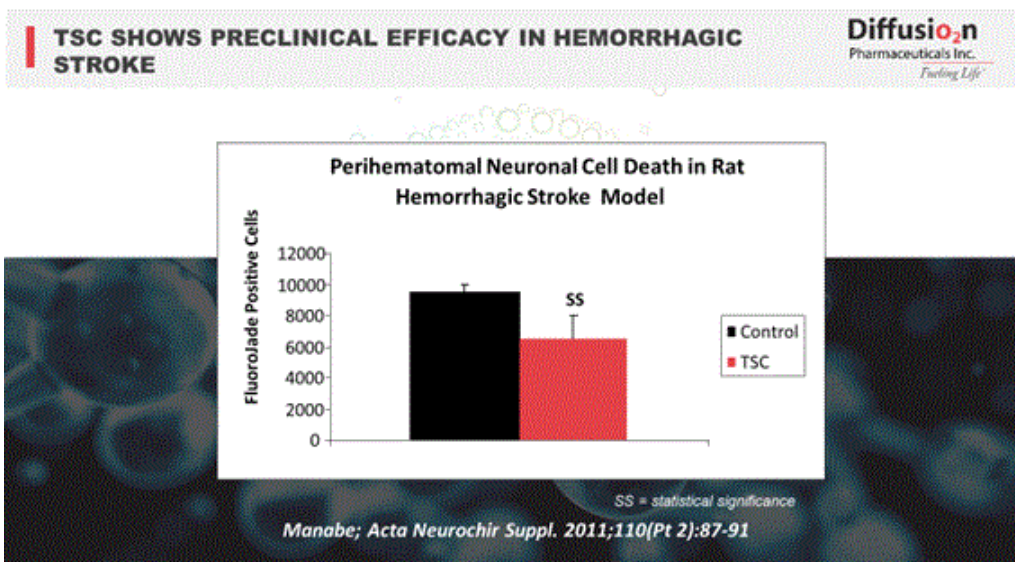
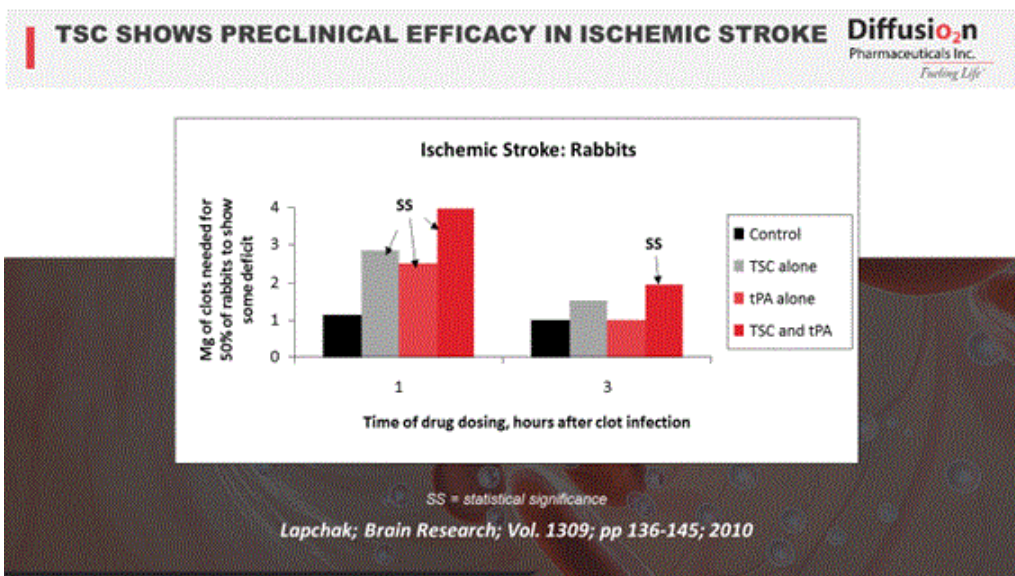


**TSC Stroke Program**

We believe that TSC has a potential application as a treatment for stroke. Approximately 800,000 strokes occur in the United States each year, with an estimated annual cost of \$43.0 billion. The damage from a stroke begins immediately upon onset: brain cell death begins at the beginning of a stroke. A stroke can take a significant toll on its victims. Among long-term stroke survivors, approximately 66% of stroke patients end up needing mental or physical rehabilitation, approximately 40% are classified as moderately to severely disabled after the initial few days of recovery, and approximately 10% of stroke patients require long-term care.

We believe in-ambulance dosing of TSC could significantly cut the time in which the stroke-related oxygen deprivation to brain cells goes untreated, potentially leading to a better outcome for stroke victims treated in this manner. Half of all stroke patients are transported to hospitals by emergency medical services (EMS), such as ambulances, with estimates of up to 80% of all patients in urban and suburban areas being transported by EMS.

TSC has shown pre-clinical efficacy as a potential treatment for ischemic and hemorrhagic stroke in laboratory testing. Rabbits receiving TSC alone at one hour after developing a clot have shown a statistically significant positive response to treatment. Additionally, rabbits receiving TSC in conjunction with Tissue Plasminogen Activator (tPA) at three hours after developing a clot have shown a statistically significant positive response to treatment. Additionally, rats dosed with TSC in a hemorrhagic stroke showed a statistically significant decrease in damaged brain cells. The following charts provide additional detail on these animal studies:



## Corporate Information

We are a Delaware corporation that was incorporated in June 2015. Prior to June 2015, we were a Nevada corporation. We maintain our principal executive offices at 1317 Carlton Avenue, Suite 200, Charlottesville, VA 22902. Our telephone number there is (434) 220-0718. The address of our website is [www.diffusionpharma.com](http://www.diffusionpharma.com). The information set forth on, or connected to, our website is expressly not incorporated by reference into, and does not constitute a part of, this prospectus.

We are a “smaller reporting company” as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and have elected to take advantage of certain of the scaled disclosure available for smaller reporting companies in this prospectus as well as our filings under the Exchange Act.

## Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities, warrants and rights to purchase shares of common stock or preferred stock, debt securities or units, as well as units to purchase any of such securities, from time to time under this prospectus, together with any applicable prospectus supplement and related free writing prospectus, at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking, if any;
- restrictive covenants, if any;
- voting or other rights, if any; and
- important United States federal income tax considerations.

A prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options or refreshable options, if any; and
- the net proceeds to us.

## **Common Stock**

We may offer shares of our common stock, par value \$0.001 per share, either alone or underlying other registered securities convertible into or exercisable for our common stock. Holders of our common stock are entitled to dividends as our board of directors may declare from time to time out of legally available funds, subject to the preferential rights of the holders of any shares of our preferred stock that we may issue in the future. Currently, we do not pay any dividends and we do not have any issued and outstanding preferred stock. Each holder of our common stock is entitled to one vote per share. In this prospectus, we provide a general description of, among other things, our dividend policy and the rights and restrictions that apply to holders of our common stock. Our common stock is described in greater detail in this prospectus under “Description of Capital Stock—Common Stock.”

## **Preferred Stock**

We may issue shares of preferred stock in one or more classes or series. Our board of directors or a committee designated by our board of directors will determine the dividend, voting and conversion rights and other provisions at the time of sale. The particular terms of each class or series of preferred stock, including redemption privileges, liquidation preferences, voting rights, dividend rights and/or conversion rights, will be more fully described in the applicable prospectus supplement relating to the preferred stock offered thereby. Our preferred stock is described in greater detail in this prospectus under “Description of Capital Stock—Preferred Stock.”

## **Debt Securities**

We may offer debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsubordinated debt that we may have and may be secured or unsecured. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all or some portion of our indebtedness. Any convertible debt securities that we issue will be convertible into or exchangeable for our common stock or other securities of ours. Conversion may be mandatory or at the holder’s option and would be at prescribed conversion rates.

The debt securities will be issued under one or more documents called indentures, which are contracts between us and a trustee for the holders of the debt securities. In this prospectus, we have summarized certain general features of the debt securities under “Description of Debt Securities.” We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities. A form of an indenture has been filed as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of debt securities being offered will be incorporated by reference into the registration statement of which this prospectus is a part from reports we file with the SEC.

## **Warrants**

We may from time to time offer warrants for the purchase of our common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from those securities.

The warrants will be evidenced by warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. In this prospectus, we have summarized certain general features of the warrants under “Description of Warrants.” We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement which includes this prospectus.

## **Rights**

We may from time to time issue rights to purchase shares of our common stock or preferred stock, debt securities or units. The rights may be issued independently or together with other securities and may or may not be transferable by the persons purchasing or receiving the rights. In connection with any rights offering, we may enter into a standby underwriting or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to our stockholders, we would make available a prospectus supplement to our stockholders on or about the record date that we set for receiving rights in such rights offering.

In this prospectus, we have summarized certain general features of the rights under “Description of Rights.” We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of rights being offered.

## **Units**

We may offer units consisting of common stock, preferred stock, debt securities and/or warrants to purchase any of such securities in one or more series. In this prospectus, we have summarized certain general features of the units under “Description of Units.” We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue under a separate agreement. We will enter into the unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.



## RISK FACTORS

Investing in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should consider carefully all of the information included and incorporated by reference or deemed to be incorporated by reference in this prospectus or the applicable prospectus supplement, including the risk factors incorporated by reference herein from our Annual Report on Form 10-K for the year ended December 31, 2018, as updated by annual, quarterly and other reports and documents we file with the SEC after the date of this prospectus and that are incorporated by reference herein, or in the applicable prospectus supplement. Each of these risk factors could have a material and adverse effect on our business, results of operations, financial position or cash flows, which may result in the loss of all or part of your investment.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the other information and documents incorporated by reference herein include forward-looking statements. We may, in some cases, use terms such as “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements appear in and are incorporated by reference into a number of places throughout this prospectus and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, our intellectual property position, the degree of clinical utility of our products, particularly in specific patient populations, expectations regarding clinical trial data, our ability to commercialize our product candidates, our results of operations, cash needs, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in or incorporated by reference into this prospectus, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in and incorporated by reference into this prospectus. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in and incorporated by reference into this prospectus, they may not be predictive of results or developments in future periods.

Actual results could differ materially from our forward-looking statements due to a number of factors, including risks related to:

- our ability to obtain additional financing;
- our estimates regarding expenses, capital requirements and needs for additional financing;
- the success and timing of our preclinical studies and clinical trials;
- the difficulties in obtaining and maintaining regulatory approval of our products and product candidates, and the labeling under any approval we may obtain;
- our plans and ability to develop and commercialize our product candidates;
- our failure to recruit or retain key scientific or management personnel or to retain our executive officers;
- the accuracy of our estimates of the size and characteristics of the potential markets for our product candidates and our ability to serve those markets;
- regulatory developments in the United States and foreign countries;
- the rate and degree of market acceptance of any of our product candidates;

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- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- our ability to operate our business without infringing the intellectual property rights of others;
- recently enacted and future legislation regarding the healthcare system;
- our ability to satisfy the continued listing requirements of the Nasdaq Capital Market or any other exchange that our securities may trade on in the future;
- our ability to continue as a going concern;
- the success of competing products that are or may become available; and
- the performance of third parties, including contract research organizations and manufacturers.

You should also read carefully the factors described in the “Risk Factors” section contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and incorporated by reference herein from our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as updated by annual, quarterly and other reports and documents we file with the SEC after the date of this prospectus and that are incorporated by reference herein to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements contained in or incorporated by reference into this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Any forward-looking statements that we make in or incorporate by reference into this prospectus speak only as of the date of such statement, and, except as required by applicable law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

## USE OF PROCEEDS

Unless otherwise indicated in any applicable prospectus supplement and in any free writing prospectuses in connection with a specific offering, we currently intend to use the net proceeds from the sale of securities offered hereby, if any, to fund research and development of our lead product candidate, TSC, including clinical trial activities, and for general corporate purposes. See “Risk Factors” in this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which is incorporated by reference herein, as updated by annual, quarterly and other reports and documents we file with the SEC after the date of this prospectus and that are incorporated by reference herein, for a discussion of certain risks that may affect our intended use of the net proceeds from the sale of securities offered hereby, including that we will need to raise additional capital in the future to complete the development of TSC and our other product candidates. Pending these uses, we intend to invest the net proceeds of any offering under this prospectus in short-term, investment-grade, interest-bearing securities or certificates of deposit.

## DESCRIPTION OF CAPITAL STOCK

### Company Capitalization

Our authorized capital stock consists of 1,000,000,000 shares of common stock and 30,000,000 shares of preferred stock, \$0.001 par value, all of which remains undesignated. The following summary is qualified in its entirety by reference to our Certificate of Incorporation, as amended, a copy of which is filed as an exhibit to our previous filings with the SEC and incorporated herein by reference.

### Common Stock

*Authorized.* We are authorized to issue 1,000,000,000 shares of common stock, of which 3,376,230 shares were issued and outstanding as of March 31, 2019. We may amend from time to time our Certificate of Incorporation to increase the number of authorized shares of common stock. Any such amendment would require the approval of the holders of a majority of the voting power of the shares entitled to vote thereon.

*Voting Rights.* For all matters submitted to a vote of stockholders, each holder of common stock is entitled to one vote for each share registered in the holder's name on our books. Our common stock does not have cumulative voting rights. At all meetings of the stockholders, except where otherwise provided by law, the Certificate of Incorporation or Bylaws, the presence, in person or by proxy duly authorized, of the holders of a majority of the outstanding shares of common stock entitled to vote constitutes a quorum for the transaction of business. Except as otherwise provided by law or by the Certificate of Incorporation or Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares of common stock present in person or represented by proxy at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by law, the Certificate of Incorporation or Bylaws, directors are elected by a plurality of the votes of the shares of common stock present in person or represented by proxy at the meeting and entitled to vote generally on the election of directors.

*Dividends.* Subject to limitations under Delaware law and any preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared by our Board out of legally available funds.

*Liquidation.* Upon our liquidation, dissolution or winding up, the holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities of our company, subject to any prior rights of any preferred stock then outstanding.

*Fully Paid and Non-assessable.* All shares of our outstanding common stock are fully paid and non-assessable and any additional shares of common stock that we issue will be fully paid and non-assessable.

*Other Rights and Restrictions.* Holders of common stock do not have preemptive or subscription rights, and they have no right to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to common stock. The rights, preferences and privileges of common stockholders are subject to the rights of the stockholders of any series of preferred stock which we may designate in the future. Our Certificate of Incorporation and Bylaws do not restrict the ability of a holder of common stock to transfer the holder's shares of common stock.

*Listing.* Our common stock is quoted on the Nasdaq Capital Market under the symbol "DFFN." As of , 2019, there were record holders of our common stock.

*Transfer Agent and Registrar.* The transfer agent and registrar for common stock is Computershare Investor Services, LLC, 250 Royall Street, Canton, Massachusetts, telephone number: 1-800-942-5909.

## **Preferred Stock**

As of March 31, 2019, no shares of preferred stock of the Company were issued or outstanding. Our Certificate of Incorporation authorizes our board of directors to provide for the issuance of up to 30,000,000 shares of preferred stock in one or more series. Our board is authorized to classify or reclassify any unissued portion of our authorized shares of preferred stock to provide for the issuance of shares of other classes or series, including preferred stock in one or more series. We may issue preferred stock from time to time in one or more classes or series, with the exact terms of each class or series established by our board. Without seeking stockholder approval, our board may issue preferred stock with voting and other rights that could adversely affect the voting power of the holders of our common stock. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock.

The rights, preferences, privileges and restrictions of the preferred stock of each series will be fixed by the certificate of designation relating to each series. A prospectus supplement relating to each series will specify the terms of the preferred stock, including, but not limited to:

- the distinctive designation and the maximum number of shares in the series;
- the terms on which dividends, if any, will be paid;
- the voting rights, if any, on the shares of the series;
- the terms and conditions, if any, on which the shares of the series shall be convertible into, or exchangeable for, shares of any other class or classes of capital stock;
- the terms on which the shares may be redeemed, if at all;
- the liquidation preference, if any; and
- any or all other preferences, rights, restrictions, including restrictions on transferability, and qualifications of shares of the series.

The issuance of preferred stock may delay, deter or prevent a change in control.

We will describe the specific terms of a particular series of preferred stock in the prospectus supplement relating to that series. The description of preferred stock above and the description of the terms of a particular series of preferred stock in the prospectus supplement are not complete. You should refer to the applicable certificate of designation for complete information. The prospectus supplement will contain a description of U.S. federal income tax consequences relating to the preferred stock.

## **Anti-Takeover Provisions**

### ***Delaware Anti-Takeover Law***

We are subject to Section 203 of the DGCL. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

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

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of its stock 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 any 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 the entity or person.

## DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements or free writing prospectuses, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below. As of the date of this prospectus, we have no outstanding registered debt securities. Unless the context requires otherwise, whenever we refer to the “indenture,” we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We may offer senior debt securities or subordinated debt securities under the indenture and any supplemental indentures that we will enter into with the trustee named in the indenture. We have filed a form of the indenture as an exhibit to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indenture will be qualified under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”).

The following summaries of material provisions of the indenture are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture and any supplemental indentures applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

### General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in an officer’s certificate or by a supplemental indenture. Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series. We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be made;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;

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- provisions for a sinking fund purchase or other analogous fund, if any, including the date, if any, on which, and the price at which we are obligated, pursuant thereto or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
  - incur additional indebtedness;
  - issue additional securities;
  - create liens;
  - pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;
  - redeem capital stock;
  - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
  - make investments or other restricted payments;
  - sell or otherwise dispose of assets;
  - enter into sale-leaseback transactions;
  - engage in transactions with stockholders or affiliates;
  - issue or sell stock of our subsidiaries; or
  - effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of certain material or special United States federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations.

### **Conversion or Exchange Rights**

We will set forth in the applicable prospectus supplement the terms under which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third party) that the holders of the series of debt securities receive would be subject to adjustment.

### **Consolidation, Merger or Sale**

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indenture or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.



## Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or we and the trustee receive notice from the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement any additional events of default relating to the relevant series of debt securities.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default arises due to the occurrence of certain specified bankruptcy, insolvency or reorganization events, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under the indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

The indenture provides that if an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. The trustee, however, may refuse to follow any direction that conflicts with law or the indenture, or that the trustee determines is unduly prejudicial to the rights of any other holder of the relevant series of debt securities, or that would involve the trustee in personal liability. Prior to taking any action under the indenture, the trustee will be entitled to indemnification against all costs, expenses and liabilities that would be incurred by taking or not taking such action.

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Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, a holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

### **Modification of Indenture; Waiver**

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change the indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale;”
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to provide for the issuance of, and establish the form and terms and conditions of, the debt securities of any series as provided under “Description of Debt Securities—General,” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;
- to add such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to change anything that does not adversely affect the interests of any holder of debt securities of any series in any material respect.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected.

However, subject to the terms of the indenture for any series of debt securities that we may issue or otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

## Discharge

The indenture may provide that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we may elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, and any premium and interest on, the debt securities of the series on the dates payments are due.

## Form, Exchange and Transfer

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms related to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

### **Information Concerning the Trustee**

The trustee, other than during the occurrence and continuance of an event of default under the indenture, undertakes to perform only those duties as are specifically set forth in the indenture and is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur. However, upon an event of default under the indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

### **Payment and Paying Agents**

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest payment.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

### **Governing Law**

The indenture and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

### **Ranking Debt Securities**

The subordinated debt securities that we may offer will be unsecured and will be subordinate and junior in priority of payment to certain other indebtedness to the extent described in a prospectus supplement.

The senior debt securities that we may offer will be unsecured and will rank equally in right of payment to all our other senior unsecured debt.

## DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and may be issued in one or more series. Warrants may be offered independently or together with common stock, preferred stock or debt securities offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of warrant agreement, if any, including a form of warrant certificate, if any, that describes the terms of the particular series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. We urge you to read the applicable prospectus supplement and any applicable free writing prospectus related to the particular series of warrants that we sell under this prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

### General

We will describe in the applicable prospectus supplement the terms relating to a series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- United States federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

## **Exercise of Warrants**

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate or agreement representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate or agreement and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate or agreement properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate or agreement are exercised, then we will issue a new warrant certificate or agreement for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

## **Enforceability of Rights by Holders of Warrants**

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

## DESCRIPTION OF RIGHTS

The following is a general description of the terms of the rights we may issue from time to time unless we provide otherwise in the applicable prospectus supplement. Particular terms of any rights we offer will be described in the prospectus supplement relating to such rights.

### General

We may issue rights to purchase common stock, preferred stock, debt securities or units. Rights may be issued independently or together with other securities and may or may not be transferable by the person purchasing or receiving the rights. In connection with any rights offering to our stockholders, we may enter into a standby underwriting, backstop or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to our stockholders, we would distribute certificates evidencing the rights and a prospectus supplement to our stockholders on or about the record date that we set for receiving rights in such rights offering.

The applicable prospectus supplement will describe the following terms of any rights we may issue, including some or all of the following:

- the title and aggregate number of the rights;
- the subscription price or a formula for the determination of the subscription price for the rights and the currency or currencies in which the subscription price may be payable;
- if applicable, the designation and terms of the securities with which the rights are issued and the number of rights issued with each such security or each principal amount of such security;
- the number or a formula for the determination of the number of the rights issued to each stockholder;
- the extent to which the rights are transferable;
- in the case of rights to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one right;
- in the case of rights to purchase common stock or preferred stock, the type of stock and number of shares of stock purchasable upon exercise of one right;
- the date on which the right to exercise the rights will commence, and the date on which the rights will expire (subject to any extension);
- if applicable, the minimum or maximum amount of the rights that may be exercised at any one time;
- the extent to which such rights include an over-subscription privilege with respect to unsubscribed securities;
- if applicable, the procedures for adjusting the subscription price and number of shares of common stock or preferred stock purchasable upon the exercise of each right upon the occurrence of certain events, including stock splits, reverse stock splits, combinations, subdivisions or reclassifications of common stock or preferred stock;
- the effect on the rights of any merger, consolidation, sale or other disposition of our business;
- the terms of any rights to redeem or call the rights;
- information with respect to book-entry procedures, if any;

- the terms of the securities issuable upon exercise of the rights;
- if applicable, the material terms of any standby underwriting, backstop or other purchase arrangement that we may enter into in connection with the rights offering;
- if applicable, a discussion of certain U.S. Federal income tax considerations; and
- any other terms of the rights, including terms, procedures and limitations relating to the exchange and exercise of the rights.

### **Exercise of Rights**

Each right will entitle the holder to purchase for cash or other consideration such shares of stock or principal amount of securities at the subscription price as shall in each case be set forth in, or be determinable as set forth in, the prospectus supplement relating to the rights offered thereby. Rights may be exercised as set forth in the applicable prospectus supplement beginning on the date specified therein and continuing until the close of business on the expiration date set forth in the prospectus supplement relating to the rights offered thereby. After the close of business on the expiration date, unexercised rights will become void.

Upon receipt of payment and a subscription certificate properly completed and duly executed at the corporate trust office of the subscription agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the securities purchasable upon such exercise. If less than all of the rights represented by such subscription certificate are exercised, a new subscription certificate will be issued for the remaining rights. If we so indicate in the applicable prospectus supplement, holders of the rights may surrender securities as all or part of the exercise price for rights.

We may determine to offer any unsubscribed offered securities directly to stockholders, persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby underwriting, backstop or other arrangements, as set forth in the applicable prospectus supplement.

Prior to exercising their rights, holders of rights will not have any of the rights of holders of the securities purchasable upon subscription, including, in the case of rights to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise any voting rights or, in the case of rights to purchase debt securities, the right to receive principal, premium, if any, or interest payments, on the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture.



## DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

### General

We may issue units comprised of one or more debt securities, shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities” and “Description of Warrants” will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

### Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

### Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

We, the unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

## PLAN OF DISTRIBUTION

We may sell the securities, from time to time, to or through underwriters or dealers, through agents or remarketing firms, or directly to one or more purchasers pursuant to:

- underwritten public offerings;
- negotiated transactions;
- block trades;
- “At the Market Offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, into an existing trading market, at prevailing market prices; or
- through a combination of these methods.

We may sell the securities to or through one or more underwriters or dealers (acting as principal or agent), through agents, or directly to one or more purchasers.

We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of the underwriters, dealers or agents, if any;
- if the securities are to be offered through the selling efforts of brokers or dealers, the plan of distribution and the terms of any agreement, arrangement, or understanding entered into with broker(s) or dealer(s) prior to the effective date of the registration statement, and, if known, the identity of any broker(s) or dealer(s) who will participate in the offering and the amount to be offered through each;
- the purchase price of the securities or other consideration therefor, and the proceeds, if any, we will receive from the sale;
- if any of the securities being registered are to be offered otherwise than for cash, the general purposes of the distribution, the basis upon which the securities are to be offered, the amount of compensation and other expenses of distribution, and by whom they are to be borne;
- any delayed delivery arrangements;
- any over-allotment or other options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;

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- any discounts, commissions or concessions allowed or reallocated or paid to dealers;
- the identity and relationships of any finders, if applicable; and
- any securities exchange or market on which the securities may be listed.

In compliance with the guidelines of the Financial Industry Regulatory Authority, the maximum compensation to the underwriters or dealers in connection with the sale by the Company of its securities pursuant to this prospectus and the accompanying supplement to this prospectus may not exceed 8% of the aggregate offering price of the securities as set forth on the cover page of any prospectus supplement.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Unless otherwise indicated in the prospectus supplement, subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters, dealers or agents with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, dealer or agent, the nature of any such relationship.

We may use a remarketing firm to offer the securities in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own account or as agents for us. These remarketing firms will offer or sell the securities pursuant to the terms of the securities. A prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection the securities they remarket.

If we offer and sell securities through a dealer, we or an underwriter will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The name of the dealer and the terms of the transaction will be set forth in the applicable prospectus supplement.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions payable to the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, the agent will act on a best-efforts basis for the period of its appointment.

Dealers and agents participating in the distribution of the securities may be deemed to be underwriters, and compensation received by them on resale of the securities may be deemed to be underwriting discounts. If such dealers or agents were deemed to be underwriters, they may be subject to statutory liabilities under the Securities Act.

We may sell securities directly to one or more purchasers without using underwriters or agents. Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

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We may provide agents, underwriters and dealers with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents, underwriters or dealers may make with respect to these liabilities. Agents, underwriters and dealers, or their respective affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business.

The securities we offer may be new issues of securities and may have no established trading market. The securities may or may not be listed on a securities exchange. Underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of, or the existence of trading markets for, any of the securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the Nasdaq Global Select Market may engage in passive market making transactions in the common stock on the Nasdaq Global Select Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

## LEGAL MATTERS

Dechert LLP, New York, New York will pass for us upon the validity of the securities being offered by this prospectus and applicable prospectus supplement, and counsel named in the applicable prospectus supplement will pass upon legal matters for any underwriters, dealers or agents.

## EXPERTS

The consolidated financial statements of Diffusion Pharmaceuticals Inc. as of and for the years ended December 31, 2018 and 2017, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2018 consolidated financial statements contains an explanatory paragraph that states that the Company has suffered recurring losses from operations, has limited resources available to fund current research and development activities, and will require substantial additional financing to continue to fund its research and development activities that raise substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, with respect to the securities being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

We file electronically with the SEC annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and other information and amendments to those reports filed or furnished pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. The SEC maintains an Internet site ([www.sec.gov](http://www.sec.gov)) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Copies of these reports, proxy and information statements and other information may be obtained by electronic request at the following e-mail address: [publicinfo@sec.gov](mailto:publicinfo@sec.gov).

We make available, free of charge and through our Internet web site at [www.diffusionpharma.com](http://www.diffusionpharma.com), our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to any such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We also make available, free of charge and through our Internet web site, to any stockholder who requests, the charters of our board committees, our Corporate Governance Guidelines and our Code of Business Conduct and Ethics. Requests for copies can be directed to Investor Relations at (434) 220-0718. The information set forth on, or connected to, our website is expressly not incorporated by reference into, and does not constitute a part of, this prospectus.

## INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference information into this prospectus. This means we can disclose information to you by referring you to another document we filed with the SEC. We will make those documents available to you without charge upon your oral or written request. Requests for those documents should be directed to Investor Relations Department, Diffusion Pharmaceuticals Inc., 1317 Carlton Avenue, Suite 200, Charlottesville, Virginia 22902, Attention: Secretary, telephone: (434) 220-0718. This prospectus incorporates by reference the following documents (other than any portion of the respective filings furnished, rather than filed, under the applicable SEC rules) that we have filed with the SEC but have not included or delivered with this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 19, 2019;

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- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2019 filed with the SEC on May 9, 2019;
- our Current Report on Form 8-K filed with the SEC on January 18, 2019; and
- the description of our common stock included in our amended registration statement on Form 8-A filed on November 8, 2016 under the Exchange Act, and any amendment or report we may file with the SEC for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering shall be deemed to be incorporated by reference into this prospectus (other than current reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K).

You may request a free copy of any or all of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

Diffusion Pharmaceuticals Inc.  
1317 Carlton Avenue, Suite 200  
Charlottesville, Virginia 22902  
(434) 220-0718  
Attention: Investor Relations

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

# **Diffusio<sub>2</sub>n**

Pharmaceuticals Inc.

**1,317,060 Shares of Common Stock**

**PROSPECTUS SUPPLEMENT**

**H.C. Wainwright & Co.**

**May 23, 2019**