PROSPECTUS SUPPLEMENT (To Prospectus dated October 2, 2020)

Up to \$5,500,000



# Common Stock

We have entered into an at-the-market sales agreement with BTIG, LLC, acting in its capacity as the sales agent, or BTIG, relating to the offer and sale of shares of our common stock, par value \$0.001, from time to time, having an aggregate offering price of up to \$20,000,000.

Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be "at-the-market" equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, including, without limitation, sales made directly on the Nasdaq Stock Market LLC, or Nasdaq, on any other existing trading market for our common stock or to or through a market maker or through an electronic communications network. BTIG is not required to sell any specific amount of securities but will act as our sales agent on a best efforts basis and will use commercially reasonable efforts to sell on our behalf all of the common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between BTIG and us. There is no arrangement for funds to be received in any escrow, trust, or similar arrangement.

BTIG will be entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of our common stock on our behalf pursuant to the sales agreement. In connection with the sale of the common stock on our behalf, BTIG will be deemed to be an "underwriter" within the meaning of the Securities Act of 1933, as amended, and the compensation of BTIG will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to BTIG against certain civil liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act. We may also sell some or all of the shares of common stock to the sales agent as principal for its own account at a price agreed upon at the time of sale.

Our common stock is listed on The Nasdaq Capital Market under the symbol "DFFN." The last reported sale price of our common stock on July 21, 2022 was \$8.20 per share. On March 18, 2022, the date we filed our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 with the Securities and Exchange Commission, or the SEC, our base prospectus became subject to the offering limits in General Instruction I.B.6 of Form S-3. As of the date of this prospectus supplement, (i) the aggregate market value of our common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$17,054,263.70, which was calculated based on 2,035,115 shares of our common stock outstanding held by non-affiliates and a price of \$8.38 per share, the closing price of our common stock on July 19, 2022 and (ii) we have not sold any of our 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. Accordingly, based on the foregoing, we are currently eligible under General Instruction I.B.6 of Form S-3 to offer and sell up to \$5,684,754.37 of shares of our common stock pursuant to this prospectus supplement. As a result of these limitations, the current public float of our common stock and prior sales of securities pursuant to General Instruction I.B.6 of Form S-3 in the twelve months preceding the date hereof, and in accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$5,500,000 from time to time through BTIG. If our public float increases such that we may sell additional amounts under the Sales Agreement and the registration statement and base prospectus of which this prospectus supplement is a part, we will file another prospectus supplement prior to making additional sales.

Investing in our securities involves significant risks. You should review carefully the "Risk Factors" beginning on page S-3 of this prospectus supplement, page 7 of the accompanying prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement before investing in our securities.

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 supplement. Any representation to the contrary is a criminal offense.

# **BTIG**

The date of this prospectus supplement is July 22, 2022

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### ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement that we have filed with the SEC utilizing a "shelf" registration process. Under the shelf registration process, we may offer shares of our common stock having an aggregate offering price of up to \$75,000,000 under the accompanying prospectus. Under this prospectus supplement and the accompanying prospectus, we may offer shares of our common stock having an aggregate offering price of up to \$5,500,000 from time to time at prices and on terms to be determined by market conditions at the time of offering, subject to the offering limits in General Instruction I.B.6 of Form S-3.

We are providing information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference herein and therein include important information about us, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the section of this prospectus supplement and the accompanying prospectus entitled "Where You Can Find More Information" and "Information Incorporated by Reference."

You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus and any free writing prospectus we may provide to you in connection with this offering and the information incorporated or deemed to be incorporated by reference therein. We have not, and BTIG has not, authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the sales agent is not, offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement or the accompanying base prospectus is accurate as of any date other than as of the date of this prospectus supplement or the accompanying base prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

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 this prospectus supplement 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.

We are offering to sell, and are seeking offers to buy, the common stock only in jurisdictions where such offers and sales are permitted. No action has been or will be taken in any jurisdiction by us or BTIG that would permit a public offering of the common stock or the possession or distribution of this prospectus supplement and the accompanying prospectus in any jurisdiction, other than in the United States. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context otherwise requires, (i) references to the "Company," "we," "our," or "us" refer to Diffusion Pharmaceuticals Inc. and its subsidiaries and (ii) references to "common stock" refer to the common stock, par value \$0.001 per share, of the Company.

### NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference include express and implied forward-looking statements. 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 this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition, liquidity and prospects may differ materially from the forward-looking statements contained in this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference. In addition, even if our results of operations, financial condition, liquidity, and prospects are consistent with the forward-looking statements contained in this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference, they may not be predictive of actual results or reflect unanticipated developments in future periods.

Forward-looking statements appear in a number of places throughout this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference. 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 also include statements regarding our intentions, beliefs, projections, outlook, analyses, or expectations, including our intentions, beliefs, projections, outlook, analyses, or expectations concerning, among other things:

- the success and timing of our clinical and preclinical studies, including our ability to enroll subjects in our ongoing and planned clinical studies at anticipated rates and our ability to manufacture an adequate amount of drug supply for our studies;
- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- the performance of third parties, including contract research organizations, manufacturers, suppliers, and outside consultants, to whom we outsource certain operational, staff and other functions;
- our ability to obtain additional financing in the future and continue as a going concern;
- our ability to obtain and maintain regulatory approval of our product candidates and, if approved, our products, including the labeling under any approval we may obtain;
- our plans and ability to develop and commercialize our product candidates and the outcomes of our research and development activities;
- our estimates regarding expenses, future revenues, capital requirements, and needs for additional financing;
- 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, the rate and degree of market acceptance of any of our product candidates that may be approved in the future, and our ability to serve those markets;
- the success of products that are or may become available which also target the potential markets for our product candidates;
- our ability to operate our business without infringing the intellectual property rights of others and the potential for others to infringe upon our intellectual property rights;

- any significant breakdown, infiltration, or interruption of our information technology systems and infrastructure;
- recently enacted and future legislation related to the healthcare system, including trends towards managed care and healthcare cost containment, the impact of any significant spending reductions or cost controls affecting publicly funded or subsidized healthcare programs, or any replacement, repeal, modification, or invalidation of some or all of the provisions of the Affordable Care Act;
- other regulatory developments in the U.S., E.U., and other foreign jurisdictions;
- our ability to satisfy the continued listing requirements of The Nasdaq Capital Market or any other exchange on which our securities may trade in the future;
- uncertainties related to general economic, political, business, industry, and market conditions, including the ongoing COVID-19 pandemic, inflationary pressures, and geopolitical conflicts; and
- other risks and uncertainties, including those discussed under the heading "Risk Factors" beginning on page S-3 of this prospectus supplement, page 7 of the accompanying prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement.

As a result of these and other factors, known and unknown, actual results could differ materially from our intentions, beliefs, projections, outlook, analyses, or expectations expressed in any forward-looking statements in this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference. Accordingly, we cannot assure you that the forward-looking statements contained in this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference will prove to be accurate or that any such inaccuracy will not be material. You should also understand that it is not possible to predict or identify all such factors, and you should not consider any such list to be a complete set of all potential risk or uncertainties. In light of the foregoing and 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. 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.

Any forward-looking statement that we make in this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference speaks only as of the date of such statement, and, except as required by applicable law or by the rules and regulations of the SEC, we undertake no obligation to update such statements to reflect events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events. Comparisons of current and any prior period results are not intended to express any ongoing or future trends or indications of future performance, unless explicitly expressed as such, and should only be viewed as historical data.

## Note Regarding Trademarks, Trade Names and Service Marks

This prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference may contain the following trademarks, trade names and service marks of ours: "DIFFUSIO2N." All other trade names, trademarks and service marks appearing in this prospectus supplement, the accompanying prospectus and the other information and documents incorporated herein or therein by reference are, to the knowledge of Diffusion, the property of their respective owners. To the extent any such terms appear without the trade name, trademark or service mark notice, such presentation is for convenience only and should not be construed as being used in a descriptive or generic sense.

### PROSPECTUS SUPPLEMENT SUMMARY

The following summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents incorporated by reference. This summary is not complete and does not contain all the information you should consider before investing in our common stock pursuant to this prospectus supplement and the accompanying prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including "Risk Factors" beginning on page S-3 of this prospectus supplement, the financial statements and related notes, and the other information incorporated by reference herein, including our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-O, and our other filings with the SEC that we file from time to time.

### **Our Company**

# Diffusion Pharmaceuticals: Enhancing Oxygen, Fueling Life

We are a biopharmaceutical company developing novel therapies that enhance the body's ability to deliver oxygen to the areas where it is needed most. Our lead product candidate, trans sodium crocetinate, or TSC, is being investigated to enhance the diffusion of oxygen to tissues with low oxygen levels, also known as hypoxia, a serious complication of many of medicine's most intractable and difficult-to-treat conditions. The extensive preclinical and clinical data regarding TSC obtained to date, including data recently obtained from our recently completed Oxygenation Trials and our COVID-19 Trial completed in February 2021, provide significant information related to TSC's effects on oxygenation, dose response characteristics, pharmacokinetics, and pharmacodynamics. In November 2021, based on the available data and the significant unmet medical need, we announced our intention to focus the next steps in our efforts to develop TSC as an adjunct to standard of care therapy for hypoxic solid tumors. We currently expect to commence our Planned Phase 2 Hypoxic Tumor Trial in the second half of 2022, subject to U.S. Food and Drug Administration feedback and the availability of clinical drug supply.

### **Corporation 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 300 Main Street, Suite 201, Charlottesville, VA 22902. Our telephone number is (434) 220-0718. The address of our website is 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 Exchange Act since the market value of our shares held by non-affiliates is less than \$700 million and our annual revenue was less than \$100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our shares held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700 million. As a "smaller reporting company," we 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, including that we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and have reduced disclosure obligations regarding executive compensation, and, if we are a smaller reporting company with less than \$100 million in annual revenue, we would not be required to obtain an attestation report on internal control over financial reporting issued by our independent registered public accounting firm.

### THE OFFERING

Common stock offered by us Shares of our common stock having an aggregate offering price of up to \$5,500,000.

Common stock outstanding immediately

before this offering

2,038,708.

Manner of offering "At-the-market offering" that may be made from time to time through our sales agent, BTIG. See

"Plan of Distribution" on page S-10 of this prospectus supplement.

**Use of Proceeds** We currently intend to use the net proceeds, if any, from this offering for general corporate

purposes. General corporate purposes may include funding research, clinical development, working capital, capital expenditures and other purposes. See "Use of Proceeds" beginning on page S-6.

**Risk Factors**Investing in our common stock involves significant risks. You should read the "Risk

Factors" section beginning on page S-3 of this prospectus supplement and on page 7 of the accompanying prospectus, as well as all other information included in this prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference for a discussion of certain of the factors to consider carefully before deciding to invest in our securities.

National Securities Exchange Listing Our common stock is listed on The Nasdaq Capital Market under the symbol "DFFN."

The number of shares of our common stock to be outstanding before this offering is based on 2,038,708 shares of common stock outstanding as of July 21, 2022, after giving effect to the 1-for-50 reverse stock split effected April 18, 2022, and excludes as of July 21, 2022:

- 124,288 shares of common stock issuable upon the exercise of outstanding stock options, at a weighted-average exercise price of \$154.55 per share, awarded under the Diffusion Pharmaceuticals Inc. 2015 Equity Incentive Plan, as amended, or the 2015 Equity Plan;
- 4,672 shares of common stock issuable upon the vesting of restricted stock units awarded under the 2015 Equity Plan;
- 111,891 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted-average exercise price of \$220.42 per share;
   and
- 41.315 shares of common stock reserved for future issuance under the 2015 Equity Plan.

### RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below and under the section captioned "Risk Factors" contained in our most recent Annual Report on Form 10-K, as revised and supplemented by our Quarterly Reports on Form 10-Q filed since the filing of our most recent Annual Report on Form 10-K, each of which is incorporated by reference herein, together with the other information contained or incorporated by reference in this prospectus before making a decision to invest in our securities. We cannot assure you that any of the events discussed in the risk factors below will not occur. These risks could have a material and adverse impact on our business, results of operations, financial condition and cash flows, and our future prospects would likely be materially and adversely affected. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

## Risks Related to the Offering

We have broad discretion in the use of our available cash and other sources of funding, including the net proceeds we may receive from this offering, if any, and may not use them effectively.

Our management has broad discretion in the use of our available cash and other sources of funding, including the net proceeds we receive in this offering, and could spend those resources for purposes other than those described in the "Use of Proceeds" portion of this prospectus supplement, and in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending use in our operations, we may invest our available cash, including the net proceeds we receive in this offering, in a manner that does not produce income or that loses value.

If you purchase shares of our common stock sold in this offering, you may experience immediate and substantial dilution in the net tangible book value of your shares. In addition, we may issue additional equity or convertible debt securities in the future, which may result in additional dilution to you.

The last reported sale price of our common stock on The Nasdaq Capital Market on July 21, 2022 was \$8.20 per share, which is less than our net tangible book value per share as of March 31, 2022. For a more detailed discussion regarding the foregoing and the accretion to new investors assuming that an aggregate of 609,756 shares of our common stock are sold at such price for aggregate gross proceeds of approximately \$5,500,000 (before deducting commissions and estimated offering expenses payable by us), see the section entitled "Dilution" on page S-8 of this prospectus supplement.

However, in the future, the price per share of our common stock being offered may be higher than the net tangible book value per share of our outstanding common stock prior to this offering, in which case new investors would suffer immediate dilution to the extent the public offering price per share in the offering exceeds the net tangible book value per share of our common stock after this offering.

In addition, to raise additional capital in the future, we believe that we may offer and issue additional shares of our common stock or other securities convertible into or exchangeable for our common stock in the future. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by purchasers in this offering, and investors purchasing other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. We also have a significant number of stock options and warrants outstanding. To the extent that outstanding stock options or warrants have been or may be exercised or other shares issued, you may experience additional dilution.

Further, as we grow our business, we may seek to rely more heavily on capital raising transactions to fund our operations, raise capital to retire any debt we may hereafter incur, for other corporate purposes, or due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Resales of our common stock in the public market during this offering by our stockholders may cause the market price of our common stock to fall.

We may issue common stock from time to time in connection with this offering. This issuance from time to time of these new shares of our common stock, or our ability to issue these shares of common stock in this offering, could result in resales of our common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

### The actual number of shares we will issue under the sales agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the sales agreement and compliance with applicable law, we have the discretion to deliver placement notices to BTIG at any time throughout the term of the sales agreement. The number of shares that are sold by BTIG after our delivering a placement notice will fluctuate based on the market price of the common stock during the sales period and limits we set with BTIG.

The shares of common stock offered under this prospectus supplement and the accompanying prospectus may be sold in "at-the-market" offerings, and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares under this prospectus supplement and the accompanying prospectus at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold, and there is no minimum or maximum sales price. Investors may experience declines in the value of their shares as a result of share sales made at prices lower than the prices they paid.

# Our stock price is volatile, and your investment may suffer a decline in value.

The closing market price for our common stock has varied between a high of \$30.50 on August 30, 2021, and a low of \$5.66 on April 28, 2022, in the twelve-month period ended July 21, 2022 (in each case, after giving effect to our 1-for-50 reverse stock split effected on April 18, 2022). As a result of fluctuations in the price of our common stock, you may be unable to sell your shares at or above the price you paid for them. The market price of our common stock is likely to continue to be volatile and subject to significant price and volume fluctuations in response to market, industry and other factors, including the risk factors described under the section captioned "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2021 and our subsequent Quarterly Reports on Form 10-Q, all of which are incorporated by reference in this prospectus supplement in their entirety. The market price of our common stock may also be dependent upon the valuations and recommendations of the analysts who cover our business. If the results of our business do not meet these analysts' forecasts, the expectations of investors or the financial guidance we provide to investors in any period, the market price of our common stock could decline.

In addition, the stock markets in general, and the markets for biotechnology stocks in particular, have experienced significant volatility that has often been unrelated to the financial condition or results of operations of particular companies. These broad market fluctuations may adversely affect the trading price of our common stock and, consequently, adversely affect the price at which you could sell the shares of common stock that you purchase in this offering. In the past, following periods of volatility in the market or significant price declines, securities class-action litigation has often been instituted against companies. Such litigation, if instituted against us, could result in substantial costs and diversion of management's attention and resources, which could materially and adversely affect our business, financial condition, results of operations and growth prospects.

### If we sell additional equity or debt securities to fund our operations, it may impose restrictions on our business.

In order to raise additional funds to support our operations, we may in the future sell additional equity or debt securities, which may impose restrictive covenants that adversely impact our business. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we are unable to expand our operations or otherwise capitalize on our business opportunities due to such restrictions, our business, financial condition, and results of operations could be materially adversely affected.

Future sales of our common stock in the public market or other financings could cause our stock price to fall, and a substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market, the perception that these sales might occur, or other financings could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. A substantial portion of the outstanding shares of our common stock are freely tradable without restriction or further registration under the Securities Act unless these shares are owned or purchased by "affiliates" as that term is defined in Rule 144, promulgated under the Securities Act, or Rule 144. In addition, shares of common stock issuable upon exercise of outstanding warrants and options, as well as shares reserved for future issuance under our incentive stock plan, will be eligible for sale in the public market to the extent permitted by applicable vesting requirements, if any, and, in some cases, subject to compliance with the requirements of Rule 144. As a result, these shares will be eligible to be freely sold in the public market upon issuance, subject to restrictions under the securities laws.

Because we do not currently intend to declare cash dividends on our shares of common stock in the foreseeable future, stockholders must rely on appreciation of the value of our common stock for any return on their investment.

We have never declared or paid cash dividends on our common stock and do not currently anticipate declaring or paying any cash dividends in the foreseeable future. In addition, the terms of any existing or future debt agreements may preclude us from paying dividends. As a result, we expect that only appreciation of the price of our common stock, if any, will provide a return to existing stockholders for the foreseeable future.

# **USE OF PROCEEDS**

We may issue and sell shares of our common stock having aggregate gross proceeds of up to \$5,500,000 from time to time under this prospectus supplement and the accompanying prospectus. Because there is no minimum offering amount required as a condition to close this offering, the actual total offering amount, commissions and proceeds to us, if any, are not determinable at this time. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the sales agreement as a source of financing.

We currently intend to use the net proceeds from this offering for general corporate purposes. General corporate purposes may include funding research and clinical development, including for TSC, working capital, capital expenditures and other general corporate purposes.

The amounts and timing of our use of the net proceeds from this offering will depend on a number of factors, such as the timing and progress of our research and development efforts for TSC, the timing and progress of any clinical trial activities, partnering, or future commercialization efforts, technological advances, and the competitive environment for TSC, among other things. Accordingly, our management will have broad discretion in the timing and application of these proceeds. 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 currently 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.

### DILUTION

If you invest in our common stock in this offering, your ownership interest may be diluted immediately to the extent of the public offering price per share exceeds the net tangible book value per share of our common stock after this offering.

Our net tangible book value as of March 31, 2022 was approximately \$30.6 million, or \$15.02 per share of our common stock outstanding as of such date. Our net tangible book value is the amount of our total tangible assets less our total liabilities. Net tangible book value per share represents net tangible book value divided by the total number of shares of our common stock outstanding as of March 31, 2022. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the issuance and sale of our common stock in the aggregate amount of \$5,500,000 in this offering, at an assumed offering price of \$8.20 per share, the last reported sale price of our common stock on The Nasdaq Capital Market on July 21, 2022, and after deducting estimated commissions and offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2022 would have been approximately \$35.3 million, or \$13.34 per share. This represents an immediate decrease in as adjusted net tangible book value of \$1.68 per share to existing stockholders and an immediate accretion of \$5.14 per share to new investors purchasing securities in this offering.

The following table illustrates this per share accretion:

Assumed offering price per share	\$	8.20
Net tangible book value per share as of March 31, 2022	\$ 15.02	
Increase (Decrease) in net tangible book value per share attributable to this offering	(1.68)	
As adjusted net tangible book value per share as at March 31, 2022, after giving effect to this	_	
offering		13.34
Dilution (Accretion) per share to new investors participating in this offering	\$	(5.14)

The above discussion and table assumes for illustrative purposes that an aggregate of 609,756 shares of our common stock are sold at a price of \$8.20 per share, the last reported sale price of our common stock on The Nasdaq Capital Market on July 21, 2022, for aggregate gross proceeds of approximately \$5,500,000. The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$8.20 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$5,500,000 is sold at that price, would increase our adjusted net tangible book value per share after the offering by \$0.18 per share and would decrease the accretion in net tangible book value per share to new investors in this offering by \$0.32 per share, after deducting estimated offering expenses and commissions payable by us. A decrease of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$8.20 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$5,500,000 is sold at that price, would decrease our adjusted net tangible book value per share after the offering by \$0.20 per share and would increase the accretion in net tangible book value per share to new investors in this offering by \$0.30 per share, after deducting estimated offering expenses and commissions payable by us. This information is supplied for illustrative purposes only.

The information above is based on 2,038,070 shares of our common stock outstanding as of March 31, 2022, after giving effect to the 1-for-50 reverse stock split effected April 18, 2022, and excludes as of March 31, 2022:

- 116,564 shares of common stock issuable upon the exercise of outstanding stock options, at a weighted-average exercise price of \$164.31 per share, awarded pursuant to the 2015 Equity Plan;
- 5,182 shares of common stock issuable upon the vesting of outstanding restricted stock units awarded pursuant to the 2015 Equity Plan;
- 111,891 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted-average exercise price of \$220.42 per share;
- 49,039 shares of common stock reserved for future issuance under the 2015 Equity Plan; and
- 200 shares of common stock issuable upon the conversion of our previously outstanding shares of Series C Convertible Preferred Stock.

### PLAN OF DISTRIBUTION

### Sales Agreement with BTIG

We have entered into the sales agreement with BTIG under which we may issue and sell shares of our common stock having an aggregate offering price of up to \$20,000,000 from time to time through BTIG, acting as our sales agent, subject to the offering limits in General Instruction I.B.6 of Form S-3. Sales of our common stock, if any, under this prospectus may be made in negotiated transactions, or by any method that is deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on The Nasdaq Capital Market or sales made to or through a market maker other than on an exchange.

Each time that we wish to issue and sell shares of our common stock under the sales agreement, we will provide BTIG with a placement notice describing the amount of shares to be sold, the time period during which sales are requested to be made, any limitation on the amount of shares of common stock that may be sold in any single day, any minimum price below which sales may not be made or any minimum price requested for sales in a given time period and any other instructions relevant to such requested sales. Upon receipt of a placement notice, BTIG, acting as our sales agent, will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Nasdaq Stock Market LLC, to sell shares of our common stock under the terms and subject to the conditions of the placement notice and the sales agreement. We or BTIG may suspend the offering of common stock pursuant to a placement notice upon notice and subject to other conditions. BTIG, in its sole discretion, may decline to accept any placement notice.

BTIG will provide written confirmation to us no later than the opening of the trading day on Nasdaq following the trading day on which shares of our common stock are sold through BTIG as sales agent under the sales agreement. Each confirmation will include the number of shares sold on the preceding day, the net proceeds to us and the commissions payable by us to BTIG in connection with the sales.

Settlement for sales of common stock under the sales agreement will occur on the second trading day following the date on which such sales are made (or on such other date as is industry practice for regular-way trading), unless otherwise specified in the applicable placement notice, in return for payment of the net proceeds to us. There are no arrangements to place any of the proceeds of this offering in an escrow, trust or similar account. Sales of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and BTIG may agree upon.

We will pay BTIG commissions for its services in acting as our sales agent in the sale of our common stock pursuant to the sales agreement. BTIG will be entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of our common stock on our behalf pursuant to the sales agreement. We also have agreed to reimburse BTIG for its reasonable out-of-pocket expenses, including the fees and disbursements of BTIG's counsel, incurred in connection with entering into the sales agreement, in an amount not to exceed \$65,000, and fees and disbursements of BTIG's counsel on a quarterly basis not to exceed \$7,500.

We estimate that the total expenses for this offering, excluding compensation payable to BTIG and certain expenses reimbursable to BTIG under the terms of the sales agreement, will be approximately \$150,000. The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock

Because there are no minimum sale requirements as a condition to this offering, the actual total public offering price, commissions and net proceeds to us, if any, are not determinable at this time. The actual dollar amount and number of shares of common stock we sell through this prospectus supplement will be dependent on, among other things, market conditions and our capital raising requirements.

We will report at least quarterly the number of shares of common stock sold through BTIG under the sales agreement, the net proceeds to us and the compensation paid by us to BTIG in connection with the sales of common stock.

In connection with the sale of the common stock on our behalf, BTIG will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of BTIG will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to BTIG against certain civil liabilities, including liabilities under the Securities Act or the Exchange Act.

BTIG will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement if such activity would be prohibited under Regulation M or other anti-manipulation rules under the Securities Act. As our sales agent, BTIG will not engage in any transactions that stabilize our common stock.

The offering pursuant to the sales agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the sales agreement and (ii) termination of the sales agreement as permitted therein. We may terminate the sales agreement in our sole discretion at any time by giving 10 days' prior notice to BTIG. BTIG may terminate the sales agreement under the circumstances specified in the sales agreement and in its sole discretion at any time by giving 10 days' prior notice to us.

The sales agreement has been or will be filed as an exhibit to a current report on Form 8-K that we file with the SEC in connection with this offering and is or will be incorporated into this prospectus supplement by reference.

BTIG and/or its affiliates may in the future provide various investment banking and other financial services for us, for which services may in the future receive customary fees.

### **Transfer Agent**

The transfer agent and registrar for our common stock is Computershare, Inc. The transfer agent's address is 150 Royall Street, Canton, Massachusetts 02021.

# Listing on the Nasdaq Capital Market Listing

Our stock is currently traded on the Nasdaq Capital Market under the symbol "DFFN." On July 21, 2022, the last reported sale price of our common stock was \$8.20 per share.

### LEGAL MATTERS

The validity of the securities offered hereby is being passed upon by Dechert LLP. BTIG is being represented in connection with this offering by Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, P.C.

### **EXPERTS**

The consolidated financial statements of Diffusion Pharmaceuticals Inc. as of December 31, 2021 and 2020, and for the years then ended, have been incorporated by reference herein 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.

# 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 and do not contain all the information set forth or incorporated by reference in the registration statement. References made in this prospectus supplement or the accompanying prospectus as to the contents of any contract or other document 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 Exchange Act. The SEC maintains an Internet site (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. Our SEC filings are also available to you, free of charge, through our Internet web site at www.diffusionpharma.com.

### INCORPORATION OF CERTAIN INFORMATION 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., 300 Main Street, Suite 201, Charlottesville, Virginia 22902, Attention: General Counsel & 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 supplement:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 18, 2022.
- <u>our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2022</u>, filed with the SEC on May 12, 2022;
- our Current Reports on Form 8-K filed with the SEC on <u>March 18, 2022</u>, <u>April 8, 2022</u>, <u>April 12, 2022</u>, <u>April 18, 2022</u>, <u>May 4, 2022</u>, <u>May 24, 2022</u>, and <u>June 28, 2022</u>; and
- the description of our common stock included in Exhibit 4.16 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as filed with the SEC on March 18, 2022, including any amendment or report (or exhibit to any such amendment or report) filed for the purpose of updating that 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 supplement (other than current reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that are related to such items).

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

Diffusion Pharmaceuticals Inc. 300 Main Street, Suite 201 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 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 supplement or those documents.

### **PROSPECTUS**

\$75,000,000



# DIFFUSION PHARMACEUTICALS INC.

Common Stock
Preferred Stock
Debt Securities
Warrants
Units

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

We may offer and sell from time to time shares of our common stock; shares of our preferred stock; debt securities, which may be issued in one or more series and which may be senior debt securities or subordinated debt securities; warrants to purchase shares of our common stock, shares of our preferred stock or our debt securities; units that include any of the foregoing securities; and rights to purchase shares of our common stock, shares of our preferred stock, our debt securities or units. We may sell any combination of these securities in one or more offerings with an aggregate initial offering price of up to \$75,000,000.

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 base 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 base prospectus. You should carefully read this base prospectus, the accompanying prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference herein or therein before you invest in any of our securities. This prospectus may not be used to consummate a sale of securities unless accompanied by the accompanying prospectus supplement.

Our common stock is listed on the NASDAQ Capital Market under the symbol "DFFN." On October 1, 2020, the last reported sale price of our common stock was \$0.82.

Investing in our securities involves a number of significant risks. We strongly recommend that you read carefully the risks we describe in this base 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 base prospectus.

We may offer and sell securities to or through underwriting syndicates or dealers, through agents or directly to purchasers. The names of any underwriters, dealers or agents that participate in a sale or offer of securities pursuant to this prospectus, any applicable commissions or discounts, the price to the public of the securities offered or sold, and the net proceeds we expect to receive from such sale will, in each case, be stated in an accompanying prospectus supplement. In addition, the underwriters, if any, may over-allot a portion of the securities.

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 October 2, 2020

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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 from time to time any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$75,000,000. This prospectus only 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, including the specific amounts, prices and terms of the securities offered. We may also provide or authorize to be provided one or more free writing prospectuses that may contain material information relating to an offering. The prospectus supplement and any related free writing prospectus or in any documents that we may provide or authorize to be provided may also add, update or change information contained in this base prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this base prospectus, any accompanying prospectus supplement and any related free writing prospectus prepared by or on behalf of us, together with the additional information described under the heading, "Where You Can Find More Information" and "Information Incorporated 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 base prospectus, any accompanying prospectus supplement and any related free writing prospectus that we may provide or authorize to be provided to you. We have not authorized anyone to provide any information or to make any representation other than those contained or incorporated by reference in this base prospectus, any accompanying prospectus supplement, or any related free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this base 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 base prospectus, any accompanying prospectus supplement 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 base prospectus, any accompanying prospectus supplement or any related free writing prospectus 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.

The information in this base prospectus is accurate as of the date on the front cover. You should not assume that the information contained in this base prospectus, any accompanying prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front cover or that any information we have incorporated by reference herein is correct on any date subsequent to the date of the document incorporated by reference, even though this base prospectus, any accompanying 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, if any, reserve the sole right to accept or reject in whole or in part any proposed purchase of our securities. An accompanying 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."

When used in this prospectus, the terms "Diffusion," "Diffusion Pharmaceuticals," the "Company," "we," "our" and "us" refer to Diffusion Pharmaceuticals, Inc., unless otherwise specified or the context otherwise requires.

"Diffusion Pharmaceuticals," the Diffusion logo and other trademarks, trade names or service marks of Diffusion appearing in this prospectus are the property of Diffusion Pharmaceuticals, Inc. Solely for convenience, the trademarks and trade names in this prospectus may be referred to without the ® and TM symbols, but such references or the omission thereof should not be construed as any indicator that their respective owners will or will not assert their rights thereto.

# 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 publications 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, volatility, 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 accompanying prospectus supplement, any related free writing prospectus, and the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire base prospectus, any accompanying prospectus supplement, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety, including the information contained under the heading "Risk Factors" and our financial statements and the related notes contained in and incorporated by reference into this prospectus, before purchasing our securities.

### **Diffusion Pharmaceuticals Inc.**

### **Business Overview**

Diffusion Pharmaceuticals Inc. is an innovative biopharmaceutical company developing novel therapies to improve the body's ability to deliver oxygen to the areas where it is needed most, offering new hope for the treatment of life-threatening medical conditions.

Our lead drug candidate, trans sodium crocetinate ("TSC"), was originally developed in conjunction with the United States ("U.S.") Office of Naval Research to treat multiple organ failure and its resulting mortality caused by low oxygen levels due to blood loss on the battlefield. Evolutions in research have led the Company to focus on addressing some of medicine's most intractable and difficult-to-treat conditions involving cellular oxygen deficiency, or hypoxia, such as COVID-19, stroke, glioblastoma multiforme ("GBM") brain cancer, and other conditions and diseases in which hypoxia is a critical factor which presents a significant obstacle for medical providers and is the target for TSC's novel mechanism.

Using principles of physical chemistry, TSC was developed to increase the amount of hydrogen bonding among water molecules. The increased level of hydrogen bonding may increase the level of organization among the water molecules, creating a less dense matrix through which oxygen molecules can move more efficiently from areas of high to low oxygen concentrations. We believe this novel mechanism of action results in an enhancement of the rate of oxygen diffusion from the lungs onto red blood cells and then from red blood cells into body tissue where the oxygen is used to power the cells. This novel diffusion-enhancing mechanism has been observed to affect hypoxic tissue selectively, thus avoiding problems of tissue over-oxygenation and related oxygen toxicity.

### COVID-19

We believe TSC's oxygen-enhancing mechanism could potentially provide an important new treatment option for low oxygen levels and the associated risk of acute respiratory distress syndrome ("ARDS") and multiple organ failure that can occur in COVID-19 patients.

An open-label Phase 1b lead-in trial of TSC in hospitalized COVID-19 patients was initiated in September 2020 at the Romanian National Institute of Infectious Diseases ("NIID") to evaluate the safety and tolerability of TSC administered intravenously four-times daily in this patient population. In addition to evaluating safety and tolerability, we will collect preliminary data on TSC's effects on blood oxygenation, which are sometimes referred to as pharmacodynamic effects, and on certain clinical endpoints related to COVID-19 disease status. Although the study is not powered to detect statistical differences in effect, we believe positive changes from baseline in pharmacodynamic and/or clinical efficacy data will support proof of concept for use of TSC in patients with COVID-19 who suffer from low oxygen level. The safety and tolerability of TSC will be evaluated in this trial at pre-set intervals by a Safety Monitoring Committee ("SMC").

On September 10, 2020, we announced the first two patients were randomized and began dosing in the Phase 1b lead-in trial. With enrollment now in progress, we currently expect topline data to be available in the fourth quarter of 2020. If a safe, well-tolerated dose of TSC is identified at which there is evidence of elevated oxygen levels and/or clinical effect, we will use these data to determine the appropriate dosing regimen to begin our planned, randomized, controlled Phase 2/3 clinical trial testing TSC in hospitalized COVID-19 patients to evaluate TSC's effects on certain clinical endpoints.. We intend to incorporate feedback on the program and protocol design from regulatory authorities, including the U.S. Food and Drug Administration ("FDA"). Pending this feedback, we are planning to conduct the study in multiple sites in the U.S., the European Union ("E.U.") and other non-E.U. Eastern European countries.

In July 2020, we filed an Investigational New Drug ("IND") application with FDA in connection with the COVID-19 program, which incorporated pre-IND regulatory guidance from the FDA and certain European regulatory agencies. Based on subsequent communications with the FDA, the IND was withdrawn for administrative reasons. We do not anticipate that withdrawal of the IND will have a significant effect on our overall timeline for the program, and we intend to re-submit the IND after data from the Phase 1b study are available.

#### Cancer

Hypoxia is a critical factor in multiple conditions and the resistance of those conditions to treatment, including glioblastoma multiforme ("GBM"), stroke, infections, and other conditions with a significant unmet medical need. In addition to our ongoing COVID-19 program, we have evaluated TSC in preclinical and clinical studies of GBM, acute stroke, acute lung injury and peripheral artery disease ("PAD").

In GBM, we believe TSC can be used to re-oxygenate treatment-resistant cancerous tissue, making the cells more susceptible to the therapeutic effects of standard-of-care radiation therapy and chemotherapy. A Phase 2 clinical study was completed in the second quarter of 2015 that evaluated 59 patients with newly diagnosed GBM, a particularly deadly form of brain cancer for which TSC has received an Orphan Drug Designation from the FDA. Each year GBM affects approximately 12,000 patients in the U.S. and approximately 35,000 patients worldwide. This open-label, historically controlled study demonstrated a favorable safety profile for TSC when combined with standard of care treatment for GBM. Although not prospectively defined, a subgroup analysis of inoperable patients suggested a higher proportion of TSC-treated patients survived at two years compared to those in the historical control group.

Based upon data from the inoperable patient subgroup in the Phase 2 study, we initiated the INvestigation of TSC Against Cancerous Tumors ("INTACT") Phase 3 trial in the newly diagnosed inoperable GBM patient population in December 2017. The trial was designed to enroll 236 patients in total, with 118 in the treatment arm and 118 in the control arm. The trial began with an FDA-mandated open-label dose-escalation, safety run-in for which enrollment was completed and is now closed. A total of 19 patients were enrolled to ensure that at least 8 completed the FDA-specified 42-month exposure period. At a meeting in the third quarter of 2019, the INTACT Trial Data Safety Monitoring Board ("DSMB") concluded, based on their analysis, that no adverse safety signal was present and unanimously recommended the study continue as planned using the highest tested dose of TSC (1.5 mg/kg) during the adjuvant treatment chemotherapy period with temozolomide. Commencement of enrollment in the randomization portion of the INTACT Phase 3 Trial has been suspended, as the Company reprioritizes its resources to the shorter duration COVID-19 studies designed to demonstrate TSC's effectiveness. Restart and completion of the INTACT GBM study is contingent upon the availability of significant additional capital, which would need to be obtained through a financing event, strategic partnership or otherwise.

#### Stroke

Based upon preclinical safety and efficacy data, as well as certain clinical safety data, we believe TSC also has potential applications in both ischemic and hemorrhagic stroke. Stroke is the fifth leading cause of death in the U.S. and the leading cause of adult disability. TSC may enhance the diffusion of oxygen into brain cells in which stroke-induced oxygen-deprivation causes neuronal death. The hypoxic conditions in the brain of stroke patients may be a significant factor contributing to morbidity and mortality. On October 17, 2019, we began enrolling patients in a randomized Phase 2 trial to test TSC in the treatment of acute ischemic or hemorrhagic stroke. This trial was planned to enroll 160 patients, with 80 in the TSC treatment arm and 80 in the control arm. Patients were to receive treatment while in the ambulance to ensure all eligible patients received treatment as soon as possible after the onset of clinical symptoms. However, the COVID-19 pandemic created logistical problems for the study, including with respect to in-ambulance treatment, and currently enrollment in this trial is suspended as the Company reprioritizes its resources to the shorter duration COVID-19 studies designed to demonstrate TSC's effectiveness.

# DFN-529 (formerly RES-529)

In addition to TSC, our product candidate DFN-529 is a novel PI3K/Akt/mTOR pathway inhibitor which has completed two Phase 1 clinical trials for age-related macular degeneration and was previously in preclinical development in oncology, specifically for 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. We are currently exploring alternatives to best capitalize upon the value of DFN-529 and our related intellectual property, which may include out-licensing or other options.

# **Corporation 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. 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 base 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 provide or 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 accompanying 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 provide or 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 provide or 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 provide or 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 provide or 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 accompanying 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 base prospectus or the applicable prospectus supplement, including the risk factors below and the risk factors incorporated by reference herein from our Annual Report on Form 10-K for the year ended December 31, 2019, 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.

The Bylaws of the Company include a forum selection clause, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees, or agents.

Our Bylaws, as amended (the "Bylaws"), require that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim for breach of a fiduciary duty owed by any of our directors, officers, employees or agents to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our Certificate of Incorporation or our Bylaws or (iv) any action asserting a claim governed by the internal affairs doctrine, in each case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein.

This exclusive forum provision will not apply to claims under the Exchange Act, but will apply to other state and federal law claims including actions arising under the Securities Act (although our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder). Section 22 of the Securities Act, however, creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Accordingly, there is uncertainty as to whether a court would enforce such a forum selection provision as written in connection with claims arising under the Securities Act. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing provisions. This forum selection provision in our Bylaws may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees, or agents, which may discourage lawsuits against us and such persons. It is also possible that, notwithstanding the forum selection clause included in our Bylaws, a court could rule that such a provision is inapplicable or unenforceable.

### 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;
- 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 accompanying 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, 2019, 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, 2019, 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 1,000,000,000,000 shares of common stock, of which 63,998,298 shares were issued and outstanding as of August 5, 2020. 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 March 10, 2020, there were 480 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 September 25, 2020, 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 depositary 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;
- 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.

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 bookentry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depositary 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 bookentry, a description of terms related to any bookentry 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 purchased 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;
- any discounts, commissions or concessions allowed or reallowed 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 reallowed 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 sparticipating 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.

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 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, 2019 and 2018, 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, 2019 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 Exchange Act. The SEC maintains an Internet site (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: <a href="mailto:publicinfo@sec.gov">publicinfo@sec.gov</a>.

We make available, free of charge and through our Internet web site at 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 Exchange Act 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, 2019, filed with the SEC on March 17, 2020;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2020 and June 30, 2020 filed with the SEC on May 1, 2020 and August 7, 2020, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 13, 2020, February 6, 2020, March 18, 2020, March 24, 2020, April 1, 2020, April 29, 2020, May 6, 2020, May 8, 2020, May 20, 2020, May 20, 2020, May 26, 2020, June 1, 2020, June 12, 2020, June 17, 2020, July 7, 2020, July 29, 2020, September 4, 2020, September 9, 2020, September 10, 2020 and September 25, 2020;

- our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 29, 2020; 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.

Up to \$5,500,000



# **Common Stock**

# PROSPECTUS SUPPLEMENT

# **BTIG**

July 22, 2022