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

FORM 8-K
CURRENT REPORT
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 16, 2021

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

Delaware	**000-24477**	**30-0645032**
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

300 East Main Street, Suite 201 **Charlottesville, Virginia**	**22902**
(Address of principal executive offices)	(Zip Code)

(434) 220-0718
(Registrant's telephone number, including area code)

Not applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	DFFN	NASDAQ Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☐

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

Item 8.01 Other Events

On December 16, 2021, Diffusion Pharmaceuticals Inc. (the "Company") issued a press release announcing the dosing of the first patients in its ILD-DLCO Trial evaluating the Company's lead product candidate, trans sodium crocetinate, in patients with previously diagnosed interstitial lung disease A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01 – Financial Statements and Exhibits

(d) Exhibits

Exhibit Number	**Description**
99.1	Press Release, issued December 16, 2021
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: December 21, 2021

DIFFUSION PHARMACEUTICALS INC.

By: /s/ William Elder

Name: William Elder

Title: General Counsel

Diffusio$_2$n Pharmaceuticals Inc.

Diffusion Pharmaceuticals Doses First Patients in ILD-DLCO Trial

Third of Three TSC Oxygenation Trials

CHARLOTTESVILLE, Va. (December 16, 2021) – **Diffusion Pharmaceuticals Inc. (NASDAQ: DFFN)** ("Diffusion" or the "Company"), a biopharmaceutical company developing novel therapies that enhance the body's ability to deliver oxygen to areas where it is needed most, today announced it has dosed the first patients in its ILD-DLCO Trial. The trial will evaluate the Company's lead product candidate, trans sodium crocetinate ("TSC"), in patients with previously diagnosed interstitial lung disease ("ILD").

"We designed the ILD-DLCO Trial to evaluate the effects of TSC on the enhancement of oxygen uptake through the lungs and into the bloodstream of ILD patients", said Chris Galloway, M.D., Chief Medical Officer of Diffusion. "This is the third of our Oxygenation Trials designed to evaluate the effects of TSC on the continuum of oxygen transport from uptake to delivery, and ultimately end organ utilization. We believe these data will provide further supportive information regarding TSC's novel mechanism of action and dose-response characteristics and support the broad potential of TSC to treat a variety of conditions complicated by hypoxia."

The ILD-DLCO Trial is a double-blind, randomized, placebo-controlled study which will evaluate the effects of TSC on the diffusion of carbon monoxide through the lungs ("DLCO") in patients with previously diagnosed interstitial lung disease who have a baseline DLCO test result that is abnormal. DLCO will act as a surrogate measure of oxygen transfer efficiency, or uptake, from the alveoli of the lungs through the plasma, and onto hemoglobin within red blood cells. Diffusion intends to enroll 27 patients with confirmed ILD who will be randomized in a 2:1 ratio to a single 2.5mg/kg dose of TSC or placebo via IV bolus. The study is statistically powered to evaluate the difference in effect of TSC versus placebo on improvement in DLCO measurements. In addition, patients will undergo a standard six-minute walk test intended to assess functional improvement in exercise capacity. Diffusion anticipates completing the trial in the first quarter of 2022, with topline results reported within two months of study completion.

While the Company intends to continue developing data to support TSC's potential uses across a broad spectrum of indications complicated by hypoxia, it recently announced that its near-term focus will be the design and execution of a clinical program to support the use of intravenously administered TSC as an adjunctive treatment for hypoxic solid tumors, and that it intends to obtain input from the U.S. Food and Drug Administration on the program's design in early 2022.

About Diffusion Pharmaceuticals Inc.

Diffusion Pharmaceuticals Inc. is a biopharmaceutical company developing novel therapies that enhance the body's ability to deliver oxygen to areas where it is needed most. Diffusion's lead product candidate, TSC, is being developed 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, including hypoxic solid tumors. In November 2021, based on the preclinical and clinical data accumulated to date and the significant unmet medical need, Diffusion announced that its near-term focus will be the design and execution of a clinical program to support the use of intravenously administered TSC as an adjunctive treatment for hypoxic solid tumors. For more information, please visit us at www.diffusionpharma.com.

Forward-Looking Statements

This press release includes express and implied forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including regarding the Company's near-term strategic priorities, anticipated timelines for the initiation, completion, and announcement of data from the Company's Oxygenation Trials and Hypoxic Solid Tumor Program, the relevance and significance of any such data, and the potential therapeutic value of TSC. The Company 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. Although the Company believes that it has a reasonable basis for each forward-looking statement contained herein, forward-looking statements by their nature involve risks and uncertainties, known and unknown, many of which are beyond the Company's control and, as a result, the Company's actual results could differ materially from those expressed or implied in any forward-looking statement. Particular risk and uncertainties include, among other things, those related to: the Company's ability to design, initiate, enroll, execute, and complete its planned studies evaluating TSC; the likelihood and timing of regulatory approval of TSC, if any, for the treatment of solid tumors complicated by hypoxia or any other indication, or the nature of any feedback the Company may receive from the U.S. Food and Drug Administration or other regulatory bodies; the impact of supply chain and other supplier issues on the Company's clinical development program and associated timelines; the Company's ability to protect and expand its intellectual property portfolio; the Company's ability to maintain compliance with the continued listing standards of Nasdaq; general economic, political, business, industry, and market conditions, including the ongoing COVID-19 pandemic; and the other factors discussed under the heading "Risk Factors" in the Company's filings most recent Annual Report on Form 10-K and other filings with the U.S. Securities and Exchange Commission. Any forward-looking statements in this press release speak only as of the date hereof (or such earlier date as may be identified) and, except as required by applicable law, rule, or regulation, the Company undertakes no obligation to update any such statements after the date hereof.

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