

**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): **January 6, 2023**

**X4 PHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of incorporation)

**001-38295**  
(Commission File Number)

**27-3181608**  
(IRS Employer Identification No.)

**61 North Beacon Street, 4th Floor**  
**Boston, Massachusetts**  
(Address of principal executive offices)

**02134**  
(Zip Code)

**(857) 529-8300**  
(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	XFOR	The Nasdaq Stock Market LLC

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 1.01 Entry into a Material Definitive Agreement.**

On January 6, 2023, X4 Pharmaceuticals, Inc. (the “Company”) and its subsidiary, X4 Therapeutics, Inc. (together with the Company, the “Borrowers”), entered into a Second Amended and Restated Loan and Security Agreement (the “Second A&R Loan Agreement”) with Hercules Capital, Inc., as agent and lender, and Hercules Capital Funding IV LLC and Hercules Capital Funding Trust 2022-1, as lenders (collectively, “Hercules”), which provides for a term loan of \$32.5 million (the “Term Loan”). The Second A&R Loan Agreement amended and restated that certain Amended and Restated Loan and Security Agreement, dated as of June 27, 2019, as subsequently amended from time to time, by and among the Borrowers, Hercules Capital, Inc. and other parties thereto (the “First A&R Loan Agreement”).

The Second A&R Loan Agreement does not require any scheduled amortization payments prior to October 1, 2024; *provided however*, if certain conditions are met, then amortization payments will not be required until January 1, 2026. The entire principal balance of the Term Loan and all accrued but unpaid interest shall be due on the maturity date, which is April 1, 2026; *provided however*, if certain conditions are met, the maturity date of the Term Loan will be extended to July 1, 2027. At the Company’s option, the Company may prepay all, but not less than all, of the outstanding borrowings, subject to a prepayment premium of up to 3.0% of the principal amount outstanding as of the date of repayment. Pursuant to the terms of the Second A&R Loan Agreement, the Borrowers paid approximately \$1.4 million to Hercules on January 6, 2023, the Closing Date as defined in the Second A&R Loan Agreement, in connection with the term loans previously outstanding under the First A&R Loan Agreement. In addition, the Second A&R Loan Agreement provides for payments by the Borrowers to Hercules of (i) \$763,750 in connection with the term loans previously outstanding under the First A&R Loan Agreement, payable upon the earliest to occur of (a) July 1, 2023, (b) the date that the Borrowers prepay the outstanding secured obligations in full and (c) the date that the secured obligations become due and payable, and (ii) \$1.3 million in connection with the Term Loan outstanding under the Second A&R Loan Agreement, payable upon the earliest to occur of (a) the maturity date of the Term Loan, (b) the date that Borrower prepays the outstanding secured obligations in full, and (c) the date that the secured obligations become due and payable.

Borrowings under the Term Loan bear interest at a per annum rate equal to the greater of (i) 3.15% plus the Wall Street Journal prime rate or (ii) 10.15%. Interest payments on the Term Loan are due on a monthly basis. In an event of default and until such event is no longer continuing, the interest rate applicable to borrowings under the Second A&R Loan Agreement would be increased by 4.0%.

Borrowings under the Second A&R Loan Agreement are collateralized by substantially all of the Borrowers’ personal property and other assets except for their intellectual property (but including rights to payment and proceeds from the sale, licensing or disposition of the intellectual property). Under the Second A&R Loan Agreement, the Borrowers have agreed to affirmative and negative covenants to which the Borrowers will remain subject until maturity or repayment of the Term Loan in full. Such covenants include maintaining a minimum liquidity amount of cash and cash equivalents in an aggregate amount greater than or equal to \$20.0 million or, on and after certain conditions have been met, cash and cash equivalents in an aggregate amount greater than or equal to \$10.0 million. The Borrowers’ obligations under the Second A&R Loan Agreement are subject to acceleration upon occurrence of specified events of default, including payment default, insolvency and a material adverse change in the Borrowers’ business, operations or financial or other condition.

In addition, under the Second A&R Loan Agreement, Hercules has the right to participate, in a cumulative amount of up to \$1.0 million in the aggregate, and subject to exceptions as provided in the Second A&R Loan Agreement, in any future offering of the Company’s equity securities for cash that is solely for financing purposes and is broadly marketed to multiple investors.

The foregoing description of the Second A&R Loan Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Second A&R Loan Agreement, a copy of which will be filed as an exhibit to the Company’s Annual Report on Form 10-K for the year ended December 31, 2022.

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**Item 2.03**            **Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of the Registrant.**

The information set forth in Item 1.01 of this Current Report on Form 8-K with respect to the Second A&R Loan Agreement is incorporated by reference into this Item 2.03.

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## SIGNATURES

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

**X4 PHARMACEUTICALS, INC.**

Date: January 6, 2023

By: /s/ Adam Mostafa  
Adam Mostafa  
Chief Financial Officer