
**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 (Data of earliest event reported): **February 9, 2022**

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)

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 February 9, 2022, X4 Pharmaceuticals, Inc. (“X4” or the “Company”) and certain of its subsidiaries (collectively, with X4, the “Borrower”) entered into Amendment No. 3 to the Company’s Amended and Restated Loan and Security Agreement (the “Third Amendment”) with the several banks and financial institutions or entities from time to time party thereto (collectively, the “Lender”) and Hercules Capital, Inc., in its capacity as administrative agent for itself and the Lender (in such capacity, the “Agent”). The Third Amendment further amended that certain Amended and Restated Loan and Security Agreement dated as of June 27, 2019 (as amended by Amendment No. 1 to Amended and Restated Security Agreement, dated March 13, 2020, Amendment No. 2 to Amended and Restated Security Agreement, dated December 21, 2020, and the Third Amendment, the “Loan Agreement”) among the Borrower, the Lender and the Agent.

The Loan Agreement, as amended by the Third Amendment, provides for (i) a term loan of \$25.0 million, which amount was borrowed prior to December 21, 2020, (ii) an additional term loan advance of \$7.5 million (“Tranche 2 Term Loan Advance”), which amount was borrowed on December 21, 2020, and (iv) subject to the Lender’s investment committee’s sole discretion, a right of the Borrower to request that the Lender make additional term loan advances in an aggregate amount of up to \$17.5 million through December 31, 2022 (the “Credit Facility”).

The Third Amendment terminated a right of the Borrower, subject to achievement of certain milestones, to request that the Lender make additional term loan advances in an aggregate amount of up to \$7.5 million through June 30, 2022 and increased, from \$10.0 million to \$17.5 million, the aggregate amount of additional term loan advances that the Borrower may request, subject to the Lender’s investment committee’s sole discretion, through December 31, 2022.

The Third Amendment also modified the minimum cash covenant applicable to the Borrower. Pursuant to the Loan Agreement, effective as of the Initial Test Date (as defined in the Loan Agreement), Borrower at all times thereafter shall maintain cash, in an account or accounts of Borrower in which Hercules has a first priority security interest, in an aggregate amount greater than or equal to the greater of (i) \$30.0 million or (ii) six multiplied by a metric based on prior months’ cash expenditures (“RML”); provided, however, that from and after Borrower’s achievement of certain performance milestones, the required level shall be reduced to the greater of (x) \$20.0 million, or (y) three multiplied by the current RML. Notwithstanding this requirement, if the Borrower raises at least \$33.0 million in All Source Cash Proceeds (as defined in the Loan Agreement) between January 1, 2022 and June 30, 2022, then upon the Initial Test Date, the Borrower at all times thereafter shall maintain cash, in an account or accounts of Borrower in which Hercules has a first priority security interest, in an aggregate amount greater than or equal to \$30.0 million; provided, however, that from and after the Borrower’s achievement of certain performance milestones, the required level shall be reduced to \$20.0 million. Any minimum cash covenant applicable to the Borrower shall be extinguished subject to the achievement of certain milestones.

Pursuant to the terms of the Loan Agreement and based on the All Source Cash Proceeds raised by the Company to date, the Initial Test Date will initially be the earlier of April 1, 2022 or the date on which the Company’s Phase 3 clinical trial of mavoxixafor (X4P-001) in patients with Warts, Hypogammaglobulinemia, Infections, and Myelokathexis (WHIM) Syndrome is discontinued or interrupted due to safety or futility concerns for a period that materially and adversely affects the planned timing of the Company’s release of such trial’s top-line results. The Initial Test Date may be extended to September 1, 2022 based on the Company’s achievement of certain funding objectives prior to March 31, 2022.

The foregoing description of the Third Amendment does not purport to be complete and is qualified in its entirety by reference to the Third Amendment, which is filed herewith as Exhibit 10.1 and is incorporated herein by reference.

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

The information set forth in Item 1.01 of this Current Report on Form 8-K is incorporated by reference into this Item 2.03.

Item 9.01	Financial Statements and Exhibits.
Exhibit No.	Description
99.1	<u>Amendment No. 3 to Amended and Restated Loan and Security Agreement, dated as of February 9, 2022, by and among X4 Pharmaceuticals, Inc., each of its Qualified Subsidiaries (including X4 Therapeutics, Inc.), the Lender, and Hercules Capital, Inc., as Agent.</u>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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: February 9, 2022

By: /s/ Derek Meisner
Derek Meisner
Chief Legal Officer

**AMENDMENT NO. 3
TO
LOAN AND SECURITY AGREEMENT**

This Amendment No. 3 to Loan and Security Agreement (the “Third Amendment”) is dated as of February 9, 2022 (the “Third Amendment Date”) and is entered into by and among X4 PHARMACEUTICALS, INC., a Delaware corporation (the “Company”), and each of its Qualified Subsidiaries, including without limitation X4 THERAPEUTICS, INC. (“Therapeutics”) (hereinafter collectively referred to as the “Borrower”), the several banks and other financial institutions or entities from time to time parties hereto (collectively, referred to as “Lender”) and HERCULES CAPITAL, INC., a Maryland corporation, in its capacity as administrative agent for itself and the Lender (in such capacity, the “Agent”). Capitalized terms used herein without definition shall have the same meanings given them in the Agreement (as defined below).

Recitals

A. Borrower, Agent and Lender have entered into that certain Amended and Restated Loan and Security Agreement dated as of June 27, 2019 (as may be amended, restated, or otherwise modified, the “Agreement”), pursuant to which Lender has agreed to extend and make available to Borrower certain advances of money.

B. Borrower has requested and Agent and Lender have agreed to modify certain provisions of the Agreement, subject to the terms and conditions set forth herein.

C. Borrower, Agent and Lender have agreed to amend the Agreement upon the terms and conditions more fully set forth herein.

Agreement

NOW, THEREFORE, in consideration of the foregoing Recitals and intending to be legally bound, the parties hereto agree as follows:

1. Amendments.

1.1 Definitions.

(a) New Definition. The following definition is hereby inserted alphabetically into Section 1.1 of the Agreement:

“Third Amendment Date” means February 9, 2022.

(b) Amended Definitions. The following definition in Section 1.1 (or, to the extent applicable, the Recitals) of the Agreement is hereby amended and restated in its entirety as follows:

“Facility Charge” means (a) \$75,000, due on the First Amendment Date, and (b) one-half percent (0.50%) of the amount of each Tranche 4 Term Loan Advance in excess of \$7,500,000 in the aggregate, due upon funding of each such Tranche 4 Term Loan Advance.

“Tranche 4 Term Loan” means a loan in an aggregate principal amount of up to Seventeen Million Five Hundred Thousand Dollars (\$17,500,000).

1.2 Amendments.

(a) Section 2.2(a)(iii) of the Agreement is hereby amended and restated in its entirety as follows:

2.2(a)(iii) Tranche 3 Term Loan Advance. Subject to the terms and conditions of this Agreement, beginning on the date Borrower achieves Performance Milestone II and continuing through June 30, 2022, Borrower may request and Lenders severally (and not jointly) will make Term Loan Advances in an aggregate amount up to \$7,500,000, in minimum increments of \$2,500,000, or if the undrawn amount of the Tranche 3 Term Loan is less than \$2,500,000, such lesser amount (each, a “Tranche 3 Term Loan Advance”). Notwithstanding the foregoing, effective on and as of the Third Amendment Date, Borrower, Lenders and Agent acknowledge and agree that the availability of the Tranche 3 Term Loan and Tranche 3 Term Loan Advances is terminated.

(b) Section 2.2(a)(iv) of the Agreement is hereby amended and restated in its entirety as follows:

2.2(a)(iv) Tranche 4 Term Loan Advance. Subject to the terms and conditions of this Agreement, beginning on the Third Amendment Date and continuing through December 31, 2022, subject to approval by Lender’s investment committee in its sole discretion, Borrower may request and Lenders severally (and not jointly) will make Term Loan Advances in an aggregate amount up to \$17,500,000, in minimum increments of \$5,000,000, or if the undrawn amount of the Tranche 4 Term Loan is less than \$5,000,000, such lesser amount (each, a “Tranche 4 Term Loan Advance”).

(c) Section 7.22 of the Agreement is hereby amended and restated in its entirety as follows:

7.22 Minimum Cash.

(a) Effective immediately upon the Initial Test Date, Borrower at all times thereafter shall maintain unrestricted Cash in an account or accounts of Borrower subject to an Account Control Agreement, in an aggregate amount greater than or equal to the greater of (i) \$30,000,000 or (ii) 6 multiplied by the current RML (as determined as of the last reporting under Section 7.1); provided, however, that from and after Borrower’s achievement of Performance Milestone III, Borrower at all times thereafter shall maintain unrestricted Cash in an account or accounts of Borrower subject to an Account Control Agreement, in an aggregate amount greater than or equal to the greater of (x) \$20,000,000, or (y) 3 multiplied by the current RML (as determined as of the last reporting under Section 7.1).

(b) Notwithstanding the provisions of Section 7.22(a) above, if during the period beginning January 1, 2022 through June 30, 2022, Borrower shall have raised at least \$33,000,000 in total All Source Cash Proceeds, then effective immediately thereafter, upon the Initial Test Date, Borrower at all times shall maintain unrestricted Cash in an account or accounts of Borrower subject to an Account Control Agreement, in an aggregate amount greater than or equal to \$30,000,000; provided, however, that from and after Borrower’s achievement of Performance Milestone III, Borrower at all times thereafter shall maintain unrestricted Cash in an account or accounts of Borrower subject to an Account Control Agreement, in an aggregate amount greater than or equal to \$20,000,000.

(c) Notwithstanding the provisions of Sections 7.22(a) and 7.22(b) above, from and after the date the FDA approves the NDA for X4P-001 for the treatment of WHIM Syndrome, any requirement for Borrower to maintain minimum Cash pursuant to this Section 7.22 shall be extinguished.

1.3 Exhibits and Schedules. The exhibits and schedules previously provided to or by Agent and Lender as of the Closing Date are hereby updated and amended, if applicable, as of the Third Amendment Date by the exhibits and schedules attached to this Third Amendment.

2. Borrower’s Representations And Warranties. Borrower represents and warrants that:

2.1 Immediately upon giving effect to this Third Amendment (i) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (ii) no Event of Default has occurred and is continuing with respect to which Borrower has not been notified in writing by Agent.

2.2 Borrower has the corporate power and authority to execute and deliver this Third Amendment and to perform its obligations under the Agreement, as amended by this Third Amendment.

2.3 The certificate of incorporation, bylaws and other organizational documents of Borrower delivered to Agent and Lender on the Closing Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect.

2.4 The execution and delivery by Borrower of this Third Amendment and the performance by Borrower of its obligations under the Agreement, as amended by this Third Amendment, have been duly authorized by all necessary corporate action on the part of Borrower.

2.5 This Third Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against it in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights; and

2.6 As of the date hereof, it has no defenses against the obligations to pay any amounts under the Secured Obligations. Borrower acknowledges that Agent and Lender have acted in good faith and have conducted in a commercially reasonable manner their relationships with Borrower in connection with this Third Amendment and in connection with the Loan Documents.

Borrower understands and acknowledges that Agent and Lender are entering into this Third Amendment in reliance upon, and in partial consideration for, the above representations and warranties, and agrees that such reliance is reasonable and appropriate.

3. Limitation. The amendments set forth in this Third Amendment shall be limited precisely as written and shall not be deemed (a) to be a waiver or modification of any other term or condition of the Agreement or of any other instrument or agreement referred to therein or to prejudice any right or remedy which Agent or Lender may now have or may have in the future under or in connection with the Agreement (as amended hereby) or any instrument or agreement referred to therein; or (b) to be a consent to any future amendment or modification or waiver to any instrument or agreement the execution and delivery of which is consented to hereby, or to any waiver of any of the provisions thereof. Except as expressly amended hereby, the Agreement shall continue in full force and effect.

4. Effectiveness. This Third Amendment shall become effective upon the satisfaction of all the following conditions:

4.1 Amendment. Borrower, Agent and Lender shall have duly executed and delivered this Third Amendment to Agent.

4.2 Secretary's Certificate. Borrower shall have delivered to Agent a secretary's certificate, together with a certified copy of resolutions of the Borrower's Board of Directors evidencing approval of the Third Amendment.

4.3 Payment of Amendment Fee. Borrower shall have paid to Agent an amendment fee in the amount of \$113,750.

4.4 Payment of Agent and Lender Expenses. Borrower shall have paid all of Agent's and Lender's fees and expenses (including all reasonable attorneys' fees and reasonable expenses) incurred through the Third Amendment Date, in each case to the extent invoiced on or prior to the Third Amendment Date.

5. Release. In consideration of the agreements of Agent and each Lender contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Borrower, on behalf of itself and its successors, assigns, and other legal representatives, hereby fully, absolutely, unconditionally and irrevocably releases, remises and forever discharges Agent and each Lender, and its successors and assigns, and its present and former shareholders, affiliates, subsidiaries, divisions, predecessors, directors, officers, attorneys, employees, agents and other representatives (Agent, Lender and all such other persons being hereinafter referred to collectively as the "Releasees" and individually as a "Releasee"), of and from all demands, actions, causes of action, suits, covenants, contracts, controversies, agreements, promises, sums of money, accounts, bills, reckonings, damages and any and all other claims, counterclaims, defenses, rights of set-off, demands and liabilities whatsoever of every name and nature, known or unknown, suspected or unsuspected, both at law and in equity, which Borrower, or any of its successors, assigns, or other legal representatives may now or hereafter own, hold, have or claim to have against the Releasees or any of them for, upon, or by reason of any circumstance, action, cause or thing whatsoever which arises at any time immediately prior to the effectiveness of this Amendment under the Agreement or any of the other Loan Documents or transactions thereunder or related thereto. Borrower understands, acknowledges and agrees that the release set forth above may be pleaded as a full and complete defense and may be used as a basis for an injunction against any action, suit or other proceeding which may be instituted, prosecuted or attempted in breach of the provisions of such release. Borrower agrees that no fact, event, circumstance, evidence or transaction which could now be asserted or which may hereafter be discovered shall affect in any manner the final, absolute and unconditional nature of the release set forth above. Borrower hereby waives the provisions of California Civil Code section 1542, which states:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, AND THAT IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY.

6. Counterparts. This Third Amendment may be signed in any number of counterparts, and by different parties hereto in separate counterparts, with the same effect as if the signatures to each such counterpart were upon a single instrument. All counterparts shall be deemed an original of this Third Amendment. This Third Amendment may be executed by facsimile, portable document format (.pdf) or similar technology signature, and such signature shall constitute an original for all purposes.

7. Incorporation By Reference. The provisions of Section 11 of the Agreement shall be deemed incorporated herein by reference, *mutatis mutandis*.

8. Loan Documents. This Third Amendment shall constitute a Loan Document.

[Signatures on following page]

In Witness Whereof, the parties have duly authorized and caused this Third Amendment to be executed as of the date first written above.

BORROWER:

X4 PHARMACEUTICALS, INC.

Signature: /s/ Adam Mostafa
Print Name: Adam Mostafa
Title: CFO

X4 THERAPEUTICS, INC.

Signature: /s/ Adam Mostafa
Print Name: Adam Mostafa
Title: CFO

Accepted in Palo Alto, California:

AGENT:

HERCULES CAPITAL, INC.

Signature: /s/ Jennifer Choe
Jennifer Choe, Associate
General Counsel

LENDER:

HERCULES CAPITAL, INC.

Signature: /s/ Jennifer Choe
Jennifer Choe, Associate
General Counsel

HERCULES FUNDING IV LLC

Signature: /s/ Jennifer Choe
Jennifer Choe, Associate
General Counsel

EXHIBIT F-1

COMPLIANCE CERTIFICATE

Hercules Capital, Inc. (as "Agent")
400 Hamilton Avenue, Suite 310
Palo Alto, CA 94301

Reference is made to that certain Amended and Restated Loan and Security Agreement dated June 27, 2019 and the Loan Documents (as defined therein) entered into in connection with such Amended and Restated Loan and Security Agreement all as may be amended from time to time (hereinafter referred to collectively as the "Loan Agreement") by and among Hercules Capital, Inc. (the "Agent"), the several banks and other financial institutions or entities from time to time party thereto (collectively, the "Lender") and Hercules Capital, Inc., as agent for the Lender (the "Agent") and X4 Pharmaceuticals, Inc. (the "Company") as Borrower. All capitalized terms not defined herein shall have the same meaning as defined in the Loan Agreement.

The undersigned is an Officer of the Company, knowledgeable of all Company financial matters, and is authorized to provide certification of information regarding the Company; hereby certifies, in such capacity, that in accordance with the terms and conditions of the Loan Agreement, the Company is in compliance for the period ending _____ of all covenants, conditions and terms and hereby reaffirms that all representations and warranties contained therein are true and correct on and as of the date of this Compliance Certificate with the same effect as though made on and as of such date, except to the extent such representations and warranties expressly relate to an earlier date, after giving effect in all cases to any standard(s) of materiality contained in the Loan Agreement as to such representations and warranties. Attached are the required documents supporting the above certification. The undersigned further certifies that these are prepared in accordance with GAAP (except for the absence of footnotes with respect to unaudited financial statement and subject to normal year end adjustments) and are consistent from one period to the next except as explained below.

REPORTING REQUIREMENT	REQUIRED	CHECK IF ATTACHED
Interim Financial Statements	Monthly within 30 days	
Interim Financial Statements	Quarterly within 45 days (for first 3 calendar quarters)	
Audited Financial Statements	FYE within 90 days	
Budget and forecast	At least annually within 60 days following FYE	

7.12 DEPOSIT ACCOUNTS

(A) Are all Cash balances held by Borrower held in accounts subject to an Account Control Agreement, other than Excluded Accounts?
___ Yes ___ No

(B) Is the Cash held by the Excluded Subsidiary less than the sum of (i) 70% of the outstanding Indebtedness under the FFG Agreement and (ii) \$5,000,000? ___ Yes ___ No

7.22(a) MINIMUM CASH

[Applies only if, during the period beginning January 1, 2022 through June 30, 2022, Borrower has not raised at least \$33,000,000 in total All Source Cash Proceeds.]

Required	6x RML	3x RML	Actual	Complies?
Prior to the Initial Test Date \$0				
Before Performance Milestone III is satisfied: Greater of \$30,000,000 or 6 x RML	\$		\$	Yes No
After Performance Milestone III is satisfied: Greater of \$20,000,000 or 3 x RML		\$	\$	Yes No
After FDA Approval of X4P-001 for treatment of WHIM Syndrome: \$0				

7.22(b) MINIMUM CASH

[Applies only if, during the period beginning January 1, 2022 through June 30, 2022, Borrower has raised at least \$33,000,000 in total All Source Cash Proceeds.]

Required	Actual	Complies?
Prior to the Initial Test Date \$0		
Before Performance Milestone III is satisfied: \$30,000,000	\$	Yes No
After Performance Milestone III is satisfied: \$20,000,000	\$	Yes No
After FDA Approval of X4P-001 for treatment of WHIM Syndrome: \$0		

7.24 SECURITY CORPORATION INVESTMENT CONDITIONS

Required	100% of aggregate Term Loan Advances	100% of unrestricted Cash Reserves	Actual	Complies?
When Minimum Cash required under Section 7.22 is greater than \$0: \$0				
When Minimum Cash required under Section 7.22 is :\$0 Lesser of 110% of aggregate Term Loan Advances or 100% of unrestricted Cash Reserves	\$		\$	Yes No

The undersigned hereby also confirms the below disclosed accounts represent all depository accounts and securities accounts presently open in the name of each Borrower or Borrower Subsidiary/Affiliate, as applicable.

Each new account that has been opened since delivery of the previous Compliance Certificate is designated below with a “*”.

		Depository AC #	Financial Institution	Account Type (Depository / Securities)	Last Month Ending Account Balance	Purpose of Account
BORROWER Name/Address:						
	1					
	2					
	3					
	4					
	5					
	6					
	7					
BORROWER SUBSIDIARY / AFFILIATE COMPANY Name/Address						
	1					
	2					
	3					
	4					
	5					
	6					
	7					

Very Truly Yours,
X4 PHARMACEUTICALS, INC.
By: _____
Name: _____
Its: _____

SCHEDULE 1.1-1
COMMITMENTS

LENDER	TRANCHE	TERM COMMITMENT
HERCULES CAPITAL, INC.	TRANCHE 1	\$15,500,000
HERCULES CAPITAL, INC.	TRANCHE 1	\$9,500,000
HERCULES FUNDING IV LLC	TRANCHE 2	\$7,500,000
HERCULES CAPITAL, INC.	TRANCHE 3	\$0
HERCULES CAPITAL, INC.	TRANCHE 4*	\$17,500,000*
TOTAL COMMITMENTS		\$50,000,000*

* Funding of Tranche 4 is subject to approval by Lender's investment committee in its sole discretion.