
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No.)*

Eloxx Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock, \$0.01 par value per share

(Title of Class of Securities)

29014R103

(CUSIP Number)

**Kaasim Mahmood
Advent Life Sciences LLP
158-160 North Gower Street
London NW1 2ND
United Kingdom
+44 (0) 207 932 2100**

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

April 1, 2021

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box [].

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See 240.13d-7(b) for other parties to whom copies are to be sent.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Advent Life Sciences LLP | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (See Instructions) OO | |
| 5 | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER 0 |
| | 8 | SHARED VOTING POWER 2,532,270 (See Item 5) |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 2,532,270 (See Item 5) |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,532,270 (See Item 5) | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.3% (See Item 5) | |
| 14 | TYPE OF REPORTING PERSON (See Instructions) PN | |

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Advent Life Sciences Fund II LP | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (See Instructions) OO | |
| 5 | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER 0 |
| | 8 | SHARED VOTING POWER 2,532,270 (See Item 5) |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 2,532,270 (See Item 5) |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,532,270 (See Item 5) | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.3% (See Item 5) | |
| 14 | TYPE OF REPORTING PERSON (See Instructions) PN | |

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Rajesh Parekh | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (See Instructions) OO | |
| 5 | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER |
| | 8 | SHARED VOTING POWER 2,532,270 (See Item 5) |
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| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.3% (See Item 5) | |
| 14 | TYPE OF REPORTING PERSON (See Instructions) IN | |

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Shahzad Malik | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (See Instructions) OO | |
| 5 | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER |
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| 14 | TYPE OF REPORTING PERSON (See Instructions) IN | |

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Kaasim Mahmood | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (See Instructions) OO | |
| 5 | CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom | |
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| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.3% (See Item 5) | |
| 14 | TYPE OF REPORTING PERSON (See Instructions) IN | |

Item 1. Security and Issuer

- (a) The class of equity securities to which this statement on Schedule 13D relates is the Common Stock of the Issuer.
- (b) The address of the principal executive offices of the Issuer is 950 Winter Street, Waltham, MA 02451.

Item 2. Identity and Background

- (a) The Reporting Persons are:
 - 1. Advent Life Sciences LLP ("Advent")
 - 2. Advent Life Sciences Fund II LP (the "Advent Fund")
 - 3. Rajesh Parekh
 - 4. Shahzad Malik
 - 5. Kaasim Mahmood
 - (b) The principal business office of each of the Reporting Persons and Advent Life Sciences GP LLP, the general partner of the Advent Fund ("Advent GP") is located at 158-160 North Gower Street, London NW1 2ND, United Kingdom.
 - (c) Advent and the Advent Fund are entities engaged in investment activities; Advent also is in the business of acting as the manager of the Advent Fund and a member of Advent GP. Advent GP is the general partner of the Advent Fund. The principal business of Dr. Parekh, Dr. Malik and Dr. Mahmood are to serve as general partners of Advent and engage in other investment activities. Dr. Parekh is also a member of the Issuer's board of directors (the "Board") and those of other private and public companies. Dr. Malik and Dr. Mahmood are also members of the board of directors of various private and public companies.
 - (d) None of the Reporting Persons nor Advent GP, during the last five years, has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
 - (e) None of the Reporting Persons nor Advent GP, during the last five years, has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
 - (f) Each of Advent and Advent GP is a limited liability partnership organized under the laws of the United Kingdom. The Advent Fund is a limited partnership organized under the laws of the United Kingdom. Each of Dr. Parekh, Dr. Malik and Dr. Mahmood is a citizen of the United Kingdom.
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Item 3. Source and Amount of Funds or Other Considerations

All of the 2,532,270 shares of Common Stock were received on April 1, 2021 in exchange for 10,060,920 shares of Series A Preferred Stock and 38,461,538 shares of Series A-1 Preferred Stock of Zikani Therapeutics, Inc. ("Zikani") held by Advent and the Advent Fund in connection with the acquisition of Zikani by the Issuer pursuant to that certain Agreement and Plan of Merger, dated April 1, 2021, by and among the Issuer, Delta Merger Sub Acquisition Corporation and Zikani.

Item 4. Purpose of Transaction

The information set forth in Item 3 is incorporated herein by reference.

Advent and the Advent Fund hold securities of the Issuer for investment purposes. The Reporting Persons or their affiliates may purchase additional securities or dispose of securities in varying amounts and at varying times depending upon the Reporting Persons' continuing assessments of pertinent factors, including the availability of Common Stock or other securities for purchase at particular price levels, the business prospects of the Issuer, other business investment opportunities, economic conditions, stock market conditions, money market conditions, the attitudes and actions of the Board and management of the Issuer, the availability and nature of opportunities to dispose of securities of the Issuer and other plans and requirements of the particular entities. The Reporting Persons may discuss items of mutual interest with the Issuer, which could include items in subparagraphs (a) through (j) of Schedule 13D.

Depending upon their assessments of the above factors, the Reporting Persons or their affiliates may change their present intentions as stated above and they may assess whether to make suggestions to the management of the Issuer regarding the Issuer, and whether to acquire additional securities of the Issuer (by means of open market purchases, privately negotiated purchases, exercise some of all of the Stock Options, or otherwise) or to dispose of some or all of the securities of the Issuer under their control.

Except as otherwise disclosed herein, and subject to Dr. Parekh's duties and responsibilities as a member of the Board, at the present time, the Reporting Persons do not have any plans or proposals with respect to any extraordinary corporate transaction involving the Issuer including, without limitation, those matters described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

Item 5. Interest in Securities of the Issuer

- (a) Items 7 through 11 and 13 of each of the cover pages of this statement on Schedule 13D are incorporated herein by reference.

All percentages of ownership of Common Stock by the Reporting Persons in this statement on Schedule 13D assume an aggregate of 40,214,873 shares of Common Stock issued and outstanding as of March 25, 2021, as reported by the Issuer on the Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission by the Issuer on April 1, 2021.

- (b) Items 7 through 11 and 13 of each of the cover pages of this statement on Schedule 13D are incorporated herein by reference.

The Reporting Persons disclaim beneficial ownership of the securities held by each of the other Reporting Persons, and this statement on Schedule 13D shall not be deemed an admission that the Reporting Persons are the beneficial owners of such securities for purposes of Section 13(d) or for any other purpose, except to the extent that any such Reporting Persons actually exercise voting or dispositive power with respect to such securities.

- (c) The information set forth in Item 3 is hereby incorporated by reference. Except as disclosed herein and except for an option to purchase 40,000 shares of Common Stock of the Issuer granted by the Issuer to Dr. Parekh on April 1, 2021 in connection with his appointment to the Board, none of which is subject to vesting within 60 days of this Schedule 13D, none of the Reporting Persons or their affiliates has effected any other transactions in securities of the Issuer during the past 60 days.
- (d) Except as set forth herein, no other person is known by the Reporting Persons to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, Ordinary Shares beneficially owned by the Reporting Persons.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The information in Item 3 is hereby incorporated herein by reference.

Item 7. Material to Be Filed as Exhibits

| <u>Exhibit</u> | <u>Description</u> |
|----------------|--|
| I | Agreement Regarding the Joint Filing of Schedule 13D by and among the Reporting Persons, dated as of April 8, 2021. |
| II | Agreement and Plan of Merger, dated April 1, 2021, by and among Eloxx Pharmaceuticals, Inc., Delta Merger Sub Acquisition Corporation and Zikani Therapeutics, Inc., incorporated herein by reference to Exhibit 2.1 to the Issuer's Current Report on Form 8-K, filed on April 1, 2021. |

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: April 8, 2021

ADVENT LIFE SCIENCES LLP

By: /s/ Rajesh Parekh
Rajesh Parekh, General Partner of Advent Life Sciences LLP

ADVENT LIFE SCIENCES FUND II LP

By: /s/ Rajesh Parekh
Rajesh Parekh, General Partner of Advent Life Sciences LLP acting in its capacity as Manager of Advent Life Sciences Fund II LP

/s/ Rajesh Parekh
RAJESH PAREKH

/s/ Shahzad Malik
SHAHZAD MALIK

/s/ Kaasim Mahmood
KAASIM MAHMOOD

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative (other than an executive officer or general partner of this filing person), evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001).

Exhibit I
AGREEMENT REGARDING THE JOINT FILING OF SCHEDULE 13D

Each of the undersigned hereby acknowledges and agrees, in compliance with the provisions of Rule 13d-1(k)(1) promulgated under the Securities Exchange Act of 1934, as amended, that the Schedule 13D to which this Agreement is attached as an Exhibit, and any amendments thereto, will be filed with the Securities and Exchange Commission jointly on behalf of the undersigned. This Agreement may be executed in one or more counterparts. Notwithstanding the foregoing, each of the undersigned disclaims beneficial ownership of the shares of the other, except to the extent of his or its pecuniary interest therein.

Date: April 8, 2021

ADVENT LIFE SCIENCES LLP

By: /s/ Rajesh Parekh
Rajesh Parekh, General Partner of Advent Life Sciences LLP

ADVENT LIFE SCIENCES FUND II LP

By: /s/ Rajesh Parekh
Rajesh Parekh, General Partner of Advent Life Sciences LLP acting in its capacity as Manager of Advent Life Sciences Fund II LP

 /s/ Rajesh Parekh
RAJESH PAREKH

 /s/ Shahzad Malik
SHAHZAD MALIK

 /s/ Kaasim Mahmood
KAASIM MAHMOOD
