

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D
Under the Securities Exchange Act of 1934

(Amendment No. 2)

Synta Pharmaceuticals Corp.
(Name of Issuer)

Common Stock
(Title of Class of Securities)

87162T206
(CUSIP Number)

Mr. Scott B. Bernstein
Caxton Corporation
731 Alexander Road, Bldg. 2
Princeton, New Jersey 08540
(609) 419-1800
(Name, Address and Telephone Number of Person Authorized to
Receive Notices and Communications)

11/10/2010
(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 Section 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 Section 240.13d-7 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.
I.R.S. Identification Nos. of above persons (entities only).

CxSynta LLC
02-0604347

- (2) Check the Appropriate Box if a Member of a Group (See Instructions) (a) | ☐ |
(b) | ☒ |

- (3) SEC Use Only.

- (4) Source of Funds (See Instructions).
WC

- (5) Check if Disclosure of Legal Proceedings is Required Pursuant to Items
2(d) or 2(e) | ☐ |

- (6) Citizenship or Place of Organization
Delaware

Number of Shares Beneficially Owned by Each Reporting Person With:

- (7) Sole Voting Power:

0

(8) Shared Voting Power:

7,761,716

(9) Sole Dispositive Power:

0

(10) Shared Dispositive Power:

7,761,716

(11) Aggregate Amount Beneficially Owned by Each Reporting Person.

7,761,716

(12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares
(see instructions). ☐

(13) Percent of Class Represented by Amount in Row (11).

18.5%

(14) Type of Reporting Person (See Instructions).

OO

(1) Names of Reporting Persons.

I.R.S. Identification Nos. of above persons (entities only).

Caxton Corporation

22-2437619

(2) Check the Appropriate Box if a Member of a Group (See Instructions) (a) ☐
(b) ☒

(3) SEC Use Only.

(4) Source of Funds (See Instructions).

AF

(5) Check if Disclosure of Legal Proceedings is Required Pursuant to Items

2(d) or 2(e) ☐

(6) Citizenship or Place of Organization

Delaware

Number of Shares Beneficially Owned by Each Reporting Person With:

(7) Sole Voting Power:

0

(8) Shared Voting Power:

7,761,716

(9) Sole Dispositive Power:

0

(10) Shared Dispositive Power:

7,761,716

(11) Aggregate Amount Beneficially Owned by Each Reporting Person.

7,761,716

(12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares
(see instructions). ☐

(13) Percent of Class Represented by Amount in Row (11).

18.5%

(14) Type of Reporting Person (See Instructions).

CO

(1) Names of Reporting Persons.

I.R.S. Identification Nos. of above persons (entities only).

Kovner, Bruce

(2) Check the Appropriate Box if a Member of a Group (See Instructions) (a) ☐

- (3) SEC Use Only.
- (4) Source of Funds (See Instructions).
AF,PF
- (5) Check if Disclosure of Legal Proceedings is Required Pursuant to Items
2(d) or 2(e) | _ |
- (6) Citizenship or Place of Organization
United States

Number of Shares Beneficially Owned by Each Reporting Person With:

- (7) Sole Voting Power:
3,394,210
- (8) Shared Voting Power:
7,761,716
- (9) Sole Dispositive Power:
3,394,210
- (10) Shared Dispositive Power:
7,761,716
- (11) Aggregate Amount Beneficially Owned by Each Reporting Person.
11,155,926
- (12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares
(see instructions). | _ |
- (13) Percent of Class Represented by Amount in Row (11).
26.5%
- (14) Type of Reporting Person (See Instructions).
IN

Item 3. Source and Amount of Funds or Other Consideration

Item 3 is hereby amended by adding the following thereto:

Mr. Kovner has expended an aggregate of approximately \$17,888,019 (excluding commissions, if any) to acquire the 3,282,541 shares of Common Stock directly owned by him. The purchase price for the shares of Common Stock acquired by Mr. Kovner was paid out of Mr. Kovner's personal funds. 43,232 of the outstanding shares of Common Stock directly owned by Mr. Kovner were issued to Mr. Kovner as compensation for his service on the Company's Board of Directors.

Item 5. Interest in Securities of the Issuer

Subparagraph (a), (b) and (c) of Item 5 of the Schedule 13D is hereby amended and replaced by the following:

- (a) (i) CxSynta beneficially owns 7,761,716 shares of Common Stock, representing approximately 18.5% of the 42,002,314 shares of Common Stock reported to be outstanding as of November 10, 2010, as reported in the Company's Prospectus Supplement filed with the Securities Exchange Commission on November 12, 2010 (the "Company's Prospectus Supplement"). The percentages used herein and in the rest of this Amendment No. 2 are calculated based upon such number of outstanding shares.
- (ii) Caxton Corporation is the managing member of CxSynta and as such, has voting and dispositive power with respect to the shares beneficially owned by CxSynta. As a result, Caxton Corporation maybe deemed to beneficially own 7,761,716 shares of Common Stock, representing approximately 18.5% of the total shares of Common Stock issued and outstanding.

(iii) Mr. Kovner has sole beneficial ownership of 3,394,210 shares of Common Stock, which includes options to purchase 68,437 shares of Common Stock upon the exercise of such options. In addition, Mr. Kovner is the Chairman and sole shareholder of Caxton Corporation and as a result may be deemed to beneficially own the securities of the Company owned by CxSynta. Mr. Kovner disclaims beneficial ownership of the shares of Common Stock owned directly by CxSynta except to the extent of his pecuniary interest therein. As a result of the foregoing, Mr. Kovner may be deemed to beneficially own an aggregate of 11,155,926 shares of Common Stock, representing approximately 26.5% of the total shares of Common Stock issued and outstanding.

(b) Caxton Corporation and Mr. Kovner may be deemed to share voting and dispositive power over the 7,761,716 shares of Common Stock owned directly by CxSynta. In addition, Mr. Kovner has sole voting and dispositive power with respect to the 3,394,210 shares of Common Stock which he directly beneficially owns.

(c) On November 10, 2010, Mr. Kovner purchased 1,440,923 shares of Common Stock at a price of \$3.47 per share from the Company. Such shares were purchased pursuant to the terms of the Company's Prospectus Supplement and the Subscription Agreement contained as an Exhibit to the Company's 8-K filed with the Securities and Exchange Commission on November 12, 2010.

In addition, as set forth on Schedule A, Mr. Kovner acquired additional shares of Common Stock which were effected by open market transactions in the NASDAQ Global Market and on other electronic security exchanges during the past sixty (60) days.

Except as reported in this statement on Schedule 13D, the Reporting Persons have not engaged in any other transactions in the Company's securities in the past sixty (60) days.

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

Item 6 is hereby amended by adding the following thereto:

The information contained in Item 5 of this Amendment No.2 is incorporated by reference.

In addition, in July 2010 in connection with his service as a Director of the Company, Mr. Kovner received a grant of 5,500 options to purchase Common Stock at an exercise price of \$2.59. The options expire on July 1, 2020 and 25% of the options vested or will vest on each of September 30, 2010, December 31, 2010, March 31, 2011 and June 30, 2011, provided that Mr. Kovner continues to serve as a Director of the Company on such date.

Except as set forth above, there are no contracts, arrangements, understandings or relationships (legal or otherwise) among the persons filing this Report or the Listed Persons or between such persons and any other person with respect to any securities of the Company, including, but not limited to transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or losses, or the giving or withholding of proxies.

Item 7. Material to Be Filed as Exhibits

Item 7 is hereby amended by adding the following thereto:

The following are filed as Exhibits to this statement on Schedule 13D:

Exhibit 1 - Subscription Agreement (The Subscription Agreement is filed as Exhibit 1 and is incorporated herein by reference to Exhibit 10.1 to the Company's 8-K filed with the Securities and Exchange Commission on November 12, 2010.)

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.

CxSynta LLC

Date: 11/12/2010 By Caxton Corporation, Managing Member
of CxSynta LLC,
by /s/ Scott B. Bernstein,
Secretary of Caxton Corporation

Caxton Corporation

Date: 11/12/2010 /s/ Scott B. Bernstein, Secretary of
Caxton Corporation

Bruce S. Kovner

Date: 11/12/2010 /s/ Scott B. Bernstein, Attorney-in-Fact

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 the 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).

Schedule A

Trade Date	No of Shares	Weighted Average Price Purchased	Per Share
13-Sep-10	36,900	3.5733	
14-Sep-10		38,836	3.6989
15-Sep-10		24,264	3.6437