

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

Schedule 13G/A  
(Amendment No. 2)\*

Under the Securities Exchange Act of 1934

Synthetic Biologics Inc.

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(Name of Issuer)

Common Stock

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(Title of Class of Securities)

87164U102

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(CUSIP Number)

December 31, 2015

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(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
- ☒ Rule 13d-1(c)
- ☐ Rule 13d-1(d)

\*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 the disclosures provided in a prior cover page.

The information required in 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).

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

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## 1. NAMES OF REPORTING PERSONS

Great Point Partners, LLC

I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (ENTITIES ONLY):

37-1475292

## 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) ☐(b) ☐

## 3. SEC USE ONLY

## 4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON	5.	SOLE VOTING POWER	0
	6.	SHARED VOTING POWER	3,589,400 <sup>1</sup>
WITH	7.	SOLE DISPOSITIVE POWER	0
	8.	SHARED DISPOSITIVE POWER	3,589,400 <sup>1</sup>

## 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

3,589,400<sup>1</sup>

## 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

☐

## 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

3.8%<sup>2</sup>

## 12. TYPE OF REPORTING PERSON (See Instructions)

IA

<sup>1</sup> Consists of warrants to purchase an aggregate of 3,589,400 shares underlying warrants, owned by Biomedical Value Fund, LP, Biomedical Offshore Value Fund, Ltd., Biomedical Institutional Value Fund, LP, GEF-SMA, LP and Class D Series of GEF-PS, LP.

<sup>2</sup> Based on a total of 90,810,086 shares of Common Stock outstanding, as reported by the Issuer on a Form 10-Q filed with the SEC on November 5, 2015.

## 1. NAMES OF REPORTING PERSONS

Dr. Jeffrey R. Jay, M.D.

I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (ENTITIES ONLY):

## 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) ☐(b) ☐

## 3. SEC USE ONLY

## 4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES

## 5. SOLE VOTING POWER

0

BENEFICIALLY

## 6. SHARED VOTING POWER

OWNED BY EACH

3,589,400<sup>1</sup>

REPORTING PERSON

## 7. SOLE DISPOSITIVE POWER

0

WITH

## 8. SHARED DISPOSITIVE POWER

3,589,400<sup>1</sup>

## 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

3,589,400<sup>1</sup>

## 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

☐

## 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

3.8%<sup>2</sup>

## 12. TYPE OF REPORTING PERSON (See Instructions)

IN

## 1. NAMES OF REPORTING PERSONS

Mr. David Kroin

I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (ENTITIES ONLY):

## 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a) ☐(b) ☐

## 3. SEC USE ONLY

## 4. CITIZENSHIP OR PLACE OF ORGANIZATION

USA

NUMBER OF SHARES

## 5. SOLE VOTING POWER

0

BENEFICIALLY

## 6. SHARED VOTING POWER

OWNED BY EACH

3,589,400<sup>1</sup>

REPORTING PERSON

## 7. SOLE DISPOSITIVE POWER

0

WITH

## 8. SHARED DISPOSITIVE POWER

3,589,400<sup>1</sup>

## 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

3,589,400<sup>1</sup>

## 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

☐

## 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

3.8%<sup>2</sup>

## 12. TYPE OF REPORTING PERSON (See Instructions)

IN

Item 1.

- (a) Name of Issuer  
Synthetic Biologics Inc.
- (b) Address of Issuer's Principal Executive Offices  
9605 Medical Center Drive, Suite 270  
Rockville, MD

Item 2.

- (a) Name of Person Filing  
Great Point Partners, LLC  
Dr. Jeffrey R. Jay, M.D.  
Mr. David Kroin

The Reporting Persons have entered into a Joint Filing Agreement, dated February 16, 2016, a copy of which is filed with this Schedule 13G/A as Exhibit A, pursuant to which the Reporting Persons have agreed to file this statement jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act.

- (b) Address of Principal Business Office, or if none, Residence  
The address of the principal business office of each of the Reporting Persons is  
165 Mason Street, 3rd Floor  
Greenwich, CT 06830

- (c) Citizenship  
Great Point Partners, LLC is a limited liability company organized under the laws of the State of Delaware. Dr. Jeffrey R. Jay, M.D. is a citizen of the United States. Mr. David Kroin is a citizen of the United States.

- (d) Title of Class of Securities  
Common Stock

- (e) CUSIP Number  
87164U102

Item 3. If this statement is filed pursuant to §240.13d-1(b) or 240.13d.2(b) or (c), check whether the person filing is a:

Not Applicable.

- (a) ☐ Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o)

- (b) o Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c).
  - (c) o Insurance company as defined in Section 3(a)(19) of the Act (15. U.S.C. 78c).
  - (d) o Investment Company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
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- (e) o An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E).
- (f) o An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F).
- (g) o A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G).
- (h) o A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).
- (i) o A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3).
- (j) o Group, in accordance with §240.13d-1(b)(1)(ii)(J).

Item 4. Ownership

Biomedical Value Fund, L.P. ("BVF") is the record owner of warrants to purchase 1,030,072 shares of Common Stock (the "BVF Warrant Shares"). Great Point Partners, LLC ("Great Point") is the investment manager of BVF, and by virtue of such status may be deemed to be the beneficial owner of the BVF Warrant Shares. Each of Dr. Jeffrey R. Jay, M.D. ("Dr. Jay"), as senior managing member of Great Point, and Mr. David Kroin ("Mr. Kroin"), as special managing member of Great Point, has voting and investment power with respect to the BVF Warrant Shares, and therefore may be deemed to be the beneficial owner of the BVF Warrant Shares.

Biomedical Offshore Value Fund, Ltd. ("BOVF") is the record owner of warrants to purchase 1,063,300 shares of Common Stock (the "BOVF Warrant Shares"). Great Point is the investment manager of BOVF, and by virtue of such status may be deemed to be the beneficial owner of the BOVF Warrant Shares. Each of Dr. Jay, as senior managing member of Great Point, and Mr. Kroin, as special managing member of Great Point, has voting and investment power with respect to the BOVF Warrant Shares, and therefore may be deemed to be the beneficial owner of the BOVF Warrant Shares.

Biomedical Institutional Value Fund, L.P. ("BIVF") is the record owner of warrants to purchase 232,597 shares of Common Stock (the "BIVF Warrant Shares"). Great Point is the investment manager of BIVF, and by virtue of such status may be deemed to be the beneficial owner of the BIVF Warrant Shares. Each of Dr. Jay, as senior managing member of Great Point, and Mr. Kroin, as special managing member of Great Point, has voting and investment power with respect to the BIVF Warrant Shares, and therefore may be deemed to be the beneficial owner of the BIVF Warrant Shares.

GEF-SMA, LP ("GEF-SMA") is the record owner of warrants to purchase 996,844 shares of Common Stock (the "GEF-SMA Warrant Shares"). Great Point is the investment manager of GEF-SMA, and by virtue of such status may be deemed to be the beneficial owner of the GEF-SMA Warrant Shares. Each of Dr. Jay, as senior managing member of Great Point, and Mr. Kroin, as special managing member of Great Point, has voting and investment power with respect to the GEF-SMA Warrant Shares, and therefore may be deemed to be the beneficial owner of the GEF-SMA Warrant Shares.

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Class D Series of GEF-PS, LP ("GEF-PS") is the record owner of warrants to purchase 266,587 shares of Common Stock (the "GEF-PS Warrant Shares"). Great Point is the investment manager of GEF-PS, and by virtue of such status may be deemed to be the beneficial owner of the GEF-PS Warrant Shares. Each of Dr. Jay, as senior managing member of Great Point, and Mr. Kroin, as special managing member of Great Point, has voting and investment power with respect to the GEF-PS Warrant Shares, and therefore may be deemed to be the beneficial owner of the GEF-PS Warrant Shares.

Notwithstanding the above, Great Point, Dr. Jay and Mr. Kroin disclaim beneficial ownership of the BVF Warrant Shares, the BOVF Warrant Shares, the BIVF Warrant Shares, the GEF-SMA Warrant Shares, and the GEF-PS Warrant Shares.

1. Great Point Partners, LLC
  - (a) Amount beneficially owned: 3,589,400<sup>3</sup>
  - (b) Percent of class: 3.8%<sup>4</sup>
  - (c) Number of shares as to which the person has:
    - (i) Sole power to vote or to direct the vote: 0.
    - (ii) Shared power to vote or to direct the vote: 3,589,400<sup>3</sup>
    - (iii) Sole power to dispose or to direct the disposition of: 0.
    - (iv) Shared power to dispose or to direct the disposition of: 3,589,400<sup>3</sup>
2. Dr. Jeffrey R. Jay, M.D.
  - (a) Amount beneficially owned: 3,589,400<sup>3</sup>
  - (b) Percent of class: 3.8%<sup>4</sup>
  - (c) Number of shares as to which the person has:
    - (i) Sole power to vote or to direct the vote: 0.
    - (ii) Shared power to vote or to direct the vote: 3,589,400<sup>3</sup>
    - (iii) Sole power to dispose or to direct the disposition of: 0.
    - (iv) Shared power to dispose or to direct the disposition of: 3,589,400<sup>3</sup>
3. Mr. David Kroin
  - (a) Amount beneficially owned: 3,589,400<sup>3</sup>
  - (b) Percent of class: 3.8%<sup>4</sup>

<sup>3</sup> Consists of warrants to purchase an aggregate of 3,589,400 shares underlying warrants, owned by Biomedical



Value Fund, LP, Biomedical Offshore Value Fund, Ltd., Biomedical Institutional Value Fund, LP, GEF-SMA, LP and Class D Series of GEF-PS, LP.

- 4 Based on a total of 90,810,086 shares of Common Stock outstanding, as reported by the Issuer on a Form 10-Q filed with the SEC on November 5, 2015.
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- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote: 0.
  - (ii) Shared power to vote or to direct the vote: 3,589,400<sup>3</sup>
  - (iii) Sole power to dispose or to direct the disposition of: 0.
  - (iv) Shared power to dispose or to direct the disposition of: 3,589,400<sup>3</sup>

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof each of the Reporting Persons has ceased to be the beneficial owner of more than five percent of the class of securities, check the following x.

Item 6. Ownership of More than Five Percent on Behalf of Another Person:

See Item 4.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company

Not Applicable.

Item 8. Identification and Classification of Members of the Group

Not Applicable.

Item 9. Notice of Dissolution of Group

Not Applicable.

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as participant in any transaction having that purpose or effect.

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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: February 16, 2016

GREAT POINT PARTNERS, LLC

By: /s/ Dr. Jeffrey R. Jay, M.D.

Dr. Jeffrey R. Jay, M.D.,  
as senior managing member

/s/ Dr. Jeffrey R. Jay, M.D.

DR. JEFFREY R. JAY, M.D.

/s/ Mr. David Kroin

Mr. David Kroin

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AGREEMENT REGARDING THE JOINT FILING OF SCHEDULE 13G/A

The undersigned hereby agree as follows:

(i) Each of them is individually eligible to use the Schedule 13G/A to which this Exhibit is attached, and such Schedule 13G/A is filed on behalf of each of them; and

(ii) Each of them is responsible for the timely filing of such Schedule 13G/A and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

Date: February 16, 2016

GREAT POINT PARTNERS, LLC

By: /s/ Dr. Jeffrey R. Jay, M.D.

Dr. Jeffrey R. Jay, M.D.,  
as senior managing member

/s/ Dr. Jeffrey R. Jay, M.D.

DR. JEFFREY R. JAY, M.D.

/s/ Mr. David Kroin

Mr. David Kroin

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