

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. ___)*

T2 Biosystems, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

89853L104

(CUSIP Number)

December 31, 2014

(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 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	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Aisling Capital III, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 2,523,300
	6	SHARED VOTING POWER 0
	7	SOLE DISPOSITIVE POWER 2,523,300
	8	SHARED DISPOSITIVE POWER 0
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,523,300 (See Item 4)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.6%	
12	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Aisling Capital Partners III, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 2,523,300
	6	SHARED VOTING POWER 0
	7	SOLE DISPOSITIVE POWER 2,523,300
	8	SHARED DISPOSITIVE POWER 0
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,523,300 (See Item 4)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.6%	
12	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Aisling Capital Partners III LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 2,523,300
	6	SHARED VOTING POWER 0
	7	SOLE DISPOSITIVE POWER 2,523,300
	8	SHARED DISPOSITIVE POWER 0
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,523,300 (See Item 4)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.6%	
12	TYPE OF REPORTING PERSON OO	

1	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Steve Elms
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3	SEC USE ONLY
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5 SOLE VOTING POWER 0
	6 SHARED VOTING POWER 2,523,300
	7 SOLE DISPOSITIVE POWER 0
	8 SHARED DISPOSITIVE POWER 2,523,300
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,523,300 (See Item 4)
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.6%
12	TYPE OF REPORTING PERSON IN

1	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Dennis Purcell	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP	(a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 2,523,300
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 2,523,300
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,523,300 (See Item 4)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	<input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.6%	
12	TYPE OF REPORTING PERSON IN	

1	NAME OF REPORTING PERSON OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Andrew Schiff
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3	SEC USE ONLY
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5 SOLE VOTING POWER 0
	6 SHARED VOTING POWER 2,523,300
	7 SOLE DISPOSITIVE POWER 0
	8 SHARED DISPOSITIVE POWER 2,523,300
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,523,300 (See Item 4)
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.6%
12	TYPE OF REPORTING PERSON IN

ITEM 1. (a) Name of Issuer:

T2 Biosystems, Inc. (the "Issuer")

(b) Address of Issuer's Principal Executive Offices:

101 Hartwell Avenue, Lexington, Massachusetts 02421

ITEM 2. (a) Name of Person Filing:

This Schedule 13G (this "Statement") is being filed by the following persons (collectively, the "Reporting Persons"):

- (i) Aisling Capital III, LP, a Delaware limited partnership ("Aisling");
- (ii) Aisling Capital Partners III, LP, a Delaware limited partnership ("Aisling Partners"), a general partner of Aisling;
- (iii) Aisling Capital Partners III LLC, a Delaware limited liability company ("Aisling Partners GP"), a general partner of Aisling Partners;
- (iv) Mr. Steve Elms, a managing member of Aisling Partners GP;
- (v) Mr. Dennis Purcell, a managing member of Aisling Partners GP; and
- (vi) Mr. Andrew Schiff, a managing member of Aisling Partners GP.

(b) Address of Principal Business Office, or if None, Residence:

The address of the principal business offices of each of the Reporting Persons is 888 Seventh Avenue, 30th Floor, New York, New York 10106.

(c) Citizenship:

- (i) Aisling — a Delaware limited partnership
- (ii) Aisling Partners — a Delaware limited partnership
- (iii) Aisling Partners GP — a Delaware limited liability company
- (iv) Mr. Elms — United States
- (v) Mr. Purcell — United States
- (vi) Mr. Schiff — United States

(d) Title of Class of Securities:

Common Stock, par value \$0.001 per share (the "Common Stock").

(e) CUSIP Number:

89853L104

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:

- (a) Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o)
 - (b) Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c)
 - (c) Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c)
 - (d) Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8)
 - (e) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E)
 - (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
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- (g) A Parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813)
- (i) 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) A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with §240.13d-1(b)(1)(ii)(J).

ITEM 4. OWNERSHIP

- (a) Amount beneficially owned:

Each of the Reporting Persons may be deemed to beneficially own an aggregate of 2,523,300 shares of Common Stock.

- (b) Percent of class:

Based on the calculations made in accordance with Rule 13d-3(d), each of the Reporting Persons may be deemed to beneficially own approximately 12.6% of the outstanding Common Stock.

All percentages of ownership of the Common Stock by Reporting Persons presented in this Statement assume an aggregate of 20,041,645 shares of Common Stock issued and outstanding, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities Exchange and Commission by the Issuer on November 5, 2014.

- (c) Number of shares as to which such person has:

- (i), (iii) Sole power to vote or to direct the vote/Sole power to dispose of or to direct the disposition of:

Each of Aisling, Aisling Partners and Aisling Partners GP may be deemed to have sole power to direct the voting and disposition of the 2,523,300 shares of Common Stock beneficially owned by Aisling.

- (ii), (iv) Shared power to vote or to direct the vote/Shared power to dispose of or to direct the disposition of:

By virtue of the relationships between and among the Reporting Persons as described in Item 2, each of Messrs. Elms, Purcell and Schiff, may be deemed to share the power to direct the voting and the disposition of the 2,523,300 shares of Common Stock beneficially owned by Aisling.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

Not Applicable.

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

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

The partners of Aisling have the right to participate in the receipt of dividends from, or proceeds from the sale of, the Common Stock held for the account of Aisling in accordance with their ownership interests in Aisling.

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. CERTIFICATIONS.

Not Applicable.

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.

Dated: February 2, 2015

AISLING CAPITAL III, LP

By: Aisling Capital Partners III, LP,
As its General Partner

By: Aisling Capital Partners III LLC,
As its General Partner

By: /s/ Dennis Purcell
Name: Dennis Purcell
Title: Managing Member

AISLING CAPITAL PARTNERS III, LP

By: Aisling Capital Partners III LLC,
As its General Partner

By: /s/ Dennis Purcell
Name: Dennis Purcell
Title: Managing Member

AISLING CAPITAL PARTNERS III LLC

By: /s/ Dennis Purcell
Name: Dennis Purcell
Title: Managing Member

STEVE ELMS

By: /s/ Steve Elms

DENNIS PURCELL

By: /s/ Dennis Purcell

ANDREW SCHIFF

By: /s/ Andrew Schiff

EXHIBIT INDEX

Exhibit 1. Joint Filing Agreement as required by Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended.

JOINT FILING AGREEMENT

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 13G 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.

Date: February 2, 2015

AISLING CAPITAL III, LP

By: Aisling Capital Partners III, LP,
As its General Partner

By: Aisling Capital Partners III LLC,
As its General Partner

By: /s/ Dennis Purcell
Name: Dennis Purcell
Title: Managing Member

AISLING CAPITAL PARTNERS III, LP

By: Aisling Capital Partners III LLC,
As its General Partner

By: /s/ Dennis Purcell
Name: Dennis Purcell
Title: Managing Member

AISLING CAPITAL PARTNERS III LLC

By: /s/ Dennis Purcell
Name: Dennis Purcell
Title: Managing Member

STEVE ELMS

By: /s/ Steve Elms

DENNIS PURCELL

By: /s/ Dennis Purcell

ANDREW SCHIFF

By: /s/ Andrew Schiff
