

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL	
OMB Number:	3235-0104
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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Flagship Ventures Fund 2004 L P</u> <hr/> (Last) (First) (Middle) ONE MEMORIAL DRIVE, 7TH FLOOR <hr/> (Street) CAMBRIDGE MA 02142 <hr/> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 08/06/2014	3. Issuer Name and Ticker or Trading Symbol <u>T2 Biosystems, Inc. [TTOO]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A-1 Convertible Preferred Stock	(1)	(1)	Common Stock	75,627 ⁽²⁾	0.00	I	See footnote ⁽²⁾
Series A-2 Convertible Preferred Stock	(1)	(1)	Common Stock	455,604 ⁽²⁾	0.00	I	See footnote ⁽²⁾
Series B Convertible Preferred Stock	(1)	(1)	Common Stock	619,530 ⁽²⁾	0.00	I	See footnote ⁽²⁾
Series C Convertible Preferred Stock	(1)	(1)	Common Stock	482,054 ⁽²⁾	0.00	I	See footnote ⁽²⁾
Series D Convertible Preferred Stock	(1)	(1)	Common Stock	370,500 ⁽³⁾	0.00	I	See footnote ⁽³⁾
Series E Convertible Preferred Stock	(1)	(1)	Common Stock	371,254 ⁽³⁾	0.00	I	See footnote ⁽³⁾

1. Name and Address of Reporting Person* <u>Flagship Ventures Fund 2004 L P</u> <hr/> (Last) (First) (Middle) ONE MEMORIAL DRIVE, 7TH FLOOR <hr/> (Street) CAMBRIDGE MA 02142 <hr/> (City) (State) (Zip)
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1. Name and Address of Reporting Person* <u>Flagship Ventures Fund IV, L.P.</u> <hr/> (Last) (First) (Middle) ONE MEMORIAL DRIVE, 7TH FLOOR <hr/> (Street) CAMBRIDGE MA 02142 <hr/> (City) (State) (Zip)
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1. Name and Address of Reporting Person* <u>Flagship Ventures General Partner LLC</u> <hr/> (Last) (First) (Middle) ONE MEMORIAL DRIVE, 7TH FLOOR <hr/> (Street)
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(Street)
CAMBRIDGE MA 02142

(City) (State) (Zip)

1. Name and Address of Reporting Person*
[Flagship Ventures Fund IV General Partner LLC](#)

(Last) (First) (Middle)
ONE MEMORIAL DRIVE, 7TH FLOOR

(Street)
CAMBRIDGE MA 02142

(City) (State) (Zip)

1. Name and Address of Reporting Person*
[AFEYAN NOUBAR](#)

(Last) (First) (Middle)
ONE MEMORIAL DRIVE, 7TH FLOOR

(Street)
CAMBRIDGE MA 02142

(City) (State) (Zip)

1. Name and Address of Reporting Person*
[KANIA EDWIN M JR](#)

(Last) (First) (Middle)
ONE MEMORIAL DRIVE, 7TH FLOOR

(Street)
CAMBRIDGE MA 02142

(City) (State) (Zip)

Explanation of Responses:

1. The preferred stock is convertible at any time, at the holder's election and has no expiration date. The preferred stock will automatically convert into common stock upon the closing of the Issuer's initial public offering.
2. Held by Flagship Ventures Fund 2004, L.P. ("Flagship 2004"). Flagship Ventures General Partner LLC ("Flagship LLC") is the general partner of Flagship 2004. Noubar B. Afeyan, Ph.D. and Edwin M. Kania, Jr. are the managers of Flagship LLC. Flagship LLC and each of these individuals may be deemed to share voting and investment power with respect to all shares held by Flagship 2004. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.
3. Held by Flagship Ventures Fund IV, L.P. ("Flagship IV"). Flagship Ventures Fund IV General Partner LLC ("Flagship IV LLC") is the general partner of Flagship IV. Noubar B. Afeyan, Ph.D. and Edwin M. Kania, Jr. are the managers of Flagship IV LLC. Flagship IV LLC and each of these individuals may be deemed to share voting and investment power with respect to all shares held by Flagship IV. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.

[FLAGSHIP VENTURES
FUND 2004, L.P. By: Flagship
Ventures General Partner LLC](#) 08/06/2014
[By: /s/ Noubar B. Afeyan,
Ph.D., Manager](#)

[FLAGSHIP VENTURES
FUND IV, L.P. By: Flagship
Ventures Fund IV General
Partner LLC By: /s/ Noubar B.
Afeyan, Ph.D., Manager](#) 08/06/2014

[FLAGSHIP VENTURES
GENERAL PARTNER LLC](#) 08/06/2014
[By: /s/ Noubar B. Afeyan,
Ph.D., Manager](#)

[Flagship Ventures Fund IV
General Partner LLC By: /s/
Noubar B. Afeyan, Ph.D.,
Manager](#) 08/06/2014

[/s/ Noubar B. Afeyan, Ph.D.](#) 08/06/2014

[/s/ Edwin M. Kania Jr.](#) 08/06/2014

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.
* If the form is filed by more than one reporting person, see Instruction 5 (b)(v).
** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.
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 Number.