

OMB APPROVAL

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## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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>Lowery Thomas J.</u>  (Last) (First) (Middle) <u>101 HARTWELL AVENUE</u>  (Street) <u>LEXINGTON MA 02421</u>  (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>08/06/2014</u>	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 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Chief Scientific Officer</u>	5. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person  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)
<u>Common Stock</u>	<u>5,882</u>	<u>D</u>	

## 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				
<u>Stock Option</u>	<u>02/27/2013</u>	<u>02/27/2019</u>	<u>Common Stock</u>	<u>23,529</u>	<u>1.16</u>	<u>D</u>
<u>Stock Option</u>	<u>02/05/2014</u>	<u>02/05/2020</u>	<u>Common Stock</u>	<u>20,588</u>	<u>1.31</u>	<u>D</u>
<u>Stock Option</u>	<u>(1)</u>	<u>04/15/2021</u>	<u>Common Stock</u>	<u>29,411</u>	<u>1.96</u>	<u>D</u>
<u>Stock Option</u>	<u>(2)</u>	<u>01/17/2022</u>	<u>Common Stock</u>	<u>38,235</u>	<u>2.45</u>	<u>D</u>
<u>Stock Option</u>	<u>(3)</u>	<u>01/23/2023</u>	<u>Common Stock</u>	<u>11,764</u>	<u>2.25</u>	<u>D</u>
<u>Stock Option</u>	<u>(4)</u>	<u>09/25/2023</u>	<u>Common Stock</u>	<u>59,102</u>	<u>3.22</u>	<u>D</u>
<u>Stock Option</u>	<u>(5)</u>	<u>01/22/2024</u>	<u>Common Stock</u>	<u>16,602</u>	<u>3.22</u>	<u>D</u>
<u>Stock Option</u>	<u>(6)</u>	<u>07/02/2024</u>	<u>Common Stock</u>	<u>26,564</u>	<u>10.7</u>	<u>D</u>

## Explanation of Responses:

- This Stock Option was granted on April 15, 2011 and vesting commenced on February 1, 2011. Options to purchase 25% of the total underlying shares vest on the first anniversary of the vesting commencement date and options to purchase the remaining shares vest in 36 equal monthly installments thereafter.
- This Stock Option was granted on January 17, 2012 and vesting commenced on the grant date. Options to purchase 25% of the total underlying shares vest on the first anniversary of the vesting commencement date and options to purchase the remaining shares vest in 36 equal monthly installments thereafter.
- This Stock Option was granted on January 23, 2013 and vesting commenced on the grant date. Options to purchase 25% of the total underlying shares vest on the first anniversary of the vesting commencement date and options to purchase the remaining shares vest in 36 equal monthly installments thereafter.
- This Stock Option was granted on September 25, 2013 and vesting commenced on the grant date. Options to purchase 25% of the total underlying shares vest on the first anniversary of the vesting commencement date and options to purchase the remaining shares vest in 36 equal monthly installments thereafter.
- This Stock Option was granted on January 22, 2014 and vesting commenced on the grant date. Options to purchase 25% of the total underlying shares vest on the first anniversary of the vesting commencement date and options to purchase the remaining shares vest in 36 equal monthly installments thereafter.
- This Stock Option was granted on July 2, 2014 and vesting commenced on June 25, 2014. Options to purchase 25% of the total underlying shares vest on the first anniversary of the vesting commencement date and options to purchase the remaining shares vest in 36 equal monthly installments thereafter.

## Remarks:

Exhibit List: Exhibit 24 - Power of Attorney

/s/ Thomas J. Lowery, Ph.D. 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.

## POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that the undersigned hereby constitutes and appoints each of (i) the Chief Financial Officer of T2 Biosystems, Inc., a Delaware corporation (the "Company"), who is currently Marc R. Jones, and (ii) the Company's Comptroller, who is currently Christopher Martin, and their respective successors, signing singly, with full power of substitution, as the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer and/or director of the Company, Forms 3, 4, and 5 and any amendments thereto in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4, or 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 3, 4, and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

**IN WITNESS WHEREOF**, the undersigned has caused this Power of Attorney to be executed as of this 1st day of August, 2014.

Signature: /s/ Thomas J. Lowery  
Name: Thomas J. Lowery

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