

T2 BIOSYSTEMS, INC.
101 Hartwell Ave.
Lexington, MA 02421

September 18, 2015

VIA EDGAR

Heather Percival
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: T2 Biosystems, Inc.
Registration Statement on Form S-3 (File No. 333-206707)

Dear Ms. Percival:

In accordance with Rule 461 under the Securities Act of 1933, as amended, T2 Biosystems, Inc. (the "Company") hereby requests the acceleration of the effective date of the above-referenced Registration Statement so that it will become effective at 4:00 p.m. Eastern Time on Tuesday, September 22, 2015, or as soon thereafter as practicable.

In connection with this request for effectiveness, the Company acknowledges the following:

- should the U.S. Securities and Exchange Commission (the "Commission") or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions or require additional information, please contact Evan Smith of Latham & Watkins LLP at (781) 434-6608. Thank you for your assistance and cooperation in this matter.

Sincerely yours,

T2 Biosystems, Inc.

By: /s/ Michael T. Gibbs
Michael T. Gibbs
Senior Corporate Counsel

cc: Johan V. Brigham, Esq. (via e-mail)
Evan G. Smith, Esq. (via e-mail)

[Signature Page to Acceleration Request Letter (Registration Statement on Form S-3)]
