

**T2 Biosystems, Inc.
101 Hartwell Ave.
Lexington, MA 02421**

May 4, 2017

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

Attention: Tom Jones

**Re: T2 Biosystems, Inc.
Registration Statement on Form S-3 (Registration No. 333-216833)**

Ladies and Gentlemen:

In accordance with Rule 461 of Regulation C of the General Rules and Regulations under the Securities Act of 1933, as amended, we hereby request acceleration by the Securities and Exchange Commission (the "**Commission**") of the effective date of the above-referenced Registration Statement on Form S-3 (the "**Registration Statement**") of T2 Biosystems, Inc. (the "**Company**"). We respectfully request that the Registration Statement become effective as of 4:00 p.m., Boston time, on May 5, 2017, or as soon as practicable thereafter.

The Company acknowledges the following:

- should the Commission or the staff of the Commission (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.

Thank you for your assistance in this matter.

Very truly yours,

T2 Biosystems, Inc.

By: /s/ Michael Gibbs

Michael Gibbs

Vice President and General Counsel

[Signature Page to T2 Biosystems, Inc. Acceleration Letter]
