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

DIVISION OF
CORPORATION FINANCE

June 18, 2014

Via E-mail
John McDonough
President and Chief Executive Officer
T2 Biosystems, Inc.
101 Hartwell Avenue
Lexington, Massachusetts 02421

Re: T2 Biosystems, Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted May 29, 2014
CIK No. 0001492674

Dear Mr. McDonough:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Company Overview, page 1

1. We note your response to prior comment number 3. Please further clarify for us how you determined that achieving marketing authorization from the FDA would not entail additional time or expense, when you state in your response that you expect that completing the *de novo* review process and pre-commercial launch preparation will include "clinical studies" and performance design optimization.

2. We note your response to prior comment 5. Please revise the disclosure to include the first sentence of your response to comment 5 regarding product candidates. Also, please revise the disclosure to include the average time to actionable results and indicate the preliminary nature of your clinical results, given that they have been used to support a *de novo* application that has not yet been cleared.

Clinical Utility, page 75

3. We note your response to our prior comment number 11. Please revise your disclosure to avoid, to the extent possible, terms of art that may not be understood by average investors and to explain clinical concepts in lay person terms. By way of example only, explain what a "prospective subject" is. Does this mean actual patients presenting with possible infection or something else? Likewise, what is a "contrived subject?" Please also explain how spiking is done. Explain in more detail concordance and discordance and explain why results might not be included.

4. In addition, explain the significance of your conclusion that T2Candida's labeling will likely require its use in conjunction with other diagnostic procedures on the conclusions in the clinical data tables. Further explain this conclusion's impact on your belief that you will be able to successfully market and address a $3 billion U.S. market. Revise here, the summary and elsewhere as appropriate.

License Agreement, page 85

5. Your disclosure under this heading does not clearly specify what the breadth of the referenced license could be. As such, it is unclear what products will be affected by the obligation to pay royalties. Please revise to clarify.

Item 16. Exhibits and Financial Statement Schedules, page II-4

6. We note your response to prior comment 13. We will provide any comments on your request for confidential treatment for portions of exhibits 10.12 and 10.13 to your draft registration statement separately.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3528 with any questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director

cc (via e-mail): Johan V. Brigham