

September 30, 2016

Via Edgarlink and Facsimile

Ms. Amanda Ravitz
Assistant Director, Office of Electronics and Machinery
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

RE: Cytori Therapeutics, Inc. (“Cytori”)
Form 10-K for the Fiscal Year Ended December 31, 2015
Filed March 11, 2016
File No. 001-34375

Dear Ms. Ravitz:

This letter responds to the comments contained in your letter dated September 21, 2016 regarding our Annual Report on Form 10-K for the year ended December 31, 2015.

For your convenience, we have repeated your comment and set forth our response immediately after the comment. Our response should not be interpreted as an admission of any deficiency with respect to our Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

Form 10-K/A for Fiscal Year Ended December 31, 2015 filed March 24, 2016

1. We note that you filed this amendment to your Form 10-K to include a corrected exhibit 32 because the certifications as originally filed identified the wrong periodic report. Please file an amended Form 10-K that contains the corrected certifications and that is accompanied by the entire periodic report, or advise. For guidance, please see the Division of Corporation Finance’s Regulation S-K Compliance and Disclosure Interpretation Question 246.14, available on the Commission’s website. We also note that you should file the appropriate certifications required by Regulation S-K Item 601(b)(31) along with such amendment.

Cytori response: We have prepared and filed an amended Form 10-K for the fiscal year ended December 31, 2015 that (i) contains the corrected certification for exhibit 32; (ii) is accompanied by the entire periodic report; and (iii) includes the appropriate certifications required by Regulation S-K Item 601(b)(31).

As requested in your comment letter dated September 21, 2016, Cytori hereby acknowledges that:

- Cytori is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- Cytori may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If I can facilitate the Staff's review, or if the Staff has any questions on the information set forth herein, please telephone me at (858) 875-5211 or Marc Hedrick, our Chief Executive Officer, at (858) 875-5203. Thank you for your time and consideration.

Sincerely,

/s/ Tiago Girao

Tiago Girao
Chief Financial Officer
Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, CA 92121