

Cytori Therapeutics, Inc.
3020 Callan Road
San Diego, CA 92121

March 22, 2018

VIA EDGAR

Tim Buchmiller
Division of Corporation Finance
Office of Healthcare & Insurance
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Cytori Therapeutics, Inc.
Registration Statement on Form S-3
Filed May 12, 2017
File No. 333-217988

Dear Mr. Buchmiller:

Pursuant to Rule 461 of Regulation C of the General Rules and Regulations under the Securities Act of 1933, as amended, the undersigned, on behalf of Cytori Therapeutics, Inc., respectfully requests that the effective date of the Registration Statement on Form S-3 referred to above be accelerated so that it will become effective at 5:00 P.M. Eastern Time on March 26, 2018, or as soon as practicable thereafter.

If you have any questions or require additional information, please contact Cheston J. Larson, Esq. of Latham & Watkins LLP at (858) 523-5435. Thank you for your assistance and cooperation in this matter.

Very truly yours,

CYTORI THERAPEUTICS, INC.

By: /s/ Tiago Girao

Tiago Girao

VP Finance and Chief Financial Officer

cc: Cheston J. Larson, Esq., Latham & Watkins LLP
Christopher G. Geissinger, Esq., Latham & Watkins LLP