

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

April 21, 2017

**VIA EDGAR**

Amanda Ravitz  
Assistant Director  
Office of Electronics and Machinery  
Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549

**Re: Cytori Therapeutics, Inc.**  
**Registration Statement on Form S-3**  
**Filed March 27, 2017**  
**File No. 333-216947**

Dear Ms. Ravitz:

Under 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. (the "**Company**"), 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 4:30 P.M. Eastern Time on April 25, 2017, or as soon as practicable thereafter.

The undersigned, on behalf of the Company, acknowledges the following:

- should the 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.
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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 M. Girão            
Tiago M. Girão Chief Financial Officer

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