



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 3030

January 10, 2017

Via E-mail

Marc H. Hedrick, MD  
Chief Executive Officer  
Cytori Therapeutics, Inc.  
3020 Callan Road  
San Diego, CA 92121

**Re: Cytori Therapeutics, Inc.  
Registration Statement on Form S-1  
Filed December 30, 2016  
File No. 333-215365**

Dear Dr. Hedrick:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Heather Percival at (202) 551-3498 with any questions.

Sincerely,

/s/ Heather Percival for

Amanda Ravitz  
Assistant Director  
Office of Electronics and Machinery

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