



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 3030

May 19, 2017

Marc H. Hedrick, M.D.  
President and Chief Executive Officer  
Cytori Therapeutics, Inc.  
3020 Callan Road  
San Diego, California 92121

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

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 Tim Buchmiller at (202) 551-3635 with any questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz  
Assistant Director  
Office of Electronics and Machinery

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