



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

March 6, 2017

Mark A. Velleca, M.D., Ph.D.  
President and Chief Executive Officer  
G1 Therapeutics, Inc.  
79 T.W. Alexander Drive  
4501 Research Commons, Suite 100  
Research Triangle Park, NC 27709

**Re: G1 Therapeutics, Inc.  
Amendment No. 2 to Draft Registration Statement on Form S-1  
Submitted February 9, 2017  
CIK No. 0001560241**

Dear Dr. Velleca:

We have reviewed your amended draft registration statement and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to this comment and your amended draft registration statement or filed registration statement, we may have additional comments.

Business  
Overview  
Trilaciclib, page 84

1. We note your disclosure that there were no episodes of febrile neutropenia observed in the Phase 1b trilaciclib trials. Please disclose whether and to what extent you observed any other adverse events in these trials.

Mark A. Velleca, M.D., Ph.D.  
G1 Therapeutics, Inc.  
March 6, 2017  
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Please contact Josh Samples at (202) 551-3199 or Mary Beth Breslin at (202) 551-3625 with any questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance

cc: Megan N. Gates  
Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C.