



DIVISION OF
CORPORATION FINANCE

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

May 20, 2015

Via E-mail

Michael D. Step
Chief Executive Officer
Ritter Pharmaceuticals, Inc.
1801 Century Park East #1820
Los Angeles, CA 90067

**Re: Ritter Pharmaceuticals, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed May 8, 2015
File No. 333-202924**

Dear Mr. Step:

We have reviewed amendment no. 2 to your registration statement and your response letter dated May 8, 2015 and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Dilution, page 48

1. Refer to your response to our prior comment two. We believe that historical net tangible book value should be based on historical stockholders' deficit excluding intangible assets. Your current computation includes preferred stock subject to redemption in the book value for common stockholders, which does not seem appropriate. Please revise, accordingly.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Estimates
Significant factors, assumptions and methodologies used in determining the estimated fair value
of the Company's common stock, page 56

2. Refer to your response to our prior comment three. Please tell us why it is appropriate to use an estimated fully diluted share count as of the December 2014 valuation date to

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value your common stock with respect to other scenarios, which you assess at 55% probability. In this regard, explain to us whether the amount for other scenarios includes an amount for preferred stockholders, and if so, why given preferences to preferred stockholders in any liquidation, dissolution or winding up of the Company.

You may contact Rolf Sundwall at (202) 551-3105 or Jim Rosenberg at (202) 551- 3679 if you have questions regarding comments on the financial statements and related matters. Please contact Johnny Gharib at (202) 551-3170, Bryan Pitko at (202) 551-3203 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
Yvan-Claude Pierre, Esq.
Reed Smith LLP