



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-0405

August 5, 2010

Steven A. Kriegsman  
Chief Executive Officer and President  
CytRx Corporation  
11726 San Vicente Blvd, Suite 650  
Los Angeles, California 90049\

**Re: CytRx Corporation**  
**Form 10-K for the year ended December 31, 2009**  
**Filed March 15, 2010**  
**File No. 000-15327**

Dear Mr. Kriegsman:

We have reviewed your filing and have the following comments. Where the comments request you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comment or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the fiscal year ended December 31, 2009

Compensation Discussion and Analysis, page 48

Annual and Special Bonuses, page 50

1. We note your response to our prior comment 4, in which you state that the determination to award cash bonuses to your named executive officers was based on the principle business accomplishments that you have enumerated. You further state that in light of these accomplishments, the Compensation Committee determined that eligibility for these bonus awards was based on the contribution of each officer to the achievement of the listed accomplishments and a subjective evaluation of each officer's individual job

performance. However, this disclosure does not specify what each officer's contribution was and how the Committee evaluated each officer's individual performance. Moreover, your response only relates to eligibility for the awards, not to the bases of the amounts awarded. In light of your response, please expand your disclosure further to include an explanation of:

- a. the Committee's assessment of each named executive officer's contribution to the achievement of the principal business accomplishments you have enumerated;
- b. the Committee's assessment of each named executive officer's individual job performance;
- c. the Committee's ranking of each officer's job performance and the basis for this ranking, if not apparent from the revised disclosure; and
- d. how the Committee used the ranking for each named executive officer to determine the actual amount of the bonuses ultimately awarded.

Please respond to these comments within 10 business days or tell us when you will provide us with responses. Please furnish a letter that keys your response to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Steven A. Kriegsman  
CytRx Corporation  
August 5, 2010  
Page 3

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comment on your filing.

Please contact Michael Rosenthal at (202) 551-3674 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler  
Assistant Director