



DIVISION OF  
CORPORATION FINANCE

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

August 25, 2010

Mr. Jon P. Stonehouse  
President and Chief Executive Officer  
Biocryst Pharmaceuticals, Inc.  
2190 Parkway Lane Drive  
Birmingham, AL 35244

**Re: Biocryst Pharmaceuticals, Inc.**  
**Form 10-K for the year ended December 31, 2009**  
**Filed March 9, 2010**  
**Definitive Proxy Statement on Schedule 14A**  
**Filed April 6, 2010**  
**File No. 000-23186**

Dear Mr. Stonehouse:

We have limited our review of your filings to those issues we have addressed in our comments. In some of our comments, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing us the requested information or by advising us when you will provide the requested response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information provided, we may have additional comments.

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

Management's Discussion and Analysis of Financial Condition and Results of Operations  
2009 Corporate Highlights  
Peramivir, page 40

1. Refer to your disclosure that "We have determined that there is an excess of up to \$5.0 million of peramivir active pharmaceutical ingredient ("API") manufactured under the contract with HHS. This excess API is beyond the amount necessary to support U.S. regulatory approval... We are evaluating whether additional quantities of peramivir API are needed by the Company, and if so, the acquisition process to obtain the API from HHS." Please provide us proposed disclosure to include in your September 30, 2010 Form 10-Q that provides a chronology and description of events leading up to and subsequent to your determination of the excess. Also include in the proposed disclosure the effects and expected

effects of the excess on your results of operations and financial position, and clarify why you are evaluating whether additional quantities are needed if there is an excess. Finally, include in the proposed disclosure how you have accounted for the excess in your financial statements.

Schedule 14A filed April 6, 2010

2. We note that you have not included any disclosure in response to Item 402(s) of Regulation S-K. Please advise us of the basis for your conclusion that disclosure is not necessary and describe the process you undertook to reach that conclusion.

Corporate Governance

Board Leadership Structure, page 18

3. We note that the company has chosen to separate the principal executive officer and board chairman positions. Please confirm that in future filings, you will expand your disclosure to discuss why the company believes that this board leadership structure is the most appropriate structure for the company at the time of filing. Please refer to Item 407(h) of Regulation S-K.

Compensation Discussion and Analysis

Annual Incentive Compensation, page 24

4. You disclose on page 24 that overall funding for annual incentive compensation is based on your performance against the current year corporate objectives. On page 25, you state that the Committee approved an AIP pool equal to 93% of the target incentive amount. Please provide us proposed disclosure to be included in an amendment to your Form 10-K for the year ended December 31, 2009 to identify the corporate objectives used by the Committee to determine the potential size of the pool allocated for annual incentive compensation. In addition, please discuss how the level of achievement of each corporate objective corresponded to the Committee's determination that the AIP pool would be equal to 93% of the target incentive amount.
5. We note that the NEOs achieved 2009 bonus payments based on the achievement of corporate objectives and individual objectives. Your Compensation Discussion and Analysis does not disclose the corporate nor individual objectives used to determine these executive officers' annual performance-based bonus. Please provide us proposed disclosure to be included in an amendment to your Form 10-K for the year ended December 31, 2009 to provide the following:
  - The corporate and individual performance objectives;
  - The portion of the bonus attributable to the achievement of corporate objectives and individual objectives; and

Mr. Jon P. Stonehouse  
Biocryst Pharmaceuticals, Inc.  
August 25, 2010  
Page 3

- A discussion of how the level of achievement of each objective affected the actual bonuses to be paid.

To the extent that the objectives are quantitative, the discussion should also be quantitative. Please also disclose the level of achievement of these objectives.

Long-Term Equity Incentive Awards, page 26

6. We note that Messrs. Stonehouse, Grant, and McCullough, as well as Dr. Babu, achieved long-term equity incentive awards in 2009. According to page 26, these awards were based, in part, on a review of the performance of each NEO. Please provide us proposed disclosure to be included in an amendment to your Form 10-K for the year ended December 31, 2009 to identify the material factors that the Compensation Committee considered in awarding these long-term equity incentive awards.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

You may contact Christine Allen, Staff Accountant at (202) 551-3652 or Lisa Vanjoske, Assistant Chief Accountant at (202) 551-3614 if you have questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. Please contact Rose Zukin, Staff Attorney at (202) 551-3239 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim Rosenberg  
Senior Assistant Chief Accountant