Via Facsimile and U.S. Mail Mail Stop 6010

August 29, 2008

Mr. Stuart Grant Chief Financial Officer 2190 Parkway Lake Drive Birmingham, Alabama 35244

Re: Biocryst Pharmaceuticals, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2007

File No. 0-23186

Dear Mr. Grant:

We have reviewed your filing and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where it requests 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 comments or 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, 2007

Item 1. Business

Collaboration and In-License Relationships, page 12

- 1. To the extent not already disclosed, please include the following information in the discussion of each of your corporate alliances, academic alliances and government contracts:
 - each party's rights and obligations under the agreement;

Mr. Stuart Grant Biocryst Pharmaceuticals, Inc. August 29, 2008 Page 2

- the percentage range of royalties;
- the aggregate potential milestone payments; and
- the expiration and termination provisions.

Results of Operations

Year ended December 31, 2007 compared with the year ended December 31, 2006, page 38

2. Please tell us why it was appropriate under GAAP to defer \$2.3 million in precontract costs incurred in 2006 and expense these costs in 2007.

Note 1. Significant Accounting Policies Receivables from Collaborations, page 53

3. Please explain in expanded disclosure why you had such a significant receivable (\$36.5 million) from HHS at December 31, 2007. Explain why revenue recognition in 2007 was appropriate. Page 41 indicates that you bill HHS monthly

Research and Development expense, page 55

4. Please clarify for us in your disclosure the accounting for sublicense payments and maintenance payments and your basis of accounting for these payments. Provide the nature of costs deferred and why you believe deferral is appropriate.

Note 10. Collaborative and Other Research and Development Contracts, page 64

5. Provide the disclosures specified in paragraph 14b of FAS 68 or tell us why they are not required.

Item 15. Exhibits and Financial Statement Schedules, page 73

6. It appears that you have not filed as an exhibit to your filing a copy of your agreement with Green Cross Corporation. Please file this agreement as an exhibit to your filing or, alternatively, please provide us with a supplemental analysis supporting your determination that you are not substantially dependent on this agreement.

Form 10-Q for the quarter ended March 31, 2008

Marketable Securities, page 5

7. Please tell us what the impact, if any, of adopting FAS 159 had on your financial statements. Explain why the disclosure of adopting the standard was not warranted.

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Form 10-Q for the quarter ended June 30, 2008

8. You reversed \$4.9 million of revenues related to your contract with HHS in the quarter ended June 30, 2008. Please explain why you believed it was appropriate under GAAP to recognize these revenues in an earlier period, that is, why you believed these Phase III costs were reimbursable under the contract. We note in January 2008 you announced that development costs would exceed the amount of the contract and HHS indicated they would fund certain elements of the revised program.

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your response to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish the letter to us via 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.

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 comments on your filing.

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Please contact Sasha Parikh, Staff Accountant, at (202) 551-3627 or Lisa Vanjoske, Assistant Chief Accountant, at (202) 551-3614 if you have questions regarding the processing of our response as well as any questions regarding comments on the financial statements and related matters. You may contact Sebastian Gomez-Abero, Staff Attorney, at (202) 551-3621 or Suzanne Hayes, Legal Branch Chief at (202) 551-3675 with questions on any other comments. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

Jim B. Rosenberg Senior Assistant Chief Accountant