

Via Facsimile and U.S. Mail
Mail Stop 6010

November 15, 2006

Mr. Charles E. Bugg, Ph.D.
Chairman and Chief Executive Officer
BioCryst Pharmaceuticals, Inc.
2190 Parkway Lake Drive
Birmingham, AL 35244

Re: BioCryst Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed March 9, 2006
File No. 000-23186

Dear Mr. Bugg:

We have reviewed your filing and have the following comment. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your document. In our comment, we ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

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 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, 2005

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 34

Overview, page 34

1. We note your detailed discussion of the status of each of your significant project in the business section. To further supplement the usefulness of that information, please provide to us in disclosure type format the following information for each of your major research and development projects identified:

- a) The costs incurred during each period presented and to date on the project;
- b) The nature, timing and estimated costs of the efforts necessary to complete the project;
- c) The anticipated completion dates;
- d) The risks and uncertainties associated with completing development on schedule, and the consequences to operations, financial position and liquidity if the project is not completed timely; and finally
- e) The period in which material net cash inflows from significant projects are expected to commence.

To the extent that information requested above is not known or estimable, disclose that fact and the reason why it is not known.

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

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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You may contact Kei Ino, Staff Accountant, at (202) 551-3659 or Jim Atkinson, Accounting Branch Chief, at (202) 551-3622 if you have questions regarding the comments. In this regard, do not hesitate to contact me at (202) 551-3674.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant