

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

AMENDMENT NO. 1
To
FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

BioCryst Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

62-1413174

(I.R.S. Employer Identification Number)

**4505 Emperor Blvd., Suite 200
Durham, North Carolina 27703
(919) 859-1302**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Jon P. Stonehouse
President and Chief Executive Officer
4505 Emperor Blvd., Suite 200
Durham, North Carolina 27703
(919) 859-1302**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

**Brian Lane, Esq.
Robyn Zolman, Esq.
Gibson, Dunn & Crutcher LLP
1050 Connecticut Avenue, NW
Washington, DC 20036
(202) 955-8500**

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement, as determined by market conditions.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, please check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a) may determine.

EXPLANATORY NOTE

This Amendment No. 1 to the Registrant's Registration Statement on Form S-3 (File No. 333-221421) is being filed solely for the purpose of filing an updated Exhibit 5.1. No changes or additions are being made hereby to the prospectus that forms a part of the Registration Statement. Accordingly, the prospectus is being omitted from this filing.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 16. EXHIBITS.

Exhibit No.	Description
1.1*	Form of Underwriting Agreement.
4.1	Third Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed December 22, 2006 (File No. 000-23186).
4.2	Certificate of Amendment to the Third Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed July 24, 2007 (File No. 000-23186).
4.3	Certificate of Amendment to the Third Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed May 7, 2014 (File No. 000-23186).
4.4	Certificate of Increase of Authorized Number of Shares of Series B Junior Participating Preferred Stock. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed November 4, 2008 (File No. 000-23186).
4.5	Certificate of Increase of Authorized Number of Shares of Series B Junior Participating Preferred Stock of the Company. Incorporated by reference to Exhibit 3.2 to the Company's Form 8-K filed May 7, 2014 (File No. 000-23186).
4.6	Amended and Restated Bylaws of the Company effective October 29, 2008. Incorporated by reference to Exhibit 3.2 to the Company's Form 8-K filed November 4, 2008 (File No. 000-23186).
4.7	Specimen Certificate for Registrant's Common Stock. Incorporated by reference to Exhibit 4.7 to the Company's Form S-3 filed November 28, 2008 (File No. 333-155783).
4.8*	Certificate of Designation of Preferred Stock.
4.9*	Form of Warrant Agreement (including form of Warrant).
4.10*	Form of Deposit Agreement with respect to Depository Shares (including form of Depository Receipt).
4.11*	Form of Stock Purchase Contract (including form of Stock Purchase Certificate).
4.12*	Form of Unit Agreement (including form of Unit Certificate).
5.1**	Opinion of Gibson, Dunn & Crutcher LLP.
23.1†	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.2**	Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1).
24.1†	Power of Attorney.

* To be filed by amendment hereto or pursuant to a Current Report on Form 8-K to be incorporated herein by reference.

** Filed herewith.

† Previously filed.

December 4, 2017

BioCryst Pharmaceuticals, Inc.
4505 Emperor Blvd., Suite 200
Durham, North Carolina 27703

Re: BioCryst Pharmaceuticals, Inc.
Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to BioCryst Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-3 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration under the Securities Act and the proposed issuance and sale from time to time pursuant to Rule 415 under the Securities Act, together or separately and in one or more series (if applicable) of:

- (i) shares of the Company's common stock, par value \$0.01 per share (the "Common Stock");
- (ii) shares of the Company's preferred stock, par value \$0.01 per share (the "Preferred Stock");
- (iii) depositary shares each representing a fraction of a share of a particular series of Preferred Stock (the "Depositary Shares");
- (iv) contracts for the purchase or sale of Common Stock, Preferred Stock or Depositary Shares (the "Purchase Contracts");
- (v) warrants for the purchase of Common Stock, Preferred Stock, Depositary Shares or any combination thereof (the "Warrants");

and

(vi) units of the Company comprised of any combination of Common Stock, Preferred Stock, Depositary Shares, Purchase Contracts or Warrants (the "Units").

The Common Stock, Preferred Stock, Depositary Shares, Purchase Contracts, Warrants and Units are collectively referred to herein as the “Securities.”

In arriving at the opinions expressed below, we have examined originals, or copies certified or otherwise identified to our satisfaction as being true and complete copies of the originals, of the specimen Common Stock certificate and such other documents, corporate records, certificates of officers of the Company and of public officials and other instruments as we have deemed necessary or advisable to enable us to render these opinions. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies. As to any facts material to these opinions, we have relied to the extent we deemed appropriate and without independent investigation upon statements and representations of officers and other representatives of the Company and others.

We have assumed without independent investigation that:

- (i) at the time any Securities are sold pursuant to the Registration Statement (the “Relevant Time”), the Registration Statement and any supplements and amendments thereto (including post-effective amendments) will be effective and will comply with all applicable laws;
 - (ii) at the Relevant Time, a prospectus supplement will have been prepared and filed with the Commission describing the Securities offered thereby and all related documentation and will comply with all applicable laws;
 - (iii) all Securities will be issued and sold in the manner stated in the Registration Statement and the applicable prospectus supplement;
 - (iv) at the Relevant Time, all corporate or other action required to be taken by the Company to duly authorize each proposed issuance of Securities and any related documentation (including (a) the due reservation of any shares of Common Stock or Preferred Stock for issuance upon exercise, conversion or exchange of any Securities for Common Stock or Preferred Stock (a “Convertible Security”), and (b) the execution (in the case of certificated Securities), delivery and performance of the Securities and any related documentation referred to in paragraphs 1 through 6 below) shall have been duly completed and shall remain in full force and effect;
 - (v) upon issuance of any Common Stock or Preferred Stock, including upon exercise, conversion or exchange of any Convertible Security, the total number of shares of Common Stock or Preferred Stock issued and outstanding will not exceed the total number of shares of Common Stock or Preferred Stock, as applicable, that the Company is then authorized to issue under its certificate of incorporation and other relevant documents;
 - (vi) at the Relevant Time, a definitive purchase, underwriting or similar agreement and any other necessary agreement with respect to any Securities offered or issued will have been duly authorized by all necessary corporate or other action of the Company and duly executed and delivered by the Company and the other parties thereto.
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Based on the foregoing and in reliance thereon, and subject to the assumptions, exceptions, qualifications and limitations set forth herein, we are of the opinion that:

1. With respect to any shares of Preferred Stock, when:
 - a. the certificate of designations relating to such Preferred Stock (the “Certificate of Designations”) has been duly executed and filed with the Office of the Secretary of State of the State of Delaware,
 - b. such shares have been duly executed (in the case of certificated shares) and delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement and for the consideration therefor provided for therein or (ii) upon exercise, conversion or exchange of any Convertible Security and for any additional consideration specified in such Convertible Security or the instrument governing such Convertible Security providing for such conversion or exercise, which consideration (including any consideration paid for such Convertible Security), on a per-share basis, shall in either event not be less than the par value of the Preferred Stock, and
 - c. any such Convertible Security was previously validly issued and is fully paid and non-assessable (in the case of an equity Security) or is a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms,

such shares of Preferred Stock will be validly issued, fully paid and non-assessable.
 2. With respect to Depositary Shares, when:
 - a. a deposit agreement relating to such Depositary Shares (“Deposit Agreement”) has been duly executed and delivered by the Company and the depositary appointed by the Company,
 - b. the terms of the Depositary Shares have been established in accordance with the Deposit Agreement, and
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- c. the depositary receipts representing the Depositary Shares have been duly executed and countersigned (in the case of certificated Depositary Shares), registered and delivered in accordance with the related Deposit Agreement and the applicable definitive purchase, underwriting or similar agreement for the consideration provided therein,

the Depositary Shares will be legally issued and will entitle the holders of such Depositary Shares to the rights specified in the applicable Deposit Agreement and the applicable depositary receipts.

3. With respect to shares of Common Stock, when:

- a. such shares of Common Stock have been duly executed (in the case of certificated shares) and delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein, or (ii) upon conversion or exercise of any Convertible Security, in accordance with the terms of such Convertible Security or the instrument governing such Convertible Security providing for such conversion or exercise, and for any additional consideration specified therein, which consideration (including any consideration paid for such Convertible Security), on a per-share basis, shall in either event not be less than the par value of the Common Stock, and
- b. any such Convertible Security was previously validly issued and is fully paid and non-assessable (in the case of an equity Security) or is a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms,

such shares of Common Stock will be validly issued, fully paid and non-assessable.

4. With respect to any Purchase Contracts, when:

- a. the related purchase contract agreement ("Purchase Contract Agreement"), if any, has been duly executed by the Company and each other party thereto,
 - b. the terms of the Purchase Contracts have been established in accordance with the Purchase Contract Agreement, if any, or the applicable definitive purchase, underwriting or similar agreement,
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- c. the terms of any collateral or security arrangements relating to such Purchase Contracts have been established and the agreements thereto have been validly executed and delivered by each of the parties thereto and any collateral has been deposited with the collateral agent, if applicable, in accordance with such arrangements, and
- d. such Purchase Contracts have been executed (in the case of certificated Purchase Contracts) and delivered in accordance with the Purchase Contract Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein,

such Purchase Contracts will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

5. With respect to any Warrants, when:

- a. the warrant agreement relating to such Warrants (the "Warrant Agreement"), if any, has been duly executed and delivered by the Company and each other party thereto,
- b. the terms of the Warrants have been established in accordance with the Warrant Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement, and
- c. the Warrants have been duly executed (in the case of certificated Warrants) and delivered in accordance with the Warrant Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein,

such Warrants will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

6. With respect to any Units, when:

- a. the unit agreement relating to the Units (the "Unit Agreement"), if any, has been duly executed and delivered by the Company and each other party thereto,
 - b. the terms of the Units have been duly established in accordance with the Unit Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement, and
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- c. the Units have been duly executed (in the case of certificated Units) and delivered in accordance with the Unit Agreement, if any, and the applicable definitive purchase, underwriting or similar agreement for the consideration provided for therein,

the Units will be legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

The opinions expressed above are subject to the following exceptions, qualifications, limitations and assumptions:

A. We render no opinion herein as to matters involving the laws of any jurisdiction other than the State of New York and, for purposes of paragraphs 1 and 3 above, the Delaware General Corporation Law. This opinion is limited to the effect of the current state of the laws of the State of New York and the Delaware General Corporation Law and the facts as they currently exist. We assume no obligation to revise or supplement this opinion in the event of future changes in such laws or the interpretations thereof or such facts.

B. The opinions above with respect to the depositary receipts representing the Depositary Shares, the Deposit Agreement, the Purchase Contracts, any Purchase Contract Agreement, the Warrants, the Warrant Agreement, the Units and the Unit Agreement (collectively, the “Documents”) are each subject to (i) the effect of any bankruptcy, insolvency, reorganization, moratorium, arrangement or similar laws affecting the rights and remedies of creditors generally, including without limitation the effect of statutory or other laws regarding fraudulent transfers or preferential transfers, (ii) general principles of equity, including without limitation concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance, injunctive relief or other equitable remedies regardless of whether enforceability is considered in a proceeding in equity or at law and (iii) the provisions of the sixth article of the Company’s Third Restated Certificate of Incorporation.

C. We express no opinion regarding the effectiveness of (i) any waiver of stay, extension or usury laws and (ii) provisions relating to indemnification, exculpation or contribution, to the extent such provisions may be held unenforceable as contrary to public policy or federal or state securities laws.

D. To the extent relevant to our opinions in paragraphs 2, 4, 5 and 6 and not covered by our opinions in paragraphs 1 or 3, we have assumed that any securities, currencies or commodities underlying, comprising or issuable upon exchange, conversion or exercise of any Depositary Shares, Purchase Contracts, Warrants, or Units are validly issued, fully paid and non-assessable (in the case of an equity security) or a legal, valid and binding obligation of the issuer thereof, enforceable against such issuer in accordance with its terms.

BioCryst Pharmaceuticals, Inc.

December 4, 2017

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You have informed us that you intend to issue Securities from time to time on a delayed or continuous basis, and we understand that prior to issuing any Securities pursuant to the Registration Statement (i) you will advise us in writing of the terms thereof, and (ii) you will afford us an opportunity to (x) review the operative documents pursuant to which such Securities are to be issued or sold (including the applicable offering documents), and (y) file such supplement or amendment to this opinion (if any) as we may reasonably consider necessary or appropriate.

We consent to the filing of this opinion as an exhibit to the Registration Statement, and we further consent to the use of our name under the caption “Legal Matters” in the Registration Statement and the prospectus that forms a part thereof. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP
