Filed by BioCryst Pharmaceuticals, Inc. pursuant to Rule 425
Under the Securities Act of 1933
And Deemed Filed Pursuant to Rule 14a-12
Under the Securities Exchange Act of 1934
Subject Company: Idera Pharmaceuticals, Inc.
Commission File No. of Subject Company: 001-31918

IDRA/BCRX Merger Announcement Investor Conference call
January 22, 2018, 10:00 AM ET

Speaker Dial in:
United States: 844-889-6870
International: 574-990-9856
Conference ID: 4186878

Operator:

Good morning and welcome everyone to the Conference Call announcing the merger of BioCryst and Idera Pharmaceuticals. Today's call is being recorded and may last up to one hour. With me this morning on the call are Idera's Chief Executive Officer, Vin Milano and Jon Stonehouse, Chief Executive Officer of BioCryst Pharmaceuticals.

At this time, I will now turn the call over to Vin Milano. Please go ahead.

SLIDE 1

Milano:

Thank you. Good morning and welcome to everyone joining us on today's call and thank you for taking time to be with us on short notice for what I believe will be an exciting development for our shareholders, a new opportunity for those interested in a truly unique and powerful combination in the fight against rare, orphan and

undertreated diseases. I'm joined today by Jon Stonehouse, Chief Executive Officer of BioCryst Pharmaceuticals, who I have known and respected for years. Jon and I are excited to be here together to share our vision for combining our capabilities to serve more patients with rare diseases through the merger of Idera and BioCryst, which was approved by both boards over the weekend and was announced this morning. We have posted a slide presentation on both company's corporate websites and a copy has also been filed with the SEC and is available on the SEC website. We will refer to these slides during the call, so if you have not already, I encourage you to download the slides.

Before we proceed any further, Robert Doody, Idera's Head of IR will apprise you of our plans to make forward looking statements throughout this call, Bob.

SLIDE 2 AND 3

Doody:

Thanks Vin. During this call, we will be making forward looking statements within the meaning of federal securities laws. Those statements may be identified by words like anticipate, expect, believe, estimate, potential, plan and other similar words. Certain statements such as those regarding our expectations for future clinical trials, the timing and potential outcomes of clinical studies and interactions

with regulatory authorities and potential commercial opportunities are examples of such forward looking statements. As you know, forward looking statements are subject to factors that may cause our results and plans to materially differ from those expected. Factors that may cause these differences include those described in the Risk Factors section of both companies' annual reports filed on Form 10-K and most recent Form 10-Q's filed with the SEC.

In addition, all statements regarding the expected timing of the closing of the merger, the ability of the parties to complete the merger, the expected benefits of the merger, the competitive ability and position of the combined company, and any assumptions underlying any of the foregoing, are forward-looking statements. Please refer to the press release issued this morning and to the other filings we will be making with the SEC for more information regarding the risks and uncertainties that could cause future results to differ materially from the expectations expressed in this conference call. These statements speak only as of today's date, January 22, 2018, and we disclaim any intention or obligation to update them.

On slide 3 we have outlined additional information and where to find it. This text is also available in the press release announcing the merger. I will now turn the call back to Vin.

SLIDE 4 and 5

Milano:

Thanks Bob. I will begin on slide 5 of the presentation, which outlines why we believe the transaction creates substantial value. We plan to combine BioCryst Pharmaceuticals and Idera Pharmaceuticals under a new holding company, allowing us to combine the best of both of our companies to achieve our number one objective, which is delivering life-saving therapies to more patients suffering from rare and orphan diseases. We will be in an enhanced position to achieve this objective together versus what either company could achieve on a standalone basis because of the complementary nature of the merger. In this case, we sincerely believe that 1+1=4, creating a dynamic new organization highlighted by the following strengths:

1) First, we will have a robust product pipeline led by 2 Phase 3 programs backed by compelling clinical data, along with 2 Phase 2 rare disease programs, a variety of early stage programs and supporting non-core assets.

2) Second, the combination capitalizes on the deep experience from both teams from discovery to commercialization in the rare disease category. We also bring together extensive development and commercial experience in HAE, which is our most advanced clinical program currently in Phase 3. This

includes launching the first prophylactic HAE product and strong relationships with KOLs and patients in the space.

3) Third, both companies bring significant experience in distinct areas of drug discovery, which when combined will create a synergistic discovery capability that will expand the number of future rare disease targets that we will evaluate and advance into development.

4) Fourth, the financial strength of combined company with approximately $243 million in proforma net cash as of December 31, 2017 to support our ongoing clinical and commercial activities. We also have the potential to leverage certain assets via partnering or out-licensing to further strengthen our cash position with non-dilutive capital.

When we bring each of these 4 elements together, we believe that we are creating a unique and powerful rare disease-focused biotechnology company that will be well positioned for a steady pace of clinical milestones across a deep and diverse pipeline, commercial execution when medicines are cleared to market by regulators, robust clinical development capabilities to accelerate and replenish the late-stage pipeline, and research engines to drive future earlier stage candidates.

I will now turn the call over to Jon to share a few thoughts.

Stonehouse:

Thanks Vin and good morning to everyone. I want to thank all of you for joining us for this exciting announcement. Vin and I have been discussing the potential benefits of combining forces for some time, with the fundamental driving force behind the idea being that we can achieve so much more together for patients with rare diseases than we could accomplish on our own. It is very clear to me that this combination of two companies provides the most complete set of tools, talents and ingredients needed to have a successful company — one that can operate across the whole spectrum from discovery, development to approvals and rare disease commercial launches. We are unified and driven by our shared belief that we can offer patients something extraordinary that will improve the quality of their lives. We firmly believe that the new combined company can build upon what BioCryst and Idera have each accomplished and create a formidable business with an enhanced platform and long-term growth potential. I am looking forward to serving as a member of the board of directors of the new company and continuing to work with Vin and the team moving forward to accomplish our shared vision of being a leader in the rare disease space.

I'll now turn the call back to Vin to continue with the presentation, Vin?

SLIDE 6

Thanks Jon. Turning to slide 6, we have outlined the key terms of the transaction. The merger is a stock-for-stock transaction, which will result in BioCryst shareholders owning 51.6 percent and Idera shareholders owning 48.4 percent of a new holding company, on a fully diluted basis. The new company will have approximately $243 million in net cash as of December 31, 2017. I will be assuming the role of Chief Executive Officer for the new company and will serve on the Board, and Jon will be assuming a role as a member of the Board of Directors of this new company. I am thrilled that Jon will serve as a member of the board and Bob Ingram, the current BioCryst Board Chairman and a true luminary in pharmaceutical industry for decades, will serve as Chairman of the board of the new company.

The headquarters for the new company will be consolidated over time at the current Idera HQ in Exton, PA, and we will centralize our combined research center in Birmingham, AL. The transaction is subject to approval by the shareholders of both companies, and other customary conditions. A significant stockholder of each company has agreed to enter into a voting and support agreement and has agreed to vote in favor of the transaction. This stockholder owns approximately 9% of Idera

shares outstanding and approximately 14% of BioCryst shares outstanding. We anticipate that the transaction will close in the second quarter of 2018.

SLIDE 7

Slide 7 provides an overview of the product pipeline of the combined companies, which is squarely focused on rare diseases. We will have 9-plus rare disease programs, highlighted by 2 Phase 3 programs and 2 Phase 2 programs that provide near-term commercial and partnering opportunities. We also have important supporting assets at various stages of development or commercial availability that provide the potential for future non-dilutive capital in multiple ways.

SLIDE 8

On slide 8 we have provided more detail on our 4 most advanced programs, two each from BioCryst and Idera. The lead pipeline candidates are BCX7353 and IMO-2125, which are both in Phase 3 development and have both received orphan designation from the FDA. BCX7353 is a capsule formulation for the prophylactic treatment of Hereditary Angioedema, or HAE, an area where I have significant experience from my time at ViroPharma — more on that in a minute. BCX7353 is also in Phase 2 as an oral liquid formulation for the acute treatment of HAE. The HAE market is expected to exceed $2 billion in global sales and our two programs

will provide us with a portfolio approach to managing this disease and, most importantly, improving the quality of life of those afflicted with the condition.

Moving beyond HAE, we are also excited to be advancing IMO-2125 into its Phase 3 trial for another orphan patient population, patients with PD-1 refractory metastatic melanoma. We estimate peak year sales could reach greater than $500 million for this indication, making IMO-2125 a commercially viable opportunity that clearly fits into our rare disease approach, and that the new company will be capable of launching independently.

The Phase 2 trial of IMO-8400 in the rare disease dermatomyositis is expected to read out in the second quarter of this year, and we are eagerly anticipating that data to understand the path forward for that program as well.

SLIDE 9

One of the major areas of clinical and commercial synergy between our two teams is our combined experience in bringing rare disease products to market, which is outlined on slide 9. As you may recall, during my time at ViroPharma, our team launched the first prophylactic therapy for HAE patients, and that medicine, Cinryze, continues to be the gold standard for HAE therapy. Combined with BioCryst's extensive experience conducting HAE clinical trials, we have collectively developed an incredible rapport with the physician experts in HAE, and

importantly with the patients and the leading advocacy organization, the HAEA. We have had close contact with the patient and KOL community over the years and are excited to be re-engaging with them as a strong, complementary company providing novel orally-administered medicines, which we believe will substantially improve patients' overall quality of life, maintaining their sense of freedom from fear of attacks from this terrible condition.

I also want to call out the accomplishments of the combined team listed on the slide, which includes Dan Soland, Lynne Powell and Clayton Fletcher, who collectively have been involved with the planning and execution of multiple successful product launches that resulted in significant sales growth.

SLIDE 10

As to the discovery element of the new company, our two scientific teams have already spent time together, and you can see on slide 10 that we see some very interesting opportunities to combine our various expertise and know-how. What is not apparent on the slide but has been equally apparent to us is the immediate rapport and the spark of enthusiasm and innovation that resulted in ideas around how these two unique technologies may ultimately work together to address deficiencies and challenges each one may have independently. Ultimately, we

believe this combination will create unique development candidates in a broadened library of approachable rare disease opportunities.

SLIDE 11

In addition to the pipeline, management and scientific synergies I have just summarized, slide 11 shows the financial strength and operational synergies that can be created through this combination. Our unaudited net cash position as of December 31st was approximately $243 million, which enables us to continue the late stage clinical development of our key programs beyond their next milestone events, while also investing in commercial planning and launch activities. We also have the opportunity to generate non-dilutive capital through our non-strategic assets and indications, including a potential 20-plus million dollar procurement contract which we expect to enter into in 2018. For IMO-2125, in areas beyond refractory melanoma, we are currently engaged in dialogue with a number of strategic parties discussing various out-licensing strategies, which can generate non-dilutive capital while also advancing the development of IMO-2125 to much larger patient populations in need of such a therapy in a manner that goes well beyond Idera's current capability and strategic focus.

We have chosen to headquarter the new company in Exton, PA and will consolidate our lab facilities to the one location in Birmingham, AL. There are many positives

to doing business in Southeastern Pennsylvania. To name a few examples, cost of operations is significantly reduced and there is an incredible amount of pharmaceutical talent residing in this area as a result of all of the recent M&A that has occurred affecting PA over the past roughly 5 years.

SLIDE 12

As we look ahead to 2018, the new company is expected to have significant near-term catalysts for its key programs throughout the year, as highlighted on slide 12. In Q1, we are initiating Phase 3 trials for our 2 most advanced programs: the APEX-2 Phase 3 trial for BCX7353 in HAE prophylaxis and the ILLUMINATE 301 Phase 3 trial for IMO 2125 in refractory metastatic melanoma. In Q2, we will report data from the IMO 8400 Phase 2 trial in dermatomyositis, and in Q4 we will conclude enrollment in the ILLUMINATE 204 Phase 2 trial in refractory metastatic melanoma. During the year we also anticipate initial data from the ZENITH-1 Phase 2 trial of BCX 7353 in acute HAE, additional data from the ILLUMINATE 204 Phase 2 trial, along with other pipeline and business development activity.

SLIDE 13

Before wrapping things up, I want to take a step back to reflect on the driving force behind both of our companies and this combination — serving patients with rare diseases. As we've outlined today, we believe the merger will allow us to combine

our capabilities across drug discovery, clinical development and commercialization so we can serve more patients with rare diseases and help them have a better quality of life. The anticipated result is a more diversified company, creating more opportunity for greater returns, while balancing risk.

SLIDE 14

Overall, I am very excited about the prospects for this new organization and believe that the combination will create substantial value for all stakeholders. Our new company will be a unique player in rare diseases with scale and relevant experience across management and the broader team. We will initially focus on advancing our 4 late stage programs while continuing to leverage our discovery engines to advance new targets. We have a seasoned team with complementary experience, and financial resources to execute on our strategy. With that, I will now turn the call over to the operator for the Q&A session.

AFTER Q&A:

If there are no further questions, I want to again thank everyone for their time, interest and continued support as our new company is poised for a very successful future.

Additional Information and Where to Find It

In connection with the proposed merger, Idera and BioCryst plan to file with the SEC and mail or otherwise provide to their respective stockholders a joint proxy statement/prospectus regarding the proposed transaction. BEFORE MAKING ANY VOTING DECISION, IDERA'S AND BIOCRYST'S RESPECTIVE STOCKHOLDERS ARE URGED TO READ THE JOINT PROXY STATEMENT/PROSPECTUS IN ITS ENTIRETY WHEN IT BECOMES AVAILABLE AND ANY OTHER DOCUMENTS FILED BY EACH OF IDERA AND BIOCRYST WITH THE SEC IN CONNECTION WITH THE PROPOSED MERGER OR INCORPORATED BY REFERENCE THEREIN BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION AND THE PARTIES TO THE PROPOSED TRANSACTION. Investors and stockholders will be able to obtain a free copy of the joint proxy statement/prospectus and other documents containing important information about Idera and BioCryst, once such documents are filed with the SEC, through the website maintained by the SEC at www.sec.gov. Idera and BioCryst make available free of charge at www.iderapharma.com and www.biocryst.com, respectively (in the "Investors" section), copies of materials they file with, or furnish to, the SEC.

Participants in the Solicitation

This document does not constitute a solicitation of proxy, an offer to purchase or a solicitation of an offer to sell any securities. Idera, BioCryst and their respective directors, executive officers and certain employees and other persons may be deemed to be participants in the solicitation of proxies from the stockholders of Idera and BioCryst in connection with the proposed merger. Security holders may obtain information regarding the names, affiliations and interests of Idera's directors and officers in Idera's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on March 15, 2017, and its definitive proxy statement for the 2017 annual meeting of stockholders, which was filed with the SEC on April 28, 2017. Security holders may obtain information regarding the names, affiliations and interests of BioCryst's directors and officers in BioCryst's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which was filed with the SEC on February 27, 2017, and its definitive proxy statement for the 2017 annual meeting of stockholders, which was filed with the SEC on April 12, 2017. To the extent the holdings of Idera securities by Idera's directors and executive officers or the holdings of BioCryst securities by BioCryst's directors and executive officers have changed since the amounts set forth in Idera's or BioCryst's respective proxy statement for its 2017 annual meeting of stockholders, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Additional information regarding the interests of such individuals in the proposed merger will be included in the joint proxy statement/prospectus relating to the proposed merger when it is filed with the SEC. These documents (when available) may be obtained free of charge from the SEC's website at www.sec.gov, Idera's website at www.iderapharma.com and BioCryst's website at www.biocryst.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the federal securities law. Such statements are based upon current plans, estimates and expectations that are subject to various risks and uncertainties. The inclusion of forward-looking statements should not be regarded as a representation that such plans, estimates and expectations will be achieved. Words such as "anticipate," "expect," "project," "intend," "believe," "may," "will,"

“should,” “plan,” “could,” “target,” “contemplate,” “estimate,” “predict,” “potential” and words and terms of similar substance used in connection with any discussion of future plans, actions or events identify forward-looking statements. All statements, other than historical facts, including statements regarding the expected timing of the closing of the merger; the ability of the parties to complete the merger considering the various closing conditions; the expected benefits of the merger, such as efficiencies, cost savings, tax benefits, enhanced revenues and cash flow, growth potential, market profile and financial strength; the competitive ability and position of the combined company; and any assumptions underlying any of the foregoing, are forward-looking statements. Important factors that could cause actual results to differ materially from Idera’s and BioCryst’s plans, estimates or expectations could include, but are not limited to: (i) Idera or BioCryst may be unable to obtain stockholder approval as required for the merger; (ii) conditions to the closing of the merger may not be satisfied; (iii) the merger may involve unexpected costs, liabilities or delays; (iv) the effect of the announcement of the merger on the ability of Idera or BioCryst to retain and hire key personnel and maintain relationships with customers, suppliers and others with whom Idera or BioCryst does business, or on Idera’s or BioCryst’s operating results and business generally; (v) Idera’s or BioCryst’s respective businesses may suffer as a result of uncertainty surrounding the

merger and disruption of management’s attention due to the merger; (vi) the outcome of any legal proceedings related to the merger; (vii) Idera or BioCryst may be adversely affected by other economic, business, and/or competitive factors; (viii) the occurrence of any event, change or other circumstances that could give rise to the termination of the merger agreement; (ix) risks that the merger disrupts current plans and operations and the potential difficulties in employee retention as a result of the merger; (x) the risk that Idera or BioCryst may be unable to obtain governmental and regulatory approvals required for the transaction, or that required governmental and regulatory approvals may delay the transaction or result in the imposition of conditions that could reduce the anticipated benefits from the proposed transaction or cause the parties to abandon the proposed transaction; (xi) risks that the anticipated benefits of the merger or other commercial opportunities may otherwise not be fully realized or may take longer to realize than expected; (xii) the impact of legislative, regulatory, competitive and technological changes; (xiii) risks relating to the value of the new holding company shares to be issued in the merger; (xiv) expectations for future clinical trials, the timing and potential outcomes of clinical studies and interactions with regulatory authorities; and (xv) other risks to the consummation of the merger, including the risk that the merger will not be consummated within the expected time period or at all. Additional factors that may affect the future results of Idera and BioCryst are set forth in their respective filings with the SEC, including each of Idera’s and BioCryst’s most recently filed Annual Report on Form 10-K, subsequent Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other filings with the SEC, which are available on the SEC’s website at www.sec.gov. See in particular Item 1A of Idera’s Annual Report on Form 10-K for the fiscal year ended December 31, 2016 under the heading “Risk Factors” and Item 1A of BioCryst’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 under the heading “Risk Factors.” The risks and uncertainties described above and in Idera’s most recent Annual Report on Form 10-K and BioCryst’s most recent Quarterly Report on Form 10-Q are not exclusive and further information concerning Idera and BioCryst and their respective businesses, including factors that potentially could materially affect their respective businesses, financial condition or operating results, may emerge from time to time. Readers are urged to consider these factors carefully in evaluating these forward-looking statements, and not to place undue reliance on any forward-looking statements. Readers should also carefully review the risk factors described in other documents that Idera and BioCryst file from time to time with the SEC. The forward-looking statements in this press release speak only as of the date of this press release. Except as required by law, Idera and BioCryst assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.