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Subject Company: Idera Pharmaceuticals, Inc.
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Frequently Asked Questions

For External Communications

1) Transaction Related

a. **Why now?** *The two parties have engaged in discussion for some time and both recognize that combining creates the opportunity to create an organization that integrates and capitalizes on both parties' separate talents, experience and expertise to have much greater and expedient success than either organization alone.*

b. **How and when did the discussions of a strategic combination begin?** *The leaders of both companies have had a long-standing relationship and shared vision for advancing life-saving treatments for patients with rare diseases. The discussions of putting the companies together has been ongoing for several months.*

c. **Did either company consider alternative business development opportunities or acquisition/merger partners as part of this process?** *Both companies considered available strategic alternatives and concluded that this path forward is in the best interests of their shareholders.*

d. **Is there a break-up fee for either party if the transaction doesn't close?** *The merger agreement, which will be publicly filed with the SEC, provides for customary break up-fees payable under certain circumstances.*

e. **What will the NewCo be named and where will it be located?** *The name and brand of the NewCo is not expected to be announced until closing of the transaction. The company will be headquartered in Exton, PA.*

f. **How did you determine the NewCo CEO and executive team?** *The decision of leadership of the NewCo was decided mutually by both leadership teams and both parties' Boards of Directors.*

g. **How will the new board of directors be constituted after close and why?** *The new board of directors will include four current directors from each of the BioCryst and Idera*

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boards. The Chairman of the Board will be Robert Ingram, Chairman of the BioCryst board. A ninth independent board member will be mutually selected.

h. **How did you determine the valuations for the merger?** *Both companies worked closely with their financial and legal advisors to evaluate relative valuations of the two companies. Additional detail will be available in the proxy statement, when filed with the SEC.*

i. **Did/will you obtain a fairness opinion related to the transaction?** *Fairness Opinions were provided to each party.*

j. **What are the expected steps and timeline of the merger process?** *Both parties must obtain shareholder approval. The transaction is also subject to regulatory approval. We currently expect the transaction to close in the second quarter of 2018.*

k. **Will a shareholder vote be required by either/both companies?** *Shareholders of each company will be asked to approve the transaction.*

l. **Do you anticipate any regulatory concern surrounding the transaction**? *We don't see any areas of competitive overlap that would cause regulatory concern regarding this merger.*

m. **Do you anticipate any shareholder opposition to the transactions?** *We believe this transaction is in the best interest of BioCryst and Idera shareholders. We believe this transaction represents an opportunity to build a stronger company that will expedite both sides' abilities to be successful.*

n. **Are the Baker Brothers supportive of the transaction?** *The Baker Brothers have signed voting agreements in support of the transaction.*

2) NewCo Financial/Logistics Related

a. Can you estimate the opex synergies from the merger? How much will be from G&A and how long will it take to reach full synergies? *We expect to have operational synergies in the NewCo, including reduction in headquarters and rationalization of operational*

expenses.

b. Can you estimate the cash runway for the NewCo? *We anticipate that the combined company will have enhanced financial flexibility.*

c. **Has there been any thought given to facilities and what the physical aspects of the NewCo will look like following integration?** *Yes, we ultimately expect that the corporate headquarters will be in Exton, PA and research will be conducted at the BioCryst Research Center in Birmingham, AL.*

d. **What does the integration schedule look like and what are the top areas of potential operating cost savings that will be realized by NewCo once the companies are fully merged?** *We have a full action plan and will plan to share more of that publicly after this is shared with our respective employee bases. Ultimately, however both companies are committed to focusing on execution on our current business plans. There are synergies that will be realized in both the short and long term.*

e. **Will you be reducing, maintaining or increasing the overall R&D spend of the NewCo compared to the combined Idera and BioCryst R&D levels?** *The R&D spend in the Newco is likely to be a little higher as we move forward as we now have two programs moving into Phase 3 programs which are naturally more costly than earlier stage clinical*

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programs. This increase in R&D spending due to moving these programs into Phase 3 would have been no different for either company as a stand-alone.

3) Strategic Fit / NewCo Strategy

a. **How will this merger benefit patients?** *We believe that by bringing together the talents and skills from each of these organizations we are better positioned for success by filling the gaps that exist in each of our companies. This union creates a more complete company that is well positioned to execute across the spectrum of pharmaceutical research through successful commercialization. The transaction also creates risk diversification for shareholders as we will have significantly more opportunities for success.*

b. When you look at the NewCo pipeline, do you think you will seek additional business development opportunities or are you focused on executing on the existing programs? *We plan to be active in business development as we are focused on continuing to build upon — our core business to be a successful rare disease company for the long term.*

c. You have positioned the combination as a "rare disease-focused" company. Will you seek to partner or otherwise change the strategy around programs that do not fit into that category? *We are excited about the combined opportunities that this transaction presents. While we will continue to be open to business development opportunities, there are no immediate plans to change strategy around any of the programs.*

d. **Looking at the pipeline of NewCo, it seems that there will need to be some prioritization — especially in some of the early stage programs — is that correct and has there been any thought given to how priority will be assigned and what programs may be put on the shelf?** *We feel confident we can successfully move all of these pipeline programs forward.*

e. **Assuming the transaction closes in April, what are some of the key milestones we should be tracking over the next 12 months for the NewCo?** *We'll be initiating Phase 3 programs in both our lead candidates for HAE and metastatic melanoma, completing Phase 2 trials in Acute HAE and Dermatomyositis and advancing earlier stage research programs forward.*

f. **Do you have any updated data from the expanded Phase 2 study of IMO-2125/Ipilimumab?** *Our next planned update is going to be around the ASCO timeframe as we stated at JP Morgan healthcare conference.*

g. **For the 3GA program, can you provide an update on the target/indication you will focus on initially?** *We announced at the JP Morgan healthcare conference that the gene target we selected is APOC3. We're working on finishing up some of our last pre-clinical work to make a determination if this target is the appropriate one to move forward into clinical development. We expect to be in position to make that determination this quarter.*

h. **What are the most significant potential problems you see with integrating these organizations?** *We believe that there is tremendous strategic rationale and that both companies share similar cultures. We have an aligned vision of advancing treatments for rare diseases.*

i. **Can you provide some more detail on the commercial experience in the NewCo and how that relates to your most advanced programs?** *The commercial team that is*

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coming together has significant experience in the HAE market. Several of the team successfully launched Cinryze, which was the first prophylactic product for HAE and continues to this day to be the leading product in the marketplace. We also have a team member who spent significant time at CSL Behring advancing Berinert. Our team understands what it takes to be successful in this market and importantly understands the patient population and their needs.

j. If we fast forward 5 years, what would you say would be a successful outcome for the NewCo? *We would consider NewCo successful with products on the market that most importantly have a significant impact in the lives of patients who suffer from rare diseases.*

k. **What are some of the rare disease categories where you envision the combination of your two R&D engines can deliver improved product candidates?** *We'll be in a much better position to share those types of information further down the line.*

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

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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

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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.