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

Combining Capabilities to Serve More Patients with Rare Diseases

bio cryst + idera

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.

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.

Combination Creates Substantial Value

- ✓ A **unique player in rare diseases** with scale
- ✓ Diversified **late-stage pipeline**
- ✓ Synergistic potential with best-in-class people, facilities and **commercial know-how in rare diseases**
- ✓ Experienced **development capabilities** across organization
- ✓ Active and potentially complementary **discovery engines**
- ✓ Financial **strength**

Robust Pipeline

- 2 Phase 3 orphan-designated programs with compelling data
- 2 additional Phase 2 rare disease programs
- 9 total rare disease programs
- 5 supporting asset programs

Complementary Leadership

- Proven commercial team; launched 1st prophylactic HAE product
- Extensive clinical development experience

Synergistic Discovery Engines

- Significant experience with 2 distinct engines
- Expands number of rare disease targets

Financial Strength

- ~$243 million net cash balance*
- Opportunities to add cash through partnering and other programs

* Unaudited pro-forma cash balance as of December 31, 2017

Combination Highlights

Terms	• Stock for stock transaction • Each share of BioCryst to be converted into 0.50 shares of new company stock • Each share of Idera to be converted into 0.20 shares of new company stock
Ownership at Closing	• BioCryst stockholders to own 51.6% of new company; Idera stockholders to own 48.4%
Cash Position	• ~$243 million net cash balance* • Opportunities for non-dilutive capital
Board of Directors	• New board comprised of 4 BioCryst directors, 4 Idera directors, and 1 new independent director • Robert Ingram, Chairman of the Board of Directors (current BioCryst Chairman) • Jon Stonehouse, CEO of BioCryst, to join Board • Vincent Milano, CEO of Idera, to join Board
CEO, Headquarters, and Research Center	• Vincent Milano, Chief Executive Officer • Headquarters: Exton, PA • Research Center: Birmingham, AL
Closing Conditions	• Subject to approval of BioCryst and Idera stockholders • Subject to other customary closing conditions and expiration of HSR waiting period
Voting Agreement	• 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 ~9% of Idera shares outstanding and ~14% of BioCryst shares outstanding.
Transaction Close	• Expected in second quarter 2018

* Unaudited pro-forma cash balance as of December 31, 2017

Diversified Rare-Disease Focused Pipeline

	Lead optimization	Pre-clinical	Ph 1	Ph 2	Ph 3	Filed	Approved
STRATEGY: Discover and develop novel therapies for life-threatening, rare diseases							
BCX7353 – HAE Prophylaxis (Capsule)				Orphan-Designation			
IMO-2125 – PD-1 Refractory Melanoma in combination with ipilimumab				Orphan-Designation			
IMO-8400 – Dermatomyositis							
BCX7353 – HAE Acute (Liquid)							
IMO-2125 – Solid Tumor Monotherapy							
Second generation kallikrein inhibitors (HAE & Other Indications)							
IDRA-008 – Liver Target							
BCX9250 _ BCX9499 Fibrodysplasia Ossificans Progressiva (FOP)							
Other rare diseases							
SUPPORTING ASSETS: Externally funded, potential for significant capital infusions							
RAPIVAB® (peramivir injection)	licensed to Seqirus, Shionogi and Green Cross						
IMO-9200 – Autoimmune Disease	licensed to Vivelix						
Galidesivir (broad spectrum antiviral) I.M.							
3GA Candidate – Renal Target	licensed to GSK						

Robust Portfolio of Late-Stage Programs

BCX7353 Prophylactic HAE	**IMO-2125** PD-1 Refractory Melanoma in Combination with ipilimumab	**BCX7353** Acute HAE	**IMO-8400** Dermatomyositis
• Oral (capsule) Kallikrein Inhibitor for Hereditary Angioedema • One pill, once a day – fulfilling patient needs • HAE market expected to exceed $2B in global sales • Robust quality of life data	• Intratumoral TLR9 Agonist for Rare Cancer Indication – Refractory Melanoma • Peak year sales estimate > $500 million • Long-term expansion into I/O addressable and unaddressable tumors	• Oral (liquid) Kallikrein Inhibitor for Hereditary Angioedema • Complementary acute therapy to create an HAE portfolio • Global acute markets and breakthrough attack therapy	• Subcutaneous TLR 7,8,9 therapy for dermatomyositis • Severely debilitating disease affecting skin and muscle in ~25K patients in the U.S.
Phase 3 Initiating Q1 2018 **(orphan designations)**		**Phase 2 Data in 2018**	

For detailed information on all development programs, view each company's most recent investor presentation on their IR websites

Proven Rare Disease Commercial Track Record

- 1st prophylactic treatment of hereditary angioedema (HAE)
- Grew to ~$400M in N.A. annual sales in 5 years from launch

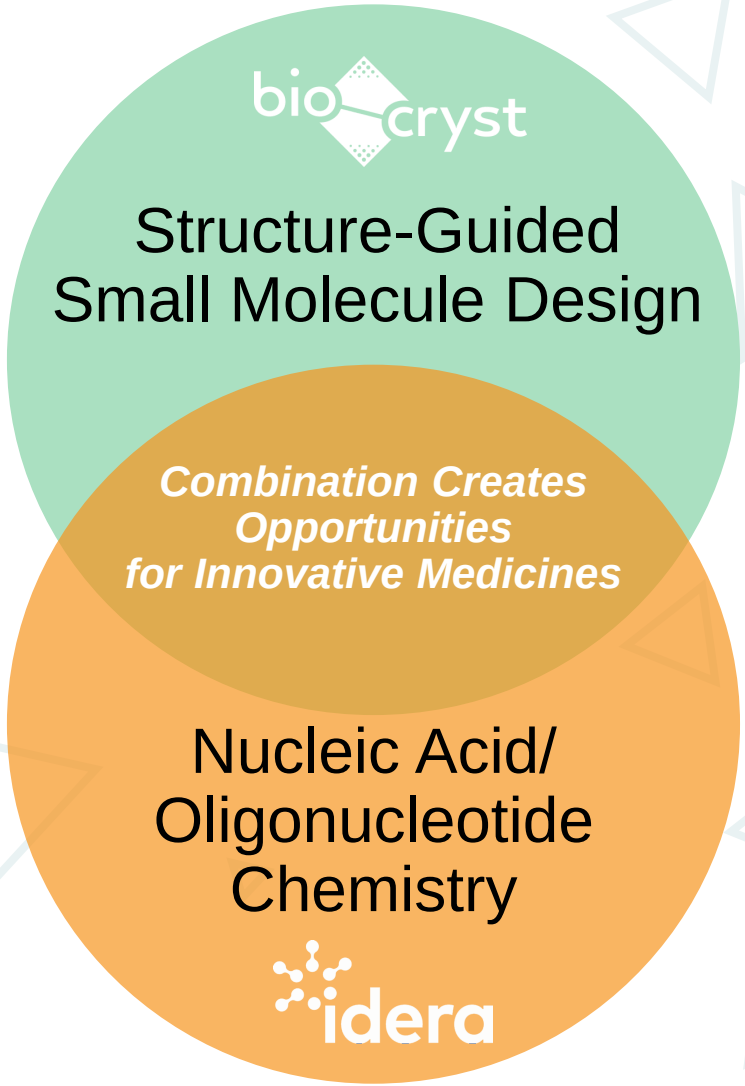
- Multiple global and U.S. rare disease product launches
- Led launches for 5 global brands that drive @70% of CSL's current revenue
- Grew U.S. Hizentra and Privigen sales to >$1B

- Treatment of C. difficile-associated diarrhea (CDAD)
- Grew to ~$300M in annual sales prior to generic competition

Vincent Milano	**Dan Soland**	**Lynne Powell**	**Clayton Fletcher**
Chief Executive Officer	Chief Operating Officer	Chief Commercial Officer	VP, Strategy/ Bus. Development

Synergistic Discovery Engines

- Extensive experience in both discovery approaches within one organization
- Combining technologies expands ability beyond stand-alone
- Combination therapy of small molecule and oligo may create more effective and potent treatments for rare diseases



Solid Capital Position & Meaningful Operational Synergies

- ~$243 million net cash balance*
  - Capital for continued clinical development beyond next milestone events
  - Commercial launch planning and preparation
  - Additional $20+ million (non-dilutive) procurement contract anticipated in 2018
  - Opportunities to generate non-dilutive capital through non-strategic assets/indications
- Headquarters consolidation to Exton, PA; research center consolidated to Birmingham, AL
- Expense consolidation over time expected to create cost savings and benefits

* Unaudited pro-forma cash balance as of December 31, 2017

2018: Significant Near-Term Catalysts

Q1 ▸ **BCX 7353**
Initiate **APEX-2 Ph 3** Pivotal Trial in HAE prophylaxis

Q1 ▸ **IMO-2125**
Initiate **ILLUMINATE 301 Ph 3** Pivotal Trial in PD-1 Refractory Metastatic Melanoma in combination with ipilimumab

Q2 ▸ **IMO-8400**
Data available from **PIONEER Phase 2** Trial in Dermatomyositis

Q4 ▸ **IMO-2125**
Complete enrollment in **ILLUMINATE 204 Phase 2** Trial in PD-1 Refractory Metastatic Melanoma

- **BCX 7353**
  Data from **ZENITH-1 Phase 2** Study in Acute HAE
- **IMO-2125**
  Ongoing data updates from **ILLUMINATE 204 Phase 2** Trial in PD-1 Refractory Metastatic Melanoma in combination with ipilimumab
  - Next planned update ASCO 2018
- Potential **additional business development activities**

Combining Capabilities to Serve More Patients with Rare Diseases

Extraordinary drug discovery, development and commercialization so patients can have a better quality of life

BioCryst + idera

Combination Creates Substantial Value

- ✓ A **unique player in rare diseases** with scale
- ✓ Diversified **late-stage pipeline**
- ✓ Synergistic potential with best-in-class people, facilities and **commercial know-how in rare diseases**
- ✓ Experienced **development capabilities** across organization
- ✓ Active and potentially complementary **discovery engines**
- ✓ Financial **strength**