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Brian Abrahams: I'm Brian Abrahams, one of the senior biotechnology analysts here at RBC Capital Markets. Thanks everyone for joining us. Our next presenting companies are BioCryst Pharmaceuticals and Idera Pharmaceuticals, who as many of you know have proposed to merge and I really appreciate the CEO of BioCryst, Jon Stonehouse, and the President and CEO of Idera, Vincent Milano, being here to talk about their companies and the potential combined company.

Jon Stonehouse: Thanks for having us.

Vincent Milano: Thanks for having us. It's great to be here.

Brian Abrahams: Thanks for coming. So maybe I guess a first question for both of you. Can you tell us about the rationale for the merger? Obviously, from a personnel and expertise area, there's clear overlap between your companies? Maybe talk about that a little bit but also how do you see each company's respective suite of pipeline assets fitting together going forward with respect to I guess both overlap and then the catalyst path that the combined company would then have?

Vincent Milano: So Jon, you should go first, but before we do that, I should say that we're about to be making some very forward looking statements and I highly encourage you to read SEC filings to identify specific risks, and now I know our general counsels are very happy with us and now, we can have this conversation.

Brian Abrahams: Glad we got that out of the way.

Jon Stonehouse: So let me start with answering your question. So I've had a long held theory that two small companies, if they had the right fit combined could do way more together than on their own And in my 11 years of being at BioCryst, I think I got very disappointed with implementation of that theory because a couple things got in the way. Either the companies that were really interested or really wounded in some way, had some clinical catastrophe that made them in a position where they felt they had to do something. Or if it was a company that had something really attractive, typically the CEO of that company thought it was the best thing since sliced bread and had no interest in combining and had big ego and valuations that were astronomical.

So I didn't give up on it and over time, I met with a number of different companies but got to know Vin back in his days at ViroPharma and at his time at Idera. And the thing that I think all of us at BioCryst found really attractive with this is the two companies have discovery engines that have honed their craft over three decades each. On the Idera side, it's oligonucleotide chemistry. On the BioCryst side, it's structure based drug design.

And the two companies have a great passion for bringing forward highly innovative therapies for patients with rare disease. Not incremental improvements but things that dramatically change a patient's life. And so that combination allowed us, in the combination of the two companies, to expand the universe of diseases we could go after with these two complementary discovery engines.

On top of that, the companies have two late stage assets and I think one misbranding of Idera is this idea that they're an immune-oncology company. They're a rare disease company that happens to have an immuno-oncology asset and a very attractive one. And one of the reasons we like that, it may not fall into the basket of rare disease per se, but one of the things we liked about it is the dataset that they've accumulated from both the melanoma trial, the mechanism of action translational research, micro tumor environment, biopsy data, and the visceral injection data, and the monotherapy data, that dataset gives us a real high degree of confidence that they have an attractive immune stimulator, something that can make cold tumors hot.

And we believe that the big players, the players that should play in the immuno-oncology space, big pharma, big biotech want that in their toolbox. And so we see that as an opportunity to bring in capital into the new company that can then be invested in assets for rare disease. So that's really the basis of our interest on (inaudible) the other side.

Vincent Milano: Thanks, Jon. Going back to one of the things that I learned from my days at ViroPharma was that when you have a strong balance sheet, you have the opportunity to find value and create value. And when you don't have a strong balance sheet, you live on the edge. And I think both BioCryst and Idera have been living on the edge for a very, very long time. And the combination of just focusing in only on the lead assets to start, which is where I think a lot of attention is being paid, they are complementary to each other in the sense that 7353 is likely going to be on the market first and I think we believe as a general rule that an HAE asset, or a rare disease asset, has a chance to generate cash flow, positive cash flow in a relatively shorter period of time.

And so you think about that as a funding source for building the business. And then as Jon described the Idera story, when I arrived here three years ago, we had a number of different things that we were looking at in development and research, and 2125 has really risen to the top even though it's not a rare disease product. It is the asset that we have that's making the most profound difference on patients first, which is the most important thing. But also the one in which we have incredibly compelling data.

But there's a reality that we approached in 2017 and that is that a small company trying to compete both from a clinical standpoint and a commercial standpoint in an immuno-oncology field is a very daunting task both from a financial and human capital standpoint.

So strategically, we want to be a rare disease company and we started to think about M&A and business development opportunities to move us more towards the direction of being a true rare disease company and how could we use 2125 both melanoma — it's something that's an orphan indication so it's not as far afield as some might think. But certainly beyond melanoma, it's not even remotely an orphan in drug.

So we're encouraged by the interest we have from strategic partners and as we generate more data and one of the other benefits of our combination is that it gives us more flexibility, we believe, to allow for more data to mature, which then hopefully creates better opportunities for us as we think about partnering.

And ultimately, what we want to do with this capital, going back to being self-sustainable, that learning from at least my ViroPharma history was you then have a chance to make some really good investments and bets, whether it be on the internal research side — and we have some exciting things in the pipeline and ideas that our research teams are already starting to collaborate and think about together. But it also opens up opportunities to think about business development as another way to build a bigger and more patient served rare disease focused company.

Brian Abrahams: Very good. Maybe diving into some of the individual programs. On the HAE space overall, as we think about 7353, what is your latest research and FDA feedback and maybe literature reports as well sort of indicate on the potential place that an oral could play in this treatment paradigm?

And to what extent is your goal to grow the market with 7353 versus potentially just foster switches from patients on the C1 esterase inhibitors and other prophylactic drugs?

Jon Stonehouse: So let me start with the research that we've done and you can talk about how you see the market evolving. So we conducted some pretty extensive market research with 178 U.S. physicians that treat HAE patients and 101 HAE patients. And the number one thing that they say in our — what are they looking for in therapies going forward is convenience. And an oral pops up on top consistently.

If you look at the FDA meeting that they had with HAE patients last fall, same thing. They asked them what's most important in upcoming therapies and the number one was convenience. Number two was reimbursement. And so the expectation now with therapies is they'll all work, they'll all be generally safe and well tolerated, and so they want a normal life. And taking one pill once a day or one capsule once a day is like taking your daily vitamin. I've had patients say to me that's a cure, like a functional cure in their minds.

Because what they don't want to think about is their disease and every time they inject themselves, it's a reminder that they have HAE. So that's a big deal and I think that gives us a real opportunity to get more patients on prophylaxis and to get patients to switch that ultimately really wanted to get off an injectable and onto an oral.

Brian Abrahams: Maybe just specifically for Vin, as many of you know, Vin's been an innovator in the prophylactic market, really the innovator having developed this market from the ground up. And just curious what this market looks like today and how you see a drug like 7354 potentially fitting in. Are there differences between creating a market as you had in the past versus either growing a market or switching and trying to take market share?

Vincent Milano: So I think I'll answer your last question first, Brian. There's definitely differences and it would be a mistake to think the Cinryze playbook just gets taken out, dusted off, and applied. I think there are parts of ViroPharma approach that are very consistent with the BioCryst philosophy and it starts again with the patient. But it is amazing, ten years ago we launched Cinryze and I remember being at one of the very first patient meetings and there were maybe 100 people there, and they were just starting to get exposed to Cinryze. And for them, it was life altering that there was finally something that they could take besides anabolic steroids.

And these were two IV infusions and I recall very well July 15th of 2008 when we announced that we were buying Lev and our stock went from $12.50 to $9.50 because literally in 10 minutes and everybody said, there's no way everybody is going to stick themselves two times a week. That's crazy. And I think it is crazy until you actually get to know these patients and what their lives are like.

So now, we fast-forward it where we're a decade forward. We've seen improvement in administration, subQ versions of C1 esterase inhibitor. So that's an improvement over the IV infusion for some. We are expecting — we have the subQ farming product. We expect that the Dyax compound is going to be another — so they're all injections and they're all moving towards improving administration. This is a practical question. Maybe it's a rhetorical question. Is there a more convenient route of administration than one capsule once a day. It just seems intuitive, right?

And I remember back in 2013, being at these investor conferences and everybody wanted to know who we were more afraid of, Dyax or BioCryst. And I said, well, we shouldn't be afraid of any of them because they're a long way away and here we are in 2018 and neither one of them have made it yet.

But we're in 2018 looking forward and I think this should be the last solution that patients need — an oral once a day. As long as the Phase III data holds up from a safety standpoint, this should be the last solution. And will it be the market leader? That's not the prediction that either of us have made but I can assure you we'll work hard to get our fair share of patients.

But I think there are differences. So going back to the growth versus switch comment, I think the market can grow and I think the point Jon made is an important one and it is patients, even patients who have acute therapies still live with the fear of the attack. And so is there a round of administration that changes their mind from being an acute therapy only patient to someone who actually would prefer to prevent their attacks.

And that's a reasonable growth opportunity, right. I think if I remember the market research data well, roughly a third of the patients are still technically categorized as acute patients. So that's a whole other — that's like 2,000 more patients, right, of the diagnosed patient population. So I think there's opportunities for growth as well as opportunities for patients to make the choice between the injection approaches that are available and to be available and an oral once a day.

Brian Abrahams: Can you remind us of the Phase 3 APeX-2 design and timelines? How does the proposed merger affect the timelines if at all for that study and maybe just remind us of some of the differences between APeX-1 and APeX-2. We get asked about this a lot, things like baseline attack rate and the different dosing — dose ranges that you're looking at — how all that might impact enrollment and what you might show as an outcome.

Jon Stonehouse: So let me start with that question about how the merger effects the timelines. It won't. So we both made a commitment that our two lead programs should not be impacted at all. And so keeping the teams intact, keeping the trains running on time is critical and it's a big part of the focus of both of us. We're both getting out and talking to a lot of investors. But the other part of our job is to make sure that the trains are running on time.

So dosing first patient this quarter for both APeX-2, the pivotal study, and APeX-S, the long-term safety study, we're on track and we'll give you an update next week, a bit more information next week in our earnings call. That means that we need to be done with enrollment toward the tail end of this year and then readout data in the first half of next year for APeX-2. And then file APeX-2 and APeX-S in the second half of next year.

And then you're also running the Zenith study looking at a liquid formulation if 7353. Can you remind us the status of that study? I know timelines are often contingent on events, which are hard to predict. But when should we be looking for that readout at this point and how is that study going?

Jon Stonehouse: Let me go back to your other question first, though, on what changes are there between APeX-1 and APeX-2. So I learned pretty early on in my career that the key to replicating your Phase 2 results and Phase 3 is to make as few changes as possible.

Vincent Milano: I'm sure you learned that the hard way, too, Jon, as we all do.

Jon Stonehouse: So the big differences, as you might suspect, are we've increased the sample size by cohort, roughly double. It was 14 in the Phase 2. It's 32 in the Phase 3. We've increased the duration of treatment and by the way, that shouldn't make a difference because when we went from 7 to 14 we got the exact same results so we're not too worried about that.

We're enlarging the duration of treatment. That makes sense, right. We had safety coverage and tox coverage before we completed our chronic tox to do a four-week study. So that's what APeX-1 is. APeX-2 is 24 weeks with a 24-week safety extension, open enrollment safety extension. And so there's no reason to believe that by treating patients for a longer period of time that you'd see any difference. There's no tachyphylaxis . Patients that have this disease are incredibly compliant, both normally and in clinical trials so there's no worries on that front.

And one other question you asked was the difference in the attack rate, baseline attack rate. We're loosening up the criteria so instead of two attacks per month, one attack per month, that's fine to do and shouldn't change the result because what you want to see in the placebo arm is attacks and in that 24-week study with one attack per month, you should have ample opportunity to see attacks.

If you did that in a four-week study, you might get a lot of placebo patients that didn't have attacks. And so we don't see — so those are the big changes. We're studying the 150-milligram dose. Some investors say, oh, you're studying a dose that you didn't study in Phase 2. Well, guess what, we studied two doses higher than that in th Phase 2 and there's really good rationale based on this threshold disease that the 150 milligram can get us better efficacy and we'll see what it does in terms of the safety profile and tolerability profile compared to the higher doses.

So on Zenith, that enrollment is going really well. We'll give a more in depth update next week in our earnings call but I'm really impressed by the pick up lately in terms of excitement in that study and enrollment. The hard part is you and I've talked a bunch, Brian, as it's not a fixed dosing period. It's following patients with — for three attacks, to treat three attacks. And on average, it takes about four months for a patient to have three attacks to get treated but in some cases, it's a lot longer.

And so just making sure that the patients that it's one thing to get them randomized. It's another thing to follow them through the three attacks. So we will report out data on that study this year, in particular in the high dose cohort, the first one, 750 milligrams. But I can't give you a whole lot more detail. We'll give you some enrollment updates next week.

Brian Abrahams: And then Vin, maybe shifting gears to the 2125 program, can you maybe walk us through the cadence of catalysts that we'll see in terms of data updates from that program. What do you think is the key data that could potentially enable a value inflection and could speak to where this might fit in for a potential out licensing opportunities? And what might you look to show to demonstrate differentiation from a few of the other intratumoral immunostimulatory injections that are now in mid-stage development?

Vincent Milano: Happy to answer those, Brian, except for the production on when the stock market reacts to it. So the next catalyst, maybe just as a backdrop, is the foundation that we're building off of is we're currently in a Phase 2 study, Illuminate 204, where it's open label, combination of IMO 2125 and TLR9 agonist with ipilimumab in PD-1 refractory metastatic melanoma patients. And just to level set the bar of what those patients currently live with, the standard of care for the refractory patients is ipilimumab alone, which has a 13%, 1-3 percent response rate of dubious durability.

So that's the bar we're aiming to pass. We've treated so far and provided data on ten patients. Five of those ten patients have responded, including one complete response that's been out almost two years. Before the JPMorgan Conference, we provided our update for 2018 and we've enrolled another 11 patients. So now, we have a total of 21 patients enrolled. And the next inflection point is to provide an update on those 21 patients, which will include an overall objective response rate plus an update on the durability for the patients who have responded previously. And that's going to be in the ASCO timeframe.

We anticipate that in the Phase 2 study, we're going to enroll about 60 patients. We expect that we'll finish that in 2018, have the complete totality of the 60 patients in the middle of next year. In addition, we're starting this quarter, to Jon's point, the trains are on time at Idera as well for the Phase 3 study, which is a 300 patient study across 80 centers, Europe, U.S., Australia, Canada and it's head to head, one-to-one randomization of ipi plus 2125 compared to ipi alone.

And the primary endpoints in the Phase 3 study, it's the vernacular used by FDA today is family of endpoints and that the primary endpoints are ORR and overall survival. And the concept would be to submit if the data support on an expedited basis on ORR and look for confirmation in OS.

With regards to the what's the amount of data that requires interest from a partner, the data that we've generated so far has generated a lot of interest. And we'll continue to generate data and continue to have the dialogue. I think the one thing that's different that we share with investors, we've shared with investors both as Idera alone as well as at CIDSI (ph) by Dr. Cara Haymaker from MD Anderson who's the immunologist and PhD on our trial the translational data. And that's a piece that the big pharma companies and big biotech companies truly value more than investors do because it really has the story whole together. It's the hypothesis of injecting in one tumor and have the abscopal effect through the concept of the mechanism of action. You have the preclinical data in different combinations with different checkpoint inhibitors show the same thing.

We have clinical responses. That's not enough to get everybody all worked up yet. The translational data further bolsters that story. Wall Street is paying attention but not as much as the strategics are. With regard to how we may stack up against the other (inaudible), there's one meaningful difference that I would point out as you think about the opportunity more broadly than just melanoma. And that is when we started this journey with MD Anderson, it was in the days when IMLYGIC was literally just in the FDA review process. It was the first intratumoral, not a lot of experience.

And so we started with melanoma because it was a superficial lesion, which is where the oncolytic virus products really are limited to. If you ask an interventional radiologist, they're interested in injecting in a deep visceral lesion with a oncolytic virus. You know the answer. And two, we followed obviously the check plan of inhibitors approval. So ipi was approved in melanoma so we started with melanoma.

What we found is that we can actually in these very sick patients, we may not find a superficial lesion but we can inject into deep visceral lesions and on our website you can see an actual picture of a needle going into a deep pelvic region to find a lesion. And importantly, in the monotherapy study that we've done, we've treated patients who have very advanced other diseases, other cancers than melanoma, including pancreatic cancer patients. And in the first cohort in that study, Illuminate 101, two pancreatic cancer patients are still being treated and have progressed or improved to stable disease.

And so these patients are being — deep liver lesions are being injected as the means to treat them, and again, seeing the abscopal effect in terms of tumor regression. So very positive and powerful information. Those are the datasets that get the strategic parties interested. Too hard to predict when either Wall Street will give us value or —

Brian Abrahams: I guess I was more interested in strategics. That's great. I think we're out of time but Jon, Vin, thank you guys so much.

Jon Stonehouse: Appreciate it. Thanks everyone.

Additional Information and Where to Find It

In connection with the proposed merger, Idera and BioCryst plan to file with the U.S. Securities and Exchange Commission (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

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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.
