

Foundation Fighting Blindness
***Insights Forum* Transcript**
February 16, 2023

Amanda Bement, Chapter Engagement Assistant:

Good morning everyone, my name is Amanda Bement and I am part of the chapter engagement team here at the Foundation Fighting Blindness. We appreciate you joining us for today's Insights Forum. Before we get started, I would like to briefly review a few details for today's call. Currently, all participant lines are muted and without video. If you are using a screen reader, please be aware that the controls are at the bottom of the Zoom interface. This control bar may collapse when it is not in use. If you prefer to prevent the controls from auto hiding, you can use the following keyboard shortcuts to toggle the always show meeting controls options. If you are using Windows commands, press the alt key and if you are using a Mac keyboard, press command and backslash at the same time.

Today's conference is being recorded and is available with closed captioning. To activate the closed captioning, please select show captions at the bottom of the Zoom interface. Please note that on today's call our speakers do have their video live, however, all of their comments will be provided verbally and there are no slides. Throughout this call, you may ask questions through the Q&A and chat features or by sending an email to info@fightingblindness.org. We will address questions towards the end of the call during the Q&A session. I would now like to turn the call over to our chief executive officer, Jason Menzo.

Jason Menzo, Chief Executive Officer:

Thank you so much Amanda, and good morning everyone. Thank you for joining us today. I'm very pleased to welcome you to our quarterly Insights Forum webcast. Today we will highlight a number of strategic initiatives here at the Foundation Fighting Blindness, along with updates on the research and development progress within our broader community.

For today's agenda, we're going to be leading off with a special feature, Dr. Amy Laster, who is our Senior Vice President of Science Strategy and Awards will provide a high level summary of the takeaways from our recently conducted Research Impact Study, which measured the long-term impact of the Foundation's funding on moving the inherited retinal disease field towards treatments and cures. Following Amy's remarks, Chris Adams, our Vice President of Marketing & Communications, will provide an update on our recent marketing initiatives and ways that we are engaging stakeholders across the community. And then Peter Ginsberg, who is the Foundation's chief operating officer, will highlight recent notable corporate sponsorship announcements along with a summary of our Fiscal Year 2023 financial performance year to date through the end of December.

And then I will return to wrap up our formal comments with a brief state of the Foundation commentary as we kick off the new calendar year. And then of course, as we do every time, we will open up the call to your questions. And already before the call even started, we've got a dozen or so questions that you all have already sent in and we're excited to get to those towards the end of the call.

When we get to that part of the call, we'll be pleased to have several other Foundation colleagues join us, including Dr. Claire Gelfman, who is our Chief Scientific Officer, Dr. Rusty Kelley, who's the Managing Director of the RD Fund and Dr. Todd Durham, who is our Senior Vice President of Clinical and Outcomes Research. Now let's kick off the call with Dr. Amy Laster, who has been with the Foundation for nearly 15 years. During that time she has made a tremendous impact on helping to build our expansive scientific portfolio of research funding for scientists and clinicians dedicated to finding treatments and cures for inherited retinal diseases and dry AMD. Dr. Amy Laster earned her PhD in neuroscience from Purdue University and she completed her post-doctoral fellowship at the Johns Hopkins University School of Medicine. I'm very pleased to turn the call over now to Dr. Amy Laster.

Dr. Amy Laster, Senior Vice President of Science Strategy and Awards:

Thank you, Jason. The production of the Impact Study that I'll talk about today was a multi-month initiative. We worked with an outside life sciences research firm, ClearView Healthcare Partners, to support the process. Together we produced a detailed analysis measuring the impact of the Foundation's funding and resources on the clinical understanding and the development of novel therapies for inherited retinal diseases. To help frame the breadth of impact that our funding has had on the broader IRD space, we generated a database linking Foundation grants awarded since 2005 to external milestones such as publications and progress towards clinical trial. The project team at ClearView also conducted a number of in-depth interviews with our grantees to gain insights from their perspective. And ClearView's overall assessment identified areas of impact that fell into three distinct categories that were directly related to our funding, including retaining and developing future leaders, de-risking clinical development for IRDs, and finally, advancing novel therapies.

I'd like to share with you today some of the key takeaways from the final analysis. Our assessment on retaining and developing future leaders really stem from two measures. Since 2005, the Foundation has awarded 440 grants for retinal disease research to 227 individuals, resulting in more than 12,000 peer reviewed published research articles. And 89% of our recipients that have received a career development award from the Foundation have continued working in the retinal disease field.

Next, the impact on de-risking clinical development for IRDs was linked to six conclusions. First, the Foundation has played a major role in the development of 88% of treatments in clinical trials for the leading retinal diseases, retinitis pigmentosa, Stargardt's disease, achromatopsia, Leber congenital amaurosis and Usher syndrome. And Foundation led natural history studies have helped to identify additional measures used to determine the success of clinical trials, including one that led to the first FDA approved gene therapy for the eye or any inherited disease, LUXTURNA.

Further, Foundation sponsored research and clinical studies were instrumental in identifying key measures used to inform clinical trial design. And also, since 2005, projects funded by the Foundation have helped to identify 40% of the genes that

cause blinding diseases. Specifically projects funded by the Foundation have identified mutations in 111 of the 280 known genes, which were mutated results in an IRD. And more than 10% of the people with blinded diseases in the United States are registered in the Foundation's My Retina Tracker Registry, the largest retinal disease patient database connecting people to relevant clinical trials and natural history studies. Our registry now has more than 24,000 participants and more than a quarter of the current IRD clinical trials, of those five leading IRD indications I mentioned, are leveraging our Registry to assist in recruitment.

We also found that providing free genetic testing has increased the number and diversity of people with a blinding disease who know their genetic mutation. For example, at one medical center testing increased from 51% of IRD patients in the year prior to 80% in the year after the no-cost free genetic testing program was implemented.

Finally, the Foundation's impact on advancing novel therapies is noted by three points. Foundation funding projects have developed 38% of the large non-rodent animal models to help better understand the cause of blinding retinal diseases. Additionally, the Foundation's \$15 million investment in the University of Pennsylvania's large animal model translational and Research center has generated over 20 canine IRD models. And three assets that are currently being tested in clinical trials derive their proof of concept validation in these models.

Later stage funding through the Foundation's Translational Research Acceleration program has resulted in 14 research programs to date acquired by companies for further development for the clinic.

And the third point under this area, the advancement of mutation agnostic approaches like optogenetics as a treatment option for late stage retinal disease has been guided by investments of the Foundation and the RD Fund through workshops, research grants, as well as RD Fund investments.

Based on these key impact areas, the report concludes with several recommendations for how the Foundation can maximize its future impact on advancing treatments and preventions for retinal diseases. As the Foundation seeks to maximize the efficiency of our future funding, the most impactful efforts

to take are first, balancing innovative preclinical and translational funding programs. Second, capitalizing on the Foundation's extensive clinical and research network. And third, expanding the My Retina Tracker Registry.

Before I turn the program over to Chris, I'd like to briefly mention a notable upcoming science related event, the Foundation, in partnership with the Nixon Visions Foundation and The Shiley Eye Institute at the University of California, San Diego, will host a free in-person PRPH2 and Associated Retinal Diseases Workshop March 29th through 31st in San Diego. And this workshop is designed to bring together leading experts from academia and industry to discuss what is known about PRPH2 disease pathology, disease models, clinical characteristics and therapeutic approaches. In addition, affected individuals and their families will attend to share their experiences with PRPH2 disease. More information on this workshop can be found on our website. With that, I will now turn the call over to our Vice President of Marketing and Communications, Mr. Chris Adams.

Chris Adams, Vice President, Marketing & Communications:

Thank you Amy, and good morning everyone. We have many initiatives in progress focused on increasing outreach, support and engagement within our community and beyond. On today's call I will highlight several of these initiatives and upcoming events for you today.

February is Age-Related Macular Degeneration, also known as AMD, and Low Vision Awareness Month. And to honor the month, our speakers today are using a custom background for the call. The background features a green glow on the left corner and a light blue glow at the top right. Also included is a navy banner across the top with the text, "February AMD / Low Vision Awareness Month."

Throughout the month, the Foundation is raising awareness for AMD and low vision, which affects millions of Americans annually. Across our social media pages, we have been sharing weekly tools and tips for those living with or affected by AMD and/or low vision, including a few giveaway promotions. Be sure to follow us on Facebook, Twitter, LinkedIn, Instagram and TikTok to stay informed on the latest news and activities from the foundation. And don't forget

like or share the Foundation posts on your own social media channels to help spread the word throughout the month.

On a local level, our chapter team has been busy bringing our Vision Seminars back to in-person events. Recently we held two half-day seminars in Phoenix and Tampa, in which Dr. Claire Gelfman, our Chief Scientific Officer, kicked off a panel discussion with speakers from across the landscape of retinal health to discuss the latest information on age-related macular degeneration. The next two Vision Seminars will cover the latest information around inherited retinal diseases and will be held in Houston this Saturday, February 18th, and in Boston on May 6th. For more information about these two seminars, visit the Foundation website at www.fightingblindness.org/visionseminars.

Another way to engage with the Foundation is through our signature VisionWalks. This program is an important part of the Foundation's fundraising and awareness building efforts within our communities. Since the program began, we have had over 200,000 walkers, donors and corporate partners participate in these fun family friendly events. Just this fall, we held 13 walks in communities across the country raising over \$1.6 million. This Spring VisionWalk season kicks off in Phoenix on Saturday, February 25th. There will be more than 20 VisionWalk events this spring, so to learn more or to find a walk near you, visit www.visionwalk.org.

Now, if you don't have a walk in your area, don't worry. For those of you who are on Facebook, we are currently promoting a 28-mile walk/run Facebook fundraising challenge throughout the month of February. To date, over 1,200 participants have raised over \$34,000. If you'd like to join the Facebook challenge, we will post the related link in the chat section of today's Forum, or you can send an email to marketing@fightingblindness.org and we will send you the link directly.

The Foundation Fighting Blindness will also host many special events throughout this year. These events are important for fundraising, networking, and recognizing the significant contributions of our volunteers and supporters. For example, our annual gala, Night for Sight, will take place on Thursday, May 11th, at the Lighthouse at Chelsea Piers in Manhattan. Night for Sight will celebrate beacons

of our fashion, finance and food industries. This year we are proud to present our prestigious Visionary Award to Doug Zarkin, Vice President and Chief Marketing Officer of Pearle Vision, and Avi Kaner, co-owner of Morton Williams Supermarkets. Their visionary leadership in their industries and the support of the Foundation's vision saving efforts, make them fitting Visionary Award honorees.

And to wrap up, as part of the Foundation's Raising our Sights do-it-yourself fundraising program, we have launched the brand new Vision Warriors endurance program in partnership with Tough Mudder. This is an adventure course that incorporates obstacles and activities that challenge not only you, but also your team. There's a course for all levels of fitness, so if you're on the fence, don't worry, this event is for you. You can participate in all the courses, some, or none, and just walk along with your friends. Now is your time to secure your spot on our team for this one of a kind adventure challenge. Our first event starts this Sunday in Phoenix, followed by Los Angeles in April, and Philadelphia in May. To learn more, go to www.fightingblindness.org/visionwarriors. And as always, for the latest research, news and updates or how you can get involved with the Foundation on a national or local level, visit the Foundation's website at www.fightingblindness.org. And now I'm pleased to turn the program over to Peter Ginsberg, our Chief Operating Officer.

Peter Ginsberg, Chief Operating Officer:

Thanks Chris. I'd like to begin the financials discussion by recognizing our corporate sponsors that provide critical funding for our important initiatives. We actively connect with leading and emerging companies in our field and beyond to help fund the Foundation's programs. Along these lines, I'd like to highlight two outreach sponsors, Apellis and Iveric Bio, since, as Chris noted, February is AMD and Low Vision Awareness month, and both companies are awaiting regulatory decisions regarding their dry AMD therapeutic candidates. This is especially important because there are currently no approved dry AMD treatments.

I'll start with Apellis. Apellis is focused on medicines to address serious and debilitating diseases by controlling the complement cascade, which is part of the body's immune system. Apellis has submitted applications with the FDA and the

European Medicines Agency for approval of its targeted C3 therapy designed to regulate excessive activation of the complement cascade in geographic atrophy secondary to AMD. Apellis expects to receive a decision from the FDA by February 26th of this year. So just later this month.

Iveric Bio is a biopharma company focused on the discovery and development of novel treatments for retinal diseases with significant unmet medical needs. This past December, Iveric completed its New Drug Application, or NDA, submission to the FDA for its novel investigational complement C5 inhibitor for the treatment of geographic atrophy secondary to AMD. An FDA decision is expected this year as well for Iveric. These two drug candidates have an opportunity to be the first drugs available for the treatment of dry AMD.

We also have tremendous corporate support for various industry events that the Foundation hosts throughout the year. There were eight corporate sponsors for our annual Investing in Cure summit, which the Foundation and RD Fund hosted just last weekend. These eight sponsors were Vedere Bio, Janssen, Iveric, Atsena, Apellis, Outlook Therapeutics, Nacuity, and MeiraGTx. And this event featured presentations by the world's leading industry, clinical and retinal science innovators.

In addition, we currently have 12 corporate sponsors supporting our upcoming Retinal Cell and Gene Therapy Innovation Summit, and those are 4DMT, Apellis, Janssen, Vedere Bio, Adverum, Atsena, InFocus, MeiraGTx, Nanoscope, SparingVision, Lexitas and Nacuity. This event will be co-hosted by the Foundation and the Casey Eye Institute of Oregon Health and Science University on April 21, just prior to the annual meeting of the Association for Research in Vision and Ophthalmology or ARVO. At our Summit, representatives from biotech and pharma industries will come together with members of the physician and scientific communities to discuss rapidly emerging ocular gene and cell therapies and strategize how to move the most advanced retinal disease therapy options forward. We are tremendously grateful for all of our corporate sponsors that provide critical support to the Foundation and our research and outreach programs.

Next, I'll provide a financial update. The Foundation, as you know, operates on a fiscal year that runs from July to June, so we've now just passed halfway through our Fiscal Year 2023. For the first six months of Fiscal 2023 through December 31st, our unrestricted fundraising revenue was \$11.0 million against operating expenses of \$8.1 million for a net fundraising surplus of \$2.9 million. That places us on track for our Fiscal 2023 budget in which we're targeting \$13.0 million in net fundraising surplus to support new research funding. And as always, you can find details on our historical financials, including our 2022 audited financials and 990 filing on our website homepage in the About Us section under Financial Reporting. Also, in the About Us section, under Annual Reports, you'll find our 2022 Annual Report, which was recently published.

Regarding that Annual Report, I'd like to especially call your attention to the infographic entitled "Where Does The Money Go?". That's on page 25 of the Annual Report. The purpose of this page is to illustrate how our funding is allocated and some key metrics from our balance sheet, which include the fact that 80% of your donated dollars go directly to research funding and public health education, with the remainder covering our infrastructure and staffing costs. The Better Business Bureau Wise Giving Alliance recommends that this ratio be at least 65%, so we are well above that level.

These investments are supported by our solid balance sheet, which I'll provide some detail on. At the end of our Fiscal Year 2022, so on June 30th of last year, we had \$150 million in total cash and investments. And when you subtract out the funds that had already been committed to multi-year research projects and investments and our operating reserve, we had approximately \$34 million of uncommitted funds going into this current fiscal year. I will also say that last year, in Fiscal 2022, we spent \$27 million on research and \$3 million on public health education, so deploying \$30 million toward mission related activities. So we are spending quite aggressively against that solid balance sheet that I referred to.

That track record in funding more research every year comes from the dedicated work of our staff and volunteers, combined with the generous support of our donors, sponsors, and foundation partners, which we appreciate so much. I will now turn the call over to our CEO, Jason Menzo.

Jason Menzo, Chief Executive Officer:

All right, thank you so much Peter, and again, thank you to everyone for joining us on this call today. I'm always encouraged and excited when I see so many members of our community joining us on these calls. At this moment, we've got about 400 people participating here live, and we know after we post this replay on the website, within the next couple weeks, there'll be thousands more. So thank you to everyone for carving out time today to be part of this call.

As we start this new calendar year, it really is amazing to think about where we are as an organization and where we are as a community. I wanted to share a couple statistics with you. Did you know that at this very moment we're currently funding over 100 different investigators at 70 different institutions all across the globe from Australia to Brazil, Belgium, France, Israel, Italy, Mexico, the Netherlands, Poland, Switzerland, and of course here in the United States. And in the last 12 months alone, we've had over 30,000 donors join us to support our mission, which is a significant increase over just the last 12 months alone. Even despite the global challenges with the economy, we are seeing donations come from all over the world as well. And on calls like what we're having here today, we've got participants from all over the world, and I'm always encouraged in the chat on our Insights Forum's when folks say, "Hi, logging in from Brazil." "Hi, logging in from Pakistan." "Hi, logging in from Switzerland."

It just reminds us the opportunity that we have to really drive this mission forward as the undisputed global leader in this space. Advancing emerging treatments into and through clinical trials is the strongest focus for us here at the Foundation Fighting Blindness and our partners in the retinal disease space. There are currently more than 40 clinical stage programs underway in the five leading inherited retinal disease indications. And as Amy shared earlier in this call, the Foundation Fighting Blindness has had a significant role in 88% of those 40 plus clinical trials.

One of the most innovative ways in which we accelerate research into the clinic is through our Retinal Degeneration Fund, or the RD Fund, which we talk a lot about on these calls. I want to remind everyone, the Fund is aimed at rapidly driving the research through investments in cutting edge companies focused on inherited

retinal diseases and dry age-related macular degeneration. These investments further the research and generate even more funds based on returns that are poured right back into our mission. The RD Fund leverages our investments to bring in additional outside capital to help fund these companies at a rate of five to one. What that means is that for every dollar that we invest from the RD Fund, on average, five additional dollars come in to support the field from outside investors. That's huge.

Just last month, the RD Fund announced a new equity investment in a company called Perceive Biotherapeutics. Perceive is a biotechnology company developing novel treatments leading with a gene therapy candidate for dry age-related macular degeneration, including the advanced form called geographic atrophy. The company's emerging gene therapy, which relates to risk alleles for dry AMD and geographic atrophy, targets regulation of the complement system, which is a part of the innate immune system that is overactive when an individual has dry AMD. The treatment will be delivered via a one-time intravitreal injection and is designed to work for many years. Perceive Bio is also developing novel therapies in neuroprotection with applications in glaucoma and retinitis pigmentosa. And as an organization, we're super excited to be supporting the progress of this pioneering company through this investment via the RD Fund.

I'd also today like to briefly highlight several other updates from three other RD Fund portfolio companies. The first is Opus Genetics, and as you may recall from prior calls, Opus Genetics is developing AAV-based gene therapies for IRDs. Its lead program is specific to the LCA5 gene and Opus received authorization from the FDA to launch a Phase 1/2 clinical trial for LCA5, which it plans to start early this year. In addition, Opus recently acquired the rights from another biotech company in our space called Iveric Bio for two additional emerging ocular gene therapy programs. The first targets autosomal dominant retinitis pigmentosa caused by mutations in the rhodopsin gene and the second program targets Best disease, a form of macular degeneration caused by mutations in the BEST1 gene. Opus plans to seek authorization from the FDA to launch clinical trials for BEST1 in the second half of 2023.

The second company I want to talk about is SparingVision. SparingVision is a French company developing therapies for ocular conditions including inherited retinal diseases and has received authorization from the FDA to launch a Phase 1/2 clinical trial known as PRODYGY for their compound SPVN06. This is a mutation independent cone preserving therapy for people with retinitis pigmentosa. We always get questions, and we have a few in the Q&A today, about what we call gene agnostic therapies, and this is a prime example of that. SparingVision plans to enroll a total of 33 RP patients who have disease causing mutations in the PDE6A, PDE6B, or rhodopsin genes. This US trial will take place at the University of Pittsburgh Medical Center.

The third company I want to talk a little bit about today is Nacuity Pharmaceuticals. Nacuity is a clinical stage biopharmaceutical company developing treatments for retinitis pigmentosa, cataracts, and other ocular diseases caused by oxidative stress. Nacuity's orally delivered drug, NPI-001, is currently being evaluated in a Phase 1/2 clinical trial known as the SLO-RP study, in patients with retinitis pigmentosa associated with Usher syndrome.

These are just three of the promising developments to report from the clinical trial front lines. And in fact, as we pass the halfway mark of our fiscal year, there have been 12, yes, 12 announcements in recent months related to clinical advancements being made by therapy developers. So that means that in the next couple of months, there'll be even more new clinical trials to add to the clinical trial pipeline that you can find on our website.

As we wrap up today's call, the formal remarks, we'll move to the Q&A in just a few minutes, but I do want to reiterate one of the stats that Amy mentioned from our Impact Study. As you recall, during the life of the 16 years covered by the Impact Study, the Foundation invested in 440 different research and clinical studies to more than 220 investigators all over the world. The return on investment here was more than 12,000 peer reviewed publications to share knowledge, discoveries and opportunities in the retinal disease field so that the folks who are doing the research can learn from one another and accelerate the progress that we're all anxiously awaiting towards our mission. In addition, we've had numerous researchers and clinicians involved as advisors and participants in

many, many of our programs. And in this way, we have a long-lasting impact truly throughout the global IRD research community.

Today, I'd like to remember one of the research pioneers for retinal diseases and one of the Foundation's original Scientific Advisory Board members, Dr. Sam Jacobson, who recently passed away. Dr. Jacobson was the recipient of the Foundation's Board of Directors and National Trustee Awards for his innumerable research, advancements and achievements, contributions to the field. He was highly respected for his seminal discoveries and breakthroughs, his teaching and his mentorship, being involved in natural history studies and clinical development of numerous retinal disease treatments. Dr. Jacobson was also beloved by patients and families for his outstanding clinical care and the many, many hours that he took to help them understand their conditions, their prognosis and research underway that might help them.

One of our Board directors a week ago shared with me that in his mind, Dr. Jacobson was the hardest working person he'd ever met, and his decades of unparalleled passion and dedication to research truly were instrumental in moving our field forward in advancing treatments into and through the clinic.

We're so fortunate to have leaders like Sam who have created a lasting impact and legacy for the Foundation. Our team is working tirelessly to build on the momentum driven by our research community, the medical professionals, the corporate partners, the investors, the donors, and all of the other nonprofits and industry organizations that together make this ecosystem that we're all working together to advance our mission. We really do appreciate the dedication and engagement of all of you on this call today.

And I'm just going to close by saying, together as a team, collectively, we truly are winning the fight and we can't tell you how much we appreciate your engagement and participation in this journey with us. We always welcome your feedback and suggestions related to this webcast, related to the Foundation in general or any other feedback you might have for us. You can reach us any time by emailing us at info@fightingblindness.org. And as always, you can learn more about all that we do at our website, www.fightingblindness.org.

It's time now to open the call and take your questions and comments. I'm going to ask that as you do today, if you chat in a question or if you email a question in, if you could also include the city, the state or the country that you're communicating with us from, we want to make sure that we have appropriate staff to follow up with everyone who reaches out with us today. So including that information will allow us to assign follow up to the appropriate staff. But with that, I'm going to turn things over to Amanda to please reiterate the instructions for asking questions.

Amanda Bement, Chapter Engagement Assistant:

Thanks Jason. As mentioned, there are several methods for asking questions. You can access the Q&A or chat features located at the bottom of the Zoom control bar, and you can type in your questions there or you may submit your questions via email to info@fightingblindness.org. If there are any questions that we're not able to get to on today's call due to time constraints, we will follow up with you directly via email over the next week or two. So like Jason said, please include your location.

Jason Menzo, Chief Executive Officer:

All right, thank you so much Amanda. And I'm going to invite my colleagues, Dr. Gelfman, Dr. Kelley, Dr. Durham, everyone, to come back into the room here and we'll start with the Q&A. We do have a dozen or so already in and more popping in as the minutes go by, so we'll try to get to as many as we can today. The nice thing is we've got a good amount of time, we've got 24 minutes for Q&A, which is terrific.

Todd Durham, I'm going to direct the first question to you. It was a question that was emailed earlier in the week about the number of known genes that are known to be pathogenic in causing various forms of RP and how that relates to perhaps those that are not yet identified and those that are yet to be determined or yet to be found. Can you speak to that, and maybe at the same time talk a little bit about the Registry? We always get a lot of questions about the Registry.

Dr. Todd Durham, Senior Vice President of Clinical and Outcomes Research

Thanks for the question. This is Todd Durham. So the latest documentation of the report that we have is a bit dated now, but there haven't been meaningful updates on the number of genes that when they're mutated cause retinitis pigmentosa or conditions that look like retinitis pigmentosa. And that last part, what looks like retinitis pigmentosa, is one source of confusion. You have a clinical diagnosis called retinitis pigmentosa, but you have other conditions like Usher syndrome that are syndromic in nature and have the retinal features of retinitis pigmentosa, and other conditions like Bardet-Biedl syndrome, and an early-onset disease like leber congenital amaurosis. So when you consider all of those conditions taken together, things that look like retinitis pigmentosa, the report now from Steve Daiger and his team is that there are more than 100 genes that when mutated cause those conditions overall.

In general, the commercial genetic testing panels that are available to us today will detect a causative gene in about two thirds of the time. That is frustrating in the case when your causative gene has not been identified, and there is active research to try to find additional genes that cause retinitis pigmentosa and other inherited retinal disease. I think it's fair to say that the pace of discovery of genes has slowed down since earlier in the '90s and such where it was so rapidly accruing our known causative genes, but the research does continue. There are other genetic mutations like large deletions or rearrangements of the code that are not easily detected by the commercial panels. So you could very well have a retinitis pigmentosa case that's just not picked up by the available technology today.

And the last thing I'll mention, as Jason requested, is My Retina Tracker Registry program offers no cost genetic testing and counseling. If your testing was done more than three years ago, you may be a candidate for this program again. The panels do change over time, they don't change so rapidly, but if it's been more than three years, it may be time for an update and we would encourage you to consult your ophthalmologist or genetic counselor to see if it's time to look at that again.

Jason Menzo, Chief Executive Officer:

Very good. Thank you so much, Todd. I'm going to go to a question that was emailed in, but I'm going to actually add to it. Jill Stone in San Diego asked specifically about the Nacuity trial. Some of you might recall that Nacuity initiated a clinical trial originally in Australia and then now they're adding the anticipated clinical trial here in the United States. Rusty, I'm going to come to you. Rusty is our Managing Director of the RD Fund and Nacuity is a RD Fund portfolio company. Rusty keeps his finger on the pulse of everything that's happening in the clinical world. Rusty, perhaps you can talk a little bit about the RP clinical trial landscape as a whole, which was the original question, and then maybe specifically add a little bit of color about the Australia trial for Nacuity.

Dr. Rusty Kelley, Managing Director, RD Fund:

Thank you, Jason. This is Rusty Kelley. In terms of progress on RP treatments, there's great progress at every level for developing treatments. This of course starts, as many of you know, with research programs including in academia, many of which are funded by the Foundation as indicated earlier. Preclinical development that occurs, and this is preclinical not clinical, preclinical development that occurs in industry using models of RP, many of which the RD Fund portfolio companies are addressing. And then with approximately 20 ongoing clinical trials that are being tested for RP indications including RP-like conditions, Usher syndromes and Leber Congenital Amaurosis, or LCA. The clinical trials span genetic approaches for specific indications, gene agnostic approaches including optogenetics, cell therapies and neuroprotection would be the classic small molecules or pharmaceutical approaches.

And please refer to the clinical trial pipeline tracker on the Foundation's webpage, that many of you know Ben Shaberman maintains. And stay tuned for updates to this tracker as we are aware of several new clinical trials that will soon be initiated that are not listed.

In terms of your first question, Jason, Nacuity. Yes, so Nacuity is in Australia with a Phase 2 trial that's investigating the safety and efficacy of NACA in acetylcysteine amide. This is an antioxidant that's related to the glutathione pathway. They are starting in RP as it relates to all Usher syndromes, and that trial so far has shown very positive safety signals, so no safety issues. The efficacy portion of that trial

will take longer to read out, but the company has recently announced, including at the Investing in Cure Summit, that they've been able to leverage that safety data in the U.S. to open its IND for a future pivotal trial. So great progress in the RP community.

Jason Menzo, Chief Executive Officer:

Great, thank you so much Rusty. And thanks Jill for the question and everyone who's asking questions, there's a lot to try to keep up with, which is great. This next question I'm going to direct to you Dr. Gelfman, our Chief Scientific Officer. A couple questions I'm going to package into one. A number of questions about gene agnostic therapy as a whole and then specific questions about a particular type of gene agnostic therapy, which is called replacement therapy. And there's a number of different flavors in which that question is being asked, but specifically there are a couple folks who've asked about jCyte in particular. So maybe Claire, you can speak about gene agnostic therapies as a whole, cell therapies a little bit more specifically and then what we know publicly about where jCyte is in their pursuit of a treatment for inherited retinal diseases.

Dr. Claire Gelfman, Chief Scientific Officer:

Thanks so much, Jason. Again, this is Claire Gelfman. We heard a little bit of the story on the agnostic approach from Rusty. We don't always know our causative gene and in those cases, we always encourage people to get genetic testing. If we don't know our causative gene, or even if we do, it's important that we also learn about other therapies that are in development that are not necessarily dependent upon knowing your mutation.

So one of the things that's very encouraging is that there are these mutation agnostic approaches that don't rely on necessarily knowing your causative gene. And one of those is optogenetics, as we've heard all about, and another falls into the category of cell-based therapies. The cell-based therapies are very encouraging, and jCyte is one of those. JCyte allows for the delivery of cells that are secreting factors that photoreceptors need to function properly. I know that jCyte has completed their Phase 2 trial. Those results were announced last year and they're currently enrolling for their Phase 3 trial. They have not announced

anything about pivotal trials yet. So the Jcyte approach is a cell based therapy where the cells that are delivered make proteins, known as neurotrophic factors, that are needed for photoreceptors to function properly.

Jason Menzo, Chief Executive Officer:

Okay, thank you Claire. So those of you who have been with the Foundation since our very first Insights Forum, which let's see here, today's Insights Forum, we have, like I said earlier, about 400 attendees. The first Insights Forum had a good number but a fraction of that. And at the time those of us who've been here from the first Insights Forum will remember that that call as well was joined by our furry friend. And so that's a reminder, Claire. It was kind of funny. That first call now, we're talking three, four years ago, maybe even longer than that, we had a similar vocal participant on the call. So no sweat. Of course, we'll follow up with the individuals who are asking the question of that one in particular, and we'll make sure the transcript is clear so everyone can hear exactly what Claire was sharing with regards to gene agnostic cell therapy and jCyte in particular.

Rusty, we were talking a little bit ago before this call, do you have anything else you want to add about what's publicly known where jCyte is in terms of their pursuit of a treatment?

Dr. Rusty Kelley, Managing Director, RD Fund:

I don't have much to add other than jCyte is aiming to advance its Phase 2b trial into a pivotal and as far as we can go off of their recent press releases, they've engaged a leading manufacturer as a contract manufacturing organization to produce clinical grade product for that pivotal trial. So things appear to be progressing, but we do not know the details.

Jason Menzo, Chief Executive Officer:

Okay, all right. One thing I will remind our many constituents on this call and those who are engaged within this community is that there are companies that are pursuing clinical trials or treatments that are advancing into the clinic, and in some cases there's information that is known publicly and in other cases there's

information that's confidential, and so what we can share is that which is publicly available. We don't always have information that is private and being held by the company. And so we share what we can and what is available publicly. But jCyte's a great example of that where we're all waiting with optimism to see what is the next step as they pursue a pivotal trial, and we'll hopefully know more as the year goes on.

Let's shift now. Amy, Dr. Laster, we have had a number of questions specifically about the KIZ gene, one that was actually chatted in here during the call and another that came in advance. We also have another number of folks asking about CRB1 specifically, and I'm wondering if you could speak to those specific genes and any other highlights in novel advancements in gene specific therapy. Claire talked about gene agnostic, maybe you could share just some highlights on gene specific.

Dr. Amy Laster, Senior Vice President of Science Strategy and Awards:

I'll start with KIZ. KIZ is short for Kizuna, a mutation that was discovered by some of our research in one of our multi-investigator collaborative research centers in Paris. And it's an autosomal recessive disorder. While we understand what the gene mutation is and that it causes a form of RP, there are research groups that are wanting to understand more about KIZ specific IRDs and they're working to develop some research models to do just that. That oftentimes is a gap in understanding diseases. You may identify the gene, but you need to understand what's actually happening in the cells, what's going wrong. And once you understand that it's like a pathway to begin to think about how to treat it therapeutically. There are investigators, in Paris as well as Israel, that are looking again to develop some animal models and organoids, that they might better understand what's happening in KIZ specific disease to move towards treatments and therapies.

I will also now shift to another gene specific disease CRB1. CRB1 is a disease that we do have focus on and we have researchers that are looking at it. I bring that up because similar to having a disease model that recapitulates disease, that's really important, and so we've been working with investigators at the University of Louisville to explore the potential of developing a CRB1 animal model, again to

better understand disease so you can think about therapeutic strategies and how best to treat the disease. We know that there are companies in the space that are also considering how to therapeutically treat CRB1, and so we're keeping our eyes on that. Last fall, we hosted a national webinar on CRB1 and we'll continue to do that. So please reach out to the Foundation if you're not getting our information and check our website because we do host community information.

And then lastly, I'll just talk about cone rod dystrophy. That has long been, coming from our scientific advisory board, a focus for the Foundation to understand cone rod dystrophies to develop therapies for that. We do have research projects around that. Some of it, again, going back to animal models, it's developing animal models in order to address cone rod dystrophy and understand it, but also there are some therapeutic approaches, some which include using optogenetics to reanimate cones that may have gone dormant or quiet. Those studies are underway. And I'll stop there, Jason.

Jason Menzo, Chief Executive Officer:

All right, thank you so much Amy. A number of questions, I'm going to come to one in just a few minutes. Todd, I want to ask you a little bit in a minute about our panel, MRTR, and there's other questions about the clinical utility of MRTR to helping to inform clinical trials. We'll come to that in a second. Before we move off of gene specific, or particularly segments of the IRD landscape, I do want to talk a little bit about Best disease. In my update, I shared that Opus Genetics publicly announced that they've recently licensed the rights to gene therapy for Best disease from Iveric Bio. A question for you, Rusty, is perhaps, what's the latest in their pursuit and what can you share that's publicly available about the potential for a clinical trial in the future for Best disease?

Dr. Rusty Kelley, Managing Director, RD Fund:

Jason, as you indicated earlier, there's lots of information that's publicly available and of course there's confidential information. The information that we can share is quite simple, but very important, and that is to echo your message earlier, that Opus Genetics has partnered and/or licensed, transferred, in fact these very important programs that the Foundation had funded early on from Iveric Bio. I

think it's safe to say that the data that has been generated in the BEST1 canine models out of Penn in their vet center is terrific data. And Opus is pursuing two forms of BEST1 disease, both autosomal recessive and autosomal dominant forms of this retinal dystrophy. And I think it's also safe to say that this program is close to being IND ready and it will soon near a first in human clinical trial.

Jason Menzo, Chief Executive Officer:

Very good. All right, thank you Rusty. Todd, I'm going to direct the next question to you. Two different questions, but they both kind of fall in your wheelhouse. One is related to how does MRTR help to accelerate clinical trial recruitment and what is the role that MRTR can play in the clinical trial world? And then full stop, a second question that came from one of our participants just a few minutes ago was the panel, so the Blueprint panel that we use for MRTR's free genetic testing program. How does that compare to perhaps other panels or other tests that are available in the marketplace? If there's anything that you can share. One individual had just a question about a specific institution and comparing, I don't want to get to that level of detail, but just generally the quality and why we choose to use the Blueprint panel.

Dr. Todd Durham, Senior Vice President of Clinical and Outcomes Research

I will take that second one first. My Retina Tracker Registry program, we utilize a very large panel through our partner Blueprint Genetics. Currently, that panel includes 351 genes. Blueprint provides technical information about the detection rates for their panel and technical information that genetic experts could interpret better than I can. There are a lot of details behind the technology for how you do that testing, what the chemistry is all about and how well it works in a clinical situation. Our experience is that Blueprint has been a great partner for this program and that they also provide excellent clinical reporting in the clinical utility. Your ophthalmologist would receive very nice reports from the Blueprint Genetics counselors. We've been very pleased with our partner at Blueprint. I can't speak really directly to how it compares to other commercial gene panels, there are a lot of details about that, but there are a couple in the marketplace that are quite common.

And on the first question about My Retina Tracker Registry and how we help assist with the clinical trial recruitment, I just wanted to say generally speaking, not every clinical trial will ask us to help with their recruitment strategies. We often will help in larger trials where they're looking for specific kinds of participants. And every clinical trial will have eligibility requirements that need to be taken into account when recruiting. This is just a reminder that many centers, especially in Phase 1, or many studies may just be conducted at a single center, and the sponsor of the company who's conducting that study may not need a whole lot of assistance because in many cases potentially good candidates for that trial might have been identified well in advance. That conversation is best had with your ophthalmologist if they're participating as an investigator in that clinical trial.

But just as a reminder, when we assist with clinical trial recruitment through My Retina Tracker Registry, that's always up to the participant in our registry to take that next step. All we do is introduce them to a research opportunity when our partner has asked us to do so.

Jason Menzo, Chief Executive Officer:

Thank you so much, Todd. We've got about three minutes left, so we're going to try to do rapid fire guys. So just real brief answers to these last 2-3 questions. I've been informed by Claire that we're green light on coming back to you. Claire, two questions for you just in short order. Number one, a question about optogenetics, at a very high level, what are optogenetics? It falls obviously under the gene agnostic approach you spoke of earlier. And then number two, a number of questions about nutraceuticals, vitamin E, cannabis, zinc, vitamin A, so a word or two about nutrition and other non-pharmaceutical impact on IRDs.

Dr. Claire Gelfman, Chief Scientific Officer:

Yeah, thanks Jason, and thanks everyone for your patience. My dog wanted to get involved in this wonderful webinar. With respect to optogenetics, when we think about how photoreceptors work, light is coming in through our pupil, and our photoreceptors trap that light, send a message to our brain. If, we don't have a functional photoreceptor, then we're unable to see the image in front of us.

Optogenetics is simply giving that light sensing capability to a different part of the eye that's NOT degenerating, therefore bypassing the photoreceptor. And that therapeutic approach is in human clinical trials now for several different companies. In fact, there was just an announcement yesterday by a company known as GenSight regarding safety in an optogenetics trial that's currently in process, and there are several other companies as well. So stay tuned for lots more on optogenetics as a gene agnostic therapy to treat retinitis pigmentosa, specifically for late stage photoreceptor degeneration.

With respect to different types of nutraceuticals, vitamin cocktails, there were a couple questions about, for example, vitamin E and zinc. And certainly, it's always good to have a diet full of antioxidants. There have been reports that taking them as a supplement could help delay progression of one's vision loss. There are vitamins that your doctor will give you. The AREDS2 cocktail of antioxidants is typically suggested by one's physician; however, it's extremely important always to speak to your physician, no matter what you read about, what you learn about, your friends tell you about. Yes, there's a lot of information to read, but at the end of the day, I'm not a medical doctor, but what I would tell my family member is to make sure you've always discussed with your physician, with your retinal specialist, before taking anything that you read about, whether it be an antioxidant or a cannabis-based product or anything else you hear about.

Jason Menzo, Chief Executive Officer:

Thank you so much, Claire. And really to wrap things up today, I'm going to direct the last question to Peter Ginsberg, Chief Operating Officer for the foundation. We're on the cusp. So today, February 16th, 2023, there's one approved treatment for a condition in our space and that's LUXTURNA, which we're thrilled and we've talked a lot about LUXTURNA and the impact that it's had on our mission for many years. But we're on the cusp with two additional potential treatments being evaluated by the FDA. And Peter, maybe you can talk a little bit about both the Apellis program and the Iveric program that are both close to market.

Peter Ginsberg, Chief Operating Officer:

Jason, I'm happy to. This is Peter Ginsburg, and I think we have to paint the landscape first, which is that there are no therapies approved for dry AMD right now, as you implied, Jason. And Foundation Fighting Blindness wants to change that. We have been investing in research in academia and at companies for years now so that we can change that. And we are fortunate that the dry AMD pipeline is extremely active. There are a number of late stage programs in development for dry AMD, and we as a Foundation and the whole dry AMD community are hopeful that we will be changing that and there will be therapies approved soon.

Likely the first two FDA decisions will be regarding therapeutics from Apellis and Iveric as Jason noted. And Apellis will have an FDA decision we expect by February 26th. That's the FDA review date. We should hear by February 26th whether the Apellis complement inhibitor is approved for the treatment of geographic atrophy secondary to dry AMD. And then Iveric does not yet have a specific FDA review date for its therapeutic, but they do have fast track and breakthrough therapy designations, so it should be a fairly rapid review following the completion of its NDA submission last December. We do expect FDA decisions on both of these therapeutics this year, and we hope that these decisions lead to a change in the landscape for dry AMD patients and that there will be a therapeutic approved. I do have to say though that not all FDA decisions go in a positive way, and we're hopeful that one or both of these therapeutics are approved, but I want to make sure that we balance our optimism with caution and we hope we get positive decisions this year.

Jason Menzo, Chief Executive Officer:

Thank you so much, Peter, and thank you everyone. I'm going to turn the call over to Chris Adams to wrap things up for today.

Chris Adams, Vice President, Marketing & Communications:

Thanks, Jason. From all of us at the Foundation Fighting Blindness, we would like to thank everyone for participating in today's call. As a reminder, there will be a transcript and audio recording of today's call on our website within the next week. Our website, fightingblindness.org, our Facebook, Twitter, LinkedIn, Instagram and TikTok accounts are all great resources for learning about the

latest developments in the retinal disease space. If there is any other information you need or have any questions, please reach out to us by sending an email to info@fightingblindness.org. Thank you and have a great day.