Foundation Fighting Blindness
***Insights Forum* Transcript**
January 27, 2022

Chris Adams, VP, Marketing & Communications:

Good afternoon and welcome to the Foundation Fighting Blindness Quarterly Insights Forum. I'm Chris Adams, the Vice President of Marketing and Communications at the Foundation. And we appreciate you joining us for today's call.

Before we get started, I would like to briefly review a few details for the call. Currently, all participant lines are in listen only mode with no video. Today's conference is being recorded and is also available in closed captioning. To activate the closed captioning, please select the live transcript option located at the bottom of the Zoom interface, then select show subtitles.

Please note that on today's call our speakers do have their videos live, however, all their comments will be provided verbally, and there are no slides. 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, go to settings within the Zoom platform, select accessibility, and then select always show Meeting Controls. It might be helpful to maximize your window and navigate by using the tab key. Additional buttons and settings are available by pressing the Alt key.

During the call you may ask questions through the Q&A and Chat features, or by sending an email to info@fightingblindness.org. Again, that is info@fightingblindness.org. We will address questions toward the end of the call during the Q&A session, at which time additional instructions for asking questions will be provided. I would like to turn the call now over to Jason Menzo.

Jason Menzo, President and Chief Operating Officer:

Awesome. Well, thank you so much, Chris, and good afternoon everyone. Thank you for joining us today. My name is Jason Menzo and I'm the President and Chief Operating Officer here at the Foundation Fighting Blindness.

I'd like to welcome everyone to our Quarterly Insights Forum webcast. We've been hosting these sessions for just over three years now, and I'm thrilled with the amount of engagement that we have generated within the community as a result. We're super excited to use this forum to provide updates on strategic initiatives here at the Foundation Fighting Blindness and also share research and development progress within our broader community.

For today's agenda I will start by sharing some highlights on our fundraising and community engagement activities from the past few months, and then also preview several key events coming up in 2022. I will then hand it over to our Executive Vice President of Corporate Development and Chief Business Officer, Mr. Peter Ginsberg, who will provide a snapshot of our financial performance through November 2021, and also highlight a few recent corporate partnerships. Then our CEO, Dr. Ben Yerxa will provide a strategic update for the Foundation and also for our RD Fund.

Following Ben, we have two very special speakers. First, we are honored to have on our call today, Dr. Jose-Alain Sahel, the Chair and Distinguished Professor of the Department of Ophthalmology at the University of Pittsburgh School of Medicine. Dr. Sahel will be joined by Dr. Todd Durham, who is our Senior Vice President of Clinical and Outcomes Research here at the Foundation. Together they will discuss the importance of conducting natural history studies and also introduce a new study that we're planning to initiate later this year.

And then after our formal remarks we'll have a question and answer period, and at that time Chris will repeat the instructions on how to ask your questions. As Chris had mentioned, this call is being close captioned, and a replay and fully accessible transcript will be available on our website in the weeks ahead. We welcome your feedback and suggestions related to this webcast, or really the Foundation in general, and you can reach us anytime by emailing us at

info@fightingblindness.org. And as always, you can learn more about everything we're going to cover at our website fightingblindness.org.

So I'd like to start today's call with a quick snapshot of some of our fundraising and community engagement efforts from this past year. First off, we were so excited to have brought thousands of members of our community back together in person at our many VisionWalk events that we hosted over the past few months. Our VisionWalk programs are fantastic community events that bring people together, and of course, raise money for our mission. This fall we hosted 15 in-person VisionWalks all over the country plus our National Virtual VisionWalk, and collectively they raised nearly one and a half million towards our mission.

This fall we also celebrated the 50th anniversary for the Foundation and coinciding with our anniversary we launched the Victory for Vision Campaign designed to raise additional revenue for future research. The campaign is chaired by David Brint, Robert Heidenberg, and Marsha Link, and has dozens of volunteer leaders, not only across the country, but literally across the globe. The campaign is off to a great start and I'm pleased to share that we are on track to surpass our goal with more than $43 million committed so far. And the campaign only started just a year ago.

This past year we also launched our new chapter initiative named Lulie's Next Chapter for Light and Vision, which of course, is named after Lulie Gund. This initiative is focused on reinvigorating our national chapter network by engaging new chapter members and eventually growing the number of chapters across the country, expanding our footprint into new markets. And through this program we hosted several of our highly successful Chapter Vision webinars, which are educational programs open to all members of the community free of charge. This past year alone we had tens of thousands of people participate either live or on-demand in the series, which is awesome.

And then finally, I want to highlight two new and innovative ways in which we're getting the message out and reaching out to promote our mission. First is our Eye on the Cure podcast series, which launched this past fall, which is a great way to stay up-to date on the latest news and research from the world of retinal disease.

The Eye on the Cure podcast is hosted by Ben Shaberman, our Senior Director of Scientific Outreach and Community Engagement. And it just so happens to be Ben's birthday today, so happy birthday to you, Ben Shaberman. But the podcasts themselves are available on all major podcast streaming platforms, and I really encourage everyone in the community to check them out.

We also just launched our new public service announcement campaign called Together We're Winning, which is a way for us to advertise the Foundation and our mission at no cost on television, radio, and print media all over the country. And so far, just in the first few months, this PSA campaign has garnered over 38 million impressions, which is well exceeding our expectations so far.

So as you can tell, this past year was tremendously productive in terms of creating engagement with our community, raising additional funds, and also broadening awareness of our mission more broadly. Now that said, the energy level is even higher as we start 2022. In the next few months we will continue our return to in-person VisionWalks with 18 live walks planned across the country this spring.

And we are also hosting our second Hope From Home virtual gala coming up on March 6th. And this event, in particular, is going to be awesome. We just announced that the guest host for this year is going to be world renowned actor, singer, and comedian Wayne Brady, and I encourage everyone to join us on this night, March 6th.

And then planning is also underway for our 2022 Visions Conference, which will be June 17th and 18th at Disney's Coronado Springs Resort in Orlando, Florida. For those who don't know, Visions is a one of a kind event where we bring together our global blind and low vision community to share exciting advancements in research, along with an opportunity to gain practical skills for coping with vision loss, to learn about new products and services, and of course, to connect with others from the community from across the globe. Information about Visions 2022, and really everything that I've shared so far today, can be found at our website fightingblindness.org.

So to wrap up my comments today, I'd like to share a very special story about an inspirational young man from our community. His name is Brendon Cavainolo. And Brendon's story goes like this. Because of a family history with X-linked juvenile retinoschisis, Brendon had a genetic test done when he was only three

months old and was genetically confirmed with the diagnosis of XLRS. And once Brendon was old enough to communicate a doctor confirmed and determined that he was indeed legally blind.

Growing up he pursued many interests, including rocket science and cross country running, just like I'm sure all of us, right? But now at 22 years old Brendon recently graduated with a bachelor's degree in Aerospace Engineering from the University of Central Florida and began a PhD program at UCF last fall. Brendon also recently applied and was awarded the National Science Foundation's Graduate Research Fellowship, which is a very prestigious award won by several Nobel Prize recipients early in their careers.

In addition to his many accomplishments, Brendon and his mom, Lisa Pleasants, have stayed in contact with the research and really connected. And in 2015, Brendon began participating in a natural history study at Casey Eye Institute in Portland, Oregon. The study was funded by the Foundation and aimed to evaluate individuals with XLRS in a clinical setting to gather data on how the condition progressed over time. And the results of the study became really critical to help design related gene therapy clinical trials, one of which is ongoing right now and another one which is in the works.

Brendon and his family and friends have also been really active in the Foundation for many, many years, participating in our Jacksonville Chapter, and also, of course, the annual VisionWalk. I just wanted to take moment and let Brendon know how proud we all are of his accomplishments and how proud we are to have him on our team.

So now I'd like to turn the call over to Peter Ginsberg, our EVP of Corporate Development and Chief Business Officer, for our financial update and sponsorship update, as well. Peter.

Peter Ginsberg, EVP, Corporate Development and Chief Business Officer:

Thank you, Jason. So today I'll provide a summary of our financial position and then also share an update on, as Jason noted, our several recent corporate sponsorships. The Foundation, as you may recall, operates on a fiscal year that runs from July to June. So we're now halfway through our Fiscal Year 2022.

For the first five months of Fiscal 2022 through November 30th, our unrestricted fundraising revenue was $7.6 million against operating expenses of $6.3 million, for a net fundraising surplus of $1.3 million. So that places us slightly ahead of our budgeted fundraising surplus through November and also a bit ahead of last year at this time.

We're in the process of closing our December financials and preliminarily it appears to have been a very encouraging month, especially in terms of donations and corporate sponsorships. And that puts the Foundation on a strong footing as we head in the second half of our fiscal year.

Now, as always, for details on our historical financials, our audited financial statements are available on our website homepage in the About Us section under Financial Reporting. There's a lot more detail there than I can provide here during today's webcast. Also, in the About Us section under Annual Reports you'll find our fully accessible 2021 Annual Report, which features a summary of our financial statements, along with messages from our CEO, our Board Chair, Treasurer, Chief Scientific Officer and RD Fund Chair.

In addition, the report includes quite inspiring stories about members of our community and also a clinical trials pipeline snapshot. And an interesting infographic that provides an overview of the research and drug development process for rare diseases and how our funding translates directly into important research.

As I noted previously, December was a strong month for corporate sponsorships. This corporate support really complements the Foundation's longstanding support from individual donors to play a vital role in funding the Foundation's research and educational activities. I'd like to highlight a few companies that came in as substantial first-time sponsors of our critical My Retina Tracker Registry and genetic testing programs in the quarter ending December 31st. And

as a reminder, the Foundation does provide no cost testing and genetic counseling to inherited retinal disease patients. This is an extremely high value opportunity that we provide to our stakeholders.

One company that became a new sponsor last quarter was 4D Molecular Therapeutics, which is also known as 4DMT, and 4DMT develops targeted gene therapies and recently initiated support of the Foundation as a key sponsor. The company is currently recruiting patients with X-linked retinitis pigmentosa, or XLRP, in a Phase 1 clinical trial testing 4D-125, which is a product candidate designed to deliver a functional copy of the RPGR gene to photoreceptors in the retina. 4DMT is also conducting clinical trials in choroideremia and wet AMD.

Furthermore, we're pleased that two RD Fund portfolio companies, and Ben we'll talk more about the RD Fund in a minute, two of these companies, ProQR Therapeutics and Atsena Therapeutics are now also supporting our My Retina Tracker Registry activities. ProQR, you may know, is developing RNA therapies to treat inherited retinal diseases, including LCA10, USH2A, and RHO mediated retinitis pigmentosa. While Atsena is developing gene therapy products for LCA1, USH1B, and X-linked retinoschisis.

We also recently brought in InFocus Clinical Research, which is a contract research organization, or CRO, to support a range of Foundation programs, including our Registry. InFocus is a leading provider of ophthalmology clinical research and development services with a quite deep network in our field.

Finally, while not a new sponsor, Janssen has continued its strong support of our genetic testing program, and we greatly appreciate Janssen's generous long-term support of many of the Foundation's programs.

In closing, we're grateful for the combined support of donors and sponsors in our community. This funding is really critical in enabling Foundation driven education and research, including the natural history studies that Doctors Sahel and Durham will highlight today.

I would now like to turn the call over to our CEO, Dr. Ben Yerxa, to speak about the work we are doing to accomplish our critical mission, which is to drive the research that leads to preventions, treatments, and cures for retinal diseases. Ben.

Dr. Ben Yerxa, Chief Executive Officer:

Thank you, Peter, and good afternoon everyone. Thank you for joining us on our quarterly update call. As we move beyond our 50-year mark, I want to recognize the long-term engagement and support that has helped our organization persevere. The past year has shown me that our determination is stronger than ever, reflected in our continued ability to raise funds and by the growing number of clinical and preclinical programs in development by industry.

While the COVID-19 pandemic has presented challenges and delays for essentially all areas of biomedical research, clinical development for retinal degenerative disease treatments over the past year still moved forward impressively. Foundation funding continues to play a leading role in advancing the field, especially in moving emerging therapies into and through clinical trials. More than 43 clinical trials are underway for potential treatments for inherited retinal diseases, including dry AMD.

We're seeing exciting progress and new developments across our entire range of research funding. The Foundation funds a diverse portfolio of emerging therapies to address the entire spectrum of inherited retinal diseases and dry AMD for all patients affected, regardless of the mutated gene causing their disease or the severity of their vision loss.

During our fiscal year 2021 we awarded 20 new research grants, totaling investments of more than $13.9 million. This included awarding more than $5 million in our Translational Research Acceleration Program, also known as TRAP. Another $5 million in program project awards, more than $2 million in individual investigator research awards, and $1.5 million in awards in our Alan Laties Career Development Program. Now these research grants were selected after a rigorous review process conducted by the Foundation's Scientific Advisory Board, which is comprised of more than 50 of the world's leading retinal scientists and clinicians. We're now in the process of collecting proposals for our 2022 research awards and expect to have grant winners selected in the spring and summer.

One of our most notable achievements in recent years was the creation of our RD Fund, which has enabled us to move beyond funding academic research to now advancing clinical testing. Since 2018, when the RD Fund was launched, we have

raised $114 million. With these funds we've been able to invest in 12 remarkable companies that have a diverse and promising array of potential therapeutic treatments for a range of inherited retinal diseases.

We also had two successful exits, which in turn provides additional funds for future investments.

Today I want to highlight two recent RD Fund developments. The newest addition to the portfolio, SalioGen Therapeutics and a successful exit related to our investment in CheckedUp. So earlier this month, the RD Fund announced an investment in SalioGen Therapeutics. It's a biotechnology company developing novel therapies for a broad range of conditions, including inherited retinal diseases, using its novel gene coding technology. This is part of a Series B round of financing that raised $115 million to fund the company's growth.

SalioGen's gene coding platform works by essentially adding new genomic code to turn on, off, or even modify function of new or existing genes. The company is currently developing research and preclinical stage programs and aims to launch future clinical trials for treatments for Stargardt disease, Usher syndrome, and a couple of retinitis pigmentosa genes, all of which are generally genes that are too large to fit into standard AAV gene therapies. So very exciting.

Also, earlier this month, one of our other RD Fund portfolio companies, CheckedUp, which is a digital healthcare solutions provider, announced a major capital infusion by private equity firm, Rockbridge Growth Equity. This will enable CheckedUp to accelerate its digital leadership and point of care solutions. As part of this transaction, the RD Fund achieved a successful exit and return on its original investment, and now the RD Fund will be able to redeploy these increased funds into other up and coming companies. It's really energizing to have the mission come to fruition for the RD Fund in creating the type of opportunities and partnerships that we envisioned just nearly four or five years ago.

So before I wrap up I'd like to highlight two recent collaborations that demonstrate the Foundation's creative approach to partnering with other organizations to leverage combined resources and accelerate the path to cures and treatments. Last month, we announced the launch of the Nixon Visions Foundation Inherited Macular Dystrophy Program, formed through a collaboration with the Nixon Visions Foundation. This program will provide

funding for six early translational research projects over three years for the development of new therapies that could treat inherited macular dystrophy, including visual impairment related to mutations in the PRPH2 gene. In addition, the Foundation will partner with the University of California San Diego and Nixon Visions Foundation to conduct a workshop that will provide a deep dive review of PRPH2 related retinal disease and related biological and therapeutic approaches, with the goal of publishing the findings for widespread dissemination.

The second collaboration is hot off the presses. This week we announced the launch of the Diana Davis Spencer Foundation Enhanced Translational Research Acceleration Program. This program will fund research covering preclinical development, from target validation to proof of concept, and up to development of a lead therapeutic with specific priority given to programs that target neuroprotective strategies.

In addition, the Foundation will develop the Diana Davis Spencer Foundation Career Development Award to provide financial support to individuals with MD or MD/PhD degrees to facilitate advances in laboratory and clinical research in the field of retinal diseases. Collaborations with outstanding partner organizations like these drive the acceleration of work by the very best researchers in the retinal field. Truly a win-win for our community.

Another unique way to advance our mission is by conducting natural history studies, which facilitate our understanding of disease progression and inform the design of future clinical trials and patient recruitment. To provide a clinician and researcher's view on the benefit of natural history studies we are really honored to have with us on the call, Dr. Jose-Alain Sahel, who is a world-renowned ophthalmologist, researcher, inventor and founder of multiple organizations dedicated to ophthalmic research. He's developed a number of therapeutic interventions over the years. This includes stem cell implantation, gene therapy, innovative pharmacologic approaches and retinal prosthesis to address retinitis pigmentosa and other retinal dystrophies, age related macular degeneration, and other vision impairments that are currently untreatable.

Over the past decade Dr. Sahel has led pioneering efforts in optogenetic vision restoration, and his team has developed novel high resolution imaging technologies for retinal and optic nerve conditions. Dr. Sahel has been integrally

involved for many years in supporting the Foundation's initiatives and has won numerous awards, including the Foundation's Trustee Award and the Llura Liggett-Gund Award, our highest, most prestigious scientific award at the Foundation. Jose, thank you for joining us today and for your commitment to finding solutions for patients affected by retinal diseases. So please go ahead.

Dr. Jose-Alain Sahel:

Thank you very much, Ben. I'm very honored to be a part of this event today and to share the enthusiasm we have for the field and what's happening, especially the new studies that are being launched around natural history study. I've been working with the Foundation Fighting Blindness for around 25 years. I have to refer to Dr. Alan Laties who passed away a few weeks ago, who really brought many of us into the family of Foundation Fighting Blindness. At the time there were very few people who were caring about this disease.

Years ago, decades ago, and I guess many people on the call today can remember that there was nothing that could be proposed. Nobody understood the gene defects. Nobody understood how the disease was evolving, and there was no therapy. This is when the Foundation Fighting Blindness went into the loop and many people worked on trying to understand the gene defects, understand the impact on vision, and then to try to develop therapies.

But now that therapies are coming off age, that we are really starting to see the first therapy approved and many trials ongoing. And although the road is very bumpy towards getting therapies for many people, we realize that there is a lack of knowledge that should have been built over the many decades that have elapsed but that really should enable us to better understand why the disease is evolving, how the disease evolving, how we can monitor the evolution of a disease. Which means that the disease is displaying both in loss of vision function, central vision, visual field, but also many markers that are called structural like imaging.

And because the technologies have evolved so well over the past few decades, and actually over the past decade, we have now the ability to have high

resolution monitoring of a progression of a disease. This provides us with the opportunity to better study human disease, not just animal models, but really understand how this loss of photoreceptors in many patients is leading to loss of vision and how we could design studies that would demonstrate the benefit of a therapy in many patients.

This is why several years ago, the Foundation Fighting Blindness started natural history studies, which are non-interventional, trying to monitor the course of a disease over many years. This is a prerequisite for the design of meaningful and impactful clinical trials, and this would benefit everyone.

So there was a first study on Stargardt's disease that has been very useful for many people developing therapies. And over the past few years, the Foundation Fighting Blindness has supported three studies that Dr. Durham is going to describe in a short moment before I will describe a new study that we have been designing together. I will hand it over to Todd Durham. Before I do that, I have to say that the FDA recently recognized how important these studies are for the design of clinical trials and the understanding of the outcomes. Outcome is how we measure the impact of therapy. I will hand it over to Todd Durham for presenting the ongoing studies.

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

Thank you, Dr. Sahel, for that introduction and I am pleased to have the opportunity to join the call today. I would like to provide a brief update on the status of our ongoing natural history studies.

First is the RUSH2A study. It was launched in 2017 and completed enrollment in 2019. It focuses on individuals with retinal degenerations caused by mutations in the USH2A gene. Mutations in this gene are a leading cause of Usher Syndrome Type 2A and autosomal recessive retinitis pigmentosa, or RP. This is an international four-year study designed to better understand the time course of vision loss in people with USH2A mutations.

We enrolled approximately 125 participants at 20 sites in the U.S., Canada, and Europe, and we've been following 105 of these individuals on an annual basis, and nearly all have completed three years of follow up at this time. It's very important that we share our findings with the research community, and so far we have nine papers of baseline findings from the study either published or in the final steps of preparation. These papers cover a range of topics from retinal function and structure and to auditory and olfactory findings in individuals with syndromic disease.

Measures of retinal function have been summarized, including how they relate to characteristics like the duration of disease and to each other. These papers help us understand the nature of USH2A retinal degenerations and they provide guidance to other researchers, including clinical trialists on how to implement these kinds of assessments in multicenter trials where standardization is critical.

In the Pro-EYS study, which was launched in late 2019 and is also ongoing, we are studying retinal degenerations caused by mutations in the EYS gene. This gene is one of the more common causes of autosomal recessive RP. Like RUSH2A, this is an international four-year study evaluating a variety of clinical measures with the goal of identifying those that are most useful to apply in clinical trials to show if a therapy is working. We have now exceeded enrollment of our planned 100 participants in 20 centers, and so far a total of 101 individuals have completed the baseline study visit.

We have another study that is currently enrolling participants. It's the RUSH1F study. We are targeting enrollment of 40 individuals with Usher Syndrome Type 1F, and this condition is associated with the PCDH15 gene. As of this week, we have 16 participants who have consented to participate and 5 of them have completed their baseline visit. And we expect to complete enrollment in this study in 9 or 10 sites by early spring of this year.

So many individuals and researchers make these studies possible, but we could not accomplish this important work without study participants themselves who take time away from their work or school to benefit the research community. So we thank you very much.

These three ongoing studies, RUSH2A, Pro Eyes, and RUSH1F, they are all focused on inherited retinal degenerations associated with a single gene. But we have a

new study in development that will include individuals with many disease-causing genes, including those that are much less common than USH2A and EYS. To hear more on this, I would like to turn the call back over to Dr. Sahel to tell you more about this exciting new study.

Dr. Jose-Alain Sahel:

Thank you very much, Todd. So as we try to emphasize, these studies on natural history are preparing the future trials in these specific gene defects. These are the ones that have been targeted except for USH1F, are quite frequent. Everything is relative to the field gene defects and are being targeted currently by industry. But as you know, there are many other gene defects and some of them affect very few patients, very few families. And obviously you don't want to live in a field where we are seeing progress for some of the patients, while others are left on the side because there is nothing for them.

And the lack of information on natural history on how the gene defect is impacting on the receptor viability on function is something which is hindering the progress of the field because the methods that are being used are very similar across all the field. Because the way we are developing the measures for visual function and monitoring the structure of a retina and the impact on daily activities for patients is very similar, we decided to design together a study where we would analyze for very rare conditions what is the impact of a genotype? All these patients that would have to be enrolled would have a gene defect that is characterized, and this is what My Retina Tracker is developing and others. And this provides the baseline to identify patients with many types of mutations.

The study is designed as a twofold study. The initial part of it is creating a registry of very well-characterized patients where a gene defect is established and confirmed where the phenotypic peak, which is the expression of the disease, is well characterized. And all this information is going to be pulled with all the specific gene defects. Then, based on the priorities that will be determined according to the ability to develop new therapies or the ability for sponsoring

some of these studies, there would be specific gene related, natural history studies.

We have already got from the Foundation Fighting Blindness the funding for the Registry and two or three of these studies, but there are many more that need to be developed. And this will form the basis for providing to everyone the ability, or at least a good chance, to be enrolled in a future clinical trial that will be targeting these very rare genes. This goes alongside with the strategy of companies like Opus that are trying to really develop genes specific for very rare conditions approaches, and this is going to be the basis of that.

On top of that, because we want to measure the impact of the disease in daily activities, what we call patient reported outcomes are collected within these studies. This was the case already for previous studies. But this is going to be very important because you want to make sure that what we are measuring in the clinic means something for patient daily activities and daily life. And we want to make sure that the therapies that are being developed are going to be transformative for patient activities and daily life.

This study is called Uni-Rare. It's going to start soon, this year. The Foundation Fighting Blindness already approved it and it's going to form the basis for many future studies. The nice thing about it is that really it can target everyone, be a very inclusive study, but is going to be also teaching us a lot about all these conditions, which would help us to develop new therapies for the future, including gene independent approaches.

Thank you very much, Todd, for helping us to develop all of that, and to the Foundation Fighting Blindness to be able to get where we are now.

Jason Menzo, President and Chief Operating Officer:

Excellent. Thank you so much, Jose and Todd. This is Jason Menzo again. Thank you both for a fantastic presentation, and of course, for joining us today. I just want to reiterate that these natural history studies are so critical to building our understanding of the many inherited retinal diseases that affect our community.

These studies are a significant undertaking by the investigators, the reading centers, the laboratories, the genetic counselors, and other genetic experts, and of course, the study participants who make all of this essential work possible. And we're so grateful for these efforts. And these clinical studies help to lead to the intervention clinical studies that I know everyone on this phone is so anxious to hear more about.

So with that, it is 1:37 here on the East Coast. For anyone whoever questions whether these are live, they are indeed live. It is 1:37 on the nose here on the East Coast. So that gives us just over 20 minutes for questions and answers. So we'll have a Q&A session here in a second. There are a ton, I lost track on how many questions have already been chatted in or asked in the Q&A. We're compiling all that information right now, and we'll begin diving into that session in a second. With that in mind, I'm going to turn the call back over to Chris to please provide the instructions for how folks can ask their questions.

Chris Adams, VP, Marketing & Communications:

Thanks, Jason. There are several methods for asking your questions. First, you may access the Q&A and chat features located at the bottom of the Zoom control bar and type in your question. Second, you can ask your questions verbally. To do so please select the hand raising function on the menu bar at the bottom of the Zoom interface and we will provide you with instructions to unmute yourself. And third, you may submit your questions via email to info@fightingblindness.org. Again, that is info@fightingblindness.org. Please note that if there are questions that we aren't able to answer on today's call due to time constraints, we will follow up with you directly via email over the next week or two. Jason.

Jason Menzo, President and Chief Operating Officer:

Awesome. Thank you so much, Chris. And I have a feeling this is going to be one of those days where we're going to have a lot to follow up on because we have 20 minutes and a lot of questions that we're going to try to cover off on.

While we're compiling questions and getting all of the answers organized, I'd like to let you know that in addition to our speakers on today's call, Ben Yerxa, Peter Ginsberg, Chris Adams, Todd Durham, Dr. Sahel, and of course, myself, we're also pleased to have a couple of additional guests come on for the Q&A session. Our Chief Scientific Officer, Dr. Claire Gelfman, is joining us, and also Dr. Amy Laster, our VP of Science and Awards Programs. So they're joining us for the Q&A session.

Let's start with one of the questions that was sent in actually in advance. And I'm going to direct this question actually to you, Dr. Sahel. The question is, what options are available, clinical trial or otherwise, for individuals who have end-stage retinitis pigmentosa? The question goes on to say, I've read many of the clinical trial options for gene therapy tend to be at earlier stage. We know that optogenetics is one method that tends to focus on end-stage. And just maybe you could speak about the different types of therapy for the various stages of disease.

Dr. Jose-Alain Sahel:

Thank you very much, Jason. So clearly, as the question pointed out, at early stages of the disease there would be the ability to develop gene therapy to correct the gene defect. It could be gene supplementation or gene editing or RNA technologies that are being developed. But obviously once the rod photoreceptors especially have degenerated then it becomes too late to target the cells because they are no longer viable or they are dying. So this is where neuroprotection can be applied to try to prevent the loss of further central vision. But this is still what we would call mid stage of a disease.

I guess your question is really focused on the very late stage of a disease when a patient has lost most of the central vision and a significant part of a vision like counting fingers or seeing, just like perception. So currently there are three main avenues that are being developed on that. One is artificial retina. As you know, there was the Argus device that had been approved, but didn't make it really to the market for too many years. So there are over approaches that are being

developed in this area that are going to get into clinical trials hopefully in the coming years.

The other approach is stem cells. I don't want to spend too much time on that because I guess this would be the focus of a very specific discussion. But you have to be careful when we talk about stem cells. This has to be part of an approved clinical trial with very well designed, very well controlled, and very safe study. Not the stem cells you get advertisements in the mail about. Anytime you are asked to pay for a clinical trial, you should be careful about it, because this may not be a real clinical trial.

A clinical trial is fully controlled. It is based on pre-clinical work that is very well done and is also supposed to be safe for you. So we are waiting for many studies on stem cells. Hopefully some of them will be promising in that to make it to the clinic. But I won't comment too much on that. I'm involved in some of them.

Then optogenetics is a new field. It's really using a protein that doesn't exist in a human retina but does exist in algae which responds to light and is able to trigger a response that is a signal that would be sent to the brain for vision. Many groups have been working at the academic level to reactivate vision at the level of photoreceptors. And we started that years ago, then in the inner retina with bipolar cells or in the innermost cells in the retina which are ganglion cells. There are even groups like ours working on the brain directly, but this is not the focus of today.

Recently, my group has been able to report for the first time that a patient could get some partial vision, not form vision, really be able to see objects and detect objects and count objects. So this is the first time ever, but this is very early stage and this really is changing lives from being fully blind to being able to do something with vision.

There are other groups that are working on optogenetics. We continue to work on that. Our trial is still ongoing. Other groups like Nanoscope. I see there are many questions on Nanoscope. Groups like Bionic Vision. So several groups are developing these approaches across the world because it's certainly a promising avenue.

How much vision is going to be restored remains to be determined. Again, we tend to rely only on peer reviewed articles and not just press releases because you have to be careful about what is really being done in a controlled study. But this is promising for patients that lost everything.

So it's a spectrum, but it's not going to be one therapy for everyone. It's going to be depending on the stage of the disease, on the status of photoreceptors, on the specific mutation. And the good thing is that we are seeing many therapies coming of age within clinical trials, and certainly this is due in many parts to the Foundation Fighting Blindness.

Jason Menzo, President and Chief Operating Officer:

Excellent. Thank you so much, Jose. I'm going to go on to the next question. And I just want to reiterate that anyone who has curiosity on follow on questions or wants to dive a little bit deeper, of course, we said earlier that this call will be available for replay. The transcript will be available on our website in the weeks ahead. But additionally, you can always send an email to info@fightingblindness.org, and we can go deeper into any further questions that folks have.

The next question is related to clinical trials that have been completed and have had mixed or even negative results. And unfortunately, that's just of the nature of the beast with clinical trials that not all of them are going to be successful. The more trials that we have that make it to clinical stage, the more that may not come out with a positive result. And so the question is, what can we learn from these trials that have mixed or maybe even negative results? And I'll ask Jose for your comments. Todd, I'd love to get your perspective on this, and Claire as well. So Jose, why don't you start us off?

Dr. Jose-Alain Sahel:

Yes. Thank you very much. Yeah. Well, as you say, this is the nature of the beast. Unfortunately, clinical trials, you do them because you don't know the answer, and sometimes the answer is not the one you want to see. But still there is a lot of work that takes place before the trial is starting. And I think Claire will speak to all the pre-clinical work that has to be done carefully before you get into a clinical trial.

Many of the trials that we have seen in the past few years and including the ones that have been disappointing were based on very good pre-clinical work, but there's always a gap between the pre-clinical work and the clinical trial. This is called the Valley of Death in part of it. So it's really, there is a space where what you see in mice may not be predictive of what see in humans. But one of the main disappointments is coming from the fact that many people are expecting a quick answer to a question that is really relating to a slowly progressive disease.

Fortunately, in many patients retinitis pigmentosa doesn't evolve over one year. It takes many years to evolve. And so if you are really looking at the outcome and you're looking at the result of a trial after one year or two years, you may just be too early to find a meaningful difference between the two. Because companies need return on investment because investors want to see that, and because the way the trials are being designed is that you cannot plan for a trial that is going to last five years or seven years. Clearly people have to look at intermittent time point.

So what may look as a failure on the short term could prove to be a success a few years later if patients are being followed properly. I'm not saying that all that has failed is going to be a success. I'm saying that we have some time to be a bit more patient because these diseases are slowly progressive and we have to take that into account. Then obviously there are also flaws sometimes in the trial design, because we are expecting to see a difference in visual acuity and we know that for example, in retinitis pigmentosa or choroideremia, visual equity stays steady for many years.

Jason Menzo, President and Chief Operating Officer:

Jose, I think we lost your audio. Jose.

Dr. Jose-Alain Sahel:

The FDA has requirements on that, and we just have to make sure that what the FDA is asking is really relevant for the disease. This is why, again, the natural history studies are so important, because this is independent of a therapy, how you develop methods to monitor a progression of a disease, which means the impact of a therapy. Maybe Todd, you may want to complement on that.

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

Those are all excellent points and I agree with those. The thing that I would add is really to emphasize the importance of studies like RUSH2A, for example. When we have four years of follow up data we now have the ability to explore novel outcome measures for both retinal function and structure that may be useful for clinical trials. It enables us to provide some very practical advice about therapy developers on how long a clinical trial should be and what are the measures that should be used to assess their benefits? So, just to underscore the benefits of our study program.

Dr. Claire Gelfman, Chief Scientific Officer:

Just to add on to that, this is Claire Gelfman, by the way. As you mentioned, Dr. Sahel, the preclinical path has to be very clearly defined before we go into the clinic. And the animal models that replicate aspects of the human disease are what are used to evaluate potential therapeutics. But the animal models are just that, they're models. Sometimes they have the same genetic mutation as that of a

human. Sometimes there's something about the development of the disease in terms of the retinal function that can be found in these animal models.

But it's not a perfect system. And even though when we see good efficacy in animals we do everything we can to predict success, but we're still learning, for sure, with all the different animal models with respect to both safety and efficacy. But I agree for all these albeit disappointing clinical trials that we were mentioning, there's so much to be learned for the next one that we put into place to poise them for success.

Jason Menzo, President and Chief Operating Officer:

Thank you, Claire. Thank you, Todd. Thank you, Jose. Claire, I actually want to address the next question to you and I'm going to combine two questions into one. We talk on these forums a lot and in the press there's a lot about gene therapy. And so the first question is share with the audience a little bit about the intervention window for gene therapy. What we think we know about when gene therapy is appropriate for an individual based on their progression of disease. But then also maybe you could pivot and talk a little bit about our gene agnostic strategies and how we're looking at applying those types of technology.

Dr. Claire Gelfman, Chief Scientific Officer:

The first question in terms of the time of intervention, it really depends on the type of therapeutic we're talking about. So Dr. Sahel was mentioning optogenetics, and with optogenetics one of the things that's quite appealing is it is a therapeutic approach for very end-stage disease, a retinitis pigmentosa. And the reason why it works for end-stage disease is because we're not targeting the cells that are malfunctioning. So with late stage disease we don't have functional photoreceptors, but we're taking advantage of other cells in the retina to provide that light sensing function that's otherwise earmarked for the photoreceptors.

In a more traditional gene therapy trial, where we are coming in to the photoreceptor cell where we know the specific mutation and we're using gene

therapy to restore a good copy of the gene, we need that cell to be functional to be able to receive the therapy. And in that case, an end-stage would be too further down the line for the therapy. So in those examples, we want to try to do the gene therapy earlier on. And a lot of those questions can be answered in the animal model work that I was referring to, where we can track the progression and test hypotheses about the best time to deliver the gene therapy.

Now, we get questions very often - what if my gene has not yet been identified and when I get testing I've been diagnosed with RP, for example, but I don't know what the mutation, what the specific mutation is? And so, even though we talk a lot about gene specific therapies, there's a lot that are in development and in the clinic, these what we call mutation agnostic approaches, where there are therapeutic approaches to potentially treat disease that are not dependent upon knowing your specific mutation.

So optogenetics is one of those approaches, and there's several others that are being leveraged to treat retinitis pigmentosa and other types of retinal degeneration that's not dependent upon knowing the specific gene, but rather the fact that the cause of blindness is retinal degeneration, and that's across many different mutations.

Jason Menzo, President and Chief Operating Officer:

Excellent. Thank you so much, Claire. And picking up on that, actually, I want to address this next question to you, Todd, which is, questions about genetic testing itself. There are a number of questions, everything from, how do I get genetic testing? How does the process work? How does My Retina Tracker Registry then connect patients to clinical trials? So maybe you can just give a quick overview of the process and what the value is, I guess, of My Retina Tracker.

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

Our registry is called My Retina Tracker Registry, and you can access it through our website. I think maybe Chris, my colleague, may post the URL there, if you aren't able to find it on your own. But the primary purpose of My Retina Tracker Registry is to link affected individuals with research opportunities. And these research opportunities may be clinical trials. They may be patient journey studies. They may allow you to participate in surveys. Tell us your attitudes and knowledge, say about gene therapy in general.

We have many access requests throughout the year, and rest assured this is a study that has oversight with an institutional review board. Your confidentiality is respected. None of your identifying information is shared outside of the Registry team here at the Foundation.

One of the aspects of this program is we have a no-cost genetic testing and counseling program that has been funded by generous donors and sponsors over the years. If you find a healthcare provider who's legally able to order a genetic or diagnostic test for you, they can access this program on your behalf and take a sample. And then you'll have access to that genetic testing diagnosis and the counseling session that comes with it. What this does for us, if you choose to join the Registry, which is totally optional and up to you, would allow us then to use your data, your genetic data, your data on your clinical phenotype and presentation to pair you with research opportunities as they arise.

Jason Menzo, President and Chief Operating Officer:

Thank you, Todd. That was excellent. We've got about six minutes left, so I'm going to try to cover off as many questions as we can. And again, any question that we don't get to here on the call, we will follow up with you individually offline.

Ben, I want to direct a question to you. There were a number of folks asking about NMNAT1 or LCA9, and actually a couple specifically about Opus Genetics, which I

think we talked about on the last Insights Forum. Maybe you could give a high level update on that program.

Dr. Ben Yerxa, Chief Executive Officer:

Opus Genetics, a new company that was launched and funded by the Foundation Fighting Blindness, is working on LCA9, which is the NMNAT1 gene. We licensed the program from Eric Pierce's lab at Harvard Mass Eye and Ear. It's in the preclinical stage, has great animal data in vivo proof of concept. And it's looking like possibly an IND filing or clinical start in the first part of 2024. And if you want to stay up to date on that program just go to the Opus Genetics website, and there's a Contact Us tab and you can submit your contact information. The company will keep you up to date.

Jason Menzo, President and Chief Operating Officer:

Awesome. Ben, thank you. One other question from the for-profit sector. So Nanoscope had news recently, and there's been a bunch of questions chatted in about Nanoscope. Do you have just a high level update on the progress they're making?

Dr. Ben Yerxa, Chief Executive Officer:

From what we know, Nanoscope is clinically staged. They have their own optogenetics strategy that's somewhat similar to some of the others that are in development. But they're active in the clinic and they recently announced their intention to go into Stargardt disease with their optogenetics program. So their first trial was done in India, and I think future trials are going to be more in the U.S. So the Foundation's tracking this one, waiting for more results under U.S. IND.

Jason Menzo, President and Chief Operating Officer:

Excellent. Thank you, Ben. There were a ton of questions, actually, surprisingly so, in chat about CRB1 as a specific gene. But I'm going to ask is that anyone who has specific questions or interest in learning more about CRB1 to specifically email info@fightingblindness.org. We have a quarterly update that we do specific to that gene and we'd love to be able to invite anyone who's interested in learning more about the progress that's happening in that gene to that call.

Amy, I'm going to address the next question, and this may be the final question, we'll see, to you. Which is, we talk a lot about how we fundraise and how we bring resources in and the research that we fund, but maybe you could give a little bit more color about what does that look like? So how many applicants, for example, apply for our grants? How many do we award? High level, what are the types of awards that we fund? So maybe just a quick Cliff Notes version of how we actually deploy the resources that we bring in to advance the science.

Dr. Amy Laster, VP, Science & Awards Programs:

Thank you. So I'll summarize numbers from our last fiscal year where we've completed a full grant competition. And generally our grants cover the entire preclinical spectrum, so we fund for very early career scientists, individual labs, where labs are established, we do team science - what we call multi investigator awards, as well as Ben mentioned in his talk earlier, translational awards for our Translational Research Acceleration Program.

The last fiscal year we had 120 proposals that were submitted to us across all those programs. And from there, 52 were invited for full application. These are reviewed by our Scientific Advisory Board. And out of that, we were able to approve 20 new awards. So that's a pretty common whittle down of proposals that we get and about the number that we will support over a fiscal year.

Jason Menzo, President and Chief Operating Officer:

Excellent. Thank you so much, Amy. I think we've got time for one more question. Let me peek real quick. Amy, let me ask you this last question. Recently there's a new drug that was, I think it's pronounced Vuity. And the question was, is an eye drop like that applicable to some of our inherited retinal diseases? Sometimes things get approved and a lot of news is made about other advancements in eye care that are outside of the scope of what we do. Maybe you can just talk a little bit about that one, because there has been a lot of news about that particular one.

Dr. Amy Laster, VP, Science & Awards Programs:

So that particular medicine, which as you mentioned is administered via an eye drop, is really used to relieve pressure in the eye. So in this particular case, I think AbbVie is the one who developed it, it's for an age related blurry vision. I know that the type of medicine is also used in glaucoma, but to date there has been no correlation with a therapy like this for RP. And I appreciate that Dr. Sahel is nodding his head.

Dr. Jose-Alain Sahel:

It's approved for presbyopia, so it has nothing to do with age related. It's based on the pinhole, when you narrow the pupil entry, it increases the resolution. So it's an optical effect and pilocarpine has been used for glaucoma for 50 years already. So it has nothing to do with retinitis pigmentosa. There was a time many years ago in Japan to use similar drugs in RP but there was no results coming out of that. So it's not relevant for the field. It can help for presbyopia, although you may not want to decrease the pupil size in patients that have a narrow visual field already.

Jason Menzo, President and Chief Operating Officer:

That's right. Thank you so much, Jose. And thank you, Amy. And I guess it's a great reminder and it should, I think create a lot of optimism for all of us here within the Foundation Fighting Blindness community that while we are focused specifically on advancing treatments and cures for degenerative retinal diseases, inherited retinal diseases, age related macular degeneration, etc., there is a lot that's happening across the whole spectrum of eyecare, ophthalmology and optometry. And we try to keep our finger on the pulse on everything that's happening across the spectrum. But really our mission is laser focused on advancing treatments and cures for blinding inherited retinal diseases and age related macular degeneration.

So with that, it is 2:01, so we are a minute over, but that's okay, here on the East Coast. I would just like to thank everyone for participating in today's call. We had well over 500 people live today. By the time this makes it to the webcast and folks watch it on replay it'll be many fold over that. And I just want to thank everyone for your engagement, for your support, for participating in today's webcast.

Of course, on our website fightingblindness.org there's a ton of information about all of our events, all of our fundraising events, including Hope From Home, which we mentioned earlier in this cal,l and our VisionWalks for the spring and the Victory For Vision Campaign. Our Facebook page is a great resource. We're on Twitter. We're on LinkedIn and Instagram. And these are all great places to learn more about the latest developments in the retinal disease space.

And if there's any other information we can provide, or if you have any other questions, please always feel free to reach out to us directly at info@fightingblindness.org. So thank you all so much and have a great rest of your day.