EP.117 - Polaris Genomics

Narrator:

You're listening to *BioTalk* with Rich Bendis, the only podcast focused on the BioHealth Capital Region. Each episode, we'll talk to leaders in the industry to break down the biggest topics happening today in BioHealth.

Rich Bendis:

Hi, this is Rich Bendis, your host for *BioTalk*. We have a very interesting *BioTalk* podcast for you today, because we have the three Cs with us from Polaris Genomics. We have the CEO, the CSO, and the CMO of this emerging company in the BioHealth Capital Region. We have Charles Cathlin, who is the CEO; Tshaka Cunningham, the CSO; and Anne Naclerio who is the CMO all joining *BioTalk* today. All of you, welcome to this podcast. Now that we've introduced them, I think the most important thing is, since we have three of you, each of you can do a brief introduction of yourself for our listeners, because they'd all be interested in knowing your background and how you got to where you are today. So, we're going to start with the CEO, Charles.

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Charles Cathlin:

I'm a retired veteran with 23 years in the service between the Air Force and the Public Health Service. I graduated from the Air Force Academy with an engineering degree, specifically in environmental engineering and served as a bioenvironmental engineer within the Air Force where I was responsible for looking at health risks of occupational workers within the Air Force. After six years of doing some deployments in the Middle East, Africa, also Eastern Europe, I transitioned to the Public Health Service. During that time, I spent the rest of my time there serving as an engineer as well. Most of that time I spent working at the FDA where I got experience working with different types of medical technologies, particularly on the neurology side of things.

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Then I went back to the Department of Defense and served at the Psychological Health Center of Excellence and also at the Defense of Veterans Brain Injury Center where I served as the Chief of Staff and ran the operations for an organization of approximately 300 people that conducted traumatic brain injury clinical research across 22 military treatment facilities and MVA polytrauma sites.

Rich Bendis:

Thank you for your service, Charles. We'll also learn more about the beginnings of Polaris as we continue on with this podcast. Next, Tshaka Cunningham, the CSO, Chief Scientific Officer. Tshaka?

Tshaka Cunningham:

I'm a PhD molecular biologist by training. I did my undergraduate work in molecular biology at Princeton, my graduate work at Rockefeller, and did postdoctoral fellowships at the Pasteur Institute in Paris and then at the NIH. After that, I went to the Department of Veterans Affairs to coordinate a program in veterans' health research on aging and neurodegenerative disease. That's where I really got introduced to the mental and behavioral health challenges for veterans and active duty service members.

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I'm the only member of our team that's not a veteran, and I often say that I'm really just pleased that Charles and Anne let me hang out with them every day. They're amazing veteran leaders, and it's such a privilege to work with them on what is a very serious problem, the problem of mental and behavioral health diagnosis and treatment, not only for our active duty service members, but our veterans and our civilians. So, the mission that we're on with Polaris Genomics is to really improve that, and I'm really excited that we're at the juncture technology-wise in our field in molecular biology and genomics where we can sequence things faster than ever before and get these insights and translate them into new products that will help improve and save lives.

That's my story. I'm going to turn it over to Anne who I think is the most impressive member of our team. She can tell you about her background.

I'm also a veteran—30 years in the Army. I started out my education here at University of Virginia in psychology. I did my medical school at the DOD medical school in Bethesda called USUHS.

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Anne Naclerio:

I did my fellowship at D.C. Children's in pediatric critical care. Then my Army time, the first ten years I spent doing clinical medicine, taking care of critically ill children in military hospitals around the United States. The last ten years, I really transitioned—I neglected to mention I did do a Master of Public Health at GW—my last ten years in the Army I transitioned into that public policy for the military. I was working for the surgeon general of the Army and the chief surgeon for the army national guard and then I got to spend some time in Europe. During those years, I really was looking at more population help—the health of the force, we like to call it, and their medical readiness. During those ten years, really

the challenging issues, a lot of them were related to neuropsychiatric mental health conditions like PTSD as well as TBI from the long years of war.

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After I retired in 2018, I met this group and was really excited and intellectually challenged by the opportunity to look at these problems from a really biologic basis, which they really hadn't been before—very symptom based—so, I've been excited to be with the team since the beginning of 2020.

Rich Bendis:

Thank you for your service, Anne. You know, the other thing that's really interesting is how you three came together, and how do you separate the roles and responsibilities of what you do every day. I'm going to let Charles start with that, basically. Most people know what the CEO does, but I guess you had to also assemble the team, Charles, so talk a little bit about what you do on a day to day basis. We'll then ask Tshaka and then Anne and how do you interact with one another with all your different roles and responsibilities in Polaris.

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Charles Cathlin:

In terms of our origin story, for me, it started a little bit over 20 years ago. I had just separated from the Air Force and got a job working at the Office of the Secretary of Health responsible for medical emergency response and preparedness and got deployed to ground zero right after the 9/11 attacks. That experience, seeing how that event impacted the community, the first responders, particularly the fire fighters, got me very much interested in mental health. After that time, I didn't connect the dots at the time or the pieces, but I just kind of followed my interests.

I eventually went back to school, got my Master of Public Health at Uniformed Services University where I did independent research looking at military psychological health and resiliency programs and their effectiveness. Shortly after that, I enrolled in a program at Johns Hopkins School of Business looking at building actually a company around addressing these types of issues, particularly look at mental health biomarkers.

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At the time, I really didn't identify any markers that were ready for commercialization. Several years later, I was introduced a Dr. out of Mount Sinai School of Medicine who has been doing some interesting research on PTSD and genomic biomarkers and met Dr. Cunningham

shortly after that, and he had the opportunity to license that technology. So, that's sort of my origin story. I'll pass it over to Tshaka.

Tshaka Cunningham:

I'll say from there, with that license, get accepted into a startup accelerator program out on the west coast. It was actually the Illumina Accelerator Program that we were chosen to participate in that we were then able to take that intellectual property—those biomarkers, molecular genetic biomarkers—and actually build a product, a test, out of it based on Illumina's sequencing by synthesis rapid sequencing technology. We actually developed an RNA-seq product, which is sequencing—everyone knows what mRNA is now because of the COVID vaccines, right?

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So, think about in all of your cells, you have tens of thousands of RNAs, and we developed a test that can measure about 1,003 of them in every patient. Of those 1,003, we found about 21 or so that we can develop an algorithm on that will tell you what your risk is for PTSD and maybe some other mental health disorders. So, we began that test development out there at Illumina during their accelerator and then brought that technology back here to the DMV area where we've been able to set up our headquarters in Rockville and our laboratory in Manassas, Virginia.

Rich Bendis:

That's super, Tshaka. Thank you for coming back from California. I know that it's tempting to stay, but we're glad that you decided to come back to the BioHealth Capital Region to headquarter Polaris. Anne, I know they wanted to hand it off to you now to talk a little bit about your role and what you're involved in in this pretty exciting venture right now.

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Anne Naclerio:

I'm the clinical person on the team. My job is really to look at what tools are needed, how we develop those tools that are going to be helpful both to physicians and to patients and fit into that clinical practice. Our focus is how to shorten that what we call a diagnostic journey, so how long from when people have symptoms until when they're actually brought into treatment, and also how to shorten the time from diagnosis to effective treatment. So, my job would also include designing the studies and the clinical trials that are needed to actually prove effectiveness. The second little part of my role is expertise in military medicine because of my background, but we all have a little bit of that we bring to the table.

Rich Bendis:

Anne, it's a very important area with PTSD and TBI. All that we can do to help the veterans as well as not just veterans, every day citizens who

have these challenges, is extremely important. So, talk a little bit about your products and the pipeline that you have right now at Polaris.

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Anne Naclerio:

I think Tshaka previously gave a little introduction into how we got started. The tool we developed and continue to develop from our time at the Illumina Accelerator, we call that TrueGen1. That's our R&D tool. That 1,003 gene marker. It has markers related to a lot of neuropsychiatric condition, because that's our focus area. It could be depression, PTSD, bipolar, schizophrenia, even other neuroinflammatory conditions, etc. So, that tool we're actually selling as a product to other researchers around the country and even out of the country. We currently have our first one of our clients we work super well with is in the Canadian military armed forces. That tool is our first product, and it's kind of our backbone. The next products in our pipeline are clinical tools, or I separate them that way.

PTS-ID is where we focus our energy first, just because we have to start somewhere. We know PTSD is a very large problem and it causes a lot of suffering and leads to unfortunately an increased risk of suicide. PTS-ID is a screening tool. We see it being most useful in the primary care provider's hands, so when you're trying to figure out or identify earlier who has a condition that they need to really see behavioral health, that triaging of patients and early identification that's currently done with paper questionnaires.

The next tool that I'd like to mention is PTS-DX and that's where we'd like to go, actually, with a lot of the mental health illnesses is the diagnostic. That's a longer journey for us, because of the FDA level of evidence, and that's why I mentioned it second, not because it's less important. I think the third thing in our pipeline that's exciting is really our technology around companion for mental health diagnostics.

That is being able to identify who will respond to what type of treatments, because again, in our goal to shorten the time to diagnosis and then shorten the trial and error to treatments, to really get people identified and into treatment quickly. So, that's our pipeline we're really excited about.

Thank you, Anne. One of the challenges for an emerging small company is, if you have a diversified pipeline with many products is: How do you

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Rich Bendis:

prioritize the utilization of people and resources related to the opportunities you have in front of you? I don't know if Charles wants to tackle that first, but the question is: How do you balance the workload and the priorities within your product pipeline, recognizing each of them has a very important role to play within the marketplace?

Charles Cathlin:

That is a significant challenge for our company, particularly serving in the CEO role. One of the things I like to say is it's my job to get Anne and Tshaka what they need to do their thing, because they're the smart folks on the team.

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A lot of the work at a startup is about resource management, to your point. It's not just finances and money. It's also your people; it's also your time; it's also your mental energy, as well. The thing that makes it easy for us is we just have a stellar team. We all bring a different perspective to the table even though there are maybe some overlapping experiences, they're very different experiences. So, Tshaka having a scientific background and being in a position to develop our products, and Anne coming from the lens of how do you use this technology in a clinical setting. I think that's a very powerful combination. We recently brought in our chief data scientist into the company as well, because data is a very important component of the work that we're doing. So yeah, it is a challenge. What makes it easier is that we have a group of people that we've collected together that enjoy working together.

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We don't always agree on everything, but we know how to disagree, and I think that's a very important, powerful thing. Everyone's heard. Everyone has their perspectives. At the end of the day, whatever decision is made, we're all on board, and we execute and move forward with it.

Tshaka Cunningham:

I would add to that, Charles, again, your perspective, not only as a leader in military health on the DOD side but also from the regulatory side, your experience at the FDA is invaluable to our team. I think that as a team, I agree 1000% that we have complementary expertise. And I'll go a step further: I feel like we like each other. I view my team members as family, because we're on this mission and this journey together, and I think that's what will give our team a very high probability of success on our very challenging problems. So, it's really a joy to work with this group who's so committed and just impressive people who are very humble and very accomplished and very dedicated to helping us improve the lives for veterans and everyone else.

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Rich Bendis:

One of the things that everybody has had to go through in the last three years is this pandemic, and having a new company that you're trying to roll out, and then you have a major pandemic come at the same time creates additional challenges. What has happened to your organization, Polaris Genomics, during these three years, and how have you managed the pandemic in your operations on a day to day basis and keep moving this forward?

Charles Cathlin:

I'll start off, then I'll hand it to our team. First of all, I want to say we were very fortunate, because if the pandemic had hit the US two weeks earlier, our company probably would not exist, because we had just closed our seed round. I think it was Valentine's Day of 2020, and everything started to shut down shortly after that. In fact, our lead investor for our seed round, which was Sanford Health, the largest health care system in the Midwest—they shut down their investments, any current investments at that time, and I think we were the last company to get in there, so we were very fortunate.

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What we intended on doing was pivoting off of that in terms of getting additional investment to the company to round out our seed round. Unfortunately, no one was investing anymore at that time. So, as a company, we tried to do our best to make a pretty bad situation and turn it into our favor. Fortunately, Dr. Cunningham is also a virologist, and we were able to open up a lab very quickly and provide COVID testing services. I'll turn it over to T to maybe talk a little bit more about that.

Tshaka Cunningham:

I'll say I feel like this whole episode that we've gone through with the pandemic gave us a very traumatic experience on all of us. And I'll say that COVID was like the earthquake, and now the mental health challenges from it are going to be the tsunami, so that makes our overall work even more important. But one of the things that it highlighted to me was the scrappiness and determination of our team. As Charles mentioned, had it happened two weeks earlier, we wouldn't be talking right now. We might be both doing something else, and it wouldn't be because we didn't want to do it, it's just that the financial implications of the pandemic, all of the investors seem to put their money back in their pockets.

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So, for us, what we did, is as he mentioned: we used our expertise. My PhD is actually in virology and immunology. I was able to help set up a

COVID testing facility at one of the local universities that I have an academic appointment at, George Mason University, and we set up a screening center within weeks that we were able to screen the entire campus community throughout the pandemic and keep the rate very low, basically keep the university open for business. That was something I'm very proud of, because I think during that, we saved a lot of lives. We caught people early, and we proved again that we could set up a lab from scratch, which is now helping us as we now have a lab, a CLIA lab that we can use to help develop our products and test new ones. So, really good growth experience, actually provided some revenue for us. I think it helped us to come together as a team, to pivot a bit, and grow through a crisis. So, very proud of our team for that.

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Rich Bendis:

The terms "pivot" and "nimble" are those terms that generally are associated with entrepreneurial firms, so pivoting and being nimble, to be flexible and actually recognize that you needed this also as part of your survival strategy was very critical, so congratulations for turning a bad situation into something positive for Polaris during the pandemic. I know that you've had some nice accomplishments in the three year history for Polaris right now. Let's talk a little bit about some of those major accomplishments you've had. You mentioned Sanford Health as an investor, and working with George Mason, and the Illumina, and the Canada military in the past, which are all great accomplishments. Talk a little bit about some of the other things that you've accomplished in your beginning stages here.

Tshaka Cunningham:

I'll say our team has been working really hard. Throughout the pandemic, we never lost our focus. We had to pivot a bit to do COVID testing and set up the lab, but we always had our focus on our end goal. Throughout, we've continued to build partnerships.

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So, one accomplishment, again, with the Canadian Armed Forces, having that contract in place that was revenue generating and also in place to help do research with them was a big first step. Then, what we've been able to do more recently is really start to gain some additional traction with our Department of Veterans Affairs. We were recently selected as one of 30 companies to be the Phase I recipients of the VA Suicide Prevention Grand Challenge. We beat out almost 1400 other companies for that honor to be in that group of 30 which allowed us to get a

\$250,000 prize from the VA as well as to be part of the accelerator that we're in now, for the Phase II award, which if we're selected in the top two could be up to \$3,000,000 of non-dilutive funding. So, big accomplishment for us and acknowledgment on how our technology can be useful to the VA for early detection of mental health and suicide prevention. It helps us work with the VA better.

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Then secondly, I would say more recently, just literally last week, we were informed that we were selected for a Phase II SBIR from the Air Force AFWERX program to do a study in active-duty airmen on how we can implement our PTSD solution. So, very exciting things on the horizon for us that will enable us to do some additional clinical studies to continue to build the evidence base to help our product development through the FDA.

Anne Naclerio:

After COVID shut everything down and we got our money just under the wire, the next June, our first big accomplishment was a MIPS grant, a Maryland Industrial Partnership grant, which really, while it isn't a lot of money and it's a small business and academic partnership type of setup. We were introduced to some researchers at the University of Maryland Baltimore, and while there was only \$100,000 associated with that, what's been so valuable is our relationship with the researchers there at the University of Maryland.

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So, we got our Phase I that June, and then it was a year later, so we got the Phase II grant which we're actually working currently in the Phase II grant. But the partnership and the relationships we developed with the University of Maryland and the samples we've been able to collect have been really a chunk of the data that we have for our current tools, so that was a really big win. Then we did get an Air Force Phase I grant before the Phase II grant, and then Tshaka already mentioned the VA. So, I think the biggest thing is the building of the relationships.

You asked a little earlier too about how you decide what to do first when you have so many opportunities. Some of it is quite frankly a little bit opportunistic. You have to go with the partners you have, and we have been very successful on that. We did have to choose, even though it's not that we think depression's not important, we had to pick somewhere to start, so our beachhead is in the PTSD area, and that is what we've been working on with the University of Maryland and others.

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While the other data's being collected we just have to focus on one thing first, but these opportunities have allowed us to get the data and to begin to build that data repository that is the evidence on the data that is required to show effectiveness.

Rich Bendis:

I think that Polaris has been very resourceful in really identifying and being successful in winning non-dilutive funding opportunities, which is extremely critical in the early stages of an emerging BioHealth company. A lot of people don't know about the MIPS program, but I think the investment for the company's \$10,000, and you can leverage \$90,000 worth of work from the University. Any time you can get a nine to one leverage on your money, it's very significant for an early-stage company. And then the SBIR programs I think are really one of the greatest sources of early-stage capital for entrepreneurial companies in the United States. And sometimes it's frustrating, because you don't win the first time. You have to do resubmissions, but you have to be persistent and patient, and it does pay off once you do win.

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So, congratulations on your Phase II and also the VA grant. I think all of those things provide some of that necessary funding to help bridge you as you get prepared to go after some serious Series A funding down the road, but you found ways to sustain the company with some of these grant opportunities, so congratulations there. One of the last things, or recent things, that's also happened is there was a Seventh Annual BioHealth Capital Region Crab Trap competition which you competed in. We had 53 companies. Basically, you were one of the two winners in that Crab Trap competition. So, congratulations on that. Charles, you want to talk a little bit about that experience? And what were the benefits other than the nominal amount of money? There are other benefits to being associated with that process.

Charles Cathlin:

It was a great experience. First of all, getting selected to participate: that's an accomplishment itself, because it's very competitive.

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But to actually win—and I believe you mentioned to me that there's never been two winners before.

Rich Bendis:

No, that's the first time we've had two winners. Just to get into the final five, to get your ten minutes of fame in front of prestigious judges is really also another major accomplishment of that. But yeah, congratulations on being one of the first times we've had two winners in that competition.

Charles Cathlin:

Yeah, absolutely. The entire process was very rewarding. Particularly some of the coaching, as well. You were one of the coaches that I worked with, and there were a few others as well to prepare for the event. Got some fantastic feedback. I'll be honest with you, I'm an actions speak louder than words type guy. I'm much more comfortable executing than I am getting up in front of a group and talking about myself, so having that experience was very helpful in preparing me for the competition. The support that we're also getting from the county as well—we got some money from Montgomery County.

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They've been a supporter of our company through this entire journey. We actually initially had some space at the Rockville Innovation Center, and worked closely with the Maryland County Economic Development Center in a number of different efforts to support what we're doing as a company. So, it was fantastic to regroup with them and actually get a little bit of cash reward from them. Second, we've had the opportunity to partner now with JLABS. We went and took a visit to the facilities about two weeks ago, and it's a beautiful facility. So, what we're going to do is have a little bit of lab space and some office space there, and that's also going to open up some doors for us for additional partnerships as well.

Tshaka Cunningham:

I was going to add, Rich, that I was sitting in the audience when Charles was doing the pitch presentation. I have to say just as a co-founder, I was very proud of how well he represented our company there. There was some stiff competition. Those five companies were very, very impressive in their own right, so to be even in the top two is just a tremendous accomplishment.

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What I'll say is I was very happy to see the BioHealth Capital Region represented at that meeting that we were a part of. Our goal is to grow jobs here in the region in biomedical health and biomedical technology, and I think we've got just an amazing opportunity here as our company grows to grow jobs in Maryland and throughout the BHCR, the BioHealth Capital Region, of which Maryland BioHealth Innovations is a very important part. We're looking forward to working with other partners in Montgomery County and the other places, like TEDCO and the Maryland based type of companies and investing platforms. I think our experience with BHI so far has been tremendous, and we thank you all for your work.

Rich Bendis:

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you progress. Also, the partners that you reference are unique to this ecosystem, because there's a little bit of everything that you have to take advantage of.

You mentioned the MIPS program, the TEDCO programs; you have biotechnology investor tax credit programs located within the region, some matching SBIR programs that exist, incubation, JLABS—Sally Allain's great. She's on our board and a great person to work with, and I know you're going to get some additional exposure there. You're sort of sitting in a very robust ecosystem and taking advantage of the resources that are available to you which a lot of the entrepreneurial companies don't do, so congratulations to all of you for that.

Thank you, Tshaka. It's been great working with you guys and watching

We've talked about the past. Let's talk about the future. Let's talk about some of the future goals, milestones that you have and what do you expect to accomplish short term and long term? I see Anne smiling right now. Anne, do you have some ideas related to some short- and long-term goals that you'd like to start with?

I do. First, I'm going to talk about our pretty short-term goals. In the army, we call that our five-meter target. That's winning Phase II of this VA Suicide Grant Challenge called Mission Daybreak.

We hope to win \$3,000,000, or one of the second or third prizes still would be great, because that's going to help us go a long way to our next milestones that we need to hit. That would be really our clinical validation. We have our first tool I mentioned, PTS-ID, validated in several hundred patients, but we really need to validate it in several thousand patients, so we're hoping that winning that will be one opportunity to do that with the VA population. So, clinical validation is one of our next longer-term midrange milestones.

I'll break it up: clinical, regulatory, and reimbursements. Regulatory is another area where we have some milestones. The shorter term there is that we hope to get a BDD. It's called a Breakthrough Device Designation from the FDA on our PTS-ID tool. We've been getting that packet all prettied up, and that's our shorter-term goal. Once we get a little more numbers, we'll be able to put in a 510(k), and we hope to get FDA regulatory approval on that. That's a longer-term goal.

Anne Naclerio:

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But as many young diagnostic companies face, just because it's proven to be effective through the regulatory path doesn't mean people are going to pay for it, so the third category of milestones I'd like to talk about is reimbursement. We kind of skipped it under accomplishments, but we are entering a new program that Illumina's doing with United Health Group. It's called the Illumina Catalyst Program, and we're actually honored to be the first small company that's been selected to go into this program. We'll be working closely with Optum under the United Health Group to determine what they would require for reimbursement for our test. So hopefully, knowing that at the earlier stage, we'll be able to design our trials to hit both milestones. The evidence we need for the regulatory process as well as the evidence we will need for the reimbursement. When you're a small startup, it's great to have something that's been shown effective, but if no one will pay for it, we won't stay in business and get it to the people who need it.

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Rich Bendis:

That's a critical point, because most investors today that you're talking to, you might have a great product, technology, test, biomarker, tool, or whatever it might be, and the investor is going to say, "Well, who in the marketplace is going to pay for your science?" That's one of the critical elements, Anne, so I know that that's one of your goals for going forward. It sounds like you have them laid out very well over the next short-term period—the five-meter period [laughs]—as well as the 26-mile marathon period that you're going to have, which all small companies go through.

Charles, anything you want to add? Or Tshaka, to your future?

I would say in addition to that, fund-raising is always an important component of any startup, so we are in the process of raising our Series A. It seems like we always find bad time to raise money: first during a global pandemic, and now during a recession.

But as you've learned throughout this conversation, I think we're well positioned to be successful in that, and we're talking to some great potential lead investors at the moment. I would encourage any investor who is interested in this space—mental health and biomarkers and working with a stellar team—feel free to reach out so we can have a conversation and see if we're a good fit.

Charles Cathlin:

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Rich Bendis:

Yeah, it's time to get some of that equity capital to go with the non-dilutive capital which you've done and—the investors have to appreciate that, because basically it shows that you're resilient enough and progressive enough that their money will be leveraged with non-dilutive capital continuing down the future for anybody that puts in your equity capital in your Series A. I think it's nice that they know that they have some comfort, that their money won't be the last money in; there will be other money coming in beside it.

Tshaka, anything you want to add about the future?

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Tshaka Cunningham:

Yeah, I think the future looks incredibly bright for our company, and I really love working with the team. I would say to all of those out there: We like smart people and want to have smart people who are mission driven working with us and supporting us as we grow not only our diagnostic portfolio as our five-meter target, but even our 500-meter target which is that therapeutic portfolio. We may see ourselves pivoting in the future as we know what genes are responsible for what mental health conditions.

I'm a molecular biologist; we can make CRISPR and gene therapy for all of these things. We can really see a new field emerging of genetic therapeutic diagnostics for mental health and maybe be leaders in that as it emerges. So, I think the future for us is very bright. We're going to make a new suite of diagnostic tools that are going to transform how mental and behavioral health is diagnosed, and then possibly lead to an explosion of new therapeutics in this field that are more precise and more effective. So, very excited about the future of Polaris Genomics.

Anne Naclerio:

I was just going to add, Rich, that another short-term thing is that if there's anybody out there who wants to work with our team, we are looking in the short term for a full-time lab director.

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We do have a CLIA lab that we mentioned earlier, and we're looking for a full-time lab director. The other position that we're looking isn't full-time, but we kind of have maybe not hit on enough the importance of data in what we do. With all the molecular diagnostics and work that Tshaka does, it generates massive amounts of data, and we will need to combine that with the data in my realm, the clinical data, to be able to most precisely figure out what's going on in the individual. That requires

the handling of massive amounts of data. We're happy to have Dr. Rick Herrera with us on our team as our chief data scientist, but he's looking for a data engineer to help with managing all this data. So, if you're listening to this blog, or you, or you know somebody, think of us. I'm sure our contact information will be in this somewhere.

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Rich Bendis: Thank you, Anne. We like companies that are growing and recruiting

from the BioHealth Capital Region. This has been very interesting with a very important company focused on many issues that are impacting Americans and people around the world today with PTSD, TBI, and

depression, and you're trying to address all of those.

I want to thank Charles Cathlin, the CEO; Tshaka Cunningham, Chief Scientific Officer; and Anne Naclerio, Chief Medical Officer of Polaris Genomics for being on *BioTalk* today. Congratulations on your progress to date. I know that we'll be probably doing an update with you, maybe next year after you've closed your Series A and you've met some of those five-meter milestones that you discussed today. So, thank you all for

being on BioTalk.

Anne Naclerio: Thank you, Rich.

Charles Cathlin: Thank you for having us.

Narrator: Thanks for listening to *BioTalk* with Rich Bendis.

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End of recording