

EP.102 - Geoffrey Lynn

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, I'm Rich Bendis, CEO of BioHealth Innovation, but more importantly, host of BioTalk. As we start 2022, we thought we'd lead off with some exciting entrepreneurs who had major events occur at the end of 2021 that a lot of our listeners probably have not heard about yet. We have had a long-term relationship with this next entrepreneur and his company with BHI. It's very appropriate Geoff Lynn, who's the Senior Vice President at Vaccitech and former CEO of Avidea, gets a chance to be on BioTalk early in 2022 based on how he closed his year in 2021.

0:01:02 Geoff, welcome to BioTalk.

Geoff Lynn: I've enjoyed listening to BioTalk, so it's really a treat for me to be here today.

Rich Bendis: I think you're going to be a great example for a lot of our emerging entrepreneurs on how to build a successful company. We're going to learn about that today. I think one of the best ways to start is for you to do an introduction of yourself and how you evolved to where you are today. You can talk a little bit about academics, NIH, your industry backgrounds, and the career path that has led you to become a successful BioHealth CEO.

Geoff Lynn: Thanks, Rich. I'd like to spend a little bit of time here because I started off as a scientist, and I've evolved into a role as an executive. I'd like to talk about how I got here. Maybe this is an interesting story for other young entrepreneurs out there. An overarching theme in my training and career has been to use science, which has always been a personal interest of mine, to improve people's lives.

0:02:03 I realize this sounds cliché, but it has been absolutely true in my life. I started off in pre-medicine track as an undergrad at Elon University of North Carolina majoring in chemistry. I loved my classes in chemistry but got involved in scientific research early. Being involved in research really opened up a whole new world where I saw an opportunity to use chemistry, materials science research to have a bigger impact on more

patients through developing novel medical therapies. This led me to want to become a physician scientist working at the intersection of science and medicine, so I subsequently pursued combined MD/PhD training as part of the NIH's Oxford/Cambridge Scholars program, which is this really unique program that allowed me to pursue medical training at Johns Hopkins and a PhD degree jointly between Oxford and the Vaccine Research Center at the NIH, National Institutes of Health. After five years of this, in 2015, I had developed a very promising vaccine technology with my colleagues there for inducing T-cell immunity, which was around the same time that checkpoint inhibitors and cancer immunotherapies in general that leveraged T-cell immunity were gaining more prominence.

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This was a really exciting time in the field of oncology, where physicians had determined that you could really improve the lives of patients through this class of therapies called checkpoint inhibitors. It was an interesting time for me because in 2015, around 2016, I was supposed to go back to Hopkins and complete medical training, but given all the excitement and interest in everything that was going on, I knew I needed to take advantage of this opportunity and put my original career plans on hold. I ended up founding Avidea and serving as CEO until December of last year, when we were acquired by Vaccitech, where I am now in a senior VP role helping to lead R&D efforts. I'm a scientist by passion but have become an executive out of necessity, to move forward this technology that I helped develop as a PhD student.

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Rich Bendis:

With the thousands of scientists we have in our region, there's a small percentage of them who would really like to pursue a commercial career. Your example is an excellent example of not the only pathway, but a pathway that someone can explore to actually make that transition and take advantage of both the science and the business side of it. Let's talk a little bit about the history of Avidea, since you took us to that point. How did you get involved with some of the support entities or individuals that you knew you needed assistance from because you didn't have all of those skillsets, being a first-time CEO? Talk a little bit about the history of the company and then where you turned to get advice.

Geoff Lynn:

As a PhD student, I traveled back and forth between Oxford and NIH, designing and synthesizing vaccine prototypes in a chemistry lab with Len

Seymour at Oxford University, and then evaluating candidates in Bob Suter's lab at the Vaccine Research Center at the National Institutes of Health.

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What resulted from this work was an early generation of what we at Vaccitech refer to as our SNAPvax technology platform, which uses self-assembly nanoparticles to make vaccines of precise programmable composition for any application. I realize I'm getting rather technical here, but I really want to stress that the main point here is that we can use this type of synthetic vaccine technology to enable more control, and by providing more control over the vaccine formulations, we can achieve improvements in manufacturability, and then also potentially improvements in safety and efficacy where conventional technologies using recombinant techniques or whole organisms may not be able to address those challenges. Fast forward to about 2015, 2016 when we got to a point when we had something very exciting.

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We were at this crossroads where we said, "OK, what do we do with this technology?" As I mentioned, I was supposed to go back to complete my medical training, but we had this technology that looked quite promising. T-cell immunotherapies were gaining a lot of recognition and interest around that time. I'd say when you're a student, you think, "OK, I published some papers. I'll defend my PhD and move to the next phase of my career." But our scientific cofounder, Andrew Ishizuka, and I believed in what we were doing and wanted to see that technology we developed advance to clinical development. One of the big questions was, how do we get started? Fortunately for us, we were part of an ecosystem here in the BioHealth Capital Region that already had some established infrastructure for startups and was growing rapidly. And, Rich, obviously, you and BHI were a big part of this and helped to build this infrastructure, and we are very much a product of that infrastructure you've built. During that time, when we were looking to get started, we started participating in events in the area, pitch competitions and other opportunities to learn about how to translate our scientific findings into an actual company.

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Really, the pivotal moment, and I'll pick up speed here a little bit, for us to make that transition between a scientific platform to a company was actually at this pitch competition at Johns Hopkins, where we met

Matthew Mulvey, former CEO of BeneVir, which was acquired by Janssen a couple years back, who was a judge at this pitch competition. Matt listened to our pitch, liked what we were doing, and said, "I want you to meet some folks over at BioHealth Innovation," including Ram Aiyar, who was an Entrepreneur-In-Residence, or EIR, there and who's now CEO of Korro Bio, and said, "One of the things you need to get started with when forming a company is working with some people who have done it before and can help you build some foundations."

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We met with Ram, we met with you, Rich, at BHI. Again, this was some additional validation for us because we were speaking with folks like yourself who said, "We think what you're doing looks interesting. There could be a big opportunity here." Really, that opened up a lot of doors for us. That was initially how we got introduced to BHI, and I'm happy to elaborate more on the next steps, once we got our foot in the door, how BHI helped us grow from a scientific platform into a business.

Rich Bendis:

You were sort of dealing with the A-team from BHI because Matt Mulvey was in a similar situation you were in. He took technology out of NYU, moved down to Maryland. He was operating out of Sequella's back office with a bench as he was forming his company. We had a chance to meet Matt, and Ram also was involved in working with Matt to help him grow the company and pivot in their technology to where Janssen Division of J&J took an interest in acquiring him.

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You didn't have a bad set of mentors. Since Ram Aiyar has left BHI as an EIR, he's on his second company now, had an exit with his first company, and is in a really great position with the major financing of Korro Bio. You were very fortunate to be exposed to people who had gone through the experience you were about to take on yourself. Thank you for that background into your connection to BHI, but BHI probably wasn't the only entity that provided support to you in the BioHealth Capital Region. Talk a little bit about how you were embraced by the region and other organizations, entities, or individuals that may have helped you in this timeframe.

Geoff Lynn:

We actually had spun out Avidea as an entity prior to meeting BHI but had really only begun to lay the foundations for the company.

- 0:10:06 Getting connected with Ram Aiyar and BioHealth Innovation was key to us starting to really put a business plan behind this company. We worked with Ram on the pitch deck. BHI introduced us to additional supports. Obviously, for a small company, you're going to get a lot of help from different groups outside the organization, particularly for intellectual property and legal support. We got connected with Michele Wales of Inhouse Patent Counsel. She's worked with a number of startups in the area and worked with us until the acquisition. Michele was hugely beneficial in getting us to where we were last year, and that connection was through BHI. Bringing on Ram and getting help from Michele allowed us to negotiate licenses to the intellectual property out of Oxford and the NIH as well as getting additional background IP from other companies.
- 0:11:09 That was key to building our IP foundations. Ram was also critical to helping us go out and raise some additional seed funding. BHI was really critical to us laying those foundations. I really want to stress how important it is for small companies and young entrepreneurs to be able to get support from people who have done it before. Ram and Michele have both been involved with companies that were successful, and they had seen what to do. We needed that support to get started. That was quite early on, around 2016, 2017. Our next connection was beginning to work with Johns Hopkins FastForward. They were absolutely critical to open up additional resources for us. One of the challenges we found early on was trying to get access to laboratory facilities that had all the instrumentation we needed, but we didn't have the funds to pay for that instrumentation.
- 0:12:09 John Hopkins FastForward program was tremendously helpful. One of the really important things that program provided access to us early on was the instrumentation that we needed to get started. As soon as group doing synthetic chemistry, there are hundreds of thousands or millions of dollars in equipment that's needed to do that work. By being part of Johns Hopkins FastForward, we were able to access equipment and instruments across the Johns Hopkins campus that's part of the core infrastructure you have access to as part of a portfolio company there. I mentioned BHI was critical to us getting set up as a business. Johns Hopkins FastForward program was critical in allowing us to grow into laboratory space that gave us access to all the equipment we needed to start a lot of the R&D we needed to get the company off the ground, to

get the proof of concept data that we needed to get to that next phase of growth and attract additional investment.

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Rich Bendis:

I think what's important for listeners to know, and we're talking with Geoff Lynn, who's the Senior Vice President of Vaccitech and former cofounder of Avidea, is that you basically have to, as a CEO, know what you know and what you don't know. With those things you don't know, it's how you identify resources that can be advisors to you or supplement your knowledge in those areas you're just learning as a first-time CEO. I think that's one of the things you did well, accessing resources and taking advantage of those resources in your own backyard, which enabled you to grow the company but potentially also eliminated some of the need for major overhead at the beginning, until you actually got positioned to where you knew what the future direction of that company was going to be.

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Thank you for what you keep saying about BHI, but it takes a village, and we know that there are a number of people in addition to BHI helping you with your success. Let's talk a little bit now about Chapter 2. One of the nice things was that no one said, "Hey, you've got to move to Boston or San Francisco to be successful." You're proving that you can do that right in your own backyard there with the resources. How did you get introduced to a potential partner like Vaccitech as you were going through your journey?

Geoff Lynn:

That's a great question. I guess there are a couple points I'd like to hit on here. One, to finish up the earlier question about resources here in Maryland, I also want to say, at a state level, there are state programs we took advantage of, tax credits for our investors.

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Those were hugely helpful for bringing investment. I just want to stress that the state's put in a lot of programs that have been critical for us to get started. There's also TEDCO and Maryland Innovation Initiative. We've been able to take advantage of those a little bit later on in our development. But I just really want to stress that there are organizations such as BHI and Hopkins, but then also at the state level that are hugely helpful for these companies.

Rich Bendis:

Did you do any SBIR financing?

Geoff Lynn: We didn't do an SBIR. We were able to secure a different funding mechanism through NIH, but SBIR was something we certainly went after.

Rich Bendis: You're right. The state has significant programs. That Biotechnology Tax Credit Program and TEDCO have supported numerous companies in their early stages. The investor tax program is somewhat unique. There aren't many states or regions in the country that have that, which will actually write a check back to an investor in an early-stage company. Congratulations on taking advantage of that program.

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Geoff Lynn: Thanks, Rich. And I'd say the BITC, as it's called, was critical for us securing some of our early funding from angel investors. Really want to play up the importance of that to us early on. But to your question about growing a young company here in Maryland, I would say that there was a lot of pressure early on, when we were out pitching to biotech VCs based in Boston and the San Francisco area. We did have opportunities to raise a series A, to really get a substantial investment, but we decided to go a different route with the company. We viewed Avidea as a company that had really interesting platform technology. Rather than raising a large series A early on, we focused on earlier R&D efforts to determine exactly what our platform technology could do prior to going out there and raising a larger series A focusing on one- or two-product candidates.

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As you move towards clinical development, you really need to have additional focus on products. But early on, we wanted to explore what our platform technology could do. Really, our approach was, rather than go out and raise a large series A from investors, to determine if we could actually raise enough funds through different business development partnerships with, I would say, small and mid-sized biotech as well as publicly traded companies, including mid-sized biotechs and large pharma. And that was really the main means for Avidea financing itself over the last few years. We had a seed round, about \$1.5 million, but then raised an additional \$6.5 million through different partnerships. That's what allowed us to build out our platform technology, de-risk, and was also in part how we initially got connected with Vaccitech. There are multiple commonalities and connections to Vaccitech, which I can come back to.

- 0:18:00 But really, the way we had focused on financing ourselves as a platform technology company was in part what initially led us down this path that led to the acquisition.
- Rich Bendis:** When you talk about these partnerships, talk about the manner that funding came in. Talk about how much of it was equity-oriented, financing versus partnership, or royalty, or licensing opportunities in these partnerships. It's a unique way to finance the company without having to do traditional venture capital equity as you're trying to grow. Talk briefly a little bit about some of the ways those funds came into the company and what you had to give up to get them.
- Geoff Lynn:** It's a great question. Early on, we were looking at the different funding mechanisms, and as I alluded to for venture capital companies, the platform story resonated with some venture capital firms. Others wanted to see specific products they could be excited about.
- 0:19:00 But the other alternative avenue we decided to pursue early on was to actually find out how we could deploy our platform technology to fulfill the needs of other companies. Broadly speaking, we had a platform technology for inducing T-cell immunity. T-cell immunity can be used for applications in cancer, chronic infections, auto-immune disease. We talked to various biotechs and pharma and tried to understand what their needs were. In these scientific discussions, we identified potential research collaborations and clinical programs we could go down that would bring in some non-dilutive funding for Avidea but would also be a potential joint development venture with these different companies. The big pros and cons of this round of funding, as you know, Rich, is on one hand, it's nice because it's non-dilutive, there's validation because oftentimes, you're working with a partner that brings a lot of external validation.
- 0:20:04 But the potential downside is, you're committing a lot of your own resources to developing a program for your partner, and the upside is typically lower, so there's less interest from your own investors. But there are different ways to try to limit the exposure there, by making sure that the funds you get from the partner can actually offset some of your external costs, maybe bring on new hires, which is certainly a route we took. The other challenge is, how do you slice up your intellectual property? Whenever you undertake a partnership, that partner's usually

going to want an exclusive license to what you're developing with them. We were very cognizant of how these partnerships could affect our IP portfolio and tried to limit risk as much as possible there while retaining most of the intellectual property pie, if you will. But we really found that as a great way to get funds, get validation, but also enable us to still move our own programs forward.

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Rich Bendis: As you started to say before, as you were looking for strategic partners, that was one of the ways in which you may have come in contact with Vaccitech, which there might've been multiple common connections. We talk about how many degrees of separation there are, but maybe on this one, there were many one degrees of separation that brought you to them. Talk a little bit about your introduction to Vaccitech and how that process evolved in evaluation of what that partnership could really look like.

Geoff Lynn: It's funny, there are a lot of connections between the two organizations. We know Bill Enright, Vaccitech's CEO, from working with him here in the BioHealth Capital Region. Both Andrew Ishizuka and I knew the Jenner Institute scientists at Oxford who spun out Vaccitech from our time working there. Andrew was actually a PhD student in the Jenner Institute, was very familiar with their technology, and knows a lot of the scientists there.

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But I'd say it really was a more typical BD process that actually led us to a collaboration with Vaccitech that eventually led to the merger. The timing of these discussions actually worked out very well for both companies. Last summer, Avidea was at a crossroad. We were progressing toward a series A. I mentioned we were a platform company, but we had identified lead candidates for both our cancer vaccine program as well as our immune tolerance program. We had term sheets to move forward with a series A. But we also had various collaborations with other mid-sized biotech companies evaluating opportunities for BD deals, as I mentioned. And Vaccitech was one of these companies where we were evaluating opportunities. Around last summer, we had generated some really exciting data showing that the combination of our vaccine technologies led to improved responses as compared to either alone for cancer treatment.

0:23:02 That had us going down this path of, "Well, maybe we should do a clinical collaboration." As we went deeper into that process, we started to think, "What more can we do together?" I would say the impetus for our discussions is starting off discussing, "Should we do a clinical collaboration?" But as we went further into that process, we saw that there was tremendous potential in bringing these two companies together.

Rich Bendis: You mentioned Bill Enright, and I just had an opportunity to do a BioTalk with Bill this week as well. I don't know if you know it or not, but his wife, Renee, helped me start BioHealth Innovation when we got it started all the way back in 2011, 2012. I met Bill through that process. And Bill has been a serial entrepreneur for over three decades and watched this region evolve over the last 30 years.

0:24:01 Really, I'm certain, he would give you a great perspective, not only looking at the partnership you were trying to form but also providing advice as an entrepreneurial CEO, as he had been in that situation many times, as you were cultivating your relationship with Vaccitech.

Geoff Lynn: Yeah, certainly. It's inspiring to see what Bill has done in building Altimmune, bringing them public, and then doing the same with Vaccitech last year. He's an excellent biotech CEO, but then also specialized in the vaccine space. It was really validating for us as we were having discussions because we really saw a big opportunity to combine our teams and technologies. Bill saw something there, too. Being an experienced CEO like him, that means a lot to us and gave us a lot of validation for moving forward.

Rich Bendis: Talk about the deciding factor that actually said, "Let's do this."

0:25:01 Because you had many alternatives on the table for deciding to get fully in bed with Vaccitech. What were the synergistic reasons for doing a merger, and when did you and your partner say, "This is the right thing. Let's just do it"?

Geoff Lynn: That's a great question, and I think as we were exploring the opportunity, it just became so obvious to us that this was such a perfect fit that we had to take this opportunity and really make sure the merger was successful. I'll touch on a few reasons why. It really comes down to that there's a lot of overlap in teams and technologies, but there's also a

tremendous amount of complementarity that really helps reduce the overall risk of combining these two entities together. Scientifically, both teams are expert in T-cell vaccines and immunotherapies, which means we speak a lot of the same language and are aligned in terms of objectives and how to achieve them. Also, from a product development perspective, our companies were both focused on T-cell-based vaccines for cancer and chronic infectious disease.

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You can see there, there's already a lot of common ground for the organizations. While there was a lot of overlap, there was also a lot of unique complementarity and differences between our teams and technologies. With our synthetic vaccine technology, we can actually expand the indications that Vaccitech can move into, including for applications and tolerance in treating auto-immune diseases. A concern would be, "Whoa, this is spreading things too thin. We're going after cancer, chronic infections, and now auto-immune diseases?" But I'd really stress that going into auto-immune diseases leverages all of the existing expertise and infrastructure of both companies. Looking at this in totality, it just seemed like such an obvious decision to try to bring together these teams.

Rich Bendis:

As we look to the future, and the decision-making process you made seems like a very good one based on the alternatives you had, but sometimes egos get in the way.

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You've been a CEO now for an emerging bio company. All of a sudden, you merged with Vaccitech, a larger company, and have become a Senior Vice President with Vaccitech. You're not a CEO anymore. Talk a little bit about what that transition was like and if it had any impact on the decision process about you not being number one versus being number whatever in a larger company.

Geoff Lynn:

That's a great question. I will say being part of a small company and being able to make decisions quickly was quite a nice experience, but the main driver for me has been to operate in a company as the vehicle to advance promising therapies to patients. I really have no ego about the role and am delighted to actually step out of the CEO role and focus a little bit more on R&D.

- 0:28:00 I think part of the comfort in making that decision and moving into a role that's more focused on R&D is having absolute faith in the leadership at Vaccitech. They have an excellent executive team. I'm fully aligned with their mission and capabilities. I think the other thing is, Bill is the type of CEO who's approachable, and that carries across the organization. I think feeling like you're heard, like you can have these open discussions is also quite important, to make sure that you're able to make a difference in the organization. And I think they are that kind of organization. And that helps a lot. But no ego in having to maintain the mantle of CEO. Happy to fall under Bill's direction here.
- Rich Bendis:** It's nice not to have to worry about making payrolls and raising money anymore, right? That's somebody else's responsibility.
- 0:29:02 The other thing is, it's probably nice to have somebody that you report to or a CEO who's 30 minutes away rather than a couple-thousand miles away. I'm sure Bill is very happy about having another resource in his region and backyard that he can work with to help continue to grow this ecosystem, but also talk about the transatlantic opportunities that take advantage of resources on both sides of the pond. In closing here, I think you have some words of wisdom you might be able to share with other emerging BioHealth entrepreneurs, especially in our region. What would you like to offer as your words of wisdom or advice to people who may have been in your past position before the Vaccitech merger and still have the same opportunity to potentially grow and evolve as you have?
- Geoff Lynn:** I don't know if I'm qualified to be offering advice to other CEOs, but I'll give it a try here.
- 0:30:02 I'd say there are probably a couple lessons I found most valuable. One of those lessons was to listen to the advice of others and take that advice, but certainly, be open-minded about how it applies to your unique situation because every company's different. One thing we always heard was, "Raise as much money as you can whenever you can." We also always got a lot of pushback from different groups saying, "We hate platform companies. They're hard to raise money for." Both of those points, I think, are true, but they're also not true. I think having a nuanced outlook on it is important for a CEO because you have to assess everything internal to your organization as well as external factors and

make decisions. In responding to that advice we got, we could've raised more money earlier, but it would've hindered our ability to pivot.

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It would've prevented us from moving into this merger we're in now because I think we would've had different expectations from our investors and from an organization perspective. I would say that's one important piece. The other is that we quite liked having a platform technology company. It allowed us to find financing from a number of different resources, whereas if we focused on a single product, that has its advantages, but there are also advantages to platform companies as well. I'd say you're going to hear a lot of dogma. I'd just stress that some of it's true, but it may not be true for you. I think you just have to keep an open mind, be quite flexible, and take a nuanced perspective on all of this. I think those are probably some of the big ones. I don't know if you want to push back on that. [Laugh]

Rich Bendis:

No, I'm not going to push back because I've actually told some companies and entrepreneurs, "The money's there, take it because you never know when you're going to get it again," or, "You never know what's going to happen with the company from the time when you're going to need money the next time."

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But at the end of the day, you have to listen to your gut. And you're a scientist, so generally, you work with data. I would imagine you went through a decision-making process where you looked at all of the data and the facts in front of you and tried to actually make quantifiable decisions based on the data you had available to you. Then, ultimately, your gut did make the final decision about what you were going to do, which, to this point, has been right. But there are other people who maybe would've gone in that same direction, and then all of a sudden, their technology or science dies on the vine. They don't have enough money to pivot and really haven't been able to pivot. I compliment you on the decision process you went through to get Avidea to where it was, where it was so attractive to Vaccitech, and I'm sure that they're going to take advantage of your decision-making ability to help guide them in the future with their pipeline.

Geoff Lynn:

I hope so, Rich. Thanks for that.

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Rich Bendis: I want to thank Geoff Lynn, Senior Vice President for Vaccitech and former CEO of Avidea for being on BioTalk today. Thank you for giving us the opportunity to be one of your partners. My only regret is that we didn't have a little bigger piece of the pie as you continued to grow, but we appreciate what you've done for this region, and we also appreciate your and Bill Enright's commitment to keep you in the region. This is an example of a success story of an international company merging and acquiring a BioHealth Capital Region company, and there's been no commitment to say, "You need to move to the UK in order for us to work together." I think they understand that it's better to leverage the resources on both sides of the Atlantic, and it's going to be a much stronger company for Vaccitech. Geoff, thank you for what you have done. We wish you the best of luck as the Senior VP of Vaccitech, and maybe a year from now, we'll have you come back and talk to the other entrepreneurs about how the first year's transition has gone from an independent entrepreneur to being a part of a larger biotech entity.

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Geoff Lynn: It would be an absolute pleasure, Rich. I want to thank you and BHI again for helping build the ecosystem in this area and being a major part of Avidea's story. Thank you, Rich.

Rich Bendis: Thank you very much, Geoff.

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

End of recording