Narrator:	You're listening to <i>BioTalk</i> 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. I'm your host of <i>BioTalk</i> . And we're talking to leaders in the BioHealth Capital Region, and today, I have someone I haven't talked to for a few years, but he happened to be the first chairman of the board for BioHealth Innovation when we were created, and we partnered with MedImmune back at that time, as one of our anchor partners. And I have the pleasure of speaking to my former chairperson, Scott Carmer, who is now the CEO—for several years—of NexImmune. Scott, welcome to <i>BioTalk</i> .
Scott Carmer:	That seems so strange, right? Sounds strange to [laugh] hear you repeat that. But it's wonderful to be reconnected, Rich. Really looking forward to the discussion.
Rich Bendis:	Great, thank you. I know there has been an evolution on both sides.
0:01:00	
	I haven't grown as much facial hair as you have, for sure, but I've definitely lost more hair than you remember. So, we're going to start with Scott, who a lot of people in the region probably know from both days—MedImmune days and NexImmune days. But I'd like to have him do a little introduction of himself, his background, and how he evolved to doing what he's doing today as the CEO of NexImmune. Scott?
Scott Carmer:	So, Rich, maybe I can take a couple of minutes to introduce myself through a review of basically my journey to NexImmune. And at the same time, I can try and characterize why I think what the company is doing truly has disruptive potential, I think, within the—with the evolving field of immunotherapy. So, to rewind the clock, I'm in my 33rd year in the industry. Started my pharma career at GlaxoSmithKline. After 12 years there, I began my biotech career at Amgen. And after a pretty wonderful experience there, I spent the next five very formative years at Genentech. And then, as you said, I ended my biopharma career as an executive vice president at MedImmune, and then MedImmune/AZ.
0:02:06	So, as we were talking earlier, I've now been at NexImmune for a little over six years. But upfront, I'll tell you I'm neither a physician nor a scientist. So Rich, I think like you, I'm just a regular guy.
Rich Bendis:	Good. I'm glad I'm in that camp with you. [laugh]

Scott Carmer:	But I've spent the last 20 years of my career immersed in immunology and commercializing biologics for both cancer and autoimmune disorders. And over those years, I've really been privileged to spend so much time with truly world- class scientists and drug developers. So I've gotten to see firsthand what passion and dedication to science looks like and what it feels like. Having said that, it was my time at Genentech that my daughter was diagnosed with type 1 diabetes. That was October of 2009, so she was six years old at the time. So Rich, that's when connecting science to patients got very personal for me.
0:03:01	
	So now I fast-forward to the end of 2013. I left the world of big biopharma after the full integration between the Medi and the AstraZeneca teams. Because at that time, I really wanted to kind of focus what was left of my career on helping my daughter and finding a potential cure for type 1 diabetes. So initially, I was focused on regenerative approaches that could restore beta cell function and insulin production. And interestingly, at the time—that time in 2013, 2014—the focus of treatment was really transitioning from treating the disease to treating the immune system. So it was really kind of the formal introduction of what we know today as immunotherapy. And this was also the time, as you were rewinding the clock—thanks to you, Rich—that I met the CEO of NexImmune, the founding CEO, a man we both know very well, Dr. Ken Carter. Still on the board.
Rich Bendis:	Still on the board of BioHealth Innovation. Yeah, right!
0:04:01	
Scott Carmer:	Yeah, and as you recall, the three of us were serving on the board, at that time a very young BHI.
Rich Bendis:	Right.
Scott Carmer:	But Ken had just licensed out of Johns Hopkins what he called the AIM technology, AIM standing for Artificial Immune Modulation. He formed a company with three other employees, and in my role at MedImmune, he asked me if I could help him to evaluate the best way to develop this really novel technology with basically a platform of applications. So, I went to Hopkins. I met the scientific founders, Dr. Jonathan Schneck and Dr. Mathias Oelke. I toured their labs. And once I understood it, once I got my head wrapped around it, I became completely kind of amazed by the science behind what they were doing. So just to put more context on this, as I mentioned, in 2013, the field of immunology was I think finally achieving the prominence it deserved, and much

	of it was due to the work of Jim Allison, who, Rich, I know you'll know, as the coinventor of checkpoint inhibitor therapy, subsequently a Nobel Prize winner.
0:05:06	
	And it was Dr. Allison, at the time, that made this audacious claim—"If we want to cure cancer, we've got to stop treating the tumor and start treating the immune system." Right? So kind of again this focus on treating the immune system as a way to potentially cure disease.
Rich Bendis:	It's proactive versus reactive.
Scott Carmer:	Exactly. That's a great way to put it. And so this is exactly what the team at NexImmune was doing. But as far as I could tell, they were doing it in a very unique way. So, the guys in the Schneck and Oelke lab had found a way to in essence direct a specific immune response by controlling the cells that were responsible for mounting that response. So basically what they did is they found a way to direct what we know as cell-mediated immune responses, ramping it up in case of cancer, tamping it down in the case of autoimmune disease like type 1 diabetes.
0:06:01	
	And from what I could tell, they were doing this with a singular technology that could accomplish both objectives, both sides of the coin. So at that point, I was hooked. This was in May of 2014. And I actually volunteered to Ken to go to work for the company full-time, basically for free. So a long way to how I kind of got to NexImmune and the technology.
Rich Bendis:	You still working for free, Scott?
Scott Carmer:	[laugh] My wife said, "You did what?" [laugh]
Rich Bendis:	[laugh] Yeah, I understand.
Scott Carmer:	"You did what?" [laugh]
Rich Bendis:	You know, I hadn't been thinking about this much, but you know, we're the home of the "munes."
Scott Carmer:	Yeah.
Rich Bendis:	I really didn't think about that; then I just started going through the list. You know—MedImmune and CytImmune and Altimmune and NexImmune. And so Montgomery County is the home of the "munes"! The name was already there before you got there, right?

Scott Carmer:	That's correct, yeah.
Rich Bendis:	And that was sort of Ken's idea?
Scott Carmer:	Yep. Ken and Alain Cappeluti, kind of the—
Rich Bendis:	Alain, sure. I remember Alain
Scott Carmer:	Yeah.
Rich Bendis:	Yeah, yeah, yeah. Okay, great. Well, you've had in interesting evolution there at NexImmune in six years, but I think you're getting to the point where some very nice milestones are being achieved right now.
0:07:07	
Scott Carmer:	Right. Correct.
Rich Bendis:	Why don't we talk about the progress that's been happening and talk about some of those milestones which are very significant for an emerging company?
Scott Carmer:	Let me answer that, but let me back up, because I have to tell you, transitioning from an Amgen and a Genentech and a MedImmune—
Rich Bendis:	To a startup.
Rich Bendis: Scott Carmer:	To a startup. —to a startup with five employees, was quite a transition, to say the least. And for people listening, I can't express enough how difficult it is. You think, "Well, we're just going to optimize the technology." So for six years, Rich, [laugh] the majority of those six years, that time was spent optimizing this technology. Transitioning it out of Hopkins from a research capability, research scale, research grade, research application, now to commercial scale, commercial quality, commercial application. It sounds pretty straightforward, but for those of your listeners that are in startups, [laugh] that's not just something you push the fast-forward button on, and "Wha-la, we're in the clinic."
Rich Bendis: Scott Carmer: 0:08:05	To a startup. —to a startup with five employees, was quite a transition, to say the least. And for people listening, I can't express enough how difficult it is. You think, "Well, we're just going to optimize the technology." So for six years, Rich, [laugh] the majority of those six years, that time was spent optimizing this technology. Transitioning it out of Hopkins from a research capability, research scale, research grade, research application, now to commercial scale, commercial quality, commercial application. It sounds pretty straightforward, but for those of your listeners that are in startups, [laugh] that's not just something you push the fast-forward button on, and "Wha-la, we're in the clinic."
Rich Bendis: Scott Carmer: 0:08:05 Rich Bendis:	To a startup. —to a startup with five employees, was quite a transition, to say the least. And for people listening, I can't express enough how difficult it is. You think, "Well, we're just going to optimize the technology." So for six years, Rich, [laugh] the majority of those six years, that time was spent optimizing this technology. Transitioning it out of Hopkins from a research capability, research scale, research grade, research application, now to commercial scale, commercial quality, commercial application. It sounds pretty straightforward, but for those of your listeners that are in startups, [laugh] that's not just something you push the fast-forward button on, and "Wha-la, we're in the clinic." How many times during this period, though, as we digress a little bit, did you and your wife say, "What did I do?"
Rich Bendis: Scott Carmer: 0:08:05 Rich Bendis: Scott Carmer:	To a startup. —to a startup with five employees, was quite a transition, to say the least. And for people listening, I can't express enough how difficult it is. You think, "Well, we're just going to optimize the technology." So for six years, Rich, [laugh] the majority of those six years, that time was spent optimizing this technology. Transitioning it out of Hopkins from a research capability, research scale, research grade, research application, now to commercial scale, commercial quality, commercial application. It sounds pretty straightforward, but for those of your listeners that are in startups, [laugh] that's not just something you push the fast-forward button on, and "Wha-la, we're in the clinic." How many times during this period, though, as we digress a little bit, did you and your wife say, "What did I do?" Yeah. That's—. [laugh]
Rich Bendis: Scott Carmer: 0:08:05 Rich Bendis: Scott Carmer: Rich Bendis:	To a startup. —to a startup with five employees, was quite a transition, to say the least. And for people listening, I can't express enough how difficult it is. You think, "Well, we're just going to optimize the technology." So for six years, Rich, [laugh] the majority of those six years, that time was spent optimizing this technology. Transitioning it out of Hopkins from a research capability, research scale, research grade, research application, now to commercial scale, commercial quality, commercial application. It sounds pretty straightforward, but for those of your listeners that are in startups, [laugh] that's not just something you push the fast-forward button on, and "Wha-la, we're in the clinic." How many times during this period, though, as we digress a little bit, did you and your wife say, "What did I do?" Yeah. That's—. [laugh] Because I'm sure it's—

Rich Bendis:	Well, no, I mean you go through cycles with startups, and you're on a high for a while, and all of a sudden, "Oh my god, how am I gonna make the next payroll?"
Scott Carmer:	I don't think—there wasn't a point that I looked back and said, "Boy, I think I made a mistake." I think I had to keep looking forward and say—just realize how different this is. You know, I always hear this—we always hear, right?—that entrepreneurs are such risk-takers, right? And I remember coming into this like, "Ooh, we're going to be big risk takers." But it couldn't be really more different when you get into it. Because you can't afford to take big risks. I mean, you take calculated risks, but you've really got to think things through. Because you have this thing, which I never—I couldn't even spell, when I was at MedImmune—called "cash runway." [laugh]
Rich Bendis:	[laugh]
Scott Carmer:	And every single dollar—I mean, I can tell you now, thinking back and I'm not joking, I can tell you the cost of every experiment.
0:09:01	
	I can tell you how much reagents cost. So you do get a real appreciation for really what's critically important to the business, and those are the things you focus on. And so it's, at least for me, a different concept of entrepreneurs as risk takers.
Rich Bendis:	Right. Well, I don't know if you can dispel to say that there isn't a risk, because there definitely is a risk every day in what we're doing. But yet, when you say calculated, it really gets down, as you say, burn rate. You're not really worried about revenues, profits, EBITA, and things like that. It's really how much runway do we have, and how much burn can we afford this month or this week, right?
Scott Carmer:	I think back and the big differences. And coming from a big company—and it's really nothing against the big companies, but there's a sense of security that you have there that's just a luxury you don't necessarily always have when you transition to a small company. And so it's things like run rate, cash burn, that you really, really learn to prioritize those things that are critical to the business, and that's all you focus on.
0:10:04	
Rich Bendis:	Well, basically you have specialists in big companies, and you have generalists in small companies. So people have to do more than one thing in a NexImmune versus you could go to someone who had a very narrow job description at MedImmune or AstraZeneca, correct?

- Scott Carmer: That's such a great point. And when we hire, the interview process, we can't afford specialists. We have to have people that understand specialty areas but can participate across the company. And so it's a very unique way to profile and recruit talent into the company. And you really have to be crystal clear in setting expectations, because when you do recruit from big biotech or big pharma, people have to come eyes wide open into what they're getting into. To your point, it's a completely different world. But with that goes a different kind of excitement, a different kind of engagement, a different finger on the pulse of everything that's really important in the company.
- **Rich Bendis:** So when do you think the first major breakthroughs have happened in the last six years for you in the company?

0:11:01

Scott Carmer:

Oh man, that's great. So let me kind of answer that by telling you what I found so attractive about the technology and what we're now seeing as we translate the preclinical work into the clinical trials. I talked about cell-mediated immunity and the ability to direct cell-mediated immunity. So let me put that into context. And forgive me if this is a bit basic, but it's a real good way to put context around what I think is so unique about the technology. So if I may, three minutes on an immunology primer. At the heart of the immune system are T cells. They're the body's go-to cell. So whenever healthy cells are under an attack, either by a virus or bacteria or cancer, the immune system calls on the T cell to get the job done, to identify the specific invader, to identify the specific disease cell, and then to kill only those disease cells and leave all the other healthy cells alone. So importantly, natural T cells have this ability, this amazing ability, to distinguish between diseased and healthy cells.

0:12:05

But—and here's where we transition into what we're doing—a T cell is nothing without instructions. And so T cells have to be given very specific sets of instructions before they can do their job. So without these instructions, they're just like a normal cell. And here's where what the company does comes in. So we've created a technology that's been designed to provide these very specific instructions to these very specific T cells. And we employ natural biology in how we do it. So what does this mean? In healthy individuals, the immune cells that normally provide these instructions to T cells are called dendritic cells. They're often referred to as professional antigen-presenting cells. And you can think of antigens as sets of instructions. However, in many diseases including cancer, T cells don't get the right kind of instructions, because the dendritic cells have become dysfunctional.

0:13:01

	A lot of times in cancer, cancer overrides the dendritic cell and the instructions they deliver to T cells. So, what we've done is we've developed a technology that basically takes over this role, and we provide the right kind of instructions to T cells. So in essence, Rich, what we've done is we've developed synthetic nanoparticle dendritic cells which use the same natural biology to direct T cells activity. And we're very, very precise in how we do this. So these synthetic dendritic cells are programmed. We actually program them to deliver just the set of instructions that we want, just to a set of T cells that we're targeting. So for cancer—if we translate this to our cancer products, these products contain populations of T cells that can identify and attack multiple tumor-specific targets on a cancer cell. They're highly potent in their ability to kill these cells, and they can very effectively distinguish between tumor cells and healthy cells in terms of killing activity.
0:14:03	
	So this leads to why we're so bullish in what we're seeing being translated on an in-vitro preclinical basis actually into cancer patients at this point. So in a nutshell, that's the technology we developed, and that's its role that it plays in generating these very specific immune responses. Does that make sense?
Rich Bendis:	Yeah, it makes sense. I guess one of the questions listeners might have is that— what's so unique about what you're doing, and are there other people going down the same critical pathway as you, to try to come to a good solution?
Scott Carmer:	Yeah, great question. So of course several others in the field—everyone in the field recognizes the dendritic cell basically controls and directs an immune response. So there are plenty of other technologies, other academic institutions, other companies, that are trying to use a natural dendritic cell. So they're trying to feed instructions on an in vitro basis to these dendritic cells, in hopes that the dendritic cells will then translate those into specific signals for T cells.
0:15:02	
	The problem with that is, as I said earlier, dendritic cells are professional antigen-presenting cells. So they're processing and presenting hundreds of different signals to T cells. So it has been found to be very difficult to try and train a dendritic cell to deliver very specific sets of instructions. Interestingly, the founders of NexImmune, in the late nineties and early 2000s, were using dendritic cells to try and instruct T cells. And they became so frustrated—that's where they got the idea, "Heck with it. I'm going to develop my own synthetic dendritic cell that will only deliver these instructions." The other way that the

	field has evolved to try and direct T cell function is to genetically engineer a T cell. So I'm sure you're familiar with the world of like CAR T therapies—
Rich Bendis:	Sure.
Scott Carmer:	—or engineered TCRs. So there, you can very, very selectively direct a T cell to a specific target. The problem is, because if you take away naturally occurring signaling and engagement mechanisms, you've got kind of rogue killers.
0:16:02	
	So they have a very hard time distinguishing between a healthy cell and a diseased cell. And thus you see some of these fatal toxicities, these on-target, off-target toxicities. So we think that there's a way to use natural T cells to find those that we can actually show are just as potent as an engineered T cell, multiply those outside the body, and then reintroduce those as a therapeutic.
Rich Bendis:	So how many twists and turns have you had to go through to pivot the science to get to where you are today?
Scott Carmer:	That's another great question. This goes back to it's just not—
Rich Bendis:	That's a third great question in a row, Scott. I don't know!
Scott Carmer:	I always knew why you are where you are, right? The hardest part, Rich, was developing these biological signaling proteins that a T cell would recognize as natural. So to do that, we had to humanize these very specific signaling proteins, both in terms of how we present an antigen to a T cell and then how we provide a stimulatory signal.
0:17:00	
	When I say we found natural biology to do that, these are synthetic nanoparticles, but the signaling proteins are fully human. So even though it's an artificial synthetic approach, the T cell experiences the engagement as if it were a cell-cell interaction. That's pretty intricate, pretty sophisticated protein engineering. And that was the step that took us the longest—to take that from research scale—you know, you can get a lot of things to work in a mouse; it's very hard to reproduce that and get it to work safely and effectively in a human. So that was definitely the heavy lifting.
Rich Bendis:	And so that's sort of the preclinical to clinical. And now you're approaching the clinical stage, what everybody's waiting for, and what everyone waits to get to. So you've had a couple milestones, I guess, this year, that you've achieved, related to the clinicals, which I'm glad we had this background and primer for

	everybody before. Now we can talk about where you are as you enter the clinical phase.
Scott Carmer:	That's just an adequate question, Rich, but I'll go ahead and—
Rich Bendis:	Okay, okay. [laugh]
0:18:00	
Scott Carmer:	[laugh]
Rich Bendis:	I'll try to improve the next one, but you're gonna love that one, when it gets—
Scott Carmer:	So you know it's a big deal in the world of startups to transition your nomenclature from a preclinical company to a clinical stage company, and that's the threshold that the company passed this year. So as you highlighted, in terms of milestones, last year we submitted two INDs to the FDA to study two very specific patient populations. The first population are AML patients with relapsed disease after an allogeneics transplant. This is a population that has literally a handful of months to live, so a very high significant unmet need. The second population we're studying now are for multiple myeloma patients who have failed three prior lines of therapy. So despite all the advances we've seen in multiple myeloma, there's still not a curative therapy. All these patients ultimately relapse, and all of them ultimately die from their disease. So those are the first two indications we're pursuing. We got clearance for the INDs in a one-cycle review.
0:19:01	
	So for a novel cell therapy, a one-cycle review with the FDA was, I think, a compliment to this very small team that we have at NexImmune to put together pretty high-quality INDs. So as you mentioned, we're in the clinic. Our milestones that we just hit—last week, we completed the dosing of our first safety cohort for the AML program. So this is a safety cohort at our dose level one, so three patients successfully infused. And we also just this week treated our first multiple myeloma patient. So we are accumulating data. And as we look forward, we will be presenting that initial data at the ASH symposium in early December.
Rich Bendis:	And generally, it's hard enough for one company or a small emerging company to get one technology into clinicals, and you're on a parallel path right now.
Scott Carmer:	Yeah. We joke—we've got a couple people that work there, that are from MedImmune, a couple people that have been with me in my career all from my Genentech days. But a handful of us have had senior positions at big biotech.

0:20:00

	And we kind of joke amongst ourselves—the four people that put together these INDs, we would have had 45 people. [laugh] You know? At larger companies. So when you say earlier you have to be a generalist, could I have imagined myself writing a section of an IND [laugh] back in my previous roles? No.
Rich Bendis:	[laugh] As a non-scientist, right?
Scott Carmer:	Yeah. But this is the kind of stuff I think that's exciting about transitioning into a small startup. They're not for everyone—
Rich Bendis:	Oh, no.
Scott Carmer:	—but when you kind of hit your stride, it's compelling.
Rich Bendis:	Well, it's getting into the fun times, now. What's more fun is you actually have some funding to carry it forward, right?
Scott Carmer:	Yeah, yeah.
Rich Bendis:	So that's one of the things, when you talk about the trials and tribulations of entrepreneurs, especially in life science/bio companies, is you're always at that next stage, looking for the next round. So talk a little bit about the funding history with NexImmune.
Scott Carmer:	Yeah, sure. So when I listen to you ask that question, I remember when I was thinking—considering taking the plunge, you know, from going from MedImmune to a small startup.
0:21:00	
	And I got a hold of one of my former colleagues at Genentech, who was the head of one of the research areas, and he left to form a startup. So I just called him to give me some advice. And the first thing he said, the first three things he said was, "Get used to groveling for money, because that's all you're gonna do." [laugh]
Rich Bendis:	[laugh] That's true! You know what? It works the same way in the non-profit world as it does in the for-profit world. So I'm still groveling as well.
Scott Carmer:	But, there's a lot to that. And, it's true, to your point—you're always looking for your next round. In terms of our history, we were very fortunate. The company was very fortunate in that our initial seed financing was led by NEA. So we got help from local muscle in the area to get us up and running. And since then,

	we've raised over \$85 million in equity financing. We've expanded our investor pool. So you'll probably know the name Dr. Sol Barer.
Rich Bendis:	Sure.
Scott Carmer:	He formed a fund years ago. He's now one of our largest investors. ArrowMark Capital is another one of our large investors.
0:22:00	
	We also have welcomed the investment arms of the Leukemia & Lymphoma Society, as well as the Multiple Myeloma Research Foundation. So, it's been quite a journey, but we've been successful in raising financing. And now, to your point, we're now generating patient data, and depending on the timing and the strength of that data, we'll think about what comes next with the company.
Rich Bendis:	Yeah. I mean, there's a few early-stage bio companies testing the IPO world right now. So you gotta go when the window is there, but you gotta also be positioned against the comps, so that you will be viewed appropriately by the investor community, right?
Scott Carmer:	And that's always the delicate balance, right?
Rich Bendis:	Yeah, right.
Scott Carmer:	To your point, when the window is open, you should jump, jump through it.
Rich Bendis:	And who knows how long this window is gonna be here right now?
Scott Carmer:	Exactly. But when you're at this point, in the midst of generating data, it's very difficult to try and think about paying a specific valuation on the company, right? Because these are, as you know, binary events.
0:23:01	
	So, we'll see. But I think early in next year, we'll be trying to decide, what's the next right option for the company in terms of financing.
Rich Bendis:	Well, good luck. But in addition to funding, the other critical component is talent. And so one of the things we talked before we actually started the podcast was the talent within this region. As you know, our friend, collective friend, and now my current chairman, Jarrod Borkat—former MedImmune alum—has worked with BHI, and when we created the BioHealth Capital Region—Maryland, D.C., and Virginia—which now is the fourth leading biopharma cluster in America, Scott. When you were involved maybe seven and eight years ago, we were like number six.

Scott Carmer:	I gotta tell you, here's where—all kidding aside—where I really have to tip my hat to you, and to the work that you've been spearheading, that you've been leading, and kind of your vision for transforming the area. You and I were talking earlier—ten years ago, when I first moved here, it was next to impossible to recruit world-class talent. Couldn't get it from Boston.
0:24:00	
	Couldn't get it from San Francisco. Couldn't even get it from San Diego. Now, fast forward ten years, this has become, as you said, a hub. NexImmune has recruited exceptional talent from the local academic institutions, so from Hopkins and from University of Maryland, from the NIH, from the NCI, even from the local pond. We've been getting good talent—I hate to say this, but— from MedImmune, from AstraZeneca, from Intrexon. I was half-joking with you, when we started—we've become now a victim of our own success in that we're actually getting poached!
Rich Bendis:	[laugh] Well, it's a compliment to the company, because you've hired some stars that other people want, right?
Scott Carmer:	Yeah. But I think to the point you're making, and the point I would like to reinforce, we're now—this area has become a source of incredible talent, and at all levels, of amazing scientists, amazing project leaders, amazing drug developers, amazing executives. So yeah, I think in ten years, it has been quite a transformation. And I think it's a testament to the region.
Rich Bendis:	Yeah, I agree.
0:25:00	
	You know, in ten years, the challenge was ten years ago, as you stated, we really didn't have a robust cluster. You really had HGS and MedImmune and some emerging companies. So the reason it was hard to attract people was that, what happens if something happened with my job with MedImmune? Who am I going to go to where I don't have to pick up and move to go back to Boston or San Francisco again?
Scott Carmer:	When you tried to recruit, that's exactly what people would say. "If things don't work out, where do I go? I'm going to move my family here, and what happens?"
Rich Bendis:	Yeah. And so it's refreshing. And another thing that's very interesting with the COVID-19 and the BARDA funding—and I don't know if you've followed this much because you're not as much into that world—four out of the top eight funded COVID-19 companies in the United States or the world basically are in

	Montgomery County. You have AstraZeneca, GSK, Emergent, and Novavax. And in the last four months, we've had \$6.6 billion of federal funding come into Maryland companies to address COVID-19 and the pandemic, which is more than any other region in the United States probably the world.
0:26:07	
Scott Carmer:	So what's that going to do for the region in the next survey, right?
Rich Bendis:	The <i>Genetic Engineering News</i> rankings are coming out, and I've been sort of educating the editor over the last three years about how they need to change their dynamics. And I said, "You know, I think"—Alex Philippidis—I said, "Alex, I think we need to create a new category this year. Why don't we look at COVID-19 funding as the sixth benchmark?" [laugh] It might get us to number three quicker! But I don't know what'll happen. But I mean, it's just reflective of the talent and the quality of the companies. And it's really the epicenter for vaccine development and manufacturing in the world, right here.
Scott Carmer:	I think you're spot on, Rich. I think you're spot on.
Rich Bendis:	Yeah. And it's gonna become CAR-T cell therapy. You know, that's sort of the next direction we're going—right where you are, Scott. Anyway, so let's talk about the future. You've gotten to a couple critical milestones. So what's the next three to five years look like for NexImmune?
0:27:00	
Scott Carmer:	I think after all this kind of heavy lifting, I think we're at the point now where we can sit back and say, "It's really time to focus on our vision." So, why did we form this company? What's our vision? What's our mission? How do we translate that? And for me, that means to continue to develop the platform, across cancer, autoimmune, and infectious disease areas. To continue to move innovative products into the clinic. To continue to create value for our current and future investors. But by far, most importantly, to continue to develop products that have significant potential to restore hope for the many patients and the many families who just basically have very little left. One of the reasons I joined NexImmune—and this is the spirit of Genentech, it's the spirit of MedImmune, it's the spirit of Amgen—it's swinging for the fences, Rich. Our goal isn't incrementalism. We're pursuing technology with curative potential, full stop.
Rich Bendis:	It's gotta be so satisfying, too, to know that every day, all of the associates, employees you have realize that if you're successful, you can change the lives of many people that really don't have much to look forward to now.

0:28:08

Scott Carmer:	I said earlier when my daughter was diagnosed with type 1 that connecting science to patients became personal and real for me. What I see here when I walk the walls at NexImmune and walk into the labs, every single scientist really fully—and I mean really understands that experiment they're doing is going to impact a patient one way or the other. We have in our all-hands meetings, in our town halls, we talk about the patients that we're treating. We talk about, "This is a 65-year-old man. He's a grandfather. He's a father. He's a husband." Right? "And he's got this terrible disease, and his life is kind of now in our hands." I know every company tries to maintain that connection and focus, but when you're at a company of 40 employees, I mean, that connection is tangible.
Rich Bendis:	Oh, definitely. It gives you a reason to wake up in the morning.
Scott Carmer:	If that can't get you out of bed in the morning, then you're in the wrong business.
Rich Bendis:	Yeah. We're speaking with Scott Carmer, the CEO of NexImmune, one of the emerging—becoming higher-profile companies in the BioHealth Capital Region.
0:29:08	
	And Scott, this has really been enjoyable. It has been nice to catch up with you. And I'm going to let you have the open mic to close any way you want. Anything that we've missed? Anything you want to share with anybody about NexImmune, the region, the company, or any of your research?
Scott Carmer:	I'll maybe just close with a general comment, Rich. We're old enough, I'm old enough, to remember—
Rich Bendis:	I'm definitely old enough! [laugh]
Scott Carmer:	—think back in the seventies when it was the pharmaceutical industry, and we were punching out pills, and focused on chemically-mediated pathways. In the eighties and the nineties came the advent of biologics, right, and we started using proteins as therapeutics. We're now kind of in the next frontier, where we're actually using human cells to treat disease. And again, as I said earlier, these are therapies that really have curative potential. As we think about harnessing the immune system, it's just a fascinating, amazing, exciting time to be still engaged in the field.

0:30:06

And when we think about manufacturing—you mentioned companies moving to the area—this is the Wild West. I mean, we're still figuring out, what's the best way to do this? So, it's just a really exciting time for science. It's an exciting time for people developing that science. And I think most importantly, it's a really exciting, hopeful time for patients that heretofore had incurable diseases. So it's great to remain engaged.

Rich Bendis:Yeah, I think the key is—and COVID shined a light on this for me, and really our
industry—and when you look at everybody struggling in so many other different
industries in the United States and around the world right now, to be involved in
life sciences and the BioHealth industry, which is so relevant and so important
to everybody around the world, it makes you feel good about what you do every
day. And also, we're very fortunate—with all of the employees we have in this
industry around the world, they are all mostly gainfully employed.

0:31:03 They are essential employees. They've been working generally full-time, whether it's virtual or on site, and still trying to make a difference. So I'm glad that I actually ended up where I am today, because I feel that I get a chance to talk—

Scott Carmer: You get to see all of it, right? [laugh]

Rich Bendis:Well, I don't know if I get to see it all, but it's really what the legacy is, is that
you can make a small difference, even with a small group of people someday.

Scott Carmer: Oh, I have just one kind of final comment on this essential worker. During the thick of COVID, from the March timeframe moving forward, when the pandemic was really kind of at its most fierce and we didn't know enough about it, institutions like MD Anderson and Memorial Sloan Kettering and Dana-Farber and City of Hope basically shut down. They shut down their research facilities, and they shut down the majority of their clinical trial application. During this time, our AML trial, this little small company in Maryland, was one of the very few trials that was remained to stay active and recruiting, because of the potential of the therapy and because of the significant need of the patients.

0:32:08

So it's that kind of message that we take to our employees, and that's the meaning of essential workers and essential technology.

Rich Bendis: Well, I'm glad we're both essential, Scott. [laugh]

Scott Carmer: [laugh]

Rich Bendis:	And trying to continue to make a difference. And it has really been great to
	catch up with you. We've been listening to Scott Carmer, who's the CEO of
	NexImmune, who has had a very interesting journey through the life science
	and biotechnology world, and will have one of our next success stories here
	within the BioHealth Capital Region. Scott, thanks for being on <i>BioTalk</i> .
Scott Carmer:	Thanks, you guys. Really appreciate it.
Narrator:	Thanks for listening to <i>BioTalk</i> with Rich Bendis.
End of recording	