

Denise Graves Podcast

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SPEAKERS

Announcer, Ed Clemente, Denise Graves

A Announcer 00:01

Welcome to The Michigan Opportunity, an economic development podcast featuring candid conversations with business leaders across Michigan. You'll hear firsthand accounts from Michigan business leaders and innovators about how the state is driving job growth and business investment, supporting a thriving entrepreneurial ecosystem, building vibrant communities and helping to attract and retain one of the most diverse and significant workforces in the nation.

E Ed Clemente 00:28


Hello, I'm Ed Clemente your host, and we're very fortunate to have Denise Graves. She's the University Relations Director and Entrepreneurship and Innovation. I get all that correctly Denise?

D Denise Graves 00:40

You did Ed, Thank you.

E Ed Clemente 00:41

I'm actually very excited about this because I actually did bills for commercialization and tech transfer when I was in the legislature. And it's one of those really unique niches that a lot of people don't understand, but they don't realize how critical that is to a lot of the entrepreneurship and innovation that goes on in the state. So why don't you kind of tell people if no one ever knew what you did you first time met them? What would you tell them you do?



D

Denise Graves 01:07

Hi Ed, yeah, thanks for the opportunity to have the conversation with you today. Hello, everyone, as Ed mentioned, I'm Denise Graves, a University Relations Director on the Entrepreneurship and Innovation team at the Michigan Economic Development Corporation. And in my role, I work with the state's universities across the state, as I mentioned all 15 publics, and helping to support funding from the State of Michigan to assist in technology commercialization. So there are a lot of different ways to support entrepreneurship across the state. We have our funding that focuses on the high tech sector of entrepreneurship, so that's what we're talking a little bit about today. And we're also, to drill down a little bit more, talking about commercializing technology out of university and out of a hospital system. So that's just a little bit of an overview and kind of a level of discussion there to level set the discussion that we're going to have today. Technology Commercialization is not for the faint of heart, and in most cases will take years, and can be a significant player in the economic development of the state as well as local communities. And it's all about intellectual property, market growth startups and employees. And if you think of a couple of quick examples that come to mind, and when you and I were talking before, think about Gatorade, or the FluMist vaccine. So those are two really cool products that and there's millions of them, I we don't have time today to talk about all of them. But those are a couple of great examples that I think will hit home and people will understand that this is what we're talking about. And those technologies came out of university into the market.

E

Ed Clemente 02:52

So, like for example, the Gatorade one, I know it was down in Florida, I believe somewhere where the I can't remember what university was. But so some scientist was doing research on replenishing fluids, right, for athletes or something like that. I think that's how it started, wasn't it?

D

Denise Graves 03:07

I would assume so. I am not an expert in that particular technology. But that's usually where it starts. You know that the life cycle of bringing technology to market is a long one. It has a lot of moving parts and typically starts very early on with basic research. As you mentioned, the scientist in a lab, a postdoc, you know, a fellow, students that are interested in research and bringing products to market. This very basic research is typically supported by federal programs, think about the Department of Defense, DOD, National Institutes of Health, the National Science Foundation, many other federal programs that kind of give the research a very early start. And then through the years, the MEDC and in my role in the state has supported matching funds to help create funding opportunities as well as mentors and residents that help get these technologies out of the lab and into the market. A lot of times, you also will move to an applied or hear about a sponsored research opportunity. And those are key industry engagements that solve a specific problem. So most likely driven by an industry partner, and specific to a university or specific to a faculty members expertise, or a student's area of study. And then today we're focusing more on the translational research. And that just in its simplest form means taking that technology out of the university and getting it into the market, either through a startup or a license to an industry partner.

E

Ed Clemente 04:40

Well, you know, how you got there and the way you explain that, I think is unique just because your job and how you got to this point and background wise, I should mention up front we both went to Ferris. [Yeah, Go Dogs.] And congratulations, I know you're now on the Ferris Foundation Board. Is that correct? [That's correct. Thank you.] Yeah, yeah and also, you had jobs similar in kind of this technology field when you're in Ann Arbor or working in sales? A, I don't, can you explain exactly how you kind of got on this path?

D

Denise Graves 05:12

I'd be happy to. So I have an accounting degree from Ferris, and worked at a CPA firm for a little bit. And then based on software was using transitioned into that software company that was selling software to accountants and CPAs. So what a perfect fit, right? So I use the software, I could walk the walk, talk to talk the talk, and then transition into, you know, a larger organization in Ann Arbor, then called Arbortext, where we were selling b2b type of content management software, so big pieces of software into big organizations. And then from there did a couple of stints in startups. So you know, having some experience and selling technologies into a market that were brand new, and that we're still kind of going through that customer iteration process. So then transition I've been at the MEDC for this is my 11th year. So transition to the MEDC and have the pleasure of working with universities, startups, students, and all kinds of service providers and institutions that focus on the entrepreneurship and innovation space in the state of Michigan.

E

Ed Clemente 06:24

I want to zero in on one thing, you kind of went by it sort of fast. But I think the most critical thing you might have said there is how important it is to sort of have a technology background and sort of be in sales. Because I know so many people can do one or the other, most people can't do both. And I only say that because you never know who listens to the podcast, but either it's maybe hopefully a student who's thinking about career options, and we can talk about that a little bit later. but also parents who want their kids to think about, you know, a program to get into, I just think that that's pretty important for a lot of what you're talking about the tech transfer and commercialization part of it.

D

Denise Graves 07:03

It is you know, it's something that I've always enjoyed, you know, I have kind of a techie mind, I probably would have made a great engineer as well. But you know, going through high school, that really wasn't an option presented to me. So I latched on to the accounting side, because that's just how my brain is wired. But then through all my sales training, I have over 20 years of sales experience, I enjoy working with people, and doing the business development side of it. So I've put my own little spin on this role in being able to, you know, get down and enjoy and understand the technical side, but also make all the connections and think on my feet and be able to connect a faculty member to an investor or introduce an investor to a partner in a, you know, startup. So it's just, it's a perfect fit for the way I'm wired and the experience that I've received.

E

Ed Clemente 07:54

Yeah, you know, and let's jump a little bit into the public universities that you work with. I know that we have, I believe I remember 15 I can't remember exactly, [we do] yes, yeah. 15 public universities. [That's right.] And you work with all of them. I mean, in one of our pre-calls, you're even talking about what you're doing, I think with Michigan Tech, or, you know, you're around the whole state, right?

D

Denise Graves 08:18

I am. You know, I know that, and it's obvious that the large R1 institutions that we have in the state of Michigan have the most activity, so the University of Michigan, Michigan State and Wayne State, however, I'm an inclusive thinking type of person. And I know that in the four walls of all of the rest of the universities across the state of Michigan, there are cool things happening and we should give those technologies a pathway and those faculty members, those researchers, those students, an opportunity to also work on technologies that come out to the commercial market. And and I will say the the large institutions in the state are awesome mentors to those smaller universities who don't have their own tech transfer offices don't have people that are focused on this work day in and day out. So, you know, I am very proud that Michigan has a strong statewide collaborative network among our universities and the entrepreneurial ecosystem. So I love getting up to Houghton to Michigan Tech. I'm going to Northern in April to celebrate some students entrepreneurship pitches, I get to serve as a judge Northern a faculty member, Jeff Horn was just supported through one of my programs for some technology that he is working on. We've been able to support technologies at Oakland, Ferris, Grand Valley, Central Michigan, so it is truly a statewide collaboration.

E

Ed Clemente 09:52

Yeah, and I think you know, the one thing I think people don't always understand, use the term R1 And that means The highest level of research university, right? [That's correct, yes.] Yeah. And they're actually certified, I think by,

D

Denise Graves 10:07

Carnegie Mellon.

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Ed Clemente 10:09

So, I think as we look where we're in a global playing field, how important the universities are even more than they've ever been, you know, in research, especially because, you know, every bit of technology is pretty ubiquitous now. So how do you get that little competitive edge? And that's where the sort of boots on the ground stuff you're doing comes in, right?

D

Denise Graves 10:37

Denise Graves 10:52

That's correct. Yes. So we just make them aware of what's available, connect them with the right people. You know, it's not for everyone. You know, the smaller institutions are primarily focused on teaching. But there are researchers there is research going on and there are faculty members who want to do research, there are students who want to be part of a research enterprise. So by just connecting with them and talking to them about what's available, introducing them to the other universities and creating this big network. Everybody has an opportunity that is interested in having one.

A

Announcer 11:10

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E

Ed Clemente 11:26

So is there also like advantages for the universities beyond the notoriety of doing research, but also isn't there financial advantages to for them, and as well as for the state of Michigan, sometimes in this area?

D

Denise Graves 11:38

There can be I've been at this long enough and work with universities long enough, I want to make a disclaimer, tech transfer is not a revenue generating operation for the university. [Okay] You know, it does bring in funding. Faculty members have the opportunity to attract federal funding, but it's very expensive. When you think about the staff you want to have in place to help faculty members, intellectual property protection, and all of the costs that come to that and to help support that, you know, your licensing staff and there's just a lot of moving parts. But the upside is, is if you give faculty an opportunity to do this type of work, that breeds you know, that creates success, breeds success, you might have more faculty doing it, you could attract more federal grants into the university. Let's take Ferris for an example, since both of us are alums and these projects are near and dear to my heart. So Ferris start participating back in 2017, Dr. Eric Nybo, was able to get a couple of grants through my programs, I support three key programs that we can talk about later, if we have time, that support this type of work. He was able to get some matching funds. Rich Chylla, previously of Michigan State, worked with Tom Dowling very closely to help support an invention disclosure, which is step one and the intellectual property process. So they you know, collaborate very closely, Dr. Nybo, was able to get some grant funds, able to continue his work. He just recently received, I think over a million dollars, not quite a million dollars, maybe in that timeline, there are that that dollar amount in federal funding, in addition to helping support his work continued on the process. His patent was just prosecute, you know, it was prosecuted, he just received his first patent on this technology. You know and Ferris now has two other faculty members working on the same type of process. So very exciting for a smaller institution whose business isn't necessarily research, but it gives them an opportunity to continue their work, bring students along, give the students the experiential learning, of working on, you know, really cool technology. I think Dr. Nybo's is a platform technology related to cancer research.

E

Ed Clemente 14:03

Well, you know, I don't know if you probably haven't seen all the podcast, but we actually interviewed the head of the Eli Whitney Patent Office in downtown Detroit, as one of our guests. And it was pretty interesting conversation talking about intellectual property and patents and copyrights and protection. And I just think that we're so fortunate that that's based in Michigan, you know, that that location, because it feeds right into the narrative, you're saying about the 15 universities? You know, speaking of the 15 universities, you sort of started hinting at this a little bit, but do you see any sort of trends and maybe challenges? Either way in the future for that you would anticipate where universities gotta like maybe lean into it more, start refocusing kind of things?

D

Denise Graves 14:49

You know, the, the big conversation, I think, in a lot of the universities is enrollment. Maybe this is an opportunity, you know, I'm not an expert in running a university, but maybe be thinking about this type of work or thinking about doing something similar to this. It doesn't have to be at the level of an art one institution, maybe provides an opportunity or helps you to diversify, diversify yourself, when you're compared to your peers, and maybe we'll draw faculty, which will draw students. You know, promote expertise in certain areas and give an opportunity to add to the expertise and add to the activities that go on at the university.

E

Ed Clemente 15:30

And, of course, we both know the buzzword for talent. But that's kind of what you're talking about. Because the talent is more of an ecosystem than just trying to attract students or faculty only, there has to be sort of a fertile ground for them so they can do the kind of things you're talking about, right?

D

Denise Graves 15:48

That's right. And, you know, and being a participant of these activities may also make the students more attractive to industry here in Michigan.

E

Ed Clemente 16:00

So this is a, you know, you mentioned quite a few of your partners. Is there any other partners, you wanted to mention beyond the universities? Do you work with other institutions? Like do you work with NIH? Or with, do you help with that grant process from the feds a lot?

D

Denise Graves 16:16

I do not, I don't have the opportunity to do that. You know, we do I have a partner in the MEDC that specializes in federal programs, but we also partner with the smart zones, you know,

universities, partner with the smart zones across the state venture capital professionals across the state. I also have the privilege of working with some of our hospital systems and I know a lot of people wouldn't think that that would make sense, but hospital systems do commercialize. And you know, it's a really cool thing to see them working on a technology, or a medical device, or something that they can test in their own hospitals. And they actually get it to market and it helps at the patient's bedside. So those are really cool things that are happening also.

E

Ed Clemente 17:02

Yeah, another guest we had in the past was Steve Rapundalo, who I'm sure you know, pretty well with MitchBio, and he was a good guest. And you know, it's amazing how much bio research goes on in Michigan. So I know that's a very fertile field. Just not to disappoint you, but we only have time for a few more questions. But one I think is, you know, if you could really talk to yourself or you you have kids, right? So, yes, that I know. But like, what advice would you go back, maybe, and talk to yourself again, back when you were in high school? Or if you were given a mini commencement speech what would you tell people to do now?

D

Denise Graves 17:43

OH boy. So two things, do what you want to do. So do what you enjoy doing, don't listen to all the junk talk out there and be the best version of yourself. The second one is be a helper. And I tell this to my kids all the time, if you help enough people around you, and in your, you know, circle, advance and get what they need in life, you will ultimately advance and get what you need in life.

E

Ed Clemente 18:15

You know, and I imagine because you're a parent, too, is that the age of the internet and so it's like almost overwhelming for kids nowadays to try to know, what is the best path when there's so many options out there, and they almost get flooded with information. So it's kind of hard to figure out what is your niche or what you really are yourself. I remember I struggled that with a kid too. You know, what was a good at? You know, kind of thing, right? Yeah, but that's a challenge. Well, the last thing is probably an easy one for you. But do you have a favorite thing you'd like to do in Michigan or a favorite spot or festival, anything that you would like to highlight?

D

Denise Graves 18:57

I love watching my son compete in snowboarding. My others, my oldest lives in Denver, so we enjoy him when he gets home. But one of my most favorite things to do, I live in the Brighton area, and I love during the summers going to the Brighton farmers market.

E

Ed Clemente 19:11

Ah. and you. You said you work at the MFDC now for quite a few years. right? And I know that.

...and you've said you work at the MEDC now for quite a few years, right? And I know that, is there anything else you might want to mention about the MEDC before we wrap up? Any other last minute bulletins for us - sure - either on tech transfer? Well, I did want to ask you one thing. Why don't you explain a little bit about what the word commercialization means? Because I know we've said it several times here, but just for someone who didn't know what that meant, actually, what's your working definition for that?

D Denise Graves 19:41

So in its simplest form, there's the commercial market, the market where goods are bought and sold. And commercialization is just the process in which you take a thing and you work on milestones. You have a mentor, you add some funding, you have more milestones, you do customer validation and you go through the whole process of trying to get your thing into the commercial market to be used, whether by a business or by individuals such as you and I.

E Ed Clemente 20:17

Like you said Gatorade, right? That's a great perfect example. Right? [That's right.] Is there, so if someone heard this, maybe they were private sector, I know you work with a lot of entrepreneurs, where would you tell them to go to?

D Denise Graves 20:29

So the Michigan Economic Development Corporation supports the Entrepreneurship and Innovation Initiative. Three key areas, universities where I sit, I have three key programs that I support, mentors, translational research programs and proof of concept programs. We also support ecosystem service providers, and we support very early funding, preseed type of funding. And to learn more about the Entrepreneurship and Innovation Initiative, our listeners can go to michiganbusiness.org/entrepreneurship.

E Ed Clemente 21:04

I like to give it twice. Give it one more time, please.

D Denise Graves 21:06

Sure, just for you Ed. To learn more about MEDC's Entrepreneurship and Innovation Initiative our listeners can visit michiganbusiness.org/entrepreneurship.

E Ed Clemente 21:17

Well, thank you very much, and once again, our guest was Denise Graves, University Relations Director and Entrepreneurship and Innovation. Thanks again Denise for taking time to explain all this stuff to us, you did a great job.

D Denise Graves 21:28
Thank you, Ed. My pleasure.

E Ed Clemente 21:30
Join us next week where our guest will be Lizabeth Ardisana. She's the Chief Executive Officer at ASG Renaissance where she has been a pioneer in many fields, especially in the workforce issues.

A Announcer 21:42
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