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In this episode, Taren Grom, editor-in-chief of PharmaVOICE Magazine meets with Michelle Longmire, M.D., founder and CEO, Medable.

Taren: Dr. Longmire, welcome to the PharmaVOICE WoW podcast program.

Dr. Longmire: Thank you. I'm so excited to be here today, Taren.

Taren: Well, we are excited to have you with us. You are a superstar out there. I want to know what led you to form Medable.

Dr. Longmire: Sure. A little bit about my background. I grew up in Los Alamos, New Mexico, which is I think largely known for being a scientific research epicenter, and both of my parents are scientists, and so I always envisioned being a researcher. I ended up pursuing a career in medicine really with the vision of being a physician-scientist, but really all along the way, throughout my training in undergrad, in medical school, had the opportunity to work in some very innovative labs and had this kind of burning desire to take something outside of the lab into the world and see what can we really do from a business perspective, but didn't really have a frame of reference for what that would look like.

I went to Stanford to train in dermatology, and that's really where the concept of entrepreneurship became more solidified in my mind. I was working in a lab with a fellow named Howard Chang who's really a prominent researcher and physician, who had developed some novel techniques for understanding the express genome. I was leading research in rare disease looking specifically at differences in identical twins in the manifestation of this rare disease.

I was really up against all of the challenges I think we talk a lot about today, which are about connecting with the participant that is very hard to find, how we can connect with someone who's looking for research and while we can provide that research opportunity in a setting where these conditions are not common – and in this case, even identical twins with rare disease are even more rare – and then really looking at how we can capture bigger data in this setting because the express genome is very dynamic. So I needed to get out of the walls of the clinic and capture much bigger data from the participants so we could understand these conditions better.

It was through that experience that I identified a unique opportunity – that would be an entrepreneurial opportunity to build a company that really enabled research directly to patients and fundamentally enabled us to capture data from any one, anytime, anywhere and to use that information to gain a better understanding of health and disease as well as to deliver better medical care to that person.

That was really the inception of Medable. It was through a combination of experiences in my own research career as well as being in the hotbed of entrepreneurship in Silicon Valley at Stanford where at the time I saw companies who were really doing a variety of things and some of them, I felt like well, this is an important problem, there's always companies out there doing the next kind of consumer internet game or you name it and I thought, if they could do it, maybe I could do it and I believed that the impact that could be made was significant.

It was through that that I started to figure out begin to figure out, begin to figure out, still figuring out how to found and develop a company that could deliver on the mission to enable effective therapies to get to participants and patients faster through this concept and it's a very circuitous path. I think as anyone who is a first time entrepreneur would likely attest to, there's no playbook. It's very different than my medical training and my entire education where there was a very clear playbook, but the journey itself has been incredible and I feel like in a sense, I was kind of born to do this, to have something that I believed was important to form a team and learn from that team and build that with a team and then figure out a way to bring it to the world and continue to do that better and better.

That's really kind of the inception story. I think we're still in our fairly early phases compared to where we want to go but it's certainly been an incredible journey, and I think being in life sciences, I really feel so fortunate because we're surrounded by these companies and people who are just dedicated to making a big difference. I think it's also an industry and an ecosystem that I just love to be a part of.

Taren: That's fascinating. Thank you so much for sharing that story. I'm really intrigued by the identical twins and the rare disease and we can dig into that a little bit deeper if you would care to, but I'm also really curious about what your vision is for the company. As you said, you're just kind of at that sort of beginning middle stage, but where do you expect to see Medable go? By the way, what a great mash-up of a company named Med-able and so making medicine able. Tell me about your vision for the future.

Dr. Longmire: Well, thanks, Taren. Fundamentally, we are mission-driven to get new therapies to patients faster. I think this is really driven by a first-hand understanding of what it is to care for someone or even be someone who has a condition that is suboptimally treated.

I think if the world knew how challenging clinical drug development is and all of the needs that are there to make it better for this very important purpose of enabling people to have better lives fundamentally, right; I think that a lot of people would be interested in solving this

problem. Our vision is to really break down the silos of clinical drug development and I think it can be under the umbrella or lens of decentralized or digital trials.

But really what we see is that it's really driven by an observation and an understanding that clinical drug development right now exists in these discrete processes and what I mean by that is when you look at trial design and recruitment and enrollment and consent and evidence generation, these are separate processes where if we went with a patient first tech-enabled approach from the very beginning, we could drive synergies and collapsed timelines to get those effective therapies to patients faster.

Our vision is to harmonize clinical drug development in a way that is patient first and what I mean by that is let's design trials around pools and groups of participants and patients who actually are eligible and want to be a part of the clinical trial. Let's start there. Then from there, once we have that optimized trial design around that pool in that universe of eligible and trial ready patients, let's enable them a seamless way to engage in those prescreening efforts so we can further understand them as a participant and qualify them.

Then let's enable them to be a part of the evidence generation process in a way that delivers superior healthcare so they are retained and stay in the clinical trials. And in this patient first approach, we think that we can compress these timelines, deliver better healthcare and ultimately, actually even generate more robust safety and efficacy data.

That's our vision and we are tracking this across every single clinical that we're a part of. How is Medable impacting the timeline and how are we impacting the delivery of care for the participants? It's certainly a longer mission and last year, we did clinical trials in over 20 countries and in 26 languages. We are continuing to tackle that process from trial design to submission and doing it in a way that's innovative and direct to patient and fundamentally patient first.

Taren: That's a lot to unpack there. That's a lot of stuff that you're doing and congratulations for your success from last year. That's an incredible amount of work that you've been tackling.

You touched on something we had talked about last year at DIA as a matter of fact when we met, it was that decentralized trials and whether that becomes a hybrid approach, but it's really technology-enabled and you touched on that as well. Talk to me about the impact that you see technology having on the entire process of clinical trials going forward.

Dr. Longmire: Where we see a very significant opportunity again is coming to breaking down those silos of process in the clinical drug development kind of framework and enabling a seamless patient first tech-enabled approach. I think technology plays a very important role and by that, it's about speed and convenience and understanding and optimization.

If we are able to use technology to design better trials, and they're also able to connect participants with those trials and better qualified participants through technology doing things

like let's do further diagnostic testing and deeper understanding of a participant by making that a convenient and tech-enabled process and then generating evidence that is more robust, broader – ideally, also driven by a broader pool and more diverse pool of participants. I think technology has a critical role in all of that.

Now the most important part of it are the patients, right? Another critical part is the science, but I think that technology can be that bridge between the participants and the science and the clinical care in a way that can just be extremely impactful around getting these therapies to patients faster.

Taren: Excellent. A lot of times there's that healthy conflict between science and technology and how do you bridge the two? What is your approach to that?

Dr. Longmire: Sure, that's a great question. I think it's central to decentralize trials in a sense because the science has been really developed around face-to-face data capture and assessment. Primary endpoints in clinical trials, by and large, have been things that are measured in person and in the clinical setting and right now, technology could say let's do this all in your home, but the science isn't there yet to say that's an established way of measuring this condition.

There is a tension right now between science and technology, but I think there's also a significant role for those to be married and really align and a mission where we use science to establish the new technology-driven measure of that particular endpoint or condition and that takes a lot of work. It takes collaboration, it takes time, but I believe that we can get to that point and it really is actually by looking at that tension, but addressing it with alignment and having scientific approach to establishing those technology-driven endpoints.

Taren: Fantastic. We're all living right now in a hyper virtual world, given the current circumstances, how is that accelerating your mission? Because when you talk about a decentralized trial, we're really talking about home-based trial care. How is that impacting what you're doing?

Dr. Longmire: Sure. I think if you asked the various companies who have been looking to deliver decentralized trials, probably all of us, have experienced significant tailwinds and what I mean is that we went from doing something that was really pioneering and an exception or edge case kind of mentality around should we do this to one we're suddenly overnight almost – this became the only way for trials to move forward and to continue to see participants and patients.

I think that it's an important opportunity for us is tech providers and solution providers to be a relevant part of how we approach delivering clinical trials right now. The other thing is that it's also an opportunity for us to generate the proof points the industry needed to be more comfortable with this and then to identify the gaps where as you mentioned earlier, science and

technology aren't there yet and then to really aggressively pursue those gaps and closing those gaps.

It's certainly been driven a lot of momentum. I think our company has never worked harder, pretty much everyone is doing something between 16 and 18 hour days just to meet the demand and really driven by the vision that now is a time we can show the importance of what can be done and also that these proof points are essential for our people feeling broadly more comfortable and trusting the approach. We've also got to do it extremely well and do it with an evolving and deepening degree of know how.

Taren: Fantastic. I can't have a conversation with somebody who's involved in the technology space without touching on the role that AI is going to play. Talk to me about where you see this fitting into the equation.

Dr. Longmire: Sure. I mean, one of the things we realized in decentralization is that you actually have to centralize and what we mean by that is you have to centralize workflows and processes. In a study where we use to come to the doctor's office to get a blood pressure, but now you're doing that at home with a blood pressure cuff or you're even administering your own EKG. It opens the door for us to do things with more convenience, at greater scale, better patient access, but it also introduces us to new points of vulnerability that we were really not accounting for before.

Medable has been using over the last year and I think have some really innovative development in this area, AI specifically machine learning to identify when there is missing data or data that is errant and we do this, each of the study configurations has a different degree of complexity, right.

You have diaries on different schedules, you have assessments on different schedules, you have different devices that are used on different timeframes, and so we've established what we call a data garden framework where we create a study specific set of algorithms that are able to monitor data in an ongoing basis to identify potential missing data or issues around the study logistics. And I think it's incredibly important because a lot of things can go wrong, and you need to be able to identify those and have a risk mitigation strategy to be able to keep the study going and course correct and get the device back online, ensure that participants know how to use the various assessments and diaries and instruments.

I think that this is important as we are asking participants to do more. We have studies and partners where last year they were doing 30% of data capture directly from participants and in partnership with us, we're aiming to do 70% of data capture directly from participants. As site monitoring becomes less relevant, are we going to do home monitoring? The ability to do this with AI and machine learning is really important because it's a new world in which we're capturing that much data directly from participants.

Taren: That's a big jump.

Dr. Longmire: Yeah.

Taren: Sponsors are obviously on board with this. Because they have to be otherwise, you wouldn't be able to do it. Do you think there's less risk adversity right now, given the fact that everybody is pushing to do more virtual trials?

Dr. Longmire: I think that there's more comfort. I don't know that people are less risk-averse, but I think that it's a world of here are my options and one of them is not to conduct the traditional method. How do I do it and do it well with a set of options in front of me?

Certainly we still see that and it's important to address that risk and have very robust risk-mitigation strategies. I think it really comes down to the fact that the old way is not an option and there's comfort in the industry in terms of the degree of collaboration and openness that people are approaching this with. I know that there is – meetings across sponsors that are not with vendors about what are we seeing, what seems to be working, what's not working and I think those are really important conversations.

Companies also are aligning and having these conversations so we can align on lessons learned and I think that's generating a lot more cohesion and comfort with something that isn't that new and really has not been done at this scale before but I mean again, necessity is the mother of invention and that is the takeaway I think in terms of where we are right now.

Taren: I think it's going to be interesting to have the same conversation next year to see how – where the leaps have been and I didn't mean that there was – not an intention to be paid and that people are taking risky like leaps, but it was more like a...

Dr. Longmire: And that's where we're willing to move, right? Whereas before it was like why would we do that, now it's how do we do that. Yeah, I think to your point, that's really a shift in mentality.

Taren: Fantastic. I think it's a great shift. We keep hearing about the new normal and I keep saying why do we want to go back to a normal when we can be so much more the normal that we can be extraordinary in this time of, as you said the mother of invention, right? Let's make those big leaps. Let's take some educated risks and let's go for it.

Dr. Longmire: Yeah, and I think your point it's like let's grab those benefits. Let's take the hypothetical benefits and let's measure it and see if they're there and let's understand this as we do it. Yeah, I think let's make it extraordinary, not the new normal, but let's make the extraordinary a reality.

Taren: I like that. Let's go back to your starting of the company. You said you are a first-time entrepreneur. Tell me about what has been some of the biggest challenges you've found in starting a company. I know there are a lot of people who listens to the podcast who maybe

wanting to take that leap, maybe as their second chapter, their third chapter. What have you found, some of the biggest lessons, as being a first-time entrepreneur.

Dr. Longmire: I mean, I think you really have to have a very high degree of resilience and the classic thing where people are like – these people told me no and I knew I could still do it. I mean, I can't tell you how many people told me there was no way you were going to do that. My parents who were like why don't you just practice dermatology, like that's a great job, why are you not doing that?

I think if you have that fire and if you want to do it, do it because there's no clear path. It's extremely risky, but I think of it as in your bones and it's in your blood, you know that you want to be in a position where you're navigating that uncertainty and you're building something that you think is important and I think – when I look at the ecosystem something that stands out to me a lot is that there are so few women and I think that – this is not any individual fault. This is a systemic and societal kind of infrastructure that we live in where the decision-making framework is biased towards women not making this choice.

I think if there was one thing I could do beyond Medable in my life, it would be really to help women make that leap and go for it and go for building their own business because I think that it is one of the most exciting adventures and you have the opportunity to make such a big impact and to build a team and to create a world that you think is really one that should be there.

I'd say the takeaway is do it, just go for it and every day you'll figure out how to figure it out better but definitely one of the major learnings is every day is a new day because you've never done it before. Even now, 4 or 5 years in, every day there's something new but that's also part of what makes it exciting and something that feels like I'm still extremely challenged by.

Taren: I can tell you even 19 years later, there are still things to figure out that's new. I'm just saying.

Dr. Longmire: Right, exactly. You know this, Taren. I mean, an entrepreneur and a business builder, it's like – but what do you think about it? Do you feel like it's something you were born to do?

Taren: If I were to look back on it, I would say yes. I have two business partners. We took a leap of faith and we had a strong vision for what we wanted to accomplish and we're almost 20 years in. But this isn't about me, this is about you. But nice try.

Tell me about how you set the culture for your organization because it really does start at the top. What is the kind of company you want people to come to work for?

Dr. Longmire: I guess it comes from maybe, certainly now a vision but I think it started as what I think would work and my experience is that teams are essential to success. I think the culture of

the company is derived less from me being my experiences as a physician and much more my experiences being a collegiate athlete and an athlete on teams and certainly also as a physician where in that world, if you're in the OR, you're the dermatologist and you have a melanoma, that's say penetrating into the orbit, you're going to be working with the otolaryngologists as a peer and you're on a mission together.

I think in playing collegiate sports, I just realized that it's all about the team and you have to – I think it's a Phil Jackson quote that says the team is as strong as the individuals and the individual is as strong as the team. I'm just such a firm believer in that. I think we have a culture that is – it's stated in our kind of company, I guess it's our values which is be the best teammate and be the fiercest competitor.

I think we are very competitive. In the market, we want to be the best but to our teammates, we ensure that we make you stronger and we're there to help you be your best. That's my vision. That's what I'm trying to build. I'm sure it's not a perfect execution. That's for sure, but I just believe that the team is everything.

Taren: I think that's awesome. I think that's such a refresh thing approach to building a team and building a company. To switch tacks a little bit, tell me about the community vision project and what is that about and why are you involved with that.

Dr. Longmire: Sure. I mean this was way back. That's a total throwback. When I was a medical student, I was training in the University of New Mexico and it's a really amazing medical school. I love training there. We were serving a significantly underserved population in the state of New Mexico. Many people didn't have access to vision care.

I teamed up with someone who became one of my very best friends, Dr. Linda Rose, and I cold called her and I said "Dr. Rose, you've never met me before" – I was actually in Washington, D.C., at a Howard Hughes kind of funded research internship for a year. But I saw this opportunity and I said "let's apply for a grant where we can deliver glasses to people in New Mexico." She was an attending physician ophthalmologist and I said "the catch is the grant is due tomorrow. Do you want to do it with me?" Can you send it to me and I'll review it, we'll see if we can get the signatures.

Thankfully the American Association of Medical Colleges was in D.C. So I hand delivered it the next day with all the appropriate names. I think we actually had 48 hours – and we set out on this mission to do mobile eye camps, and we went all over – we collected glasses from LASIK surgeons where people had turned in their glasses and we had this refractor where we could match someone to those glasses and we went all over the state handing out these glasses. And in fact, guilty confession, is for about three years. I personally wore glasses from that stash. I mean because we had hundreds.

Taren: I love that.

Dr. Longmire: Yeah, it was pretty interesting. But that project lived on and actually still lives on at the University of New Mexico as a medical student project where we do the vision camps on – I think it’s every couple of month basis and people can come and they get matched with a pair of glasses, one or two, and it’s a free service that we provide across the state of New Mexico.

Taren: I thought what a great legacy piece for you. And you’re at the beginning of your career, sort of I don’t mean that – because you’re just right there, right? But that’s such a great legacy piece to leave behind. What a great community service.

Dr. Longmire: It was really Dr. Rose. She enabled it to live on and many medical students then actually chose a career in ophthalmology through the experience. I think also there were people who really got vision care that wouldn’t have. So it was definitely something that I was excited to be a part of.

Taren: But it so epitomizes you. You saw this opportunity, you said I don’t know this woman, I’m going to call her and what do we have to lose, and so I think that is just so great.

Dr. Longmire: No, it’s not that it epitomize me, especially the fact we had 48 hours to do it, and I’m like I’ll do all the work but we got to make it happen.

Taren: I love that. I love it. I ask all of our podcast interviewees the same couple last questions. I’d love to know what is it that you know now that you wish you knew back then as you were going forward in your career? Is there one thing that sticks out if you could wind up that way back machine?

Dr. Longmire: I think it’s important to establish boundaries and to say I want to perform this well and I want to have people around me. I wanted them to also perform that well and I think early on I generally understand that for myself, but I have a harder time ensuring that people around me are really doing the same thing and I do wish that earlier on I’ve been kind of stronger in my ability to identify when a teammate wasn’t really putting, leaving it all on the field or giving it their all and he strength to tell them this isn’t good enough and I think that’s really important to success and something I continue to try to get better and better at.

Because I also want to be supportive. I want people to – I don’t like someone to feel uncomfortable but at the end of the day, we have to do our best. We have to build the best company we can build and we have to be really transparent when something isn’t good enough and you can do that in a respectful way. I do wish I had learned to do that earlier.

Taren: That’s a great lesson. If you had to use one word to describe yourself, what would it be?

Dr. Longmire: I guess people describe me as savage, and I guess the way I would define that – when I call someone else savage, I mean that as a compliment but what I mean by that is like I really like to know I left it all on the field. I want to give it everything I’ve got. I think that’s just fundamental to me. That what makes me feel is to know that I really gave it my all but that

might be very singularly focused around performance. I think what I would want people to think about me as is a really strong team player, really the best teammate. That's what I'd really like to be.

Taren: I would have said competitive but if you want to go with savage, that's up to you. Awesome.

Dr. Longmire: I really don't like competitive people but I guess I kind of feel like it's what makes life fun, but I've always loved playing team sports. It's kind of part of who I am.

Taren: Well, I have to ask you what team sport did you play?

Dr. Longmire: I first actually played – I grew up doing gymnastics, which is not a team sport and then I got into ice hockey and I played co-ed ice hockey and I was the smallest thing, but I was certainly a savage and I got my penalties and got my game ejections and then I ended up going from ice hockey to soccer where I played division 1 college soccer in college and that was really, really fun. I mean, just a group of people who were so dedicated to figuring out how to be our best and how to train every day.

I think one of the big lessons there that certainly carries over to business is you can have the long-term goals, but it's about what you do every day and you've got to invest every day and that's really how you achieve those goals. You have to know where you're going, that's important. But you want to make that daily investment and that's how you get there.

Yeah, I played college soccer but certainly my ice hockey days were among my most fun.

Taren: You're so busted into the boards, Longmire, there she goes.

Dr. Longmire: Yeah, for sure. My dad was the coach and there are many stories around like well that one, Longmire from Los Alamos, we're not sure we want to have your team here. I was a good sport but I love to compete. It was so fun.

Taren: I love it. My last question is about having you select a wow moment from your career that either change your career directory or left a lasting impression on you.

Dr. Longmire: I think when I was early in the formation of the company, I met an entrepreneur who was really phenomenal. He had actually led the company called Pharmacyclics to be able to sell to AbbVie on the drug Imbruvica. I met this fellow, Bob Duggan, and told him what we were doing and we got to know each other and he and his business partner Maky Zanganeh, really had the opportunity to get to know them and they said we think you have what it takes and we're going to invest.

It was the fact that we had investors and they were all phenomenal, really I think we got a great group, but it was coming from someone who knew what it took and just how hard it is and

seeing in me that potential that I think it wasn't just the funding that certainly helped but it was a wind in the sails to think this is someone who knows what it takes and thinks I could do it and I think that's really important. I'd say that was kind of my wow moment.

There's been many cents and there were many before but that one certainly stands out in my mind that help stoke my fire and made be really believe that it was something I could do.

Taren: Well kudos to Bob, but I think do you have what it takes and anybody can recognize that. I am inspired by you. I am motivated by you. Every time I see you, you give me an extra spark. Thank you. Thank you so much for being part of our WoW podcast program. This is great.

Dr. Longmire: Well, thank you for having me and again, like I said when we started the conversation, the viewpoint in the lens you bring from innovation and disruption and also optimism and the future state, one of the reasons I always love to have the chance to talk to you. Thank you for bringing that to our industry, as really a leading inspired voice.

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