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Interviewer

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Ashley Mooneyham -AM
Kristen Reynolds -KR

KR: 00:07 …Could you tell me about your early life, your culture, and how you became interested in the work that you do now?

AM: 00:20 My parents had me young, while they were in college. I think that was a formative experience for me because I wasn't born into my family when my parents were already established. I got to watch them really work to build the life that they wanted for our family. My dad was super passionate about education, and I got to watch him pursue his advanced degree in psychology. He went all the way through to the PhD level, and my mom was the professional worker of our household making sure that we could support ourselves on an early career income. I got to watch her climb the corporate ladder and be that professional influence in my life. I got to watch the two of them instill that work ethic in me, along with a passion for education and a passion for building a career from the ground up. I really appreciated both of those influences.

KR: 01:34 … I want to ask a follow up question. You said you got to watch your mom climb the corporate ladder. What kind of work did your mom do?

AM: 01:42 My mom worked in assisted living. She always had a passion for helping seniors really enjoy that later stage in life. Honestly, she started out in retail at Maurice's. But she learned from that early job opportunity that she was good at people-facing roles where her sincerity and her care for others really showed through. She was able to take that into a job opportunity that allowed her to make a really big impact on senior care. From that, I learned that I also

		wanted a mission-driven career—something that I could care about and feel like I was making a difference in.
KR:	02:22	That's cool. My mom used to work at Ross. She was an assistant manager there for a while. That retail background really does make a difference.
AM:	02:33	I really think so. It's the ultimate customer service role.
KR:	02:36	It really is. You said that your dad got a PhD in Psychology. How did watching him navigate a doctorate program impact you?
AM:	02:49	He completed all but dissertation for his Psychology PhD program. I really watched him relish the opportunity to continue learning well into adulthood. He always said the object of his life was to continually learn every day. I think watching him appreciate his education so much, especially because it was never a guarantee that he could continue his education having a child so young, was important. He approached his education with such gratitude. From an early age, he instilled in me that education was an opportunity that should be appreciated and sought after. I followed in his footsteps and went through to my PhD, just in a different field of science.
KR:	03:36	Are you from Minnesota?
AM:	03:39	I was born in Duluth. Because my dad was pursuing college, we moved from Duluth to Ohio for his graduate work. Then he was a professor after college, so we moved back to the Saint Joseph and Collegeville area. He taught at the College of Saint Benedict and Saint John's University. I bumped around a lot at an early age, but I think that that made my family unit strong—me and my parents. That was my constant throughout those early years.
KR:	04:04	Nice. How old were you when you were in Ohio?
AM:	04:07	I was in Ohio from the ages of two to ten.
KR:	04:11	Where in Ohio were you?
AM:	04:13	Akron, Ohio.

KR:	04:14	What was that like for you? What do you remember about Akron?
AM:	04:19	I remember it was a much more diverse community in Ohio, which I really appreciated growing up because I didn't realize what I had until we came to Minnesota. I had friends from all different diverse backgrounds, and all different races and religions. That was normal growing up, which I appreciated. As I said, it was fun that my dad was a college professor because he got to take me into classes. I got to literally be a fly on the wall during college lectures and got a whole span of exposure and experience to all the people that live in Akron and nearby local cities.
KR:	05:01	Nice. When my mom was in undergrad—she went back to school when she was older—she would take me to class sometimes. I remember sitting in class and coloring.
AM:	05:12	It's so fun, and you're treated so special [Both laugh].
KR:		Everyone's like, "Oh! There's a kid here!"
AM:		My dad used to prep me with predetermined questions and answers. He would give me a question that was quite complicated at the graduate level, and then let me know the answer as a little four or six-year-old and raise my hand. I really enjoyed that.
KR:	05:35	That's cute. Okay, so you're ten, you're in Akron, and then you wound up coming back to Minnesota. Tell me a little bit about your high school and early college years. When and where did you go to college?
AM:	05:52	I'd say in elementary school and in high school they were starting to do a lot more standardized testing. I feel like that became big when I was in those formative ages. It was clear from the standardized test scores that I had some natural aptitude for science. I remember my dad and my mom really encouraging that because they were passionate about seeing women in science and what a cool opportunity that was. Especially for them, they didn't see it a lot in their generation. The thought that they had a daughter that could potentially go into this field and be a bit disruptive for women in science was exciting to them. They shaped my passion for science beyond my aptitude, and I ran with it.

	06:44	I went to college at the University of Wisconsin - Eau Claire. I didn't want to be too far from home, and they are well-known for their science program. I think the benefit not a lot of people know about smaller state schools is that there is more opportunity for significant and robust undergraduate research experiences because there are no graduate students to take those leadership roles in a laboratory. It was an excellent undergraduate education, especially in science. I was a comprehensive major in biochemistry and molecular biology, and that allowed me to have a broad base scientific discipline to then narrow down in my PhD program, which I did at the University of Minnesota.
KR:	07:26	When did you start school at the University of Wisconsin - Eau Claire?
AM:	07:32	In 2010.
KR:	07:34	Tell me a little bit about some of your early lab experiences.
AM:	07:41	The most significant mentor in my life was my undergraduate research mentor, Dr. Steven Drucker. He was this extremely brilliant Harvard and MIT [Massachusetts Institute of Technology] educated physical chemist, which is one of the most challenging scientific disciplines. He was universally beloved at the college, which is a hard feat in teaching physical chemistry. It's because he made it so approachable. He made science welcoming and the challenge of physical chemistry exciting. After taking one of his early classes, he took me into his lab as a sophomore in college when I had no more than gen chem [general chemistry] educational experience. I was intimidated by that, but I took the leap of faith because I trusted his judgment. It was through working for him that I gained confidence in pursuing things that maybe previously seemed intimidating or unachievable. I approached things with work ethic, a willingness to learn, and patience. Patience in understanding a difficult subject matter. He was a critical mentor for me. The type of research we did was laser spectroscopy. I think that that showed me that I really enjoyed scientific tools that allow you to understand things that you cannot see with your own eye. It was extremely exciting to imagine, at

		a molecular level, what was going on. I loved the fact that I could sus out these details with a new technique that I was learning, it was a lot of fun.
KR:	09:18	That's lovely. You're taking me back to my early bio days when I fell in love with organic chemistry.
AM:	09:24	That's why science is fun.
KR:		Exactly.
AM:		It's so fun! You are learning something you can't see, and I find that so endlessly interesting.
KR:	09:32	That's lovely. I'm glad you got to have that experience and got to learn from a Harvard and MIT educated chemist. From there, do you go straight from undergrad into graduate school at the University of Minnesota?
AM:	09:47	I do. Again, only because I had such a robust undergraduate research experience that was I able to do that. A lot of people would take some gap time between undergraduate and graduate work to gain the type of laboratory experience that the University of Wisconsin - Eau Claire allowed me to have at a smaller school.
KR:	10:04	Yeah, that's lovely. You mentioned that your parents were supportive and wanted to see you pursue science because they were passionate about women in science. Can you speak about your experiences as a woman in science and as a woman in the lab, if you feel comfortable?
AM:	10:23	I think that for my generation, it's not uncommon to see a woman in the laboratory nowadays. I really appreciate that, and I recognize it wasn't always that way. I was able to seek out a PhD advisor who was a woman in science who was beginning her career. That was something very intentional that I did. The thesis project that I worked on also was focused on women's health. I think one of the most important things about bringing women into science is that their perspective as a woman shapes the way that they approach their scientific topics in a way that men might not be able to do because they have a different life perspective to build from and hypothesize from.

		My PhD mentor, Dr. Martina Bazzaro, focused on ovarian cancer research. She worked with a Minnesota ovarian cancer group that would bring ovarian cancer survivors into the laboratory to see that the research we were doing focused on improving their health outcomes. That constantly kept the motivation and mission behind what we were doing every day in a laboratory, without windows, at the forefront. I really, really appreciated being a graduate student in a women-led laboratory, focused on women's health. I had the opportunity, it was there for me to take, and I never spent a day not recognizing what an opportunity it was.
KR:	11:58	That's lovely. I can see a direct connection between the work that you do in your PhD program and the work that you do addressing women's health and needs now. To pivot from that, it feels like you must've graduated from your PhD program recently?
AM:	12:18	In 2019.
KR:	12:20	What's your first job out of grad school?
AM:	12:24	Throughout my PhD work—I really enjoyed it—but I realized that I was pretty far from making a legitimate, clinical impact. Just by nature of basic science, you're forging new ground, which is very exciting. It's all about scientific discovery, but discovery comes long before implementation. I realized after my PhD program that I wanted to be a lot closer to the action of implementing science in a healthcare setting. I also learned through my graduate studies that a skillset that set me apart within my field was my ability to communicate science in a written and verbal form. I really leaned into that post PhD, and I became a grant writer for a medical writing and research support company called Superior Medical Experts. What that allowed me to do was learn about a wide variety of scientific innovation occurring here and nationwide and write about that science in a way that was compelling enough to secure grant funding from the National Institutes of Health or the National Science Foundation. Through that, I helped de-risk these inventive new technologies in a way that I've seen be used in surgery today to impact healthcare. That was exciting for me, using my strengths to advance healthcare in science.

KR: 13:51 Can you tell me about the most exciting grant that you worked on?

AM: 13:54 It's tough to talk about because the IP, the intellectual property, is protected. I would say, just in general, one of the first grants that I worked on was a medical device that made a big difference in stroke patient outcomes. This is an increasing problem with COVID-19 nowadays, causing a lot of stroke complications and higher incidence rates. I worked on that grant when they were just in the ideation stage—they just had an idea and a hypothesis. Through grant funding, they were able to take the research and development project forward to a point where they were doing clinical studies on patients and proving their impact. I got to help them through those stages by supporting them with grant writing efforts. It was super rewarding in a span of—as you said, I only graduated in 2019—a few years to see a direct impact was really rewarding and encouraged me to continue.

KR: 14:53 That's beautiful because it's a short time, and you also graduate a year approximately before COVID-19 hits. To then be in this position to where you're doing this work that hopefully is still having a significant impact in our COVID-19 reality is significant.

You graduated in 2019. PhD programs, especially in the sciences, are notoriously hard. You're also writing grants, which is stressful trying to get fellowships and whatnot. Can you tell me a little bit about any failures that you've experienced, either along those lines or beyond that as you sort of get your startup off the ground?

AM: 15:40 You nailed it. When I think of working through failure, nothing is more relevant than a PhD program. Because the PhD, as I said, is focused on scientific discovery. Your thesis work is trying to advance knowledge in an unproven territory within your field. And by nature, if you're moving into an unproven territory, if you're trying to discover something new, there's a reason it hasn't been discovered before. You're working through experimental failures weekly and trying to figure out if the failure was through experimental design, which can be troubleshooted and adjusted. Or if there's something to be learned from that failure that was different than what you initially expected. This shapes your forward momentum within that thesis

work. Actually, my entire thesis work focused on discovering a mechanism, a new mechanism, of action for protein that was the opposite of what people expected.

16:44 I kept getting this opposite result over and over. And after troubleshooting my experiment to full confidence that the experiment was working and operating as designed, I had to accept the conclusion that the experiment was presenting to me. That opened a new exciting door where I learned this protein was doing something different than what we originally thought, and that could have real implications in how women are responding to chemotherapy. That was the basis of my whole thesis work.

I would say, in experiencing failure, you must move through it, and you must widen your gaze because science isn't about coming up with a hypothesis and then getting that exact result you expected. It's about having a well-founded hypothesis, doing the work, then being open to the result, and thinking critically about where that takes you next. That's the development of thesis work in general. Even though my career path wasn't very traditional, oddly enough, I do think a PhD is good education in entrepreneurship, persevering through failure, learning to pivot, and having good foundation for everything you pursue.

KR: 18:00 I imagine that it must be good for helping you defend or pitch your ideas to an audience. Once you start realizing that this protein is operating differently than people expected, what was it like for you to then go and defend that evidence to people?

AM: 18:22 Well, the good news was I had done so many experiments that came to the same conclusion. Anything someone suggested I try, because they were doubtful, was already in my arsenal. But to your point, I think especially if you're going to go against the grain with anything that you're presenting scientifically, you need to have a very solid foundation of evidence beyond rationale. The rationale is how you get to your hypothesis. Usually there's some scientific rationale behind why you think what might be true could be true. It's experimental data that makes everything more robust and convincing.

		I take that through to entrepreneurship as well. I think one of the coolest parts about scientific entrepreneurship is that anybody in science who pursues business knows how to mine data that already exists to come up with a robust foundation to build from. And then they know how to design experiments to flesh out any area that's missing.
	19:32	I think the scientific innovation grants that I was working on really taught me what a legitimate scientific industry idea looks like—where it bridges science and advancing knowledge with a physical product, process, or service that could impact healthcare from a market landscape point of view. And then learning how to tell that story in a lot of different ways. Grant writing is challenging, but it's also I think one of the most exciting forms of scientific communication because it is all the promise of what science can do and the potential of what science can do. You're just asking for permission to pursue it with some capital. It actually was a fun job.
KR:	20:17	Can I ask, did you pursue an MBA [Master of Business Administration] or anything like that?
AM:	20:21	No, I didn't [Both laugh]. I didn't have time, but I recognize that that's important. The Carlson School of Management at the University of Minnesota has this accelerator course called "the value proposition." I was able to get in that course, and I was one of eight people to receive a certificate in that for my cohort.
KR:	20:48	You blend science and business, and you talk about it so well. I was just curious about what you did in your spare time being a parent and pursuing a PhD.
AM:	21:03	Thank you! I did the accelerator course, but a lot of it is learning on the job. Isn't that how everybody learns best? The real world instead of the theory. I feel like being able to work with so many businesses trying to impact human health through science, I could learn on the job how this operates in a physical setting.
KR:	21:27	Accelerator notwithstanding, you speak to these realities of bringing these two things together very beautifully. I think that that leads us neatly into the next question, which is what you think it takes to be an innovator in medicine and technology and addressing health needs today.

AM:	21:49	Thank you. That is a good segue because my thought there is exactly what prevented me from taking the leap before I took the leap, which is the willingness to operate within some uncertainty. Not everything can be predicted, or even if it can be predicted, not everything will go according to plan. I think this is especially true for underrepresented entrepreneurs—being a woman would be my personal experience with that. To pursue entrepreneurship, if you're not seeing a lot of examples of success—if you don't have a network of people who look like you and have the life experience you have succeeding—then you'll be discouraged to start unless you're willing to be one of those groundbreakers. That requires operating in uncertainty. Even though you don't know all the answers, trust that you can figure it out because you care enough. The ecosystem here is willing to help you. I don't know all the answers, but I appreciate that you feel that I communicate things well. That's good. I really want to, but I am not operating alone. I'm operating within a supportive ecosystem, and I feel very supported in pursuing this entrepreneurial endeavor with Momease Solutions because women in business are reaching out. They want me to succeed so that more people can feel confident pursuing it.
KR:	23:22	Nice, tell me a little bit more then about that ecosystem that you're operating within.
AM:	23:29	Minnesota is a Goldilocks state of scientific innovation. We have a lot of strong, well-established powerhouse players—obviously in medical device innovation—but it's not overcrowded. I feel like it's exponentially growing lately, and there's room to be swept up in that exponential growth as a new entrepreneur. There are several organizations here that I personally leaned on, one being Medical Alley [Medical Alley Association]. They've really changed the game for connecting innovators within Minnesota, and globally, with the people, services, and education they need to succeed in whatever they're pursuing. They're very multidisciplinary. That was one of the first things that I plugged myself into was attending Medical Alley events, learning from others that had succeeded in their lane and making connections with what I hoped to do. Launch Minnesota is the first organization that gave me a grant, called an innovation grant, to pursue early-stage prototyping.

	24:47	A lot of innovation gets halted because it's expensive to pursue, and that's unfortunate. Being able to communicate the value you're going to bring to society and the marketplace is important. You must be commercially successful a lot of times, or have the potential to be commercially successful, in order to get money in the door. I'm grateful to Launch Minnesota for being that first money-in-the-door opportunity for us because it's extremely validating and allows other people to follow on with some funding. They also have been extremely generous with their time and resources. They have a lot of educational sessions and a lot of professionals who know business and were able to help me shape the way that I was presenting my early story. I can get lost in telling in many different directions and iterations of how the product that I hope to create can impact so many different sectors of women and people in society in general.
	25:53	They helped me streamline my story and focus on the forward-thinking trajectory of what this will look like when it's in the market landscape from a business perspective. So again, you don't need to know it all to pursue entrepreneurship, you have to be willing to seek help and support—there are supportive ecosystems here to lean on. Lastly, I wanted to mention our startup pitch competitions within Minnesota. There are some in greater Minnesota too—you can pursue southern or northern Minnesota pitch competitions to access the knowledge that tends to be housed within the Twin Cities. But the largest statewide startup competition in the nation is here in Minnesota, and it's called Minnesota Cup, and ninety semi-finalists make it through each year. There are thousands of applicants. It's an opportunity to learn not only from mentors, but also peers in business. In a lot of ways, I feel like I went from a PhD cohort to a startup cohort in Minnesota with a lot of other people who are at a similar stage as me. We're all figuring out ways to link arms and grow together and share resources. That's been excellent too.
KR:	27:13	You've just advanced to a significant stage within Minnesota Cup, right?
AM:	27:16	Yeah, I am a semifinalist in this year's Minnesota Cup. I'm in the general division category, but all the nine categories encompass key sectors of innovation within Minnesota. Food and agriculture, life science and health, education,

		and even opportunities for youth innovators to come forward. It's a large and well-thought-out competition.
KR:	27:44	What does the next stage of the competition look like for you?
AM:	27:47	I'm working on application materials right now. To advance to a finalist stage, I'm preparing a traditional pitch deck, as well as an executive summary and a one-minute promotional video for my concept. It's essentially testing how well you communicate your idea and the value proposition that you're bringing forward without it being in conversational form. Can you communicate on paper? Can you communicate in a visual setting? If the judges choose my project to move forward, there will be a final twelve-minute pitch competition for all the finalists.
KR:	28:22	Wow, twelve minutes!
AM:	28:24	Wish me luck.
KR:	28:26	I don't think you're going to need it, but it sounds daunting to me. There're two things that are coming up for me in your response to this question. One is it really sounds like this network has done for you what you were doing as a grant writer for the organizations that you worked for. Simultaneously, a lot of your grant writing experience must really come in fully here and benefit you in moving through this competition, and the work that you're doing in general.
AM:	28:58	I think the grant writing gave me the landmarks. I had to understand key landmarks of a variety of business structures. Once I figured out that my company, Momease Solutions, had the landmarks, I'm diving into the details. That's what the ecosystem here is allowing me to do in a really supported way.
KR:	29:20	There was something that you said about storytelling that I thought was interesting. I'm curious what the story is that you tell about Momease Solutions after you've shaped it. What's the core of the story for Momease Solutions for you?
AM:	29:46	I think I suffered from the same mistake a lot of women suffer from. I initially presented this in a very disorganized manner because I was scared to rely on the fact that

women's health standalone is important, full stop. I thought it had to be so much more than that to get people on board with my business and my product offering. But I really learned to lean on the fact that my product can improve women's health and wellbeing, and that alone is enough of a buy-in. That was, I think, the most transformative way that I presented my case. It used to be about infant nutrition and societal economics. It used to be about hospital costs for women who have infections from not being able to release enough breast milk. It used to be all over the board because I was really trying to make a case that people could buy into.

30:52 I'm happy to say that once I focused on the immediate and most direct pain point—the fact that breast pumps today take way too long for women to use. It's time away from their life. It's time away from motherhood. They're painful, uncomfortable, and don't give a high milk yield result. It's suffering. Women are suffering to provide for their babies. We can introduce a product that can help them comfortably produce more milk that takes less time to get back to motherhood, get back to life, and get back to personhood. I'm so thrilled that that story has resonated, and I've seen the most traction this year by just simplifying the storytelling to the immediate pain point. I think that that's really gratifying and encouraging for other women entrepreneurs. If you're addressing a women's health pain point, we're now at a time within scientific innovation that that's well received if you have a justified angle for how you're making that impact.

KR: 32:01 Tell me about how you came to the product.

AM: 32:10 I became a new mom in April of 2021, so I guess I'm not such a new mom anymore. I took an eight-week maternity leave and I felt like it was important to breastfeed my baby. That's what the American Academy of Pediatrics and the World Health Organization recommend. If I was capable, that was my plan. I was lucky that nursing my infant went well. But when I went back to work at eight weeks and started using a breast pump—despite having no trouble nursing—I had issues producing enough milk, and I would spend hours a day at the breast pump trying to collect milk to feed my baby. I was still failing to collect enough milk to do so. It was incredibly discouraging, unexpected, and frustrating because I knew I had enough milk to give, I just

wasn’t able to collect it. With my scientific background, I immediately went to see if anyone had studied this phenomenon, and if there were any strategies I could use for personal benefit to improve that process for me.

33:12 There have been scientific studies that show if you apply warmth and if you apply hand massage while pumping, you can dramatically increase your milk output in less time. But all the studies today are studying manual methods, such as a warm compress application or manual hand massage. Pumping is already inconvenient. I tried these methods, and I saw that I was getting better results anecdotally. I was excited, so I went to Google and looked for a product that could apply them in a convenient, hands-free, standardized manner. It didn’t exist. I was really surprised by that. But I didn’t think to start my business until weeks later when I realized, “Oh, this product doesn’t exist because people like me see a need for it.” Then I thought, “Oh, shucks, that’s too bad.” I think that this is a perfect example of if you are personally experiencing a problem, if your lived life experience is exposing you to an unmet need that can benefit others, that’s a good reason for you to pursue it even if you don’t have all the answers right away.

I developed a product that’s a hands-free pumping bra that women can wear while using a breast pump, and it will apply warmth and massage near the base of the breast to encourage milk release and increase milk output. I’ve received a phenomenal response from breastfeeding women. Over 1,200 women responded to my customer discovery survey in twenty-four hours because I think they’re desperate for a solution. That alone is motivating me to keep going and figuring things out through roadblocks.

KR: 35:03 You said 1,200 women in twenty-four hours responded to your survey?

AM: Yes. Isn’t that crazy?

KR: 35:11 That's wild. That’s wild! Sometimes nobody wants to answer a survey.

AM: Exactly, yes, exactly. I don’t credit myself for that. I think that that’s a reflection of the desperation women have to share their pain points. Why isn’t there a better solution for

them? They want there to be, and I think women in science, women innovators, and women entrepreneurs—we're the people who are going to solve these obvious pain points that we should not be suffering from thirty years after the invention of an electric breast pump.

KR: 35:45 Wow. You also mentioned that the Launch Minnesota Innovation grant helped you with prototyping. Can you talk to me a little bit about what prototyping, what that process has been like for you?

AM: 36:00 Prototyping has been interesting because I do have a scientific background, but I don't have an engineering background. This is the first research and development undertaking that I've led where I don't have the technical expertise to execute it myself, and I have to lean on the expertise of others. I have a great technical co-founder who is a successful medical device engineer. The prototyping process has been about finding compromise between function from a technical engineering point of view and form from an end user and mother's point of view. I think that's the secret sauce that's making us unique in our product offering and business approach within this space. Others have tried to engineer solutions that can't be implemented in a real-life scenario for a mother. Whereas I have ideas of how I want to implement this so that it plugs into their life in a way that adds convenience, gives them freedom, and gives them time. That perspective was necessary in the prototype development process. It's been challenging to find that middle ground, but I think that's why it hasn't been done before and it's worth pursuing now.

KR: 37:29 Is this somebody that you met at the U [University of Minnesota]? Or were you introduced to this person through Medical Alley?

AM: 37:32 I met him through the medical device ecosystem that I'm a part of. He was a part of the company that I mentioned earlier, Superior Medical Experts, who worked with the product that I got to watch make all the way to a clinical trial impact. He used to the role of being an engineer for a startup company, which is very different than being an engineer at a large company because you've got limited resources, and it really requires creativity and a leader's mindset. He must be creative and make decisions with

limited resources that will accelerate the pathway to the end goal as lean as possible. I really trusted him to do that. It's because of that expertise we have a chance to succeed, even though it's notoriously hard to raise money as a woman, and for women's health.

KR: 38:25 Wow! I'm going to rework this question because originally it says, "Can you tell us how you think that the culture of medical technology has changed over the years?" But you're fresh in it. I'm more curious if you could give us a sense of how you feel. What's your impression of the medical device industry right now and how do you hope to shift it with your work in the next decade?

AM: 39:02 Right now, I do see efforts to diversify who is representing companies at the largest scale down to the smallest scale. I'm excited to see that because science and technology, in my opinion, has entered a stage where we do have advanced capabilities. But if you don't have the perspective to identify where those capabilities can be applied, you're going to miss the potential of science and technology in society. I think it's smart to be making a shift to diversify the workforce within science and technology, all the way down to encouraging kids. I was encouraged that, "Hey, you might not see a lot of people like you, but that doesn't mean that you're not of value. That's exactly why you are of value and why you should pursue it. You're going to see things others can't see, and you can make our existing state of science and technology far more impactful with your perspective. I'm happy to see that shift. I would like to see it be more equitable across the board. That's something that I think about while I'm pursuing my endeavor. I even think about it with my daughter every time that I have a challenging day, as we all do. I just want to make sure that I'm a good example to her that you can persevere through the challenges to achieve great things, I hope, and make a real impact where you're passionate.

KR: 40:45 Thank you. I think you've talked about this over the course of our conversation, but can you speak a little more directly to how your identity and culture, or both, have shaped your approach to medical device development?

AM: 41:06 I do think that I have this unique combination of skills. I want to emphasize that I'm not the best at anything I do. I think that that's important to emphasize because others

should know you don't need to be the best. You must think about your unique combination of lived experiences and skills, and how you can find purpose within that combination. For me, it's a combination of scientific research and development, my background learning to design robust experiments that give me results I can trust, and then learning to broaden my perspective to learn from those results and see the unseen to forge new territory. Then my experience as a scientific communicator, which really taught me how to help a layman understand why what I'm doing is important and make sure that I wasn't getting too lost in the technical weeds of what I was trying to accomplish.

42:09 That's really helped me convey my story to women and beyond to help people understand the importance of what I'm trying to achieve. And then finally, as a mother, as a woman experiencing motherhood and the challenges that motherhood brings, one of the most important things that you can do is provide for your baby and nourish your baby. A lot of women feel called to breastfeed or want to breastfeed, and I just want to make sure that they're met where they're at with tools that can help them do that in a way that is not only physically healthy for them, but improves their mental health because they're not tied to a breast pump all day long lamenting over the poor results. That perspective comes into play in a large way.

I think especially for my field, and for any field that people choose to pursue, that has personal meaning—consumers want to buy from people they trust, who have their best interests at heart. That's not always true in business. I think it's a strength if you're bringing something new to business, or if you're bringing something innovative to science, that you feel purposeful about and passionate about. People trust that you are doing it for the right reasons, and you care about the results that you're going to bring to the world. That's what I hope mothers feel when they learn about Momease Solutions.

KR: 43:36 How did your mom feel when you shared Momease? I'm just curious what her reaction was when you shared with her.

AM: 43:44 Yeah. My mom couldn't breastfeed me. She was a college student at the time. She was going to class, and the breast

pumps were far more archaic than they are today, even so, she had personal experience with the limitations of being able to remotely provide breast milk for your baby. And like any mom, when I had doubts if I should be the person to pursue this, she had no doubts. I think that's something that's really special about moms is their ability to see you for all of your potential. And I'm very appreciative to have a mom that sees my potential and believes in me and supports me from the earliest stage when it's just an idea and I'm waiting for people to tell me it's ridiculous. She's the first person to say, that's not ridiculous, that's important. I could have used something like that, and you should pursue it and you can pursue it. Yeah, it's been really, really special to have their support.

KR: 44:41 Excellent, that's beautiful... In closing, what's something that you want to say about your work with Momease Solutions and the impact that you hope it'll have?

AM: 45:17 I hope that women feel empowered with new technology developments. Especially in the motherhood and the parenthood product space, we've seen a boom in recent years of companies that are achieving great success in making motherhood more convenient for mothers and parents in general. That's extremely validating because it confirms the business opportunity. When the business opportunity is validated, it opens more doors for people to pursue business in this space and really provide options for mothers so that they can still pursue everything that we want to pursue as women and as individuals, while also being good caretakers for our children because we have the tools to do so. That's extremely important.

Obviously, as women have achieved equality in the workforce, and as we're working towards equality in the workforce, it's been a somewhat lopsided burden on them to also take care of the household and take care of children while pursuing this career. We're kind of in this, I think, transitional generation where we're trying to do it all and having a really hard time doing it all. We need a lot more of everything. But one thing that we can do as women in science, technology, and innovation, is think of solutions that can help them achieve all their goals in a supportive way.

KR:	46:49	Nice, thank you. I think that's a great place to close, actually. You did a wonderful job of answering questions!
AM:	47:00	Thank you!
KR:	47:01	I remember reading a lot of articles at the beginning of COVID-19 where everybody was working from home, but women were still primary caregivers—making sure their kids checked in for class and all that other stuff. It's a really important point that you make of the role that science and technology can play and the additional labor that women are still performing even as they are working forty, fifty, sixty hours a week. I think that's an excellent place to close on that excellent point. Thank you, Ashley. Thank you so much for coming and for sharing your story with us. It's amazing to see in such a short time what you've done. I don't know if others highlighted that, but I think it's important to point out. It's been four or five years since you've gone from graduating to being in this moment. I'm very excited to see what else is next for Momease Solutions and hope you'll be able to tell some of my friends about it as they're having babies.
AM:	48:15	Thank you, please do!