

A New Angle

Episode 123

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Justin Angle This is A New Angle, a show about cool people doing awesome things in and around Montana. I'm your host, Justin Angle. This show is supported by First Security Bank, Blackfoot Communications and the University of Montana College of Business.

Justin Angle Hey, folks, welcome back and thanks for tuning in. Today I am speaking with Dylan Cherrulo and Wendy Owens. Dylan is an economics student at the University of Montana and a program assistant at the Blackstone Launchpad. Wendy is the founder and CEO of Hexas Biomass and she's also Dylan's mom.

Wendy Owens But she really got to commit to believing in you. And if you can't believe in yourself, you're going to have to find a way in order to succeed and go forward and be happy in life.

Justin Angle Dylan has spent almost the entirety of his college experience immersed in Montana's entrepreneurial community. Perhaps he gets that spirit from his mother. I'm excited to find out. Dylan, Wendy, thanks for coming on the show.

Dylan Cherrulo Thank you for having us.

Wendy Owens Yeah. Look forward to it.

Justin Angle Yeah. So we'll start with the way we always do, and that is tell us, where did you grow up and what did your parents do? Wendy, why don't we start with you?

Wendy Owens Well, let's see. My parents took us from Texas to Virginia, just outside Washington, D.C., for a job that my dad had at the White House for about four or five years. Yeah.

Justin Angle What was that job?

Wendy Owens He was an economic adviser to four presidents.

Justin Angle So that job kept him in Washington a long time.

Wendy Owens Yeah, we were there, I think I was there for 19 years of my life. Yeah.

Justin Angle Okay, Well, Dylan, where did you grow up and what did your parents do or what are your parents doing? I guess you should say.

Dylan Cherrulo Yeah, they still got a few years left in them yet. But I was born in Boston where my parents were at grad school and then had some jobs and grew up mostly in Olympia, Washington, though. And my dad is the chief financial officer at the city of Tacoma, and my mom does a lot of awesome things that I hope we can get into.

Justin Angle Exactly. We'll talk about a lot of those things. But let's start with your deep connection to the University of Montana. You are a senior here finishing up your degree in about a month. An early congratulations for you, but talk about your connection to the university. It goes deep.

Dylan Cherrulo So I'm a third generation Grizz. My dad's mom, my grandma went here and I actually currently live with her in Missoula, in her basement. She's been very gracious to let me stay there rent-free for a while. And then my dad also went to the University of Montana. So, you know, this is something that's been in our family for generations. And Missoula has always been a place we go to visit grandma. I've been coming here jeez, Mom, all my life. You know, you took me out here when I was really

little, so I felt very comfortable coming here and very excited to continue that legacy in my family.

Justin Angle Dylan, during your time here, it does seem like you've tried explicitly to maximize the experience. You're highly involved in so many things, Davidson Honors College, you're involved in research, Accelerate Montana, you work for MatchCoach, which is an up and coming startup in the coaching space, Hexas, which we'll get to and collaboration with your mother and the Blackstone Launchpad. A theme that ties all those things together in my view is a very entrepreneurial spirit. Describe your kind of approach to your time here on campus.

Dylan Cherrulo I got involved in the entrepreneurship realm in high school thanks to my mom, partnering with her on projects with Hexas, and I just loved it. I was totally hooked working in that space. I love the fast paced environment, the critical thinking, the research, the fact that, you know, you're doing a new thing every day. And so when I came to college, you know, I really want to stay in that space. And so that started off with me getting involved with at the time Bridgeable, which then became MatchCoach and then getting involved with Blackstone Launchpad because they are the ones that are helping the entrepreneurs here at the University of Montana. And then also now with a few more programs throughout the entire state of Montana.

Justin Angle And what is it about entrepreneurship that's appealing? I mean, growing up in a family with an entrepreneurial mother, you have to be immersed in it from the very get go. Why did you choose that as kind of the seed to swim in here?

Dylan Cherrulo I think it speaks to a lot of different things that I learned growing up. You know, the kind of independence, you know, being the oldest child, my mom will definitely attest that I've been pretty independent as much as I can be throughout my life. And I think entrepreneurship is kind of the epitome of that, being your own boss, going out and kind of weathering the seas on your own and figuring things out, even though you are never, you know, truly alone in entrepreneurship, it is kind of your ship to sail your ship to right. Every day we're, doing as an entrepreneur or working with startup, you're doing something that no one else has ever done before.

Justin Angle Yeah.

Dylan Cherrulo And that to me, just when I had that epiphany, like, blew my mind, I was like, Yes, that is so cool. Something I want to keep doing the rest of my life.

Justin Angle Excellent. And Wendy, I mean, you've done so many things in your career, some entrepreneurial and some in other avenues. Kind of describe your sort of professional disposition and how you've approached opportunity over the years.

Wendy Owens Well, it definitely has not been a straight line...

Justin Angle Yeah.

Wendy Owens ...from what I did when I was in graduate school. I think similar to Dylan, you know, it's these new challenges. I get bored with the management, let's just say opportunities in life, and I'm more excited about the creativity that goes along with building something new and all the different aspects and reading the tea leaves and gaining significant amounts of knowledge in areas that you may not have been involved in previously. And so consequently, I like to be my own boss and to, you know, seek out those challenges that challenge me intellectually. But sometimes I'm challenged physically as well, getting out in the field and planting things. You know, I have a master's degree in classical studies from Tufts University, and I use it all the time in the sense that it was an excellent foundation for being able to look back in history and understand what's happened in the past and understand people and

systems and regulations and so forth. But it's it's really allowed me the carte blanche to do what I am interested in. So I've been fortunate that way.

Justin Angle I love to kind of explore one thread that seems to tie your experiences together, and that is what appears to be a dedication to some form of social welfare, to making the communities, people in the place in which you're living better than it was before, make a contribution. How do you think about that?

Wendy Owens I think that any business that you're going to do should have an impact, and that's just simply good business, right? Doing right by people, doing right by the planet, etc. is simply good business because exploitation runs us all into the ground and is not beneficial to anybody. So when we have the opportunity to pair the entrepreneurial effort with having a social impact, that's really where I've always played in that space. So it's important for my kids, right? And I want them to have a healthy planet, healthy lives, healthy environment in terms of our political and social environments. So making a difference is the way to perpetuate the good things about the human race going forward. And that's where I really come from.

Justin Angle Absolutely. And Dylan, how does that land with you? I mean, you've studied economics here, you've been immersed in entrepreneurship. So you've seen

yeah, you've made choices about what entrepreneurial ventures you participate in, but in your seat at the Blackstone Launchpad, you see a ton of different ventures coming through. How does this notion of doing good by people and planet resonate with you?

Dylan Cherrulo Yeah, I think that resonates with me loud and clear. We have such a strong environmental ethos throughout our student community, our faculty, you know, even in the economics program. You know, most of our economists here are environmental economists. Everything is focused on the environment. So most of the ventures coming out of here are as well. And so it's something that I'm seeing is key to the mission of most, if not all, of the ventures that are being launched by my peers. And there's so many of those are doing so much good. One that I know of this very prominent is Smart Dorm. Their whole mission is to reduce carbon emissions via energy optimization software in large scale housing facilities. And like they launched that with the expressed goal of, you know, reducing the carbon footprint of these facilities while saving them money. And that's good business.

Justin Angle Was there a formative experience, whether in the classroom or maybe even before you got to college, that made you think like, I want to take these things seriously?

Dylan Cherrulo Growing up in the outdoors, you know, my mom and dad took us out all the time. You know, I remember being dragged along on hikes, and I was like really little and maybe not being as enthusiastic about it as I should have.

Justin Angle Sure.

Dylan Cherrulo But I think the one moment really stands out to me where I was like, okay, I need to be doing all that I can to be do good for the planet was I did a National Outdoor Leadership School course in Alaska in summer of 2019. My mom kind of pushed me on that track. She did two of those herself.

Justin Angle Right! Yeah, that is a connection.

Dylan Cherrulo So that is a connection there. And so I remember one day we were hiking in the Chugach mountains in Alaska and we wanted to go to this big, what we saw on the map to be a big glacier. And we walked over there, we come around the bend and we just see this like just a little pile of snow in this massive bowl. And so in the 20 years from the time that our maps were made to the time that we were there, like the glacier receded hundreds and hundreds of feet. And I remember standing there and like, just looking up this desolate rock and just being like, wow, this is so much

more real than seeing any picture on the Internet or anything. Like this, something needs to change and change very quickly, you know.

Justin Angle So, Wendy, hearing Dylan recount his NOLS experience, that is something that the two of you share in common, and you mentioned that a moment ago. You took two NOLS courses. Yeah, describe that experience and why you're excited for Dylan to participate in one himself.

Wendy Owens My first NOLS course was in Wyoming and it was an unplanned course like Dylan did. It was strictly mountaineering. I can say that I was just simply blown away by the experience. This first course I was like, well, this is it, this is who I am. This is where I want to be, which is out in the Wind Rivers, you know, fly fishing and hiking and really being physically challenged. And also at the same time having this outdoor classroom that NOLS creates. And then my second course was during my gap year, right after I finished high school, I did a semester.

Justin Angle Okay.

Wendy Owens And one of the interesting things that happened to me as well when I was out there was we were supposed to go skiing in Idaho in December as part of our

winter travel, but there wasn't enough snow. And so even then we were having the impact of climate change happening, so we had to go somewhere else in order to go to ski.

Justin Angle We'll be back to my conversation with Wendy Owens and Dylan Cherrulo after this short break.

Justin Angle Welcome back to A New Angle. I'm speaking with Wendy Owens and her son, Dylan Cherrulo, about their exciting new venture, Hexas.

Justin Angle Well, let's pivot to that company, Hexas, for listeners that don't know about Hexas, Wendy tell us what is Hexas and what problem are you trying to solve?

Wendy Owens Hexas is a company that produces a plant based fiber that can substitute for or supplement wood in fossil fuel based raw materials. So we grow it from what we call XanoGrass, and we call this fibers XanoFiber. XanoGrass looks like corn and bamboo had a baby. It's this big, tall stock with big corn leaves. But if you strip those leaves off, then it looks like bamboo, actually in the same family as both. And we can take the fiber from those stocks and produce, drop-in ready raw materials that can be used. Right now we're using the to produce things like Fiberboard, so

particleboard for furniture and other applications, for paper products and moldable fiber packaging. And then also on the bioenergy side, this fiber can be converted into the biofuels that can eventually become sustainable aviation fuel, for example. So there's lots of applications, think of where you can apply wood or where you can apply bamboo. We can go into these same applications.

Justin Angle And why is the material that you create superior to the existing options in the marketplace?

Wendy Owens Lower costs than wood, for example, and we can harvest every year and we produce a significant amount of biomass on a per acre basis so that over a 10 to 20 year period we'll produce five times more biomass than an acre of trees, for example, and we can harvest every year. And it's a perennial crop, which means we plant at one time and we're harvesting this crop every year for 15 to 20 years. We also can grow it in multiple different locations. So we can grow it where we would get snow in some cold, not freezing for long periods, but then also, you know, right at the equator where it's very hot and we can produce it there. So that gives us a lot of variety in terms of production locations. Included, and one of the things people always think about these purposely grown crops is always you're going to displace food crops, not the case here because we can grow in the highly salinated soils, we can grow in the

poor soils, therefore not displacing food crops. But in two, three, five years we actually turn that soil into be usable soil again. So soil that's sufficiently fertile, has the right microbiome, has been, you know, more carbon sunk into the ground so that it could be converted back into food use for production or for rewilding, for example. So you think of all the sugarcane plantations and strip mines and the 208 million acres of abandoned crop land around the world that there is no monetary incentive to repair. There would be monetary incentive because we'd be producing fiber for specific applications off of that land.

Justin Angle Dylan, talk about your role in this venture. It's been you know, you mentioned it's been a family sort of proposition from the start.

Dylan Cherrulo Yeah, it really, really has been. I would say everyone in the family's chipped in at some point in some way. And in high school, I started off just kind of helping out a little bit of manpower, a little bit of hand labor. Then during my, between my sophomore junior and then also junior senior year of high school, I helped my mom specifically go through some accelerator programs. The Cascadia Clean Tech Accelerator is one that we did together, and I was kind of just another person in the room. I helped out with the trade shows, sat in all the informational sessions,

everything like that, helped take notes. Of recently, this summer I spent a lot of hours out in the field.

Justin Angle How did XanoGrass come to be. Wendy, what's the origin story of the the plant itself?

Wendy Owens A friend of mine showed me this wild grass and my background's materials engineering and biotech, so I've done a lot of work in that. When I looked at this grass, I thought, wow, that could be an excellent substitute in terms of for structural applications in place of wood, there's many places around the world that don't have the kind of level of wood that we have here and the luxury we have in the United States. So, you know, looking at it from a structural application and I just couldn't get out of my head. And I was at the time working in a national nonprofit, running studies for the CDC. And I really wanted to get back into the entrepreneurial thing. So got the boys old enough so that Mama could go back and do more entrepreneurial work and then bootstrapped Hexas. And during that bootstrap time was selectively breeding this grass.

Justin Angle Does your company primarily grow this crop or are you looking for franchisees or whatever the right term is, like farmers to allocate some of their crops or

develop planting areas and some of these areas that haven't been able to grow? Like what's what's the model there of production?

Wendy Owens Sure. Well, we have what I call our farm to fiber platform, which includes the propagation of the plants, the production of the plants along with farmers. And then we work with them on the technical side to help them meet their volume metrics.

Justin Angle Okay.

Wendy Owens And then we will harvest and process that material. So what we sell is the fiber, the end fiber, but we do work with farmers during that process for production. If we need a lot of land, for example, over 2000 acres, we likely would lease land or purchase our land ourselves.

Justin Angle Okay. When you hear about sort of new crops or innovation in the agricultural space, sometimes there's criticism about biodiversity or genetic engineering or biological engineering or upsetting some natural system. How do you respond to that? Is that an issue of concern in this space at all, or is this strictly no negative externalities to think of?

Wendy Owens Oh, no, of course there's going to be people who question the value of these purposefully grown crops is what they're called.

Justin Angle Okay.

Wendy Owens Really, what we we address is several things, that by not using farmland that is capable of producing food, we are not removing food from people's mouths, essentially. Yeah, and then we are providing farmers who have this type of not usable land with revenue, with a new form of revenue that they don't have and they couldn't have because their land literally will not produce food anymore. So consequently, when we talk about biodiversity, we don't want a mono crop. So we actually right now in Europe, grow alongside wheat.

Justin Angle Okay.

Wendy Owens We also make sure that we have ecological balance for our pollination in the plantings as well as, we call it pollination stations, as well as some wild plants that are native to make sure that we have pathways for animals to move about and so

that we respect the land and the people around the land as well. To make sure that we're not interrupting their livelihoods.

Justin Angle And so how do we also think about XanoGrass and XanoFiber in terms of, you know, the carbon cycle? How does it relate to the alternatives or the status quo in terms of, you know, benefits for for the carbon side of the atmosphere and the environment?

Wendy Owens So XanoGrass puts down extensive root system and because it grows so high and you've probably heard this about trees, you know, the higher height of the tree, the more roots you need to have to keep that tree stable.

Justin Angle Right.

Wendy Owens Even here in Washington State, we'll get stocks that are 20 feet tall. But down in our growing site in Hawaii, we'll get 30 plus foot tall stocks.

Justin Angle Wow.

Wendy Owens So and the fact that it grows so quickly in a single growing cycle means it's going to be needing to have that stability in order to grow tall and strong and not just blow over. So we put a significant amount of root material into the ground, down past that 60 centimeter mark. So we're seeing over a ton of additional soil carbon added every year on a per acre basis by this plant. We're actually doing work right now with the USDA in Arkansas on one of their research farms to really optimize the protocol for measuring the amount of carbon that we're putting into the soil because we do go so deep.

Justin Angle And just to be clear, that's a positive. Putting carbon in the soil, that's removing carbon from the atmosphere, right?

Wendy Owens Right, right. So that is below the soil and then above the soil as we look at using the stock material for long term building applications, structural applications such as engineered beams and engineered products, then we have that carbon in the aboveground stock that can be deployed long term in structures and those types of applications.

Justin Angle Dylan, I'm going to give you a chance to celebrate your mom here a little bit. Your mom is a 2023 Cartier Women's Initiative Fellow, and you got to go and

celebrate that honor. You got to go to Europe with her and some others. Talk about that honor and watching your mom and her success be celebrated. What does that feel like to you?

Dylan Cherrulo I've seen all the hard work that's gone into this. I've been there, you know, I've seen the painting room, the room compound at the little plastic table, you know, all the time out in the field, all that type of stuff. I've seen all that, seen all the hard work that goes in. And then to see my mom walking up on stage with some of the most prestigious people in the entire world and to end up winning first place in this competition, I remember sitting third row and just so many emotions, so many great emotions of how proud I was that my mom was doing this and how incredible it is that she's able to have this opportunity.

Justin Angle Super. So Wendy, let's get your take on it. I mean, people might know, not know what this fellowship is all about. They hear Cartier and they think fancy watches or, you know, really fancy jewelry. But it's also a tremendous honor. Talk about the honor and what responsibilities it comes with.

Wendy Owens The Cartier Women's Initiative has been around for 16 years, and it is an initiative that recognizes and brings together women from literally around the world

who are having a tremendous impact in terms of social, environmental, etc., on the world around them through the businesses that they started. So these are CEOs from Africa and Asia, Australia, U.S., Canada, Mexico, all around the world who are selected through a at least six month process as Cartier Fellows for a year. And then we are lifelong fellows and Cartier continues to support us in many different ways. I applied and then went through the due diligence process and was selected as one of the the fellows from North America, and there's three from North America selected every year.

Justin Angle Okay, So I'll give you the turn, Wendy, to gush about Dylan here. You know he's finishing up his time here at the University of Montana and in the running for some super prestigious honor scholarships, graduate school. A really bright future ahead. How are you feeling about all the accolades he's collected so far and what you think his future will bring?

Wendy Owens Of course, I couldn't be more proud. I mean, being his mama, right, and knowing him from that little tiny baby to all the things that he's been able to accomplish, the challenges he's been able to overcome. But he's the one who's executed on this. My husband, I never have had to say, oh, go get your homework done or go make sure this is taken care of and we haven't. That was just, it's just the nature

of this child. As to who he is and what he then is able to represent from our family of all the values we'd hoped that he would learn and he has done a beautiful job.

Justin Angle And final thoughts here. I mean, one of the reasons I was particularly excited for this conversation is this kind of generational spirit of not only entrepreneurship, but of giving back and doing right. You know, Dylan, what advice would you have for incoming college students, young people looking at the world and trying to find their way? What advice would you have for them?

Dylan Cherrulo If someone's coming into college, you know, you might have an inkling you want to do pre-med or, you know, study this or study that. Like I had inklings about what I wanted to do coming in, but I found a lane that I really love. And if you are able to find that and just lean into that, you'll do very well. Because if you love what you do every day, you're going to get a lot farther than someone who just loves that end point that, you know, big doctor salary, someone who loves the act of being a doctor, being in med school, putting in the work to do that, or an entrepreneur, if someone is just looking at that, you know, Zuckerberg's net worth every day and they don't love the act of starting a business, of working through the challenges, doing the critical thinking, boots on the ground stuff, they're not going to get nearly as far as someone who does.

Justin Angle Great advice. Wendy, I'll ask you to reflect on the similar topic. You've walked this walk for many years, but you're also the mom of four children who are working through this experience themselves. What advice would you have for students or peers trying to just maximize their time here on this place?

Wendy Owens I would say believe in yourself. You know, it's hard to have society and all the things coming at you all the time. You know, you have to be this you need to do that and you need to sit down and you need to turn in your homework and all these sort of things. And that, of course, shapes us. But, you know, the entrepreneurial side of things, I would say, has taught me that I have to believe in myself. And that sometimes is hard to do because, you know, you're building the bridge as you're crossing it. But you need to also then say, okay I've got all this great advice, but what do I want to do? What makes me happy? Like Dylan says. But you really got to commit to believing in you.

Justin Angle Yeah.

Wendy Owens And if you can't believe in yourself, you're going to have to find a way in order to succeed and go forward and be happy in life. Yeah.

Justin Angle Yeah. And nobody else is going to believe in you if you don't, that's for sure.

Wendy Owens Exactly.

Justin Angle So, Wendy Hexus is in the startup phase to some degree. Talk about where the company is at and how folks can learn more about you online.

Wendy Owens Sure. Where we are is really at that commercialization point. So ready to start putting plants in the ground and producing fiber for customers. We have pilots going on in Europe and in the U.S. We are building relationships with corporations that we're testing with. We're getting ready to start a sort of hiring round going on. So it's very much an exciting time. I have to say a thank you to Cartier Women's Initiative for the funding that I received as part of my prize, which got us through the summer to the point where we're able to really dig in and find the right support in terms of funding and get a lot of things done this summer that has made a big difference across the board for us. And people can learn more about us at Hexas.com, H-E-X-A-S.com, and also on LinkedIn where we have posts about what's happening with the company.

Justin Angle Super, well Dylan, Wendy, such a pleasure to learn about you two and your unique approach to life and work and making contributions to society. Thanks so much and best of luck to you both down the road.

Dylan Cherrulo Thank you very much for having us, Justin.

Justin Angle Thanks for listening to A New Angle. We really appreciate it. And we're coming to you from Studio 49, a generous gift from UM alums Michele and Loren Hansen.

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