



The Santa Maria College Podcast

Episode 2: Julia Kay (Patterson, Class of 2009)

Jake: Welcome to the Santa Maria College Podcast, where once a month, we sit down with members of our community who are creating, innovating, leading, and contributing, to making the world a better place. From the College's history, to social justice, to entrepreneurship and innovation, we tap into a wide range of topics that affect our girls who are the leaders of tomorrow.

So come along with us for the ride, as we pick the brains of those who have been pivotal in Santa Maria's growth and celebrate those who continue to be change makers.

So, I would like to welcome a very special guest today, Julia. So, she's an SMC alumni and graduated in 2009. So, for those at Santa around that time, you'd remember Julia by her maiden name, Patterson. So, Julia, along with her husband, Jordy, established their business, Great Wrap, in 2019 in Melbourne. In short, Great Wrap manufactures cling wrap that is completely compostable, meaning that it'll break down in the soil, into carbon and water.

The cling wrap is used to keep household items fresh and for items that are placed on pallets that need to be kept dry during transportation. Great Wrap has created this product as a world first, with the intention of eliminating plastic once and for all. Great Wrap is driven by impact, fuelled by demand, and has a 10-year vision for a world where plastic doesn't exist.

So, thank you for joining us, Julia.

Julia: Thanks for having me. This is very exciting.

Jake: I'm also joined today by OGA President Gemma Varone, so thank you for coming on.

Gemma: You're welcome. Now this is also an extra special podcast episode for me because Julia and I were actually at school together. We spent most of high school in the same homeroom. So, it's, um, nice to catch up and, um, I've been following your journey and I'm so excited to get to chat to you about it today.

Julia: Great. Thank you.

Gemma: Firstly, how are you going?

Julia: Good. Yeah, really good. Um, it's been a crazy year and I've been saying that for about three years in a row now, so, um, yeah, just massive. Done a lot of personal growth, very exciting.

Gemma: And obviously interesting times at the moment as well.

Julia: Yeah, definitely. Definitely.

Gemma: Now from what I understand, Great Wrap is the only Australian made and owned manufacturer of compostable stretch wrap, which is pretty mind blowing considering we're in 2022. Your business is clearly a game changer, and it really sets a precedent for all of us to make more environmentally friendly choices.

Tell me a bit about your journey since leaving school.

Julia: Yeah. Um, I mean, so obviously I didn't walk out of the gates of Santa Maria and think I'm going to get into manufacturing. Um, I actually chose a path in architecture. So, um, I think during my time at high school, I, I was really good at Math, and I really loved Art. I probably wasn't quite talented enough to become a professional artist, so, uh, I decided that architecture would be the path for me. So yeah, after school I went on to study at UWA. Um, I did my masters there and spent some time in Milan.

Yeah, I got an amazing job, um, working at a sort of larger commercial architecture studio, worked on a lot of design projects both in WA and Melbourne. I worked in education, so I designed a lot of schools and, um, parts of universities. I mean, I even did some gallery projects, which was pretty exciting. Um, but I think, you know, in my time in architecture, I just saw like a huge amount of waste in construction.

I mean, obviously, um, you know, we see it every day. There's so much that goes into building one building and I sort of started to feel as though the impact I was having probably, you know, wasn't as profound as it could be, and I was feeling pretty frustrated by waste. Um, that's roughly when I moved to Melbourne.

Then, yeah, I met my partner and had similar frustrations and we decided to work on a product that we both used every day. So, um, pallet wrap. I mean, you probably wouldn't have seen it unless you've kind of been working in the back of a supermarket or on a construction site that pretty much everything's like wrapped in petroleum-based plastic.

So, we were using it a lot and we thought, let's just reinvent this material. I mean if we can change that one material alone that impacts so profound. So yeah, I mean, obviously a few steps between then and here, but that's kind of the main story.

Gemma: Yeah. And so, obviously the benefit of what you've created is that it is a hundred percent compostable.

How is that possible? What is it made from?

Julia: Yeah, so it's called thermoplastic starch, TPS for short. But basically, um, it's extracted from a food waste. So, like, you know, when you get a potato chip or something like that, there's a lot of waste that's made from that production process.

So, we take all of that, put it through a polymerization process, which basically just means we, extract a few things, put it through some chemical reactions, and, and that means it will act very much like a polymer or a plastic material. So, yeah, we use that and a combination of other compostable biopolymers and, and we manufacture them into stretch wrap.

Gemma: What made you think of potatoes? Like, how did that happen?

Julia: Yeah. It was a really long journey. I mean, we started off and we were actually, you know, we partnered with Monash University to help develop this technology, but we started off, um, yeah, my husband's a winemaker, so we started off thinking we could use grape marks.

So, the waste leftover from making wine. Um, but we realized that, you know, because that is such a seasonal variety, it probably wasn't going to work. So, we did a lot of experiments and found that, you know, the amount of potato waste was big enough and consistent enough for us to develop a process in which we could, build a business out of, I guess.

But yeah, a lot of funny experiments and a lot of mistakes.

Gemma: And so, this finished product that people use, the benefit obviously, being that it is compostable, how long does it take for it to break down?

Julia: Yeah, so our most recent test, it took 91 days in a lab in Belgium. So, to be certified compostable, um, your product has to break down in a compost environment in under 180 days.

So, yeah, we were pretty happy that it was coming in at half the time.

Gemma: That's incredible. And why do you think compostable materials are the future, I guess, for people that are listening that might be interested?

Julia: Yeah, and it is a good question because, you know, I think it's a combination of material. Like, obviously recycling is incredibly important and it's something that we all need to be focusing on. But I think, you know, we're humans and, and by virtue of that, we can make mistakes and things drop out of that recycling loop and end up in, you know, fields and oceans, and that's where they don't break down.

So, you know, for a material like ours, which is used on such mass, it just makes sense that it can break down and return that carbon to soils and, you know, be used for, I guess, agriculture purposes. So, I mean, there's an exciting future for compostable materials and recycling.

I think for me though, it's almost like, okay, we've made all of this plastic from when we invented it to now. Perfect world, we'd just stop, keep recycling that, and then go with compostable materials in the future. Um, I think, you know, there's a lot of soft plastics. The technology for recycling is still quite inefficient. So, um, there's a lot of, a lot of work and infrastructure that needs to go in to make that a completely closed loop cycle.

So, um, yeah, we just thought, let's mitigate that and make this product.

Gemma: Yeah, definitely. And I think a lot of the times with recycling, everyone's got good intentions, but you, there's only certain things you can't put in a recycling bin. And people go, well, hard plastic, soft plastic, what is it? Where do I put it? So, you might have good intentions, but if that product wasn't there in the first place, then you wouldn't have to worry.

Julia: Yeah, exactly.

Jake: So, I think it's pretty fascinating to think about the process in which Great Wrap is manufactured, like, from the potato stage to the final product. Could you briefly explain the process, like, if we were to come to your factory, what would we be seeing?

I know it's, you know, obviously very technical, but...

Julia: Yeah. No, no, no. All good. I can go on a little rant when I start talking about the factory, so just cut me off if it's getting boring.

So, I guess currently, part of the products that we make now, we import some of that thermoplastic starch, so that's processed offsite. We have, um, an extrusion line, a very big extrusion line at our factory, which is basically just like a huge hot screw that heats up our, our biopolymer. So, they look like little, tiny beads that we put in that gets melted down, pulled over these giant chill rollers and that quick change in temperature is actually what makes the wrap sticky itself.

Um, we're in the process of designing our own sort of commercial scale biorefinery. So, um, we've worked with a potato producer in Dandenong, which is very close to where our factory is.

So, they've got, you know, a hundred thousand tons of potato waste each year, which will be dropped off, um, to our factory and, go into huge fermentation tanks and be put through our process. So yeah, I think, in terms of a visual, it kind of looks very similar to a dairy processing facility. But yeah, it's definitely a lot larger scale than what Jordy and I imagined when we started.

Jake: And you've also launched the Great Lab, which is the innovation technology department at Great Wrap. So, they research, analyse, and come up with ideal wrap solutions based on science.

How does the Great Lab fit into the process, and you know, how do they continually find ways to innovate?

Julia: Yeah. I mean, the Great Lab team's amazing. We've got Dr. Marty, he's been in biopolymers for the last 20 years and he is just like, you know, an encyclopedia of everything. I think, um, you know, one of our big focuses in Great Lab is focusing on those feed stocks. So, um, you know, as much as we spoke about the potato. Potato waste sort of, um, discovery, we're continuing to work on that.

So, you know, one of the projects they're looking at the moment is a way to like sequester carbon, um, and turn that into a polymer. So basically, extracting CO₂ from the atmosphere and turning that into a product we can use. So, I think, very much, they're like the brains trust come up with the ideas.

And then we have, you know, our head of manufacturing and team around taking that, um, to commercial scale. I think one of the great things about being a new business is that because we are still in our formative stage that that Great Lab very much sits as a part of the business. There's no sort of decision that's made without thinking about the future there.

So, um, I guess that's because, you know, we only started three years ago from an idea, so it's very, it's almost like they are separate, but not, not at all.

Jake: So, I think you would agree that education, you know, is a big part of the puzzle in getting people to make the change from plastic to like compostable products.

You know, most people, I think to an extent understand that plastic harms the environment and, you know, products like yours offer, a solution to that problem. If someone has been using, you know, a different product their whole life, it's a huge habit to change. How do you approach this mammoth task of helping people, you know, make the switch?

Julia: For people that you know, don't understand, or don't want to understand. Um, I think part of our job, not only as a business, but kind of as a brand is to make a product that people want to use just because it's a desirable product, you know, for 90% of people, they totally understand the food waste and compostable side of it, and they'll buy into it for that.

But I think, um, yeah, it's an interesting one because it is very hard. So I think though in our sort of product design process, from a really early point in the journey, we sort of knew that we had to be really close to the same price as conventional products so that we could, you know, get people over the line there.

So that's been a big part of our sort of scientific exploration in improving those efficiencies. So really there is no need to make a decision almost. It's just like, well, it's the same price it performs as well, that's sort of how you get people over the line, I think. Often with a lot of sorts of greener products, you might have to make a sacrifice, be it price or functionality, and that's been something we've worked on a lot, because I think that's the strongest way to do it.

If you're living, you know, a more amazing life and you're helping the planet.

Gemma: At the moment like with, um, you know, they're really clamping down on, um, plastics, take away containers, things like that. Do you see a future where, um, other products, are banned?

Julia: Yeah, definitely. And like I think there's like huge power in legislation. I mean, like, you know, we see in France like products made from corn starch have been banned. Um, I definitely think obviously we could do a lot more, um, like that in Australia. I think also, you know, there's huge subsidies on, um, petroleum across the world, which makes those plastic products really cheap.

I think if we saw a change there, that'd be a really quick way to make a difference. I mean locally though, I mean, you guys are sitting, across the road from that beautiful Swan River. I mean, there's so many things you can do being connected to the environment there.

Gemma: So Great Wrap itself. Where can people buy it?

Julia: Yeah, so just on our website at the moment, um, which is if you just Google Great Wrap, you'll find us there. Um, we have just launched this new commercial factory. So basically, we had our pilot plant for the first, um, two years. And to give you an idea of scale, we were making about a thousand rolls a day.

In this new facility, we'll be making a hundred thousand rolls a day. So, um, yeah, very exciting. So, we're getting that sort of all fineness now and once we've got that increase in supply, you'll be able to find us on all of the shelves. I mean, yeah, we pretty much just launched version two.

Gemma: So how has your product generally been received by people that use it?

Yeah, really, really positive. Like, really well to be honest. I mean, you know, for the most part, in the early days, people really bought into the story. Um, they loved what we were trying to do. I think also just like, you know, two people that have no idea about manufacturing kind of giving it a go, um, was really a big attractor.

I mean, the product itself, um, yeah, our earlier iterations definitely were like, you could tell we were a start-up. Um, so, you know, we went through about five different box iterations just in figuring out, um, how to do that. I think now with this new machine and new facility, we're really happy with that.

So yeah, the feedback's been incredible. It's very encouraging.

Gemma: Were you surprised at the start by that feedback and, and how well received it was being just a start up?

Julia: Yeah, definitely. I mean, like when we started, Jody and I were like, oh, you know, I hate using pallet wrap. Should we just get a container of product and see what happens? So, we literally, you know, put a few posts on our personal Instagram and then like within 24 hours we were sold out and we had like global airports reaching out to us and Australia's largest winery. And I think, you know, that was the immediate like, oh, well, like people want this.

Then, yeah. it's just snowballed from there, really.

Gemma: I mean, it's hard to believe that you only started three years ago. What was it like when you first started compared to now that the scale you were producing?

Julia: Yeah, I mean, so when we first started, we weren't manufacturing ourselves. So, we had a contract manufactured product, um, that we imported.

Um, it was Jody and I working from our lounge room. It was Covid. So, um, we had a corner of a friend's warehouse in the beginning that we'd pack orders from. Um, but then very quickly we had to shift to our lounge room because yeah, in Melbourne, we weren't allowed to, you know, leave our 5 km.

So now, yeah, it's crazy. We've got, you know, this 11 000 square metre factory and almost 40 staff. Um, it's very, very surreal.

Gemma: And to think that you've done all that during Covid as well, it's just, um, it's insane. It's really, really incredible. Um, you've just received more than half a million dollars in the latest funding round of the Advanced Manufacturing Growth Centres managed, um, Commercialisation Fund.

How did that all come about?

Julia: Yeah, so we actually, we had a research grant initially. Um, so that helped to fund some of that research we took on really early on with Monash. Obviously, that was incredibly successful and

enabled us to get sort of where we wanted to go, and so that was in relation to, I guess, commercializing that research. Um, so that has really contributed to setting up this new factory.

Um, we've also been lucky enough to take on some investment from some big strategic players, which has helped, um, as well. So yeah, I mean it's really positive to see. I mean, there is a lot of funding, um, from the Australian Government out there for sustainability start-ups in this space particularly. So yeah, I mean we definitely didn't have, um, a big kitty to start with, so it's been very helpful.

Gemma: Yeah. It's good to be recognized.

Jake: So, you've been receiving quite a bit of recognition for your work, even on, you know, a global scale. So Great Wrap was ranked as number six in the most innovative Asia Pacific companies for 2022 by Fast Company, which is the world's leading progressive business media brand. Firstly, congratulations.

Julia: Thank you.

Jake: What does this title mean for Great Wrap?

Julia: Yeah, well, I mean obviously it's such, um, an insane title to receive. I mean, very surreal. But I mean for us it's really helped to, I guess, yeah, put us on more of a global stage.

So, any sort of recognition builds consumer trust in your product and, um, it's also helped us I guess attract really strong mentors around the globe, not just Australia. Um, because people seem to take you more seriously when something like that happens. So yeah, it's, it's incredible. Super surreal.

Jake: And you more recently were awarded Young Victorian of the

Gemma: When I saw this, I was like, mind blown. That's incredible.

Julia: Thank you.

Jake: How did it make you feel? Cause that's, you know, again, it's huge.

Julia: Yeah, I mean at first, I felt guilty because I was like, oh my God, do they know him from WA?

Gemma: Should be both, really!

Julia: Yeah. Um, no, that was again, like just another huge, huge moment and, so exciting for the team as well. I think, you know, like, they hear us get up in front of them and, you know, talk about this crazy vision all the time. But to see that, um, you know, greater Melbourne, like really believes in what we are doing is really special. And, um, yeah, it's just so cool.

Gemma: So obviously, I mean, we've talked about, you know, being an entrepreneur and I guess it does have its challenges and I think, you know, as a consumer, I don't think we really comprehend how much work it takes behind the scenes, um, to get to that point.

Um, you know, at the start you wouldn't have been receiving funding, so I guess, you know, it's that sort of getting through that process. Um, for our listeners who might have their own businesses, or for someone that's looking to start their own, what are the three most important habits that you think, um, you should have to, become a successful entrepreneur?

Julia: Ooof, okay. Top three. Okay. I mean, first one, um, I would say, and something that we did, even though it was really painful sometimes is really, you know, listening to your consumers and your customers. Like your first believers, they're usually the ones, even if you, you know, make a few mistakes, they'll be there at the end.

So, I mean, you know, I mentioned the box sort of iterations. I mean, that was something that came just based on listening to the customers. Even though, you know, it, it can break your heart when you read an email from someone having a tough time with your product, it's really important to do and make sure that you, I guess, iterate on that feedback and you're not just leaving it in a pile and, putting your head in the sand.

And then, probably number two, I think just like talk about what you're doing as much as possible. Um, because I think the minute you start putting it out into the world and the universe and the people around you, um, it, it really seems to take off. People start to, you know, even though you might sound a bit boring to your friends, like. The number of conversations or intros I've had just from having a conversation has really, you know, helped us get to where we are now.

And then obviously number three, I mean, this is kind of a cliché one I'm sure everyone does as a cliché one, but like, you've gotta look after yourself.

You know, I'm like a hundred metres from the beach. Um, I have a lot of sleep. I go for lots of ocean swims. Um, you know, I think when I was in university, I worked really hard. I'd, you know, stay up all night and think that was sustainable. But I think if you are starting your own business, it really is a marathon. So, you need to sort of, treat yourself as if you're training for a marathon, not a sprint.

Gemma: At the start, when you had this idea, how did you back yourself? Like, I'm sure there were people going, 'oh, here we go, like, what are you doing?'. How did you find that power to, to back yourself and say, no, we're gonna give this a go and it's going to be amazing?

Julia: Yeah, I mean, there was a lot of that. I spent six years studying architecture and then all a sudden I was like, nope, um, I'm leaving. I think in a way it's really motivating when people are like, you can't do that.

I mean, like, you know, there was one instance when Jordy and I went to visit a manufacturer here locally. He was making, you know, a similar product but out of plastic. And we sort of told him about the plan and he was like, oh, you know, you should just leave the manufacturing to the big guys. Um, and it was something that I think like really stuck in both of our minds.

And we were like, no, we're going to prove you wrong. Um, and yeah, now we've got this amazing factory. So probably like, yeah, using feedback as fuel is a pretty good way to do it.

Gemma: We talked a little bit earlier about mentorship and guidance. Who do you look for that sort of thing?

Julia: Yeah, I mean, I've got an amazing, I guess like group of mentors who I really admire in business. Um, I think the way I've tried to, I guess, build relationships is like, you know, there's certain things that I know real blind spots for me. Like, I know I can get too carried away with a big idea and not think about the economics or, you know, think about that.

So, I found it really useful to say that up front to someone and find someone who's really good at those skills and say, hey, I'm like just trying to round out my skills. Um, would you be up for it? And it's really nice if you're going to someone with essentially a compliment on the way they operate, seems to work really well, but the more the better, I think.

Gemma: Now let's cast your mind back. Um, I don't like to say how many years it's been since we were both at school, but cast your mind back x amount of years. Um, you were a day student at Santa. You were there from Years 8 - 12, graduating like me in 2009. What was your experience like generally speaking?

Julia: Yeah. I loved high school. I mean, I remember being obviously very jealous of you, Gemma, because you were a boarder.

And, um, I was a day girl and I'm also an only child. So just the thought of living in the boarding house was like, I don't know, so romantic to me. But yeah, I mean, I think at school I was, I mean, you'd probably remember more than me, but I, I definitely probably got in trouble a little bit. Um, but not too. Yeah, I definitely wasn't the worst.

I just, yeah, loved high school and just like being around all of those different subjects as well is something that you really take for granted. I think, especially after you finish school and then you go into something more specialized, you're like, oh, I don't have to do science anymore and you kind of miss it.

Gemma: Yeah, it was fun. I guess having that range and having so many different things to do and sports and different, um, activities. What were some of your fondest memories apart from not getting to be a boarder?

Julia: Um, yeah, I mean, definitely my favourite, like, I mean, I did ATAR Art, and I think there was a really small group of us in the end there, maybe like 12. Um, you know, so that was probably my favourite time. I wasn't particularly good at art, but like, you know, it was just a small group. Mrs Withers was great. Like we all, you know, would get in there after lunch and it would just be so much fun.

Um, I was also really big and I wish I was still big on it, but, um, cross country, like I loved cross country training running across Point Walter.

Gemma: I remember you representing for O'Donnell in the cross country.

Julia: Oh yeah. Do you remember, um, because obviously we were both in O'Donnell, but we, we were not a particularly strong, um, sporting group and I think I had to do...

Gemma: We tried, but.

Julia: We tried. I think I got a call up for like 50 metre butterfly or something.

Gemma: I don't think anyone wanted to do it and I think we ended up just drawing names out of a hat.

Julia: Yeah. I don't even think I knew properly how to do it and I was just flopping around.

Gemma: Good old days. Um, were there any teachers or subjects apart from Art and Mrs. Withers, I guess, that, that stuck with you or, any other memories that you look back on now?

Julia: There are so many teachers. Yeah. Mrs withers is a big one. I remember. Um, Mr Powell was head of O'Donnell. Um, Mrs Webster was awesome. Um, obviously Mrs Sawiris also awesome.

I think I used to wear a lot of jewellery to school, so, yeah you might remember.

Gemma: I just remember, yeah, a few people would get in trouble if, um, you know, hair lackies weren't the right colour or we had too many bracelets or, um, the wrong earrings.

Julia: Yeah. I think at the end of the year I had like a, you know, in, in the draw, like a big bag of just like collected stuff.

Gemma: Getting to go and collect it at the end of the Term.

Julia: Yeah! Ha ha..

Gemma: I don't know if you remember, but I was, um, speaking to Jake a little bit about this before, about Eco Sisters at school.

Julia: Oh, yes!

Gemma: I'd almost forgotten. And then I was like, oh, we're talking to Julia. And I remember that we were both in the Eco Sisters and I was saying to Jake, it's amazing that Julia's ended up doing something so incredible. You know, looking at being more environmentally conscious and then helping people and then there is me.

Julia: No, you're doing great. That's so fun. I actually didn't forget about Eco Sisters, but it had kind of been pushed. That was great.

Gemma: It was, and I think it was when Eco Sisters had first, Santa Maria had just launched it, so we, I guess were like the founding founding members.

Jake: It's still standing strong.

Gemma: It's still standing strong. I didn't actually know that. Someone told me they've still got the veggie patch going and they still do all the things. The Clean Up Australia Day, and all the things.

Julia: Founding sisters.

Gemma: Um, do you think that your time at school sparked your desire to make a difference in the world? Was there anything that was instilled in you back then, or have you always, I guess, had that desire?

Julia: Definitely now that, um, we're talking about Eco Sisters, for sure. I think, um, yeah, I mean obviously you know that, that working in architecture and feeling a little bit like probably wasn't helping, helping the greater community, um, as much as I'd like to, would've come from, you know, obviously a beautiful upbringing.

And then, you know, everything we learn at Santa Maria, like, you know, spending time volunteering and I mean, just, just even the Homeroom group. I mean, yeah, definitely, definitely.

Gemma: Yeah. I think it, yeah, we're lucky to have had, I guess, those values instilled in us. It's a lot to do with upbringing, but I think, yeah, school definitely comes into it when I think back at, you know, what kind of person I am now.

Um, what would your advice be to current Santa Maria students to ensure they get the most out of their time at school?

Julia: Uh, definitely just sign up for everything. Um, I feel like I was in like J division for most sports, um, but I was still showing up.

Softball. I distinctively remember being in J Division.

How many people, like how does it go that deep?

I was right there with you, Gemma. I think, you know, you know, um, you've also got, it feels like You don't when you're at school, but you've got a lot more time then you'll have in the future so just make the most of everything. There are so many amazing things that you do. It's a great way to make friends too.

Gemma: Yeah. And I think it is important, I guess for later on in life, it's good to give everything a go.

And you know, even if you're not good at something and you're in J division for softball, it's okay because you've given it a go. And I think people don't think about that enough now that, um, you know, building resilience, having a go at things, you don't have to be the best. But if you learn something from it and you have fun, that counts for a lot.

Um, we could talk to you all day, but um, we are at the end of this episode, and we've loved it. Yeah. Um, it's been so nice catching up and, um, chatting with you and just hearing about what you've been able to achieve, um, since you've left school and especially in these past three years. It's incredible.

Thank you so much for giving up your time.

Jake: Thank you.

Julia: Oh no. Thank so much, so much. So nice to chat both.

Jake: That's so awesome to see so many years later, like nothing's kind of changed.

Gemma: Well, do you know what, like, I think it says a lot about the school, but I think, the friendships and the bonds that we form when they're here, I think it does kind of, you know, we haven't seen each other for years. Um, but that bond does, you know, it does last forever, and we are always connected in some way. And I think that's really special.

Julia: Definitely, definitely special. Super special. It's awesome.

Gemma: Um, well to everyone listening, thank you for listening firstly and for your continued support.

And if you head to the Santa Maria website, www.santamaria.wa.edu.au/podcast you'll be able to find the full transcript from today and the video interview as well as more information on Great Wrap. Don't forget to subscribe, let us know what you think, and thank you for listening.