DANNY LENNON: Rebecca, thank you for joining me on the podcast.

REBECCA LEECH: Pleasure. Thanks for having me.

DANNY LENNON: There's lots that I'm interested to get in related to your work. So maybe just to give some context to those listening, can you introduce what your focus of your research is actually on, what are some of those research questions you're attempting to answer?

REBECCA LEECH: The bulk of my research, because I'm fairly early in my career, so I'm only several years post PhD, but largely my research is concerned how people eat and eating behaviors, so looking at the patterning with respect to the timing, the frequency, and now moving into sort of the patterns of food combinations at meals and snacks across the day. So looking at how does this influence our overall diet, so the quality of the foods that we eat and also in relation to health outcomes. And, I guess, more and more as I've moved throughout, you know, starting from early PhD to now, I guess, I get a real appreciation for just the complexity of eating behaviors and patterns. And so, I'm more and more trying to find ways that capture that in a really holistic way sort of that acknowledge that complexity.

DANNY LENNON: Yeah, and that's the thing that kind of stood out to me in relation to a lot of your publications. So can you maybe give people an idea of when it comes to things we would think of as at the surface quite simple like what a meal is or what an eating occasion is, how that's typically been defined in research and what potential challenges that can throw up?

REBECCA LEECH: It's great that you raised that because I think when I started out and I was doing all the reviewing of literature and I was kind of surprised at how much sort of variation there was, and that people would kind of pick – seemingly pick and choose, I don't think it's that simple in terms of what drives decision making, but it was like, well, so what's the evidence for using a particular approach. And so that sort of led to that first, I guess, study that I did was around looking at different ways in research of approaching it. So I think in real life we all have our own understanding of what a meal or a snack is, but then we need some sort of a way in which research that's going to be comparable across studies. So some papers had looked at say, well, let's just use times of the day, so we know when people might have breakfast or lunch or we think we know and dinner, and all those other times might be snack occasions. There have been other approaches where we say, okay, let's just look at it within hourly slots of the day, that might be largely driven by the sort of data that they have, they don't have any other data, it's just collected in hourly time slots. And so they might look at times when there are sort of peak peaks of energy intake across the day and say we're going to think that that's a meal, and those other smaller peaks are perhaps a snack. So we've had approaches where we go, okay, so maybe we do have information on time of eating, exact time of eating, and we've got detailed information on energy intake so we might apply more sort of standardized criteria such as, well, it could be when people report eating occasions or intakes within a certain

time period, we'll group that together and it needs to perhaps meet a particular energy criterion, and those intervals between eating occasions can vary from 15 minutes, 30 minutes, up to one hour. Some studies may use energy criterion, other studies may just include all eating occasions as reported. So there's quite a lot of variation, and it just seemed like a logical step to go, well, does it actually matter, are we going to get different results if we use different definitions; and I think that what my research showed that yes you do get some differences in the way that those eating patterns get characterized, and even though those differences may not be huge, I think that when you're coming – if you're going to move towards say giving a prescriptive advice around eating, then those sort of small differences will actually matter, and we want to be able to have definitions that are going to be to best sort of capture what we eat in a whole day and also that are going to be most closely associated with our health outcomes. So that was sort of the reasoning and it's mixed and it's complex, and I think that's really largely driven by how we collect the dietary information in the first place. There are just some researchers are limited, they just can't say sometimes we ask for a research to say is it a meal or a snack, and other times we have to find ways in which to give them that kind of label.

DANNY LENNON: And so it's presumably this one of those areas where when we look at individual studies, they can actually be incredibly informative, but then when we try and broaden that out to compare between different studies or take a collection of the overall evidence, the picture becomes a bit more blurred or the results seem to conflict, and that may be just down to how different groups may be defining different terms.

REBECCA LEECH: Yes. So we've got that variation which may – it makes it very difficult to compare between particular studies. I guess, you need to know what you're actually measuring and assessing. And so, if we don't actually know that then, we

can't sort of make inferences beyond that. And whether we talk about meals or snacks, I think that that's going to differ between countries anyway, because you're going to have different sort of, I guess, cultural factors that lead into that, different types of meal occasions. So I guess, we need research that, yes, we can compare more broadly, but I think we also need contextually relevant research for particular areas in that respect. So when you develop those guidelines, you actually have something that has meaning as well.

DANNY LENNON: Yeah, and that's something that I actually want to circle back to later, and maybe discuss some of the temporal impacts of food intake, because it reminded me of one example where, in Mediterranean populations, their biggest meal of the day tends to be lunch, whereas in other populations it may be dinner; and so if we're not clear on that, there can throw up some problems when we think about meals. One thing that you did touch on is relation to meals, we can have them described or think of them through three different lenses or three different constructs you mentioned. So one is the meal patterning, one is the format of those meals, and then one is the context of those meals. Before we dig into maybe some of those, can you maybe just flesh it out?

REBECCA LEECH: So these are the, I guess, those three constructs are the things that I want to be able to capture all of in a whole day, because I think they all play a role to some degree. So by patterning, we're talking about the frequency, the spacing between meals, those timing of meals, and also sort of that regularity aspect of our regular meal, so that sort of, if we think of number patterns, so something that you can sort of see play out in when these meals and snacks occur basically. When we're talking about the format, we're talking about what's the content of those meals, so that might be the nutrient or the macronutrient content, my more interest is the food combinations or the diet quality of those meals and snacks, and then we have the

context in which they occur. So context might be, for example, are you having a meal and is that a family meal at the table; are we having say a meal that's in a social setting, okay, we're out, we're in a social setting, and we're eating away from home, that's sort of the context and those are the things that potentially are driving how we're eating in terms of the patterning and also what we're eating. So they're the sort of things I've identified more broadly as part of that sort of eating patterns, and that I'm interested in.

DANNY LENNON: One of the things that you make a particularly strong case for is the potential benefits that one can have of considering things from a meal based perspective or a meal based framework over simply a food based framework. And this kind of gets to the core of an area where some people may actually think of terms as synonymous even though they are distinct, for example, what a dietary pattern is versus just the intake of the nutrients in that diet. Can you maybe just make some of those distinctions that you think are important and then why considering things on a meal basis can be informative?

REBECCA LEECH: So, I guess, when I think of the food based dietary guidelines, they are sort of those absolute targets that we're trying to achieve, and the eating pattern is looking at that kind of intermediary step, how are we going to achieve those, what are some of those practical ways across the day that are going to help us, so they're going to be complementary. And I think a good example, and I'm not sure whether this is the case in the US, but physical activity in Australia, the guidelines for children, adolescents have moved to 24-hour guidelines. So we talk about sort of meeting out guidelines for physical activity, reducing sedentary behavior, and also sleep, so we're talking about it in terms of a 24-hour day and acknowledge that there are different ways in which we can accumulate, I guess, good amounts of physical activity, breaking up our sitting time, and also

maintaining good sleep patterns. So for me, and we know we've got a long way to go because there's just so much more research that needs to be done, but finding, I guess, practical ways in which we know about, well, advice around meals, when should we be having our meals, what about snacks, how do we put together meals and snacks in terms of foods, what are some different ways and strategies that are going to help us make those dietary guideline targets. Yeah, and also acknowledging that perhaps there are some better times to eat them than other times as well, so looking at it as part of a whole day, fitting in with people's lifestyles and instructions, and I think that slowly over time, but the evidence isn't there yet, but that's my vision.

DANNY LENNON: Right. And I think it's interesting that there's these different lines of evidence that seem to be converging in on that same point that you mentioned, for example, we've talked on the podcast quite a bit about chrono-nutrition and a lot of the emerging evidence in that area which will relate to many of the things we'll hopefully discuss later in this conversation, but how looking at the distribution of intake over a day may have different impacts rather than just looking at the total intake which is kind of what you've outlined. I'm just wondering if we do focus in on the meal patterning or just eating patterns, in general, what would you say when it comes to eating patterns and trying to make associations with actual health outcomes, are some of the most challenging aspects from a research perspective?

REBECCA LEECH: Dietary assessment, like, there are so many sort of measurement errors that come about with dietary assessment, so being able to get good quality dietary assessment, we know that people tend to misreport their dietary intakes, and I think for eating patterns, it's particularly tricky because there's a tendency to underreport those sort of snack occasions potentially. So that's one challenge. That can be

potentially overcome by having a good measure of physical activity and energy expenditure, so we're able to compare intake and expenditure to be able to control for that in research. And because we're trying to look at something that's very complex and because we're trying to look at something that's captured across the whole day, we need to be able to look at that as a whole, as a pattern, and having the statistical kind of methods or research tools that can actually do that, so we're not missing part of the picture. So if we're focusing on, for example, frequency only, we might be missing the fact that, okay, so someone could be eating say six times a day but choosing good quality foods and they're not eating into the evening or the night. Another person, if we're grouping them all together just on frequency, may have skipped breakfast, may have had the same frequency into the evening, maybe less poor quality in terms of their diet. So we need to think about what else is going on. So if someone's skipping a breakfast, is it really actually breakfast that's the problem, or is it what's also happening in other parts of the day, it could be poor sleep patterns, and also late eating patterns. But if we're just looking at breakfast skipping only, this is probably why it's such a controversial thing, but it's a lot more complex and it plays out as part of a broad eating pattern, and I think that capturing that and having good quality data to work with is probably the biggest challenges at the moment.

DANNY LENNON: Yeah, it's interesting that when we think about humans and metabolism and interaction with our nutrients, it's such a complex system which everyone acknowledges. But when we think of all those potential inputs and things that would have changed the health output at the end, sometimes we can get a bit reductionist in trying to focus in on one thing at a time, whereas the actual outcome could be just an emergent property of all these different inputs. And that I'm guessing is going to be incredibly

difficult to capture unless there's some real thought going into that.

REBECCA LEECH: Our ability to start looking at that with data mining techniques, there are tools all the time we're just beginning to sort of harness in the area that may be able to get to the heart and include that complexity, so I think it's an exciting area to be a part of and we need to sort of partner with those computer science smart people and use some of those techniques to be able to understand the patterns and how that affects health.

DANNY LENNON: You have published some work on the relationship between meal patterning nutrient intake and then overall diet quality. For you, what were some of the most informative findings or important findings from that area of work?

REBECCA LEECH: I think what stood out for me, and I think it's also in the context of the other work, when we look at snacks and snacks gets such a bad rap, and look, there's good reason for that which I am happy to go into., but it was quite variable, so meals, and I think this is consistent with other work that's been done, we're using the enhanced data and also in the UK that meal intake is related to better diet quality. So by having three meals a day, we're more likely to have better adherence without dietary guidelines. Snacks on the other hand is far more variable, so we find associations with poor aspects of diet quality, but we also find positive aspects with things like fruit and also intakes of dairy products as well. So I think it’s easy to just sort of give snacks a bit of a bad name, but snacks can be very important, particularly, for say elderly population groups and also for young children they've become an important part of their diet. But all in all, snacks is the biggest, I guess, opportunity for improvement. If we want to improve our diet quality, this to me represents the biggest improvement and it's sort of some work that I'm doing as part of my postdoc, I've found

looking at the food combinations in terms of the meal format, unhealthy foods is making up 50% of our snack intakes in Australian adults at least. And we also know that over a third of our energy intake is coming from these sort of foods. So that to me is where we have the opportunity to improve. Focusing on encouraging our regular meals because we know that that's going to lead to better diet quality, but where we can make the biggest improvement is in relation to what our snacks are looking like.

DANNY LENNON: Do you suspect that comes from the fact that people intuitively tend to know what a meal should look like or it's been culturally ingrained of a dinner roughly has this kind of makeup and typically includes some vegetables and maybe some lean protein etc., whereas snacks are a bit of anything you kind of want oftentimes?

REBECCA LEECH: Yeah, I think that they're less likely to be planned potentially, maybe more driven by sort of hunger cues, maybe not less sort of mindful eating because you're not sort of planning and preparing sort of further work sort of suggests that the quality of our snacks probably would decrease as the day continues. So when we talk about circadian rhythms, we know that our alertness has that sort of dip mid-afternoon which may kind of – what do we want, we want some sort of carbohydrate or sugary food to get us going again, and perhaps our willpower to eat as well, the stress of the work, a whole lot of factors could play into it. But that's an area that needs sort of a bit of further investigation in terms of context around eating what's sort of driving us to eat in a particular way and, I guess, what are people doing in terms of preparing for meals versus preparing for snack. So trying to get some of that contextual information will help us to understand what's going on and potentially how we can develop strategies to improve snacks.

DANNY LENNON: We have a couple of stages mention some of the stuff related to chrono-nutrition, circadian biology, etc. And so, in a more wider sense, when we look at temporal eating patterns, I think sometimes people can confuse this with simply thinking about meal timing from the perspective of when do I have my first and last meal and certainly that component is part of – we know time restricted feeding models are quite popular now as well. However, there's also the other component of even within a certain window of time how that energy gets distributed. So a certain eight-hour feeding window is not equal on all occasions depending on how we distribute that and what the meal frequency is, etc. Can you maybe think of what a more nuanced way of considering what temporal eating patterns look like?

REBECCA LEECH: It's complex, I think you've got to set it up in terms of understanding in terms of your whole day, so the temporalities, okay, well, when am I eating something in relation to my next meal and then my next meal or my next meal. So we're looking at not just the timing but what we are eating. So we know that, as we move to later in the day, our bodies are less equipped to be able to metabolize food more effectively, so it may be simple things like, okay, so you're having some breakfast but within a rough timeframe and then say between 8:00 or 10:00, and then you might be having lunch between say 12:00 or 2:00, but as we go into the day if we got sort of in a higher energy takes, even if we're eating well in the day, our higher energy takes in the evening may be detrimental, particularly having high carbohydrate type foods because we're just not equipped to being able to process that. So I guess it's about thinking about eating within a particular time window, I think it's important, so not eating indefinitely, giving your body some regular breaks as well. So considering the regularity spacing and how much and what, it's very hard for me to sort of capture because it is that complex. But all of those things and what are the changes from day to day, so we think

about one day but it may not just be that sort of temporality within the one day, it may be what are you doing on the next day and then on the weekend is there a lot of variation from your day to day because your body likes to retain, so it likes to know when it's going to be eating and it doesn't like you to eat during the night, it doesn't process it anywhere near as well. We know that. The research is absolutely clear on that that eating during our biological not is really detrimental to health. And even if you had that same meal at another time of the day, it'll have an impact.

DANNY LENNON: I really liked what you mentioned about rather than considering just that meal and not only the contents of the meal but even the timing of the meal in isolation is not as informative as if we consider it relative to our other intakes or relative to what we're doing on other days. and we know, for example, whether someone has a breakfast with a decent amount of carbohydrate versus either skipping breakfast or not having anything can impact metabolism of later meals. So again that would kind of lend itself to this idea that we need to consider these in context.

REBECCA LEECH: And something that's also important is our physical activity and our sleep does also affect the way we're going to respond to food as well in terms of types of foods we choose as well as our ability to digest and metabolize those foods. So there's a lot of interactions going on, and so, considering it as part of that whole day and what else you're doing in the day as well is going to be important for the health.

DANNY LENNON: I wanted to revisit some of those hypothetical scenarios I outlined earlier because we have ongoing research now looking at different time restricted feeding protocols, eating within a certain window of time, there's some of the good chrono work we are looking at, does it matter if that window of time happens earlier or later in the day and there seems to be differences, we look at different lengths of that

feeding window, however, then we can add in other layers we've already mentioned of even within a certain feeding window how those calories get distributed, are they kind of front loaded towards the start or towards the end and then how all these permutations we could potentially have of these interactions – I'm just wondering from a research perspective, how do you even start teasing that apart, how could this work be done, and do you see work that potentially in the future can actually address these nuanced questions when we have these different variables all interacting?

REBECCA LEECH: Yeah, so looking at a particular just say only eating in that eight-hour time period, and so you think, okay, I'm going to group everyone together, but because they're eating different types of foods so the quality of the foods matter, and whether it's, you know, that eight-hour window maybe from later in the day or it may start earlier in the day, so there's a lot of variation there. And I guess, there are particular ways in which you can capture that variation, but that's assuming that your particular subgroups of people that may share similar characteristics with respect to what else is going on in that eight-hour window, so they may have a similar frequency, a similar diet quality, and a similar timing and distribution, so if we can include all of those factors into our models and look at that variation and find those distinct differences between groups of people, then we can perhaps get to the heart of what's going on. But it's only by addressing that complexity, so things like the data driven approach is the latent class analysis and has really sort of more complex extensions of that that can capture some of that complexity of the data mining, so there are – it's having the right tools and collecting the right data, and then I think that absolutely we can look at that, but not assuming that it's just one factor that's going to be important.

DANNY LENNON: Yeah, and, I guess, when we know that it's going to be more than one of these timing

factors that plays a role, if we know that, let's say, we do find a slightly earlier eating window, maybe better to a later one, but then we also find having more of your calories earlier in the day is beneficial than how do we compare a eight-hour window that may be later in the day but most of those calories came at the start of that window versus one that was an earlier window overall but most of those calories were at the end, and these are all these complex things that may be very difficult to even work out because there's so many layers to it.

REBECCA LEECH: Yeah, some of it, it's like when you look at dietary patterns, and so if you look at the DASH diet for prevention of hypertension and look at what's actually driving some of that, you can actually take out foods out of the pattern to sort of see what effect it's having. So yogurt, for example, being potentially an important part of that being important for reducing hypertension, so the work can be done using particular statistical models but we need to go, okay, so if we remove one aspect of that, what happens to the association, so what are some of the drivers that are explaining most of the association. So it takes some clever people and some clever statistical models, but absolutely, I think it can be done, if we have good quality data to work with, I think that's really important.

DANNY LENNON: Yeah. To drill into some methodology for people who are interested in that, a moment ago you just mentioned latent class analysis, for people who maybe aren't already familiar with that, how would you introduce them to what that is?

REBECCA LEECH: So the goal of latent class analysis is that it uses existing data about people which what we might say as input variable. So if we're talking about eating patterns that might be data on the frequency and the timing of eating. And then it basically seeks to put people into distinct subgroups. So one subgroup will share similar characteristics with respect to the timing and

the frequency, and that will be quite different to another group with respect to timing of eating. So it's creating these distinct groups of people, but those groups of people will have some similar characteristics based on those variables that we're interested in. So it's very much determined by the data of a particular population. So, for example, I would expect that you would get quite a different eating pattern if it was to use data on say the timing and the frequency of aging in say Spain versus in Australia. So it's hard to generalize, so it tells you about what's going on with a particular group of people, so it's not really a standardized way, but it can be very useful. So we often like to compare things against benchmarks such as dietary guidelines, that makes it really easy to be able to compare things over time, but then that's not really telling us what people are actually doing so it gives us a real insight into what is going on.

DANNY LENNON: And to maybe slightly shift our focus, one thing that I actually think fits into this idea of thinking about the complex nature of all these variables that impact our health and trying to not be reductionist and think of them alone is some of your work has looked at the clustering of diet, physical activity, sedentary behavior in people. Can you maybe talk about some of the practical implications of some of those findings?

REBECCA LEECH: So that work that you're referring to was done quite a while ago in children and adolescents was what I was focusing on. So cluster analysis or looking at clustering, so that's basically using the same approach as a latent class analysis. Your goal is very similar, but different statistics are involved which is sort of irrelevant. So again, it's by assuming that all people are similar is fundamentally flawed and that that people may, there may be groups of people that say can have high physical activity but that can actually coexist with high sedentary behavior, and that might coexist with either healthy or unhealthy eating patterns. So

there's a lot of diversity in those behaviors. And what the sort of research has shown that generally speaking that when more than one unhealthy behavior tend to cluster together, particularly sedentary behavior, unhealthy eating, that's associated with things such as higher rates of overweight and obesity. But still there's a lot to go to be done in that sort of area, and it's only just recently that we're adding sleeping as an important variable into that, and there's not much longitudinal stuff done in that area as well. So being able to track those behaviors over time, I think what some of the consistent findings have been in relation to, if we look at patterns for girls in particular, higher amounts of sedentary behavior tending to cluster with lower rates of physical activity but perhaps better eating, so those behaviors cluster together in a really complex way, and so you get quite a lot of mixed patterns. And again, it's just about choosing out, well, is there an optimal patterning that's going to be best for health, and it seems that that higher levels of sedentary behavior, and probably because that's been studied within terms of screen time, diet actually hasn't been studied particularly well from the research that I've looked at, usually just with short questionnaires focusing on snacking, you know, snacking based on foods rather than actual snacking occasions, and more information on physical activity using objective assessments but the diet's lacking. And I think when we look at fruit and vegetable intake, we don't see much differentiation but that's probably because intakes are so low anyway, we don't get much variation between groups but yeah I guess, the take home is that those things pattern together or cluster together in a really complex way, and we can't assume that everyone is similar, there's a lot of variation there.

DANNY LENNON: Yeah, and that's what I like that it takes into account, it doesn't just think of a human being and how it metabolizes nutrients, here we're taking into account of how things are in the world and these cultural and social

implications for that which is of course the only way that we're going to able to inform policy. Before we finish up Rebecca, I'm just interested, from your own perspective, over the next number of years, what are the kind of research questions you're hoping to tackle, what do you have on the horizon that you are most interested in?

REBECCA LEECH: I've been focusing on looking at meals and snacks across the day, looking at groups of different ways in which people combine foods together to have, those are the occasions, looking at breakfast and also at snacks. So what did some of the different profiles of eating look like and maybe where are some opportunities that we can intervene to improve the diet quality of those eating occasions by, and that's based on actual data on how people are eating and combining foods, and my goal has been to be really detailed in the types of food groups that I'm putting in, so based on the dietary guidelines and being able to separate out some of those food groups in a bit more detail because, as you would probably know, studies of dietary patterns, we tend to group grain foods all together when actually there's a lot of variation in say when we look at grain foods in terms of quality of the grain as well. So trying to get as much detail about what people are eating and being able to put those into things like the latent class models to work out what some of those combinations are and then whether there's differences in the people that are eating particular foods and whether that might be driving any of the associations with health. And I've also started looking at sort of contextual correlates, so what are some of the things that are influencing our food choices – so when we have a snack, for example, what is it that's going to influence our food choices, whether we decide to have fruit or vegetable or whether we decide to have a more unhealthy food, so then we can provide a little bit more nuanced advice or put some strategies in place that we know this is when you're more likely to eat in a particular way, and to be to be mindful

of that. Some of the research that we've recently just published has been looking at young adults and sugar sweetened beverage consumption and what might be influencing them to choose a sugar sweetened beverage over another beverage at a particular eating occasion. But to do that, we need data on context. So when we collect dietary data, we're asking a lot from a participant, whether it's recording everything that they've eaten in an hour, and then if we also want to collect context. Wow, we are asking a lot. So the data that I used was collected using a foreign app, so where they reported on their context who they are with, what they were doing, where they were, etc., so I had information on context and also information on time of eating and what they were eating, so really rich data to work with. But the practicalities of collecting that kind of data in a large scale setting make it really tricky, so some of the work that I'm going to do is going to start using wearable cameras where we can passively collect information around context as well as some detailed information on diet collected through 24-hour recalls.

DANNY LENNON: Many of our listeners are going to be dieticians, nutritionists, healthcare practitioners, and so I'm just wondering, based on all of your reading as well as your own work in these area related to eating patterns and whether that's particularly related to patterning or even if we go further into context and format if you wish, but based on some of those things, what would be some of the key points you would like to leave people with that you think could have pragmatic implications for those practitioners in their practice?

REBECCA LEECH: I think it's about understanding the individuals that you're working with. So we see a lot of variation for a reason where our lifestyles are so complex in terms of our work patterns, perhaps not as predictable as they once were, we have a situation where we're shifting towards that sort of 24-hour economy – I

guess, acknowledging that people live in a really complex world and try to find ways in which they can develop a routine and structure that actually works for them. And also acknowledge that, well, there's probably no right, there's no probably right structure, but that there are some key principles that we can try and incorporate into their daily eating pattern. So for example, if they're a rotating shift worker or do shift work, really encouraging as best we can to set up some practical things where they fast during that period, being really important for health outcomes, finding ways in which that they can establish a regular meal routine that works for them and can say plan ahead of time, particularly in relation to snacks, so that we don't sort of fall trap to our food environment where there's just so much food around us and so much choice that makes it – it's just so easy to overconsume, so I guess understanding that eating pattern, you know, giving that sort of advice around regular meals, eating within a particular window, so not too close to bedtime, giving two-hour timespan, but still working within their current environment, so their day to day realities, they may have work stresses, they come home, how are you going to help them achieve those goals and I think we can only really do that by acknowledging the complexity of their own lifestyle and their own reality and their environment and what barriers exist, it's very easy to dish out advice, I think we can all follow advice when we're highly motivated, but the realities of life always mean that that doesn't always play out in the long term because we know with diets whether it's restricted feeding, don't necessarily perform better than other diets, it's about what can you actually sustain in the long term. So that to me is key around regular patterns, finding what works for an individual.

DANNY LENNON: So Rebecca, for people who are interested in finding more about your work or tracking you down on social media or the internet or any of

those places, where can they go online to find you and your work?

REBECCA LEECH: I'm more than happy for people to contact me via email if they have any particular questions in relation to my research. I'm not big social media person, I am on Twitter, so @rmleechy. You can send me a direct message if you wish. I don't have a particular website up and going except for that associated with Deakin University. So you can look at my profile on Deakin University just by doing a Google search, Rebecca Leech Deakin University. If you follow me on Instagram, it's probably going to be more CrossFit stuff, not nutrition stuff.

DANNY LENNON: When you mentioned that you're not big on social media, that kind of explains the prolific publications then because getting lost on Twitter, as I know, can be a terrible waste of time. So it's good that you limit time there.

REBECCA LEECH: Oh, I am actually really bad at it because I can't just, you know, people just put it out there, so I'll be at a conference and I'm like, right, I've got to tweet, I've got to tweet, this is really important, I've got to get this out there. By the time, I've tweeted the title of a presentation I've missed half the presentation, I've just go tto give this up, I'm not good at it, I'm worried about my grandma, I'm worried about too many things.

DANNY LENNON: Well, I'm happy that the fact that you've spent more of your energy doing the work that you've done because it's been incredibly informative. Rebecca, the very final question we end the podcast on could be to do with what we've talked about or completely divorced from that topic, but it's simply: if you could advise people to do one thing each day that would have a positive impact on any area of their life, what might that one thing be?

REBECCA LEECH: Oh, well, for me, I mean, I know I'm a nutritionist, but I have to say physical activity for me is just key to everything. So I'll eat

better if I'm being physically active, so finding an activity that you love doing, that's just you own, it's got nothing to do with anyone else, not responsible for anyone else, but that you can just dedicate that time to you and invest in you, so find something in your day that invests in you, it might be eating well, it might be sitting down with your cup of herbal tea and reading a book, find something that's just investing in you each day.

DANNY LENNON: Wonderful. And with that Rebecca, let me say, thank you for your time today, for the conversation and also for the work that you continue to do, it's very much appreciated.

[00:44:44]