



## SNR#09: Laurent Bannock

Danny: Good morning Laurent how you doing?

Laurent: Good morning Danny, I am just fine, how are you?

Danny: Excellent, really good. I think we have a really good show in store for people today because like we were chatting off air, there are some really interesting topics about this area of performance nutrition at the moment which I know you're at the cutting edge off that we're going to get into. Before we actually mention any of those perhaps you might give a quick intro into the work you're doing and a bit about yourself.

Laurent: Yeah, sure I'll briefly start about myself quickly, in fact as I mentioned we're just got some new developments in our business and amongst other things I'm doing a new website which means I'm have to redo my bio and it's not until you reflect back on what you're doing now and what you've done until you realize just how amazing ones career can be,. Both good and bad. I've been doing this for over 20 years, I mean its nearly 22 years now since I've been in the field, I'm one of the few people I guess that's around that's been doing it for as long as I have, more or less straight out of school really. I started life 22 years ago as a personal trainer, did the first ever training...sort of personal training course diploma type things by a very well known group, but sort of discovered that that really wasn't

enough education so I did actually go back to university and did exercise and house study, college, but that was back in...20 years ago that was more about running a health club sort of thing or working in a leisure center, it wasn't particularly inspiring, and of course the science, as we'll discuss today, performance nutrition or exercise science is extremely fluid, so of course its constantly changing all the time, but in back then we had some good science but it certainly wasn't where it is today, but either way I embarked into a career personal training, ended up running my own gym, which was a very interesting experience for a while, and then sort of things led to another and ended up as a personal trainer in London working with lots of celebrities and so on, ended up on TV shows and all kinds of crazy stuff, but I always felt that I kind of was in the spotlight and sort of celebrity trainer nutritionist sort of guy that really didn't have the education behind it, in fact I'd embarked upon all kinds of training courses in nutrition and strength conditioning, but also lots of alternative medicine stuff, that at the time felt like a good idea, but I subsequently found that like any industry there's just a lot of bias out there, but I didn't have the education behind me to truly work that out, so I spent of my 20 years, almost half of it sort of being immersed in the rubbish that we have the infiltrates or industry, but even so I was doing extremely well with my clients and outcomes and worked even with at the time what was a primarily focal team, and did all kinds of cool stuff. But about 11 years ago or so now or maybe 12 years ago, I decided that I needed to get my game right and enrolled in a masters degree in united states, had an opportunity to go spend some time out there and ended up getting my masters in nutrition, but at the same time discovered that there was so much more to learn, re enrolled in another masters degree in California university , Pennsylvania, in exercise science and health promotion, rediscovered a passion for nutrition and ended up going back and doing more stuff in nutrition, now that I had 2 masters degrees behind me, getting in with the national strength and conditioning association in the states got my CS testification at the time, ended up doing course in exercise physiology and leant how to do metabolic testing, VOT max and all that stuff, just lots and lots of stuff and of course it's a very energetic industry in the states so there's no shortage of courses and training opportunities, and I got immersed into that for a long time and eventually ended up getting enrolled into the international society for sports nutrition, attending

conferences and courses out there and eventually becoming involved with them, which sort of brings us back to where I'm now where after living in the states for 10 years kind of decided you know what, I never intended to go out there forever, I just went there to get an education, got an education in many ways, but ended up coming back to the UK and started working for premier league rugby teams, I was teams nutritionist for London Irish for 2 years, worked with London Scottish, premier league Broncos, premier league rugby league Broncos for season, and various boxers like Danny Williams, worked with him for his 2 title fights which he won of course, right up until his slightly colorful retirement, ended up with USC fighters like Jimmy Manuwha whom I've been working with for over 3 and a half years now, who I still work with, and just loads and loads of amazing opportunities have started to come my way, but because I'm in my 40s now, and I've been doing this stuff for 20 years and I've got quite a lot of ground experience, I have also decided to further my expertise and as a practitioner I think I have a lot to offer but I wanted to further myself academically, so I'm now doing a doctorate at the University of Westminster where I also lecture... a visiting lecturer on the sports nutrition masters degree and of course with my involvement with the ISSN International Society of Sports Nutrition as 9 years in advisory board member, and I also am now board member... sorry, editorial member on the JISSN, the journal, and I'm also the UK ambassador and have now started up their post graduate diploma program and applied sports and exercise nutrition in addition to running my own clinic here in London. But amongst all that stuff, some of that sounds really cool and exciting, I've had lots of... mini failures here and there and that's the great things about life and experiences, you know, finding out after the fact that some of the things you may have done or worked in probably weren't the right decisions at the time or weren't the right things, and you start to learn from those experiences, and I'm happy to say now that I'm excelling in the work that I do with my clients and my athletes and I'm really in a wonderful position now to help educate other people through all of that, which is why I'm doing things like... like this podcast with you I reckon.

Danny: Yeah excellent, and one of the really interesting things that I took from that is you obviously at a relatively early time point realized the value of education and took

that decision to go back and get that masters and like you're saying it's a constant evolution and it's not you get that education and then that's it, and even now that it's almost come full circle that you're involved in delivering these educational courses, but yet are still pursuing education through the doctorate for example, and I think it's really important point to get across to people that this education is ongoing, and....

Laurent: It is, it's very fluid Danny, and actually the more I learn the more I realize I don't know and in this ISSN diploma program I'm running, I do a little bit of lecturing, but I'm the luckiest man alive cause I'm basically being paid to attend monthly weekends of lectures and these are the all stars, the incredible researchers and practitioners and professors that we all hear about and read the journals of, are actually lecturing and I sit there and listen to these guys and it's amazing how fast things are moving and I get to talk to these guys about stuff, and I think I attended a seminar not very long ago, by Eric Homes, who's a fascinating guy himself, whose done a great paper for us at the JISSN about body building prep nutrition, but he came up with a great statement, which is you know, I mean we all have issues over bro science, I mean I'm a real anti bro science sort of guy, but he came up with a good thing and that is you know, today's bro science might have been yesterdays science, and today's science might be tomorrows bro science, the point is it is fluid and whatever stupid ideas we might poo-poo, that was probably at some point, very intelligent people who actually came up with some good research behind that statement.

Danny: Yeah and I think that that actually reminds me of something similar I chatted with Abel James, that we were talking about this whole area of...like throughout history if you look at body building and the information that people come out with, there's so much stuff that at the time, like you're saying seems a bit crazy, but now looking back, they were doing stuff before people even realized, for example carbohydrate restriction at certain times was a completely new thing in the world of health, but body builders have been doing that for a long time and like a sick

little ketogenic diet something Maradee Pascal was talking and no one knew what he was talking, but now it's like common place strategy for a lot of people.

Laurent: You know, however right you might feel you are about something because of evidence that you see in front of you, like journals and papers and some people are extremely good at collecting research data from experts and using that as evidence to prove a point, but it doesn't matter how much you feel you are right and how much evidence you have to back up your point, you still could be wrong, and I think one problem we have particularly in performance nutrition where there are...I mean, face it, everyone thinks they're a nutritionist one way or another and you got some people with fantastic credentials academically but they probably don't have any experience in the real world, while on the other hand you've got people with no credentials but have great experience and of course you need to marry the 2 together to be truly successful but you know, we are finding actually some of the stuff we used to poo-poo, particularly what body builders do, I mean obviously they do a lot of things that are wrong and face it, for those that do take steroids doesn't matter what they do they're probably going to grow. You got to take some of what they say with a pinch of salt particularly when it relates to supplements, but yeah, I mean, I think scientists sometimes can forget what happens in the lab is not what happens outside the lab and we do need to listen to the people that do it for real and maybe learn from their lessons.

Danny: Sure and I think that actually ties in with one issue of the ISSN diploma, the idea of marrying the application with the cutting edge science is probably one of the few places that people go and get that now, so if you mention the list of speakers that appear on the diploma, so you have like top researchers like Kevin Thipton is involved, Craig Sale, these guys put out great research, then you have people that are also working with this stuff day in and day out, like you have jimmy manuer and other athletes, and James Mortin he's still working with Liverpool, and you've all these guys applying this stuff and its I suppose supersedes the more traditional approach people might be getting in more formal education.

Laurent: Yeah I think its key to...I think it doesn't matter how much knowledge you've got if you can't put it into practice, that's the issue, and I think that I certainly recall..not so much when I went through my own personal training strength conditioning coach phase, but when I first got my masters in nutrition and I've been doing all these modules in bio chemistry and physiology and all that stuff and I couldn't believe how excited I was about the science. So I'd sit down in front of clients, talking about ATP production and omega 6 and omega 3 ratios and all that stuff, but of course they don't know what we're talking about, and unless the client can actually pout this stuff into practice, unless they can buy into it with a level of understanding they can appreciate. You know, you're never going to be a successful practitioner and we just have to remember that its maybe 2 parts are and one part science, you've got to bear that in mind, the art of being a practitioner is about being able to translate the science into stuff that you grandma can understand.

Danny: And I know that just over the weekend you had another supplement review course running, and from that were there any kind of standout moments for you that kind of something new that just hit you over the weekend that you heard about?

Laurent: Well I mean yeah I mean, there always is, sometimes I mean I'm constantly impressed by people and we have some awesome students of course and various other professionals attended and the one thing that I enjoy about this is seeing the interest and passion people have about learning, but also the fact that there is more than one way to skin a cat, is one thing that comes to mind, there were many experts talking about stuff and many questions coming from the audience and of course there's more than one way to deal with that and I think that's something else we need to remember, there isn't just one way to do something, you need to...I always talk about tool box and inside of your toolbox you've got methods, whether its fasting, whether its carb back loading, not a



personal issue that should be in the toolbox, but you know, that re feeds all these funny words that nutritionists like to come up with, paleo and high carb, low carb, train high, and train low, but they're just tools in the tool box and I think that that is something that people do forget and the point of continuing education, the reason for listening to podcasts like this, reading books, reading...staying up to date with journals and attending lectures and seminars is to get those tools for your toolbox and I guess the other thing there is, is getting that appreciation for foundational knowledge like James Mortin did several lectures on bio chemistry and skeletal muscle physiology, sorry skeletal muscle plasticity and my colleague got some sessions about fat metabolism and bio chemistry and carbohydrate metabolism bio chemistry and it never ceases to amaze me how much these guys know about this stuff, I'm slightly envious, but the overriding feature and Dr. Graham is another regular lecturer on our program, came out with a statement that others have now said quite a few times of course, to truly be good at nutrition and understand the impact that nutrition can have on the outcomes you're trying to achieve with your clients is...there is a necessity to have a strong understanding of bio chemistry. I'm not saying you need to have a degree in bio chemistry, but you need to have a familiarity and an appreciation for how the body actually works in terms of metabolism and bio chemistry and that's something that really jumps out at me, just how much actually people generally who are involved in nutrition, don't understand. Bio chemistry, which comes out... it's obvious when you hear people try and use big words and come out with their arguments for why people should be on certain diets, like everyone should be low carb or everyone should be paleo or we should all be drinking bulletproof coffee, the thing is they clearly don't understand the mechanisms behind the proposed actions of what they're suggesting, and that's clear.

Danny: Yeah and its actually something similar to what I said to a group at the weekend, pretty much anyone can tell someone how to eat or a certain dietary approach to take, but there's not too many that can explain why that is a good idea for that person at that time and that's exactly what you're saying, if you don't have that background, how can you actually understand what is going on when you give a recommendation.

Laurent: Absolutely, yeah. I mean, I think if ones being completely realistic though, and you look at all the research and data that's out there, we still don't actually know for sure, what makes people fat and what makes people loose fat in terms of a definitive consensus on how that process works. There's still so much to it, that people are arguing, is it calorie, a calorie inside the body, outside the body, metabolic adaptation, metabolic flexibility, all of these other things that affect appetite and levels and affects of sleep and glycemic impact and harmonic responses to feeding, training emotional stimuli, I mean there's so much there that we don't know, but if there's 2 things we know it's being consistent and actually doing something for long enough, so sticking at something for long enough and being truly consistent with it, whether its high carb, low carb or whatever, seems to me perhaps the biggest thing and of course very few people even focus on that fact because they're coming up with protocols and regime that no one can really stick for very long.

Danny: Yeah and it's the whole idea that consistency in many ways just trumps perfection if we can even call something perfection, cause like you said, we don't have the idea of what the perfect diet is for everyone, but consistency is the thing.

Laurent: I mean I believe thoroughly in the need to individualize and personalize our approaches on a big form of periodization in nutrition and whether or not you want to call it nutrient timing or periodization, there's a lot of use of these words and they're misrepresented because timing does not necessarily have to mean post work out, I think we all realize now there is not necessarily a post workout anabolic window, it's not like half an hour after a work out if you don't have your post workout shake your muscles are going to drop off, that's not going to happen, although many of the supplements industries obviously forget to tell people about that, but I think periodization is important and that again is an issue is we like this one size fits all thing, people hate to do things differently, they want



to have the same breakfast, same lunch, same dinner, they want to have something they're comfortable with and they can get used to, but of course true success only we need to periodized approach, we know that we need to periodise our training, not just to individualize it to that person and their goals but also around seasons and timings and within the week, and during the week and weekend and off season, all that stuff, but also our nutritional needs are going to change depending on these factors and other factors that may influence our nutritional needs whether it's based on menstrual cycles or funny things like changes of weather and so on, these are all factors that might influence our nutritional needs.

Danny: Yeah and I think that's where we can almost see the divide between the guys that are keeping up to date with the latest in performance nutrition and people that are on an old mindset, a simple example of an idea of periodization is for example a carbohydrate intake, if you have some people say, for carbohydrate intake, if you're an athlete you just get them on an high carb diet all the time, and it's like just because they're doing a lot of activity, just because they're an athlete are you taking into account when is their next session, what is the nature of that session, what time point is it in the season, are they in and out, is it skill based? And all these things that people are missing out on by just going black and white, athlete high carb, non athlete low carb.

Laurent: Absolutely, and I think... and a word actually came up a lot that are... we got to think the context why you doing what you doing. Is the purpose of your training session a muscular adaptation or is it a metabolic adaptation. Are you looking for improvements in skill are you looking for improvements in strength power you looking for endurance? You looking for change body composition? Is it only about winning the match? what's the purpose of that specific session and that's where you need to periodise or individualize your use of certain substance or macronutrients or components within your nutritional program and probably the best example of that is carbohydrates, because consuming carbohydrate in varying formats can have a big impact on that influence on its metabolism and

adaptation that we get from it whether or not it's a high glycemic, which of course we know has an influence on a various metabolic responses that actually can inhibit oxidation so that could have impact on body composition, might have impact on substrate needs during an endurance event, and then again it might not matter. If it's short internet exercise session or main purpose of that was to gain strength and power and or illicit damage to the muscles so that we can hypertrophy growth therefore might be a good idea to have you carbs and fast releasing carbs. but you need to think and it's about the context that what we are doing or rather than I am just religiously low carb, well I don't think that's very clever or I am religiously high carb, I don't think that's clever either and yes he do see it... well let's be realistic, athletes need carbs, of course they do. But you need to think about the context of what you're doing. In this day and age, what we know about nutrition and metabolism and the bio chemistry of carbohydrate usage, it's ridiculous to say that we should be eating carbs all day long. But I think it's worth mentioning that we do misuse and I think I'm guilty of this in some respects, when taken out of context; if someone overhears the conversations...oh he just said we don't have to have carbs! Of course, there are carbohydrates in different levels and different foods, when people talk about carbohydrates, what they're probably talking about is carbohydrate rich foods. Like starches and sugars and so on. Eating foods like fruits and veg, contain reasonably significant amounts of carbohydrates and since we are as a nutritionist id like you to be, encouraging the increase of vegetables and fruits in our clients and it should not be forgotten that those people, even if they are manipulating or periodising their starchy or sugary foods, they're still getting carbohydrates from their vegetables and fruits which may well be topping up their needs in the background. And low carb doesn't necessarily mean no carb, and that's where there's an interpretation issue. People say oh I'm on a low carb diet, what even is a low carb diet? And it makes us think about people worrying about whether or not they should be on a high protein diet? What is a high protein diet? My idea of high protein diet is way higher than someone else's idea of a high protein diet; in fact someone else's idea of a high protein diet is my idea of low protein diet.

Danny: Yeah absolutely, it's that context, it's who are you talking about and at what time point and so on. It's interesting you actually used the word context, cause I did a piece on this recently and I used a Gary Weiner chart actually, he said, while content is king, context is god. And if you can have the greatest content on anything you want, if it's not used in the correct context it's virtually meaningless. And often when I'm talking to people I find myself that, I'm sure I'm annoying people because my most common answer to their question is it depends, and I'm sure you're probably the same, people want black and white answers and so often it depends on who is the individual, what's their goals in terms of training, their background history, their metabolic health, their genetics, and all these different things, and I think its people just looking for that kind of black and white all the time can be an issue.

Laurent: Yeah, I mean, I think just to shut out a case for actually getting educated and becoming qualified in this field is just that fact. There are so many inter individual variations in our needs and set up within our own metabolism that it absolutely wants individual attention by someone who's actually got some knowledge and education in it. And to think that just because you've done a bit of body building or you look pretty good with your shirt off, somehow justifies your ability to give other people advice and or you got a piety qualification or I think it's remarkable how naïve that is that people can think that, and for the those of us that do start to get in this stuff, we start to realize the need to continuously educate ourselves just because of the complexities that find this to be.

Danny: Yeah and I think it's like if you take anyone and you give everyone the same general recommendations, whether you tell a whole bunch of people to go on a low carb diet or paleo diet or vegetarian diet, for a lot of people especially if they have health issues or are overweight, they're all going to do really great at first, so like you can give general guidelines to those people, but there becomes a certain point where generic stops being good enough and you have to look at what that person then needs in a long term sense and that is, like you're saying is just over looked so often.

Laurent: Yeah, I mean you know, I think this business of well it worked for me or it worked for my maid who did it for a couple of weeks, that's the wrong bases of which to start. Getting everyone to do the same thing and that is something I think that we're pretty good with at some point or we get excited about something and try and get everyone to do that, but of course everyone is an individual and has very individual needs and goals and likes and dislikes and that's where it gets tricky. Particularly with these guys who are doing...and I don't mean to offend anybody that is doing this and I'm sure there's a place in the market and of course you have to start people somewhere, but this business of online meal plans and so on I mean, that's crazy, that's disrespectful to nutrition in general to assume it's so simple you can just start dishing out new plans via process, you need stuff like body composition assessments and you know...I mean yes you could do some of this online but by that I mean where there's a lack of professional interaction within individual through interviewing and extracting information to try and personalize and individualize your client.

Danny: Absolutely and then again it lacks that educational component for the client as well. If they're not learning about how it is and what actually constitutes good nutrition for them, but simply are just following a list of foods you've written down, they're 2 very different things.

Laurent: Absolutely.

Danny: And just on this topic of how things are not the same for different context, on a broader sense when we talk about nutrition just as a term, I often plan out to people that nutrition for optimal health is quite different to nutrition for extreme body composition manipulation. For example, both of those are very different for nutrition for purely athletic performance and almost you can take a triangle of this to show each of those and each point, and if you start at the middle the further

you ,move towards one extreme you're going to by nature have to move away from the others. So for example like getting to 6% body fat is very focused in on body composition, but if you get a guy that's for example and elite rugby player or soccer player, if he moves down from 12% to 6% body fat, his performance is going to drop for sure.

Laurent: Yeah, it'll be slower...you try taking the impact of someone who weighs 18 – 20 stone running into you when you've got 6% body fat.

Danny: Exactly yeah, and it's the same things then for while eating carbohydrates in the high hundreds per day is probably not great for long term health, but for a competitive endurance athletes that is definitely going to give better performance than they trying to do a very low carb diet. So maybe Laurent could you just talk about first what are I suppose the commonalities in all basic nutrition guidelines if we do have any, and secondly where do the differences start to emerge when we look at performance based nutrition as opposed to nutrition purely for health?

Laurent: Right well its interesting, if I can just tackle one thing just quickly because it came to mind, I have a growth area in my practice which is, I've started to receive a lot of clients who are in themselves personal trainers many of them, but most of these people I've started to get in my clinic are physique competitors who are experiencing what I guess you recall the whole stuff that me and Norton are going on about this sort of concept of metabolic damage and whether or not that exists or not and again I think that's the case of the words not necessarily being interpreted correctly or expressed correctly, but it is true that people are achieving body composition goals in time frames that are inappropriate and utilizing strategies that may focus on body composition but not on health and of course it's no big surprise they run into trouble. So ...I think...I mean we've again had an interesting paper published in JISSN by Lane Norton about metabolic adaptations, you know that are occurring in achieving low levels of body fat and this idea of whether or not metabolic damage can occur and the implications of

achieving low body fats too fast without considering health of the individual and the importance of that in their overall goals so, but to come back to your question of differences between general nutrition and performance nutrition and the commonalities, and I said it this past weekend in lectures, you know the absolute foundation to any performance nutrition or sports nutrition program is going to be foundational healthy eating and other lifestyle habits. Whether you're looking to compete in a body building show and actually expect to have a career doing this as in more than once, whether or not you're looking to get to the Olympics, whether or not you're just a very serious recreational athlete or weekend warrior but with very serious aspirations, it doesn't matter who you are and what you're trying to achieve, the foundation of this is going to be healthy nutrition and habits and behaviors. So that's quality of nutrition, actually hitting your daily targets for proteins and fats and carbohydrates and nutrient high quality...nutrient dense high quality foods. Sleep sort of the often ignored nutrient, whether it's a nutrient or not that's not the point, but it's incredibly important and is something that most people...we are sort of in a pandemic of sleep disorders and of course the implications that has on how you feel has a huge impact on the choices you make with foods and drinks and so on. So...the very first thing that I will do with a client is try and improve health and their choices in foods and qualities and establish what their daily targets are relevant of all the rocket science we could get into, achieving those targets and correcting and improving healthy habits and behaviors is by far the most important things you can do, and by 90 something percent of anything you could do in sports nutrition and of course that's the things that people often don't, they focus on the supplements, they focus on maybe how much protein they're eating but not necessarily where they get their protein from and all the other stuff is kind of not even focused on.

Danny: Yeah and its...I actually said it to someone over the weekend, they were asking about...I think it was pre workout...a new pre workout product that they'd seen advertised and would it likely have a performance aspect on their...in the gym, and I was like, if you're not sleeping between 7 to 9 hours, if you're still getting by on 5 hours, you've no real place to be looking at supplements right? So its exact same thing you're saying, if you don't have the foundations in place then the



knock on affect on your performance is going to outweigh anything else you can do supplementation wise...

Laurent: Yeah, absolutely and I think the spelling of the word itself should give it away, it's a supplement, it's not instead of. And getting the basics right is most of the journey of what you need to do to prepare for success. Without doubt, without any doubt, it can be a little bit sort of frustrating when you spend all this time learning about performance nutrition and as I do on many occasions, I'm walking into all these clubs and these teams are working with these professional athletes and contrary to what some people might think I'm actually spending most of my time trying to get them to do things, I actually eat vegetables and they know all about the pre workout and the post workouts and what ratios of proteins to carbs I should be having to elicit some sort of magical anabolic response and yet they get half the sleep that they need and they don't eat any vegetables. You know, get your priorities right and that's important, in fact that's educated exercise and nutrition professions, one of the things that we need to justify our knowledge in sports nutrition supplements because most of the time we need to be able to understand why our clients don't need the product, just exactly how insignificant that supplement is. You know this from of course from your extensive graduate education but it's not something that people truly appreciate, when you read a journal paper or a publication and it states that something is significant; significance in a statistical sense is not the same thing as significant in the real world sense. And that is abused heavily. It's marketed this pre workout significantly impacts the anabolic response. In the real world the impact is totally insignificant and in fact I think the best demonstration of this which is a analogy I sue quite often is, when it comes to fat burners or lovely fat burner supplements that we have out there, you're probably going to burn more fat walking up to the store and actually physically buying fat burners than from actually taking them. And that is the reality. It's so insignificant. Now if you're body builder and you're doing everything that you should be nutritionally and so on, that miniscule of an effect could make the difference may be between first and second place in a body building competition. But if you got three stone to loose, it is not going to do

anything. Absolutely nothing and that's why u should...you want to make sure that you don't get the cart before the horses if you know what I mean.

Danny: And I think that's why y sometimes looking at sport nutrition research can mislead some people in they actually will class themselves as athlete whereas they are not. Because someone might say yeah I'm football player but they train on a Tuesday and Friday night play a match on Sunday morning that's not the same as an elite level football player. So u can't extrapolate like same result or the same recommendation for that group despite doing the same activity

Laurent: You just reminded me about the reason why I got in nutrition in the first place. so if we go back 18 years or 17 years when I was starting to think about how stressful being a personal trainer was and all PT's and coaches will know what I am talking about. I was working with these clients who I trained. we all dream of having and I m not talking financially that we dream of having clientele that we can actually train five times a week but the reality is just some of these people you are lucky to see once or twice a week. So doesn't matter how good a trainer you are. You train that person once or twice a week nothing is going to really happen substantially to their body composition unless you handle everything else that they are doing for the rest of the day everyday for the week. You are dealing with one or two hours in a week when there is 100s of hours when they're doing stuff outside of the training session. And that's why I got into nutrition and lifestyle. Because I realized that to truly bring about changes in my clients body composition and at a time we're not talking about athletes just regular people who didn't want to be fat anymore, but what they would do is not be successful because they were still guzzling the booze and eating all the pasta and the cakes and the biscuits and the bread and the calories from here and there but because they were training with a personal trainer they would blame their failure of the lack of weight loss that I somehow didn't get my training program right, and I was like, there's got to be something wrong with this, and of course you realize, yeah it's got nothing at all to do with me as a trainer, it's their lifestyle outside of the

training sessions and therefore its way more important to get a grip of that than ever it is on the training. The training is the icing on the cake...

Danny: And it just kind of leads me on to something of interest to ask, obviously you work with a wide range of clients from people that are generally trying to make nutritional improvements to really high level guys, for example like Jimmy Manuer, and in a general sense, what are the biggest or most common nutritional mistakes you see in people who come to you at the very first so they've never worked with you before, they first come in, what are kind of the most important things you find that people are misled on, both either health wise or just performance wise?

Laurent: Well firstly, I don't think I've ever come across a client really, and this is going back decades, I mean I've never come across a client who's actually understood the importance of working out how much food they should or shouldn't be eating, and this is to certain extent a mystery even to us professionals, but they really don't, and they can get rather obsessed with the trends that we see that happen over the years, like the low carb, or the... I guess the more contemporary one now is eating fat is good for you, which of course depending on the context, depends on how you look at that, and I think that that is a big issue because they don't understand the importance of satisfying their body's needs, or certainly not exceeding the body's needs in terms of fuels and substrates and so on. But I think it's difficult, I think virtually everyone, with the exception of body builders and certain kinds of athletes, pretty much most people underestimate the amount of protein they need, virtually everyone completely underestimates how many vegetables they need, most people they eat so few veggies, they might actually eat more fruit than veg and even then it's not that much. Because I have such a wide variety of clients that are... I mean I have a lot of professional athletes, a lot of professional athletes, rugby athletes, and also a lot of regular people and you just see such a wide variety of scenarios, but yeah the biggest ones are focusing.... I don't eat any carbs because I heard that's bad and I've heard that I need to improve my fat intake and so I've just been eating nuts and avocados all

day long, and of course they still don't realize why they're not losing weight, and that's because they just swapped one for another.

Danny: Yeah for sure, I just want to take a slight turn into something that I take particular interest, is when you're working with a fighter, so for example, someone like Jimmy , with his nutrition, like we touched on earlier, there's obviously a periodization needed for elite level athletes and it's not like, ok an athlete gets this type of nutrition and that's it, so could you maybe, without having to go too far down the rabbit hole, but maybe give us some indication of how you would periodise his nutrition over the course of say outside of a training camp, in a training camp, just in the pre fight prep phase and stuff like that?

Laurent: Yeah, actually there are some really difficult ones because firstly, I do work with quite a few fighters and athletes that have targets, weight targets they have to be careful with and a great deal many of my fighting athletes tend to be heavy weight or light heavy weight athletes, so Jimmy for example is a light heavy weight guy who is very gifted genetically and to be honest with you we really don't struggle too much when it comes to his weight, so there's never really that angle with someone like Jimmy that one has to worry about. What there is of course is, there are enormous levels of physical mental and emotional stress that these guys go through and a bit like sort of crazy tri-athletes that train multiple sessions a day, these MMA guys that are outstanding athletes, you know, they're doing strength training at one portion of the day, they're doing maybe some BJJ, some Brazilian Jujitsu, one point of the day then they're doing back work on another, then expiring, they might be going for a run, they might be a strong man, it's a mix and match, so it is important that these athletes are getting obviously high quality food and nutrition in on a daily basis, but whilst I don't wish to advocate supplements for everyone and being necessarily this level of athlete can get rather difficult to try and achieve everything through food, so whilst we have a very robust sort of focus on quality of food and established meals throughout the day, which are fairly constant, a fair amount of the periodization will actually come through to supplementation itself, so for example some

sessions might involve a sports drink before injuring we might also do some BCA's before and after, there might be some sessions will involve higher carbohydrate intakes in the pre session meal, I will certainly increase carbohydrate intake afterwards, but I have got so many clients now that I have found that so many athletes have different needs and requirements and likes and dislikes, and of course each training day varies so much that you get in danger of confusing them and they've got enough to focus on and as a nutritionist I think it's important that we don't over complicate what it is we do and one shouldn't underestimate the importance of their basic nutritional habits and with someone like Jimmy, I know he won't mind me saying this, to be honest there are other things that we have to try and focus on, like sleep, the guys a beast, I mean he could be training till 3 in the morning and then tweeting and various other things and of course the fact that he's not getting enough sleep could be huge factor...and I guess some of what we have to do is get him to realize that there are things that they should be doing that they're not doing and then there's things that they are doing that they shouldn't be doing, and I know some of that sounds a little wishy-washy, but that is very much what's being done.

Danny: Yeah, I think one really important thing you mentioned Laurent was that the whole things around almost the stress reduction that a coach should bring to someone, so essentially why someone would hire a nutrition coach or hire a strength and conditioning coach is they want the stress of having to think about that thing taken away from them, that they want this is what I do, like over complicate thing and getting so specific and bombarding people information is kind of caused them to stress out more rather than taking the stress away, which is essentially what it should be doing.

Laurent: Yeah and again I...the thing one has to remember as professionals, in areas like nutrition we can forget that what we're doing is just part of the puzzle, there is so many things that affect that persons health and performance, which of course sleep is one of them that we clearly are starting to realize the importance of, but you know, there's mind set, the whole psychology of everything, but also there's

the bio mechanics the how they move, the psychology, obviously genetics, the relationship they have with their various coaches, I mean these guys...these guys...I mean I'm just...like in Jimmy's case I'm also his physiologist so I do all his fitness testing and performance and hydration and a lot of stuff, but you know, someone like Jimmy for example has got several strength and conditioning coaches, one guys he trains with quite often with, Ted Marsh and he's also got some other people, but of course he's got multiple different types of coaches, because these MMA guys are specialist in more than one type of fighting art, they got other kinds of conditioning coaches, I mean there's a lot of people in these people's lives. So like you say, if I'm going to go in there and I give him a wickedly complicated periodized nutrition plan, actually it's all just going to go to pot, and what you could do is sit down and go what's the most important thing here? The most important thing is generally speaking he eats properly, quality food, nutrient dense, he's got a good basic idea about how much protein he should be consuming on training days and non training days, how to simplify his carbohydrate needs etc, make sure he's getting the right balance of foods and colors and all these other things and then come up also with a simplistic supplement protocol that interacts with that rather than having 50 different powders to mix up. Can you find something that's a blend or maybe have a set of ingredients that can be pre mixed and then have a few...like some of our rugby players actually what we do is we sort of have a grid on the table, and different players will actually have a pre mixed sort of bottle of stuff that the SNC guys are an internal or whatever we put together, whatever we can do to make life easy, they've got enough stuff to focus on and the intelligence, the high recommendations is the simplification of it.

Danny: Yeah I think that's a huge piece around it. Now I know we're coming up close on time, and I wanted to try and squeeze in one last topic, it might not be a good idea because I suppose this topic is something that we can do a full podcast on if we wanted to and that's the idea of metabolic flexibility. So I'll try and be as specific as I can with this question cause I know you do a lot of the metabolic testing and you're working with high level athletes. So essentially when we're talking about metabolic flexibility it's the ability to use the right fuel at the right



time so using either glucose or fat as we need. So when someone is inflexible metabolically, they'll probably have a reduced stability to oxidize and burn fatty acids at rest, but then on the flip side which is what sometimes people forget is that they won't be able to oxidize enough glucose when something that's really glyceletically demanding and so like levels an athlete can reach. Have you seen in any athletic clients, them running into performance issues if they're metabolically inflexible, and in what way does that manifest itself for example in a high level athlete that can get into that high level of glucose burning?

Laurent: Yes I mean it's interesting you raised this topic because actually this is an area that I've decided I'm going to concentrate on in my research areas because I do metabolic testing on basically every client, I'm very fortunate that in my own practice I have my own cardio pulmonary exercise testing system where we can not only look at your usual oxygen carbon dioxide usage and workout exchange ratios and so on, but we can actually determine the (inaudible 55:16) and we can actually determine substrate utilization in varying forms of activity and the first thing I'll tell you now is everyone uses substrates in very, very different ways. The other...so whenever we look at the cross over effect in our text books, you start off in high intensity exercise and you're using predominantly carbohydrate and then...sorry you're using fats at low intensity and then as you start to go into high intensity you start to cross over into predominantly carbohydrate utilization and of course we know throughout the process we use a mixture of the 2, I mean I've seen amazing variation in this, and I've seen some people who never use a predominance of fats. Even in low intensity you see people using predominantly carbohydrates and vise versa and variations in between ,and there is a very interesting trainability to this process, so you know, the whole flexibility is yes its influenced by genetics and its influenced by training adaptations, but its extremely influenced by diet, and one this is for sure, is what you're eating has a profound impact on metabolic flexibility and what you eat not just in the acute sense, which is definitely a factor, which is a definite argument for nutrient timing and nutritional periodization, but also chronic adaptations has a profound impact on metabolic flexibility. Clinically we only have to start talking about diabetes which is the absolute perfect example of metabolic inflexibility, but there are a lot

of people out there that are pre diabetic and of course only one who starts to mess around with insulin which of course is influenced by diet and training and various other things is going to have some degree of problem with metabolic flexibility, but I think the key thing that you're trying to achieve with metabolic efficiency is this idea that you're not necessarily going to be highly flexible or inflexible metabolically, true metabolic flexibility is the ability to switch between either substrate based on demand and that's something that we need to spend more time looking at. And I certainly am starting to see that in my own sort of practice based, applied based research that I'm looking into and in fact there's some things I'm finding which are kind of interesting and I'm wondering if there's a relationship at all between somatotype, and metabolic flexibility. I don't have a bias either way other than there's something that we noticed and of course our body type is influenced by our genetics and various other things but it's also influenced by our kind of lifestyles and training and with that our hormonal responses that may manipulate how our energy is partitioned within the body and that certainly will have an impact on metabolic flexibility. I mean I find metabolic flexibility fascinating and it's the implications that this can have on anything from body composition to performance is awesome, but I think the over whelming thing that I have to say that I've been noticing is the huge inter individual variability in metabolic flexibility that goes quite a long way away from what we're seeing in the text books, which of course is just a combination of data shoved into graphs and any outliers sort of eradicate it...blah, blah, blah and of course that doesn't truly represent what we see on end of one, it's just one person scenario.

Danny: Yeah absolutely and it really is fascinating stuff and its one of the areas I'm trying to look a lot at the moment, I think we're perhaps going to have to do a round 2 here and look just at this cause again you're doing some great work in this area and that'll be cool.

Laurent: Well my team, nelson who another guy we have who does quite a bit for the ISSN is actually going to be speaking at part of the round table at metabolic

adaptation, did his PhD on metabolic flexibility I believe so he would be a guy to get on the podcast sometime.

Danny: Very cool. Yeah. So again we're...I'm kind of pushing the time limit here so we'll start to finish up, so just before I get into the very final question, perhaps you might mention to people where they can find more information about the diploma that we mentioned earlier and I also know that you're opening the Google performance exercise physiology clinic next month, so maybe mention a couple of those things to the people.

Laurent: Yeah I mean, obviously you can learn more about what we're doing at guru performance, and I should just point out, guru performance there's various members on the team including my assistant Scott Robinson whose also an exercise physiologist and nutritionist, PhD student at Birmingham, very talented young guy, we work with professional teams including rugby currently and Scotts in asten villa academy there, but we have Jimmy and many other boxers in UFC and so on, but we also work a lot with regular people, the kinds of people that many of the listeners to this podcast work with, but we're also heavily involved in education and whilst we do an odd seminar here and there the main project that we have is we run the ISSN diploma which is a one year part time post graduate level program focusing on the applied aspects of performance nutrition. Whilst we do hold most of the lectures in London it is entirely possible to do the program fully online, 100% online cause everything is videoed and recorded and you have the opportunity to participate in various aspects of course work which includes hundreds of hours of lectures by just incredible minds and people, and things about performance nutrition and up scaling yourself in nutritional physiology and exercise bio chemistry and so on. These are just great things that you just don't get in a regular education, even if you're got a masters or a PhD even, we have many masters and PhD students, we've also got very qualified and experienced strength and conditioning coaches personal trainers from varying levels, you can all benefit from that. So that will be ISSNdiploma.com, have a look at that, and to learn more about what we're doing at guruperformance.com, you can (inaudible

01:02:30) a sports nutrition clinic that is also an excellent physiology laboratory where I conduct and my associates will conduct things like VOTmax testing, fatmax testing, substrate analysis, looking to see just how metabolically flexible people are where it's fascinating to look at the data and how peoples bodies use fats and carbohydrates and then manipulating their nutritional recommendations to help them become more metabolically efficient and all the other stuff that you might find like scrap testing and body composition testing and analysis, these are all being done at our clinic which is also where I'm doing my research for my professional doctorate because I'm lucky enough to do applied based research for much of my research.

Danny: Very cool, and we'll have all the links to the stuff in the show notes for anyone that does want to look those up, so it'll be [sigmanutrition.com/episode9](http://sigmanutrition.com/episode9) and you'll find all those links there and you can also grab a transcript of today's show as well. So we'll finish up with the final question Laurent, really quick one, if there's just one thing you could recommend people do each and every day just to improve their lives, what would that one recommendation be?

Laurent: It's one of those questions, what time of day you ask me, but I just love the phrase, don't sweat the small stuff, if you spend all your time worrying about mowing your lawn whilst your house is on fire you start to lose focus on priorities of life, just be sensible, it's what you do on average that counts and in the long run, as long as it's all healthy and you're happy then it's all cool.

Danny: Great stuff. So thank very much Laurent for coming on, lots of great information for people there. And I'll be chatting with you again soon.

Laurent: Thank you very much.