

Nice to Meet You

Wed, 4/20 5:42PM • 19:32

SUMMARY KEYWORDS

meat, eat, produce, people, animal, product, countryside, production, alternatives, biodiversity, tim, farming, livestock production, grown, dan, cells, product launch, uk, suggesting, linkedin group

SPEAKERS

Daan Luining, Tim Bonner, Guy Clapperton

Guy Clapperton 00:05

Welcome to Dividing Lines, a series of special programmes from the Near Futurist, where we will be bringing together respected innovators and thinkers to examine some of the most consequential debates in technology and society today. Dividing Lines is powered by Diffusion, an award winning international PR agency on a mission to help tech innovators to take on the status quo and transform the future faster. My name is Guy Clapperton.

And if you wanted to feedback on the podcast, or maybe even suggest ideas for guests and topics, I'd love to meet you and the shiny new LinkedIn group I've set up, just search for my name and Near Futurist, and you'll find it pretty easily.

Now my wife and I are eating a bit less red meat. We're not inclined towards vegetarianism as long as farming is done humanely. That's not a problem for us, although I respect others will disagree with that. That's fair enough. No, our main issue is with greenhouse gas emissions, and the ecological impact of meat production on planet Earth. That's where we live. I'm no expert. But even with my limited knowledge, I can see that something has to change.

If only someone would invent a way of cultivating meat in laboratories. That's a bit of a clunky link. Yes, of course, they have you know it, and I know it, although it's not on the supermarket shelves just yet. The future of meat production may well be artificial, or laboratory based, although a lot of people will feel that natural production is best. So to discuss this, I'm very pleased to welcome two guests. meatable is a startup focusing on lab grown meat. And from that company, we have Daan Luining, founder and CTO of meatable. And to represent the more traditional view of farming in the countryside economy. Although I don't want to put words into his mouth, we have the chief executive of the Countryside Alliance in the UK as Tim Bonner. Welcome to you both.

Perhaps we could start with meatable. Done. Could you tell me a bit about what you do? Exactly.

Daan Luining 02:00

Yeah, I would love to. So you said synthetic. But basically, what we're using is the cells of an animal. So like the natural building blocks of life, to create a product that everybody likes to enjoy like yourself, you just said that you and your wife had a little bit of less of red meat. But people still do eat a lot of meat and buy this new way of producing meat, but when without harming the animals, I think we can create a future where we really can feel satisfied in the need and the requirements for people to eat meat, but then without damage to the environment, animals or the planet as a whole.

Guy Clapperton 02:35

Okay, so the motivation clearly is to be more humane, and environmental. But there are humane and increasingly environmental methods of traditional farming, what's the motivation behind going lab grown?

Daan Luining 02:47

Oh, so I think we have to do everything to make sure that we reach a future where everybody can eat high quality protein can eat a nice steak, basically have your steak and eat it too. But then I think there should be a choice, right now you can either say, well,, we have a plant product or a animal product. But some people like yourself are being more conscious of the effect that meat has on this planet. So that's why using a different methodology to produce the same product because it is actual meat, right? That comes from an animal it actually is muscle and fat from an animal. But then without the slaughter, I think having choices in that is all the better for consumers. But definitely saying it's an end game we need and to have alternatives and to make sure we perform more humanely. So that's why really I think this technology can provide in depth.

Guy Clapperton 03:38

I'm sure it's more complex than I'm about to ask. (But Tim, I will get to you in just a second.) But you've mentioned that it comes from an animal, but you've also mentioned that it's lab grown, so you don't harm the animal. Could you talk me through the basics of how you actually grow the meat that you produce?

Daan Luining 03:52

Yeah, of course. So we take a small sample of cells from an animal, and then replaces in a productive environment, basically like your you should think a little bit about a beer brewing operation. Or you have kettles and there's where you keep the yeast in. But in our case, it's animal cells. And you feed it anything that basically an animal would eat, but only then broken down. It's fundamental building blocks of sugars, salts, amino acids, to just to make sure that the cells can consume this in a very readily available manner, since it doesn't have any digestive tract anymore, right? So we break it down 40 cells and they can easily absorb it to make more cells. And then at the moment when we have a lot of these cells, then we say well now we want you to turn into muscle and fat. And that basically creates everything that you expect from a steak or a tournados or just a normal muscle effect from an animal.

Guy Clapperton 04:43

Well, so far you've got me thinking about steaks and beer so you're winning the debate, but then the other person hasn't spoken. So Tim, there's there is some research out there to suggest that traditional

meat production does produce harmful greenhouse gases. Before we even considered about grown alternative what can farmers do to reduce their carbon footprint?

Tim Bonner 05:00

First point is that the production of greenhouse gases by traditional livestock production, you call it covers is actually it's a sweeping generalisation. It covers a huge range of different production systems. And so when we're when we're considering beef production, for instance, there will be a vastly different impact of grass reared beef from a UK farm and something from a huge feedlot in America or elsewhere in the world. I mean, these are these are fundamentally different production systems and, and the amount of carbon that's produced through them will be fundamentally different. So I think there's a, you know, that when we when we're talking about eating meat, at the moment, you're talking about eating slightly less, I think a lot of people are talking about sourcing their meat and thinking about where it comes from. And yes, perhaps, perhaps looking at quality, perhaps looking at ensuring that there's locally produced or there's got low food miles, there's all sorts of other things that they can check to ensure that the meat that they are eating does have as little impact in terms of carbon as possible.

But their carbon is not the only issue here. There's also a critical issue around biodiversity. And the the idea, for instance, that we remove livestock farming from the from from the countryside as a whole, which I know is the original sort of extreme version of this discussion. But but that is the answer The underlying assumption that we move away from livestock production and farming as a whole. And there are huge questions about the impact that that would have on biodiversity, which is obviously the decline in biodiversity is one of the biggest one of the biggest issues facing facing rural communities.

And then there's the question of welfare, which Daan raised, which is an interesting one, because yes, you know, there there are welfare impacts in in slaughtering animals. I mean, if you do it, well, they should have very little, but but there are welfare issues there. But the question is, if we don't farm, we don't have livestock, then we don't have livestock? Well, there's the purpose of the cattle, the sheep, you know, it's all very well being absolutely certain that the welfare at death is protected, and that things are done humanely. But the underlying point is, if that we don't have a livestock farming system, we don't have livestock and and is that a countryside that we we want? And would that be a good thing for the countryside as a whole, and we're looking beyond just carbon at at biodiversity and, and sustainable rural communities.

Guy Clapperton 07:23

That makes a lot of sense. Although I have to say in fairness, that Daan was talking about this being a lab grown meat and naturally produced meat, that's my terminology, not yours, I fully accept that. But it was an end rather than instead of debate that Daan was putting forward. So without wanting to put words in anybody's mouth, Tim, I've made all sorts of assumptions, probably. But what is your view of lab grown meat?

Tim Bonner 07:47

I mean, personally, I've I've I've not yet had the pleasure, perhaps I should have, should have done. My view is that that that I'm sure, we need to look very carefully at how we are producing meat, there's no

doubt about that at all. And I suppose the fundamental point comes, we were probably going to be producing less, and people will probably eat less, as you've discussed, and as I discussed earlier, how you fill the gap in between the the amount of meat that people might be eating at the moment, and it might be eating the future, there are obviously different options. And you know, as as, as Daan said, I'm a great believer in freedom of choice as well, and people should be able to choose that. They may, you know, other people may choose to eat more non meat products. But it's it certainly shouldn't be part of the, you know, I see no reason at all, it shouldn't be part of a mix of parts of a choice.

My point, and I go back to my last, my point really is that we need to consider very carefully the entire direction of travel. And I'm not suggesting that this is the dance gesture or the what you're suggesting. But there are many people who want us to want to see a world without livestock production without livestock farming at all. And then he wants to see well without farming at all. A prominent voices. George Monbiot has written the articles in The Guardian. These are these are prominent voices suggesting this and that I do think would be a fundamentally bad thing for the countryside and the country as a whole.

(MUSIC TO INDICATE ADVERT)

Guy Clapperton 09:22

Do you want to sound as confident as my interviewee in this episode? If you talk to the press or other media, are you worried you'll be misquoted or they're just published their story and not yours? Clapperton media associates can help with coaching, drop me a note guy@clapperton.co.uk And we'll arrange a time for an exploratory call. Now, back to the podcast.

(MUSIC TO INDICATE END OF ADVERT)

Guy Clapperton 09:50

As of course this desirability thing isn't there. If you want to look at those, drive past and look at those cows in a field or sheep in a field or whatever, you have to accept that those are not pets, they are livestock that is destined for either dairy production or the table or for both I, I get that completely. I'm interested in how this stuff's gonna get to the market. I mean that I'm speaking from the UK, which has, of course, left the European Union. And I'm sure it will be working on its own food standards in the fullness of time. But Daan, I asked you, will you be able to market your produces meat? Or either under EU regulations or any others? Or we'll have another name?

Daan Luining 10:27

Yeah, I think it's a very interesting question. And it goes both ways. Right? So do we want it to be called meat and then I think we're still on the fence about that. Because since it is produced in a fundamentally different way, I think it would be unfair to consumers to not at least allude that there is a difference between the traditional product that you get from an animal and the product that we make, I think people especially when it comes to choice, people should realise that there is a difference. So right now we are, of course, we have adopted the term cultivated meat lab grown, I think is a bit misleading since eventually this product will be made in a food plant, and that I think the lab won't be fair to call the plant lab. So really, really have a fundamentally different approach to this and saying,

Well, what can we call like robot should we call it and I don't think just regular meat should be, it's fair to say people should be aware that what you're eating, and what actually happened to the food that they're consuming. So it's all about, again, the choice, and then making sure that the consumer understands the choice that they're making.

Guy Clapperton 11:28

There are already plenty of alternatives that, um, there's Quorn. And when I was growing up in the 70s, there was this horrific stuff called Sosmix, which as far as I could make out was basically salt with food dye in it. That's long gone, but I've always wondered what the appeal is of pretending to eat meat, why not just eat veg based dishes? Why not just eat plant based dishes and celebrate the fact that they're vegetables?

Daan Luining 11:49

I would completely agree with that. I think when you when you compare that market for 10 years, 10 years ago, like you said, you could get solved with food calling by but now I think people have made significant innovation so that there is more choice. But I do think that celebrating the fact that you don't eat meat should be a thing by itself and not saying while you're actually eating meat while it's not meat, but that's the thing, what I think sets us apart, right? We are actually making meat it is animal protein and animal fat from the species that we've used to grow gorgeous tissues from. So that's why I think we're in a in a different trajectory than the the plant based alternatives.

Guy Clapperton 12:24

Okay, Tim, how crowded is the market for food producers already?

Tim Bonner 12:30

I mean, interestingly, the demand for red meat, whilst we're there, there's lots of discussions going on about eating less and quality, the rest of the demand seems to seem to be maintained and be very strong indeed. And as yet, it doesn't seem and Daan's products coming on the market, as are other products as yet, it doesn't seem that there is any alternative product, which is having a substantial impact on on the the ability of farmers to sell their products of livestock farmers to sell their produce. I think what is interesting, and I don't know, fully aware of Dan's product range. And the rest of it is that the type of livestock production which is probably the the most difficult to justify in terms of, of either the environment in relation to carbon, or biodiversity or anything else, their production of some very large quantities of mainly chicken meat and pig meat. We're using mostly in the UK using imported soya as the base of all those feed stuff. This is it does seem to me always that that is that the type of meat product which which is fairly would be fairly easy to replicate, either using the sort of the sort of lab grown meat that Daan's talking about, or indeed, as we've already discussed, things like a corn nugget and a chicken nugget for a broiler chicken, if we're honest about it, it fundamentally that that there's not a huge amount of difference in terms of taste or texture. So it's that part of production. It would be the most benefits in replacing I think, but the focus of most of the discussion tends to be on red meat, which is also strange.

Guy Clapperton 14:07

Tim, do you see any specific advantages or indeed any potential innovations? For any animal based forms of production? That's, that's coming up?

Tim Bonner 14:18

Well, I think some of the discussions like the one we're having and a much broader discussion about about ethical meat, I think they're, you would hope that there's a real opportunity for producers who are using grass fed systems, high welfare standards, to traditional breeds which farmed in a manner which is absolutely in line with with best practice of regenerative farming and conserving the countryside. There should be and hopefully will be opportunities to generate significant premium marketing marketing meeting that way. They'll be for instance, a example we use a net nap in the room Welding project in in the southeast is, is used a lot as an example. But Napa branding their own meat to the because they are still farming are producing still quite a lot of a lot of meat. Branding that and I'm quite sure where we're getting a significant premium for net meat above the market average. And so these are the opportunities I think and there and increasingly you're seeing the livestock sector looking to take those opportunities to to ensure that they're getting as much as as much as they can for what is a high quality product.

Guy Clapperton 15:30

Done. Tim was saying that he hasn't actually tasted your product. And neither have I, of course, because I haven't seen anything on the supermarket shelves and I'm deeply imaginative with my shopping. And if it's not in the supermarket, I probably won't have seen it. So how long is it going to be? Before we see something? And how long is it going to take consumers to accept your alternatives to traditionally produce meat?

Daan Luining 15:51

Right? So for the first question, probably 2025 is going to be first product launch. But just imagining the sheer volumes of meat that people are consuming on a daily basis. Somebody said to me that if we have a factory that produce 5000 kilogrammes every day, we could fulfil the need of 0.5% of what London eats Daily. These numbers are so staggering that for new innovation like this and to start to get the big volumes up that you can really see the spread throughout the supermarket, it will take some more time because we have a what is it like 1000 year lag between agricultural farming and where we are today with our product, but 2025 first product launch and then afterwards starting to build the factories to increase volume. And then hopefully soon after you can start enjoying it in in supermarkets, I think that is really three key important things that we need to reach for people start to mass adopt it. One, of course, is taste. And if it doesn't taste good, nobody will buy it. And I think that's what we are ready for that, since we are creating the real thing, we don't expect it to taste any different it doesn't. The second one is skill enough, people need to be able to expose to it to start getting this in their daily lives. And the other one needs to be cost. So it needs to be as cheap as meat. And this is really what we're aiming for with the large scale factories that people will, you know, just have go to a supermarket stand in front of the meat aisle and have a realistic choice in what type of proteins they can consume. And I think that that will take a little bit more time for that large scale. But very soon after a different product launch. We're we're aiming for that,

Guy Clapperton 17:19

what if you could make a cheap, really high quality steak then I will be very impressed because that's not been my experience. But that's not possibly just a feature of the sorts of places or places that I shop. We're running short of time. This is a fascinating topic. We could do hours on this, I'm sure but if I could just ask finally, where people can find out more about yourself and your work, Tim,

Tim Bonner 17:40

They can go to our website, that kind of sidelines website, Google will get you there quickly. And we campaign on a whole range of rural issues. And you know, the future of the countryside, and the countryside with people in it is what we're all about.

Guy Clapperton 17:53

And Daan

Daan Luining 17:55

Of course our website is meatable.com. But if you want to learn a bit more about what we call sailor agriculture, so the revolution of using cell technologies to create animal protein, good sources are that have GFI and new harvest and they can talk you about war range of alternative proteins that are made through fermentation processes. But ours of course is meatable

Guy Clapperton 18:17

Tim Bonner of the Countryside Alliance and Daan Luining of meatable thank you both very much indeed. Thank you. Thank you. And of course many thanks to you for listening. That was the Near Futurist podcast with me, Guy Clapperton, and my guests in the latest in the series of Dividing Lines sponsored by Diffusion PR. Don't forget to have a look at the website at near futures dot code at UK. That's my media training site at remote media training.com. And of course please please do join the LinkedIn group if you'd like to have a natter. I'll be back soon. Thank you again.