

EP.92 - Paul Rennie and Jason Snape

Narrator: You're listening to *BioTalk* with Rich Bendis, the only podcast focused on the BioHealth Capital Region. Each episode, we'll talk to leaders in the industry to break down the biggest topics happening today in BioHealth.

Rich Bendis: Hi, this is Rich Bendis, your host of *BioTalk*. And today, we have a different topic that we have never done before in the last four years. And this podcast is going to cover a topic which you, the listeners, have probably heard a lot about, and that is climate change and the need for the world to reduce emissions in order to have a sustainable and healthy future. Why are we talking about this on *BioTalk*? You're going to find out because we have some excellent guests who are going to show the perspective of climate change and the pharmaceutical industry today. A lot of you don't know exactly how the biopharmaceutical sector is contributing, but this fits into a broader global effort to address climate change and ensure a healthy planet, and why it is so important to all of us.

0:01:07 Joining us are two guests who'll provide some answers to these questions. We have Paul Rennie, who is the UK diplomat working on the UK's Climate and Energy, Economic and Trade, and Science Technology networks across the United States. The UK government will host the large UN Conference on Climate Change in Glasgow in November this year known as COP26. Also joining is Jason Snape, who is Global Head of Environment within AstraZeneca's Global Sustainability team. All of you will be aware that AstraZeneca is a world-leading global biopharmaceutical company, but you may not be aware that AstraZeneca is also leading the way in terms of action on their carbon footprint and to deliver healthcare in a way that is sustainable for the environment.

0:02:00 So with that brief introduction, we always like to start by having our guests introduce themselves to talk about how they evolved into the role that they're in today. We're going to start with Paul Rennie first. Paul, would you like to give our listeners a little brief bio on your background?

Paul Rennie: Sure, Richard, thank you very much. And it's wonderful to be a guest on your show today. It's a really great chance to talk a bit more about our climate action here. As you said, I work for the British government. I'm currently head of the Climate Network. We do other networks here in

Washington DC. Prior to that, I've had lots of roles that have taken me across the world. I've worked at United Nations, in New York, in Brazil, in India, Malaysia, and now here in the US. And then, back in the UK, I'm a professional economist by training, so I recently joined the Diplomatic Service as a professional economist. And I've had roles back in London working with our Prime Minister's office and also working on G7 and G20 negotiations. How I came to be doing climate in the US is really twofold.

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One is, I've always wanted to be working on the biggest issues of our times. I think it's why anybody joins the public service and the public sector, to work on the things that really matter. And there's no question that climate change is the issue of the day right now. It's an inescapable element of what not just the public sector, but the private sector and everyone else in the world is really thinking and talking about. And then, the second reason, I think, is that you realize that climate change and climate engagement is really an intersection of everything now. And I know for your listeners in the US right now, when you look at the kind of significant changes they've seen in the US climate over the years, there's no question in their mind that this is not just a global issue, it's very much a local issue. So I think the chance for my career to take me to this point, to be in the US now, particularly with a new administration that's very committed to this.

Rich Bendis:

Well, Paul, thank you very much for that intro. Jason Snape, Global Head of Environment with AstraZeneca's Global Sustainability team, how about a little intro on yourself?

Jason Snape:

Yeah, thanks, Rich, and absolutely delighted to be here with Paul on the podcast today.

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I've worked with AstraZeneca, actually, for 27 years. So I'm a long-term-er, and I've always worked within the environmental area. I'm an environmental microbiologist and biochemist by training, and actually a large part of my career is being focused on ensuring the environmental safety of our medicines. So from drug production, to making sure we've got safe discharges from our manufacturing and supplier sites, right the way through to when patients take our medicines. Over the years, my remit has broadened, so I've done a lot of work on horizon scanning and foresight, so looking at scientific innovation, where businesses are going, but where regulations and policies are going to make sure that this

innovative pharmaceutical company, where science is quite often ahead of the regulations and policy, is a responsible innovator. It's ensuring that we develop the right science, the right evidence to make sure that the policy meets the changing industry needs and the changing environmental demands.

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And for the last 12 months, I've taken on a broader accountability for the whole of environmental protection across AstraZeneca. And we're also active in developing the next generation of scientists. So whilst I have this leadership role in AstraZeneca, I've got four or five post-doctoral scientists or PhD students as well, so it's breeding the next generation of regulatory scientists or industrial scientists working in the environmental space.

Rich Bendis:

Thank you. With that introduction, let's go in, and we're going to do a little deeper dive in climate change, and we're going to have a series of questions. I'm going to go back and forth between Jason and Paul, and they can both respond, if appropriate, and we're going to start with sort of the big picture, the overarching goal of climate action, and why AZ is taking the action. And so, for Paul, let's start there. What's COP26, and what are the UK government's goals as a COP26 president?

Paul Rennie:

Well, thanks very much, Richard. And I'm conscious for many of your listeners, they may not be completely up to speed at what COP is at all, never mind what COP26 is specifically.

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It's maybe not as famous as the World Cup. But I think for listeners' awareness, there's something called the United Nations Framework Convention on Climate Change. And kind of shorthand, effectively, for the last 25 years, countries have been gathering to talk about the steps we need to make to shift our climate change agenda. Now, what tends to happen is that, while these meetings take place every year, every five years, there's a kind of major gathering, where the world leaders come together, where they really try and do a step change, if you'd like, in how we're approaching our targets and approaching our goals. And six years ago, I suppose, now, because COP was delayed last year with the pandemic. We had the 2015 meeting in Paris, and that Paris Agreement really committed us to holding the global average temperature to below two degrees of pre-industrial levels, with efforts to try and limit us to no more than 1.5 degrees. So rising global temperatures have dramatic

impacts upon wildlife, our climate, the kind of balance of our climate, if you'd like.

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The earth can feel like a very large place, but it's very finely balanced. And as anyone who's ever driven a car with a wheel out of alignment, even a few ounces makes all the difference. So you kind of see that need to maintain our emissions levels. And in terms of the UK objectives this time around, we're looking to halve global emissions by 2030 and hoping to reach net zero emissions as soon as possible ideally, but certainly, no later than 2050. And in order to achieve these goals, we've got four big things we're focusing on. Obviously, securing this net zero is the big one. So that means accelerating the phase out of coal, reducing deforestation, speeding up electric vehicles, and encouraging more investment in renewable forms of energy. The second is how we adapt our communities to protect natural habitats. And I know, certainly, within the US, protecting the natural environment is something very close to many people's hearts.

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So we're thinking about how to protect and restore our ecosystems, on land, in the oceans, in the river systems, and also, how to build the fences and warning systems. And that's particularly about resilient infrastructure. And I think many colleagues living in coastal areas will appreciate the need for resilient infrastructure as key. But also, how we look at agriculture. How the agricultural zones in the Midwest and elsewhere in the world will be able to respond and adapt to the changes in temperature and the changes in rainfall that we'll see. The third area's around mobilizing finance. We will need a lot of money to make all this work. And in many respects, a lot of money's being spent every year by companies and governments. So what we're not seeing is it being extra money out of your tax. It's more about how to redirect the money that's already being spent into activities that are better for the climate and better to support the environment than simply saying, "Well, we need more money on top of everything else." And the fourth element is how we work together to deliver.

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This is why it's so important, Richard, to be speaking with Jason, here, from the private sector. Because this isn't just about government action, and it's not just about individuals' actions. It's about how governments work with private industry, work with NGO communities, work across the

board to help make this come together. So that is what we're trying to do. We're trying to limit the human impact on the planet, and COP26 is our big mark for the British government to play its role.

Rich Bendis: Thank you for that macro introduction to COP26. One thing, though, that I still had to look up was what COP stands for. And it's actually Conference of the Parties. And I didn't realize that 195 countries participated in that Paris Agreement back in 2015. So this is truly a global initiative, where we have most of the parties around the world engaged in this, Paul. So thank you for that intro. Jason, now, let's talk about the private sector. What was the catalyst for AZ committing to net zero, and what do you think was the main driver for your corporate climate ambition?

0:10:01 Why do you think AZ has this responsibility?

Jason Snape: Thanks, Rich. Obviously, we're already experiencing the health effects of climate change in terms of extreme weather events, and they're a threat, not just to human life, but also our ecosystems and our wildlife. As a global community, we're also living beyond our means. Our planet's only got limited resources to offer. So to continue to grow as a global society and economy, we're going to have to innovate. We're going to have to change how we operate, and that includes our relationship with the planet and our relationship with nature. So at AstraZeneca, we're taking bold action on climate because we recognize there's that inherent connection between a healthy planet and healthy people. So the health of the planet impacts all life. So it's the right thing to do. It makes sense from the business and broader economic perspective. We're also seeing that rise in chronic conditions, so heart disease, stroke, lung cancer, chronic and acute respiratory diseases, and all of those are having a detrimental impact on people's lives, the societies in which they live, but also, their burden on healthcare systems and economies.

0:11:07 Less well-known is actually the connection between the delivery of healthcare and the environment. So if healthcare was a country, it would probably be the fifth-largest emitter of greenhouse gases, contributing about 4 or 5% globally. So there are opportunities to reduce the climate footprint of healthcare whilst improving the standard of healthcare for individuals, communities, and society. And probably, delivering that for a

lower cost to the economy as well. So everyone involved in delivering healthcare has a role to play in the accelerated transition to net zero.

Rich Bendis:

Thank you, Jason. And we're going to do a little deeper dive, here, on both the role for government and industry. And I'm going to start with government, and with the UK being one of the leaders in looking at this sustainability in the future around climate change. As a global government, Paul, what are you asking businesses to do in practical terms ahead of COP26, and what do you feel the goal should be for industry in the future to get that goal in 2050?

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Paul Rennie:

Well, it's a great question, Rich. And I think Jason's responses, there, about why businesses should care, I think, is really the starting point for us in government. To ask businesses to get involved. And one of the things that's very interesting, Richard, is, the UK government that previously set our goal of reducing emissions by 80% from 1990 levels. And we then moved that up to 100%. We moved to a net zero goal. And what was striking was, up until that moment, almost every business in Britain believed it was in that 20% exceptionalism. 100% of British business thought, "We'll be in the 20% that doesn't have to take serious action." And when we shifted it to 100%, suddenly, everybody wondered, "What do I have to do now as a business?" And I think that is the right mindset. The mindset has to be, "What contribution am I making to these goals?"

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Now, Jason has touched upon the Race to Zero, which is one of the largest alliances of companies, and cities, and investors, regions, universities. I spoke about the need for everyone to get involved. It just shows you how big the Race to Zero Consortium is. And they're committed to halving global emissions by 2030 and achieving net zero by 2050 at the very latest. And this is the biggest and highest ambition option for businesses in this kind of domain. And obviously, I think, as Jason points out, how businesses themselves are involved in getting to these targets, the choices they make in terms of how they source materials, how they power their business, how they package their business, what they do with the recycling that comes from their business, each one of these might seem very small, but that is the kind of global consumption, the global footprint that generates our carbon and

generates our emissions. How they're not just able to take decisions as a business to support this, but also, how they take decisions working with their consumers to help support this.

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And at the moment, these more than 3,000 businesses who've joined the Race to Zero include over a third of the UK's biggest companies. Very important because when you think about supply chains, big companies have big supply chains, so they make a significant contribution to how they influence the wider element. But also, these businesses have a combined revenue of almost \$15 trillion US dollars.

Rich Bendis:

And the government's goals cannot be achieved without committed industry partners. And AZ, as we have talked about, has committed to net zero. So, Jason, we know that you joined the Race, but you've established some science-based targets that will help you achieve some of these goals in that race. Can you talk a little bit about how science plays roles in these targets and how achievable you think these targets are to help achieve this 2050 goal that is being established?

Jason Snape:

Yeah, more than happy to.

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It's really encouraging to see that many players, business, as well as governments, are actually making clear commitments to support the fight against climate, particularly in the run-up to COP26 this November in Glasgow, and AZ will be present at that meeting. Obviously, at AstraZeneca, we've made very bold commitments. Our climate strategy is verified by the Science-Based Targets initiative, and we were an early member of the UN-backed Race to Zero. And we apply that same scientific rigor to our climate strategy and the delivery of our climate commitments as we do to delivering our innovative life-changing medicines to patients. And we also joined that Race to Zero because we stand for everything that that campaign represents. It's about real global action on climate change and operating at scale. But it's quite easy to make pledges. But the science-based targets actually ensure the credibility of those pledges. It looks at your interim goals, it looks at your commitments to deliver at those targets and those pledges.

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It shows that you've got a plan and that you're actually delivery-focused. So through Ambition Zero Carbon, which we launched last year, and I'll talk about that hopefully a little bit later on, we actually significantly

accelerated the ambition of our previous climate targets, and they were already aligned with the Paris Agreement's most ambitious goal to limit global warming to 1.5 degrees C. So it's not just about having those targets, it's looking at opportunities to actually accelerate the delivery of those targets. And actually, in order to hit Ambition Zero Carbon by 2025, we've got to reduce our total energy consumption by 10% whilst actually growing our business, we've got to double our energy productivity, so we've got to become much more efficient in what we're doing, we've got to work to convert 100% of our energy consumption to renewable sources, both for heat and for power. And we've got to transition about 17,000 vehicles worldwide, actually, over to electric vehicles. And we're on track to deliver Ambition Zero Carbon by 2025.

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As I said before, we're 60% of the way there in terms of the reduction in our greenhouse gas emissions compared to 2015, and we're actually committed to being carbon negative across the entire value chain, including our suppliers, by 2030. So the science tells us it's time to act now and redouble our efforts on climate to limit the impacts on the planet. And I think the road to COP and the leaders' summits leading up to it offer a critical opportunity for nations and businesses to unite and actually tackle this crisis head-on.

Rich Bendis:

Jason, I think you did a great job talking about some of AstraZeneca's goals, but it doesn't work without collaboration throughout the whole supply chain. And you're only going to have a certain amount of impact by yourself. But unless your suppliers and partners that are critical to your success get involved, it's not going to work. So let's talk a little bit about your supply chain versus your own operations, and how you are engaging your global supply chain on your global commitments so they share your goals.

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For example, do you have any specific projects you're doing with your supply chain partners to help reduce emissions?

Jason Snape:

Yeah, absolutely. So 18 months ago, the World Economic Forum in Davos, AstraZeneca announced it was bringing forward its decarbonization plans by more than a decade, and that's our Ambition Zero Carbon strategy. And through that, we're working to become carbon zero for our own operations by 2025, carbon negative across the entire value chain by 2030. And to deliver on this program at work, we announced a \$1-billion

investment. So that included, for our own operations, transitioning to 100% electric vehicles, so those 17,000 vehicles, sourcing that renewable heat and power, so that renewable energy, but also launching some new innovative medicines that actually have a lower climate footprint. So by 2030, actually, all of AstraZeneca's medicines will be net zero.

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The targets are challenging, they sound challenging, but as I've said, we're already making significant progress. So that 60% production since 2016 whilst growing our business, increasing our energy efficiency over the last five years by 23%, 89% of all the electricity that we use globally now comes from renewable sources, and over 99% of the electricity we import or purchase off the grid is from renewable sources. And actually, in the US, we joined the Go Green Initiative seven years ago with the aim to have a green fleet of hybrid vehicles by the end of 2025. At the end of 2020, we've got about 3,500 hybrids on the road, so about 67% of our fleet. But actually, through Ambition Zero Carbon, hybrid's not good enough, so we're actually transitioning to fully electric vehicles by 2025, so it's that acceleration actually coming in on previous targets. But as you've said, we've also got to tackle our indirect emissions across our broader value chain.

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So within AstraZeneca, 97% of our footprint is actually in our upstream and downstream value chain. So that includes many of the companies that actually work with us on logistics, the goods and services that we actually buy from them, but actually, it's also the patient use of some of our medicines and the downstream use of our medicines. So what we're having to do is engage with our suppliers to reduce their direct emissions through to 2030 and identify carbon removal options that will lead to more carbon dioxide being removed from the atmosphere than we add to it. From a product perspective, so the goods and services that we give to the healthcare industry, we generate lifecycle assessments for our medicine. So they tell us where the most carbon-intensive aspects of our products are and where they sit in the value chain. So for many of our respiratory medicines, that's associated with the patient use of our products. So we're investing in next-generation medicines that have a lower global warming potential.

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And finally, we're also partnering with healthcare providers to understand how we can reduce the climate footprint of care. So it's

exploring the patient and environmental benefits of disease prevention, early diagnosis, and early clinical intervention. Because I think it's important to recognize that, actually, a healthy person or member of society has a much lower environmental footprint. So these are some examples where we all have to work together across the entire value chain to enable our decarbonization plans to become a reality. And reaching that 2030 carbon negative ambition that we've got requires unprecedented collaboration across that value chain.

Rich Bendis: Jason, it's very impressive that you're looking both upstream and downstream because it doesn't work if you just focus in the middle. I think government also plays a role here, Paul, but it probably is a little more challenging when you're looking at global supply chain collaboration outside of your borders as well as inside your borders.

0:22:03 So what's a role for government in this global supply chain in reducing emissions and fostering innovation around these new technologies?

Paul Rennie: You're absolutely right, Richard. The biggest challenge for any company operating right now is that, as much as you might want to be in the sight of the angels, there are many out there who are not so committed to these changes. And the key thing for all of this is that the planet doesn't really care whether a ton of carbon goes up in the west or the east, or the north or the south. It's still a ton of carbon into the planet's atmosphere. Which is different, I think, to more local issues. People have talked about local pollution into rivers. That feels very local. That is something that's happening in your community, on your doorstep. And when it comes to looking at the wider elements behind climate change, I think people are beginning to realize that flooding in Germany that we saw recently or some of the wildfires in San Francisco can feel very close to home, but their root causes are global.

0:23:01 And so, it's not enough to be thinking about one individual company's movement. It's about what that company can tell us about its wider supply chain. So taking AstraZeneca, if we know that AstraZeneca's struggling with particular elements of supply chain, we know we can start to look at that globally. And the biggest example that many people will remember, or perhaps some of the younger listeners will not remember, Richard, is when we started to tackle CFCs in refrigerators back in the 1980s. We talked about the hole in the ozone layer. And back then, that

required a global shift because it wasn't good enough for one fridge manufacturer to stop using CFCs in one fridge. It had to be a global shift. And I think that is why being able to identify global challenges, being able to come up with global regulations and global environments to help to challenge that, and particularly, when you look at bigger companies and governments that support those companies, they can start to lose the market. Sometimes, in certain industries, it might only take three or four of the biggest players to make a shift in how they procure things or the way that a particular product is put together that leads to a shift for the whole market.

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And I think, again, the way that the suppliers start to respond to that makes a massive difference. Because when they start to realize that nobody is going to buy a fridge with CFCs in it, they just stop making it. Even if many people might still be happy to buy them, it's just not economical for them to make products that are particularly polluting, when the big purchasers, the big companies, and the big economics work together on that side. So again, we are both a leader and a follower, I would suggest, as government. We want to lead the debate, we want to be at the front of the queue when it comes to how we set policies, consistent policies, critically, as well. Companies don't want to see regulations bobbing up and down left and right. But I think, sometimes, we're also a follower. From what Jason has described there, when you look at how AstraZeneca and other big companies are moving the agenda forward, sometimes, the government comes in behind that and says, "Well, look, if we know companies can make it work commercially, let's make this a new global standard and help good companies, as I said, the companies in the sight of the angels to do the best they can that we all benefit globally from their innovation."

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Rich Bendis:

We're going to close this edition of *BioTalk* with some closing comments and a little open mic from both of you. And on this show today, we've had Paul Rennie, Counselor for Global Issues in the Global Economy Group at the British Embassy in Washington DC, and Jason Snape, who is the Global Head of Environment within AstraZeneca's Global Sustainability Team. And Jason, last words or comments from you.

Jason Snape: Yeah, I think if people are out there just thinking about embracing, on their own, net zero plans, from my regard, they've got to understand their environmental footprint, that of their wider value chain, and really, embrace net zero targets, get them verified independently by the science-based target, and sign on to the UN Race to Zero.

0:26:01 I think they also need to think about the future, and the goods and services that they're actually providing to society, and their broader environmental footprint. And I think that the final thing is, really, again, around partnership with governments, but also across the whole of your sector, in which your operating, and thinking at a systems level. So it's to do your best wherever you possibly can, but also to recognize that that might not always be enough. So if you think about your broader sector and how that can be net zero, so you can delivery, actually, more to society with a lower impact on the planet. So for us, it's not just about getting AstraZeneca to net zero, it's about how we can partner and work with governments and healthcare providers to deliver better care with a lower footprint in a low carbon world.

Rich Bendis: Thank you, Jason. Paul, closing comments.

Paul Rennie: Richard, in closing, I think the only thing I'd say is a massive thank you for allowing this podcast to be turned over to talking about climates and the impact of climate change in the industries you talk to.

0:27:02 And if ever there were proof in the pudding, I think the fact that you've described this as the first time in so many years you've had a podcast specifically focused on climate and the impact of climate amongst the listeners you have, it speaks volumes about the change that we are seeing. So I very much hope if it's been a bit of a departure from the norm for your listeners to hear us talking about climate change, it is nonetheless a recognition of the fact that industries that your listeners are involved in are at the frontline of this like every industry is. And I very much hope if they can just take away from this podcast one change or one commitment they would make as an individual, as a consumer, and as an employee of a company, it is that one simple changes that everybody makes that will have the biggest impact.

Rich Bendis: I think this has been very interesting and educational for me because I've learned a lot that I didn't know about, especially about this industry, the

BioHealth and pharma industry, and how committed you are. And I want to thank AstraZeneca and UK for your leadership that you're taking towards COP26, which is going to be in Glasgow in November, and we hope that we get a lot more joiners in getting engaged and agreeing to the goals that will be established in 26, so that we can come back in a few years and talk about this again on *BioTalk*, and talk about the successes that have been achieved.

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And one last little bit for the listeners, on September 13 and 14th, we're having a two-day BioHealth Capital Region Forum. I'm going to see if I can find a way to weave in Paul and Jason to talk a little bit more about what's going on with climate change as it relates to our BioHealth industry and our BioHealth Capital Region. So I may come back to you guys again for a little bit more. So thank you very much for being on *BioTalk* today, and I look forward to talking to you in the future.

Narrator:

Thanks for listening to *BioTalk* with Rich Bendis.

End of recording