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Katie O'Connor

Hello. You are listening to Microbe Talk, the podcast by the Microbiology Society. I'm Katie, the Policy and Engagement Officer at the Society, and in this special episode we're going to be talking about the Society's newly launched project focused on antimicrobial resistance, or AMR. The project is called Knocking out AMR and is set to be an ambitious and extensive scheme of work designed to promote feasible and effective solutions to the global antimicrobial resistance crisis.

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Katie O'Connor

The project is focusing on three solutions themes where we believe the society can have the biggest impact. These are therapeutics and vaccines, diagnostics and surveillance, and finally, policy engagement. For this episode, I chatted with Dr. Tina Joshi from the University of Plymouth and Dr. Catrin Moore from St George's University in London. Tina and Catrin are both AMR experts and they are spearheading this project with the Microbiology Society.

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Katie O'Connor

So it was great to be able to chat to them about what Knocking out AMR is, how it came to be, why we're doing it, and most importantly, how you can get involved. This episode of Microbe Talk was recorded online over Zoom, so there are some variations in sound quality. I hope you enjoy this episode.

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Katie O'Connor

Thank you so much, both of you, for joining me today for this podcast episode. And to start with, it would be great if you could just introduce yourself and talk a little bit about your research. So Tina, then, if you want to go first.

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Tina Joshi

Yeah, perfect. So I'm Dr. Tina Joshi, I'm an Associate Professor of molecular microbiology at the university and I really enjoy the research I do. It's under the umbrella of AMR. I do designing of diagnostic devices, at point of care for resistant infections. And we're looking at urinary tract infections at the moment using graphene and some really cool molecular diagnostics.

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Tina Joshi

And we also look at this infection resistance in the laboratory and then studying the molecular mechanisms behind that. There's a lot of cool research with things like ESKAPE pathogens and the like.

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Katie O'Connor

Perfect. Thank you. And Catrin?

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Catrin Moore

Thanks, Katie. So I'm Dr. Catrin Moore, I'm a reader in Global Health and Infectious Diseases, sorry it's a new title, Global Health and Infectious Diseases here in St Georges University in London. My

research is broad I guess, focused on antimicrobial resistance, but the policy looking at antibiotic resistance, looking at the bacteria, but also looking at the use of antibiotics to treat the bacteria.

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Catrin Moore

I have a project called ADILA Antimicrobial Use to Inform Local Action, which is a global project, really looking at the policy that surrounds antibiotic use. But also I've got a project starting up in Uganda looking at urinary tract infection infections in the community. My focus really is on AMR in the community, understanding the burden, what people are treated with, why they're treated with, and what we should be using.

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Katie O'Connor

Perfect. Well, thank you both so much for being here today. It's really great to have you on the podcast. We've recently launched a project, as you're both aware called Knocking out Antimicrobial Resistance and and this is led by both of you. So thank you so much for all of your work on the project so far. So I was wondering if you could talk us through a little bit about what the project is, Why are we doing it and why are we doing it now?

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Tina Joshi

I think this is a really ambitious project that we've launched. It's been in the works for about two years and what's really exciting about this project is we're trying to act as a conduit. And by that, that's the Microbiology Society with me and Catrin as co-chairs to try and act as a conduit to bring together all global stakeholders in AMR.

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Tina Joshi

And we hope that we can bring everyone together and have these conversations. We can start making some tangible differences to the plight of AMR and I say plight because no seem to take AMR seriously. Definitely not as seriously as climate change in my opinion. And it's about time that policymakers and everyone stood up and took a bit of notice about how serious AMR is.

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Catrin Moore

Just to add to Tina's excellent answer. And so I think what I've seen in the AMR field, so I was recently leading a team estimating the global burden of AMR. And what we now have is some evidence to move forward with. We're not making those gains moving forward. We're not changing what we should be changing. And I think we really need to engage with policy makers here in the UK, but globally to make them understand what we need to do and how we can minimise AMR going forward.

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Catrin Moore

And I think that's the important thing. And what we're talking about in the AMR project are actually policy solutions, and that's really important here, solutions that we can bring in to minimise AMR and try to decrease the number of people dying because of AMR. And we're looking at three different areas. So we're looking at therapeutics and vaccines, We're looking at diagnostics and surveillance and then the policy engagement.

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Catrin Moore

I think that's the important thing that we need to get across. We need to ask people to be a part of the solutions going forward.

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Tina Joshi

Yeah. So what's really interesting about this is the first time that a group has done this for all these people together. We don't know what we're going to have in terms of solutions, but what we do know is by bringing everyone around the table, we can start some important conversations off. And I don't think that's been happening across the globe.

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Tina Joshi

We're getting different groups of people doing different things, and what we want to do is have one unified voice in AMR and perhaps we can be the conduit for that.

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Catrin Moore

Okay, I agree. I mean, AMR is very siloed. We all work in our different silos and actually what we need are people to work together on this and to come together with that one voice. I think that's what the Microbiology Society is doing, is giving us that platform to take that forward.

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Katie O'Connor

Perfect. Well, thank you both so much for working with us on this project. And I just wanted to dive in a little bit about the aims of the project. So it's going to be cross-disciplinary in a one health context. I was wondering if you could talk a little bit about why that's really important in AMR research and kind of why you've chosen to go with those?

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Catrin Moore

Yeah, now I can go first. So we have we have data on the burden in humans and the number of people who are dying. So the mortality and morbidity in humans and they're starting to collect data on animals. So the global burden of animal disease, animal AMR. There also is some information on the the number of resist strains in the environment, but nothing has brought them all together.

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Catrin Moore

And I think that's what we can do here, is bring all of the voices together to to discuss what's happening. And all of the data is very different, its very heterogeneous. So we also have to work out how we we bring that all into one sphere as well. And I think that's what the conversations around the table will start to, to break down what that means.

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Catrin Moore

I think within our community. So if we just concentrate on one area, we don't actually get that full picture. And that's what we're trying to say with one health, there is a debate within our community whether that's the right descriptor for what we do. But within that one health system, what are we talking about and how much of a burden are we talking about with resistance and with antibiotics, maybe the use of antibiotics as well.

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Tina Joshi

Following on from what Catrin said you know, I think one of the big things that I am always is often talked about through a clinical lens, and it's important because of course, that is where the patients are actually succumbing or need treatment for AMR infections. But the thing is, is that we need to have these multiple groups around the table from a one health perspective, from the environment, people who work in animal health, for example, and human health, the clinical side too and discovery scientists alongside manufacturers, alongside people who are experts in law and economics.

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Tina Joshi

We will need to go around the table to give a full holistic viewpoint about AMR, and that's what this is as well. So the animal, one health aspect and exactly what Catrin was talking about, these people are part of that long pipeline. And if you can bring those people around a room together, around the table together, who knows what kind of ideas can bounce off one another.

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Tina Joshi

And that's what's really exciting about this, is no one's ever done this before. That's why it's so ambitious. But it's also incredibly exciting because some of these solutions really may be tangible and maybe they really can be impactful, make a full change in time, be executed, and we won't know that until we get everyone around the table to have our workshops and move forward with this project.

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Katie O'Connor

So it sounds like we're trying to pull together all of these different people that are currently not necessarily talking to each other. And so I wanted to ask what you would say to maybe someone who's listening who might work in AMR but isn't sure whether they're the right person to get involved in this project. Because I feel like a lot of people I speak to think that they're not the experts that they really are.

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Katie O'Connor

So I was just wondering if you had anything to say to those people who might be considering getting involved, but not sure how or are not sure if they're the right person.

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Tina Joshi

I could be as bold as to say you probably are the right person. A lot of people have got a lot of humility have been very humble about their own experiences, but I think there's a lot of imposter syndrome in microbiology and around the table for varying different disciplines. And a lot of people are experts in what they do.

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Tina Joshi

They just don't think it. So if you think you've got something valuable to contribute, then no matter how small, please feel free to contact the Microbiology Society through our email address and get involved because you know, you never know that one small point might be a tipping point for all of us and might change current paradigms about AMR.

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Catrin Moore

I would even add to that, as microbiologists, we're not very good at reaching out to non-microbiologists. So actually maybe what we want is someone not working in the area who can give, give us their opinions and can say, Well, actually I don't understand this. Can you explain it to me? Yeah. One of the one of the first steps in actually tackling AMR is getting the message out to people and getting them to understand what we're saying.

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Catrin Moore

So I think experts, non-experts, anybody should reach out and just, yeah, you know, sign up and come and come and work with us, I guess ask the questions that they want answered. It may be that they have really good questions that we can get people around the table to answer for them.

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Katie O'Connor

Perfect. Well, thank you both so much for working with us on this project. I wanted to ask, in an ideal world, what's the one thing that you would like this project to achieve?

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Tina Joshi

So what I think is that what I'd really like to see is almost like the impact that Greta Thunberg has had on climate change. Having everyone around a table with a unified voice might actually spur some policy action as tangible and executable. It makes a huge difference to AMR generally from a perspective of the antibiotic pipeline, but also the diagnostics pipeline and actually getting these interventions to patients and to stakeholders out to people who really need it.

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Tina Joshi

So for me, that's the really real extreme of what I'd like to see. Massive global policy change. But that may not happen. And for me, I'm just really glad that we can make a small difference. If we can make just a small difference with this, we're making a lot of difference. And that's a major really important.

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Catrin Moore

Yeah, I think this you know, this is a five year project, so we need to have that pathway where we're going to get in five years. At the moment we might have we have a really high level, but how are we going to get there? I would say I totally agree. I think we need an IPAMR as well as similar to the IPCC, which has been set up and I'm starting to build on that in my research as well.

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Catrin Moore

And I, I would say that bringing people together this way we can build that pathway to an IPAMR, be it within what we're doing here or, you know, within what I do in my research within a network of AMR people. So this, this is a conduit to that, I think. And bringing those people together, it's only collectively that we'll come up with really good, tangible solutions to AMR.

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Catrin Moore

I think that's where we want to be with this. This gives us that format to move forward to that and to have an impact. And that's the big thing. We want to have an impact. We don't want to just sit around and talk. We want to have something that comes out of this.

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Tina Joshi

I think it's a real shame that people don't talk about it as well. And it says to me that we're doing something wrong. I don't know what it is. We all try. Every single one of us in the area tries to do public engagement. We all do publishing. We really try and get people involved in AMR, but for some reason it just doesn't resonate and I think this project can maybe help it resonate, but from a different way forward rather than the public engagement angle.

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Tina Joshi

We're going through the back end I suppose and getting to the policy angle and trying to make tangible impact that way.

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Catrin Moore

Just thinking, you know, if we want an impact here, I would say in a way, as well as maybe having all of our faces on the telly talking about this, what we want is Keir Starmer standing there or or whoever the Prime Minister is at the time, standing there and talking about AMR and saying this is a problem and we need to do something about it and putting some money behind it.

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Catrin Moore

That's what we want and that's the way forward.

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Tina Joshi

I think that's perfect so that there is a person in Parliament I saw on X the other day, formerly known as Twitter, X the other day, this guy in Parliament, an MP was talking about AMR and it was fantastic. At least finally someone saying something and keeping it in the spotlight. But again, we don't have those high level key opinion leaders and high level people saying, like Keir Starmer saying, AMR's important.

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Tina Joshi

Everybody, why don't you get involved in it? Why can't we put the money behind it? And that to me is a bit worrying because I'm not sure why they're not interested. And I think that's a big a question that maybe everyone listening may have answers to.

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Katie O'Connor

So how can our listeners that might want to get involved, get involved in this project? What should they do now?

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Catrin Moore

Okay, so they they should go to the Microbiology Society website and they'll find the link to the Hub there. They can also follow Tina and myself on X or Blue Sky and we've got the links in in our sites there. Also follow Microbiology Society on X and they can follow the link there to sign up.

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Tina Joshi

Any social media re-advertise or re-post our posts. Please just get the message out to whoever you think might be a suitable voice to get involved in the project. We want to hear from you. Every single voice is valuable and we just can't wait for you guys to get involved.

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Catrin Moore

I would say when you when you're re-posting on social media, maybe go to people who've been affected by AMR who want to get their voices across to us as researchers where we can do something about what they've been suffering from and we can spread their word and amplify what they're saying as well, because that really needs to get to people, needs to get to policymakers and researchers alike so that we can highlight the plight of people who have suffered these nasty diseases.

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Tina Joshi

What's interesting is I think what's really interesting is a lot of people don't know that they've got an AMR infection. So they just know that the drugs didn't work and they're giving it a second round of antibiotics, or a third round. And it's those people actually we should be trying to target. So they recognise that they have an antibiotic resistant infection, it's their voices

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Tina Joshi

that is really important in all of this. So it gives us almost like another focus. Why are we doing this? We're doing this so we can help save people's lives.

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Catrin Moore

Yeah, I mean, often even on coroner's reports, it doesn't say that people have had a nasty resistant infection. And so people just don't know. And we don't know how many people are infected with or die with resistant infections because it's not recorded. And that's something that's changing that that is changing in policy in the UK. But, you know, without people's voices, it won't change.

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Catrin Moore

And we can't change things going forward.

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Tina Joshi

Well this is it it's people power, isn't it, the more voices behind this. So we've got two hundred so far but we're hoping for a thousand so everyone please sign up. If we have those thousand voices that's a lot of people and we're going to mobilise everyone to make a change. And that's what we want to see.

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Catrin Moore

I would say as well that it won't be a thousand voices just here in the UK because the Microbiology Society has such a wide ranging reach that that will be a thousand voices globally at least. So it would be a really good thing to take forward. And so many people will then hopefully listen to what we're saying as well.

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Tina Joshi

And also, I think what's really, what would be really nice is just to point out the fact that at the moment there's limited policy change. There's a lot of things like the Pasteur Act, there's definitely things in the UK that are happening, but nothing's happening on a global scale. Also, the antibiotic pipeline being broken, it is depressing, but that's a reason why we're doing this.

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Tina Joshi

It's to reinvigorate the pipeline, it's to reinvigorate the diagnostics pipeline, it's to stop vaccine hesitancy in some ways and get people understanding that vaccines are really important to tackle AMR. And those are the core reasons that we're here really to try and make that happen, through all the voices coming together as one, if we do this individually, we have limited impact.

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Tina Joshi

Together, we have such a massive voice and such a massive reach and such an ability to reach those people, those people who make the decisions and those are the people we want to reach, people who are going to be at the UN next year at UNGA 2024. We want to see those people and we want to say to them with everyone behind us, what are you going to do about AMR?

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Tina Joshi

Because this is the impact right now. And if you don't do something, it's more serious and climate change. So come on, put something on the table.

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Katie O'Connor

Thank you so much for listening to this episode of Microbe Talk. To find out more about Knocking Out AMR and to register your interest, you can head to www.microbiologysociety.com/knockingoutamr.

Thanks so much again for listening and we'll see you next time.