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Clare Baker

Hello and welcome. I'm Clare and you're listening to Microbe Talk, the podcast by the Microbiology Society. In the latest edition of Microbiology today. We launched our brand-new project, 'Knocking Out AMR' so for the next two episodes of Microbe Talk, we're bringing you conversations with our members who are working in Antimicrobial Resistance. So for this episode I spoke to Professor Chloe James from the University of Salford.

00:00:33:24 - 00:01:00:07

Clare Baker

As well as investigating the use of phages as alternative therapeutics, Chloe is researching the spread of antimicrobial resistance in Uganda through the charity Knowledge for Change, alongside Makerere University and colleagues from the Infectious Disease Institute in Uganda. Chloe was also the chair of the Impact and Influence Committee at the Society and is now part of the knocking out AMR Project Oversight Group.

00:01:00:09 - 00:01:11:09

Chloe James

Hi, I'm Professor Chloe James. I'm at the University of Salford. I'm a medical microbiologist and a lecturer there for about ten years now.

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Clare Baker

Perfect. Perfect. And so you have a research role. Could you tell me about your your research?

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Chloe James

Yes. As a microbiologist, I've got lots of different research projects going on. I think you can't be a microbiologist without really being passionate about the challenge of antimicrobial resistance. So some of our work, we have connections in the west of Uganda looking at the rates of antimicrobial resistance in Staphylococcus aureus in a fairly rural area. So away from the capital of Kampala, we did a study in Fort Porter Regional Referral Hospital and we work with their microbiology team there, just looking at the antibiotic resistance profiles of the bacteria that they collected from wounds, and that what that study really showed us was that there are some incredibly resistant bacteria out there.

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Chloe James

So the data is really stark, saying that there were a lot of countries, distant bacteria that really can't be treated with, well, there's very few antibiotics that we have left that they could be treated with. But what it also showed us was the major challenge in low and middle income country settings where they're really poorly resourced. And so their stocks of antibiotics were low and would run out before they got more.

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Chloe James

But also their best resources for doing antimicrobial testing and surveillance was quite low. So that work I found really, really interesting on the ground, just seeing how severe the problem is and how we need a lot of people to gather together to tackle the problem.

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Clare Baker

Yeah, Yeah, definitely. So there's lots to talk about there. That's fantastic. I suppose my first question, just to track back everybody who's listening, Antimicrobial resistance. What? What is that?

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Chloe James

So antimicrobial resistance is a really massive term and it can be broken down. So antimicrobial resistance is really the problem of any microorganisms, no longer being susceptible to antimicrobial drugs. As a bacteriologist, I'm mainly interested in bacteria, so I'm talking about when I say am or I'm really talking about bacteria being resistant to antibiotics. Yeah, and what that means is that some I guess in the past we might call them straightforward bacterial diseases that could easily be treated with antibiotics.

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Chloe James

That's no longer the case that a lot of the antibiotics we have are able to treat more and more bacterial infections.

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Clare Baker

And and so antimicrobial resistance, such a world wide problem, will likely affect everybody. So it's interesting you're talking about this kind of international collaboration in your research. And why is

that? That's one of the reasons. But why else is international collaboration so important when kind of tackling this antimicrobial resistance crisis?

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Chloe James

So, I mean, we're a global society now. We and I think that it's well recognized that AMR poses this catastrophic threat that's on a global scale. And because we're all travel internationally, there's a lot of mobility around the world. Trying to tackle the problem in just one country is kind of pointless. And so I think it's really, really important that we have a look at this on a global scale and that we work together and also that we recognize that the challenges are different in different settings.

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Chloe James

I think that we can actually learn quite a lot from frugal innovations in places like Uganda because of course the UK, we think of the UK as being a rich country. But actually if you take London out of the picture, there are a lot of areas of poverty in the UK and I think that there is a lot that we can learn bilaterally.

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Chloe James

I think there's a lot that we can give to places like Uganda, but there's a lot that we can learn from them as well.

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Clare Baker

Yeah, definitely, Definitely. I think there's potentially this kind of is quite often a criticism of some areas of science. It's this Eurocentric perception of what science is and what can be considered sides. So yeah, you said taking those alternative options and it's not just a one sided relationship. You can learn so much from both directions. And having said that, yeah, and so also what you touched on in your research that's going on in Uganda at the moment is survey pilots.

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Clare Baker

So why is lots of antimicrobial resistance that important?

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Chloe James

Well, I think that we have to accept that everybody and everything is different all over the world. And we can't just assume that the same patterns of resistance and the same mechanisms of resistance are happening everywhere all of the time, particularly in areas of poor resource settings. They'll be using different types of antibiotics. And so we need to know really to try and better understand what the drivers of antimicrobial resistance are and how the use of antibiotics is driving different types of resistance.

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Chloe James

Then we need to gather that data. And of course there is a huge amount of data, particularly from places like the US and the UK brought in. In places like Sub-Saharan Africa. There are actually lots of gray areas where there really isn't a huge amount of data, particularly in the rural areas where behaviors and stewardship procedures are quite, quite different.

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Chloe James

And there's a lot of the cultural issues that come in. So it's really important that we gather that data so that we can really drill down and understand the problem as best we can.

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Clare Baker

You are two types of resistance that the mechanisms of the bacteria becoming resistant.

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Chloe James

Yeah, absolutely. So different antibiotics work in different ways and they specifically target different types of bacterial biology. And obviously bacteria have been around for billions of years and they have they invented antibiotics, right. And they've been evolving all of these different mechanisms, these different ways that they can resist antibiotics. So they can compete with each other. And I think we've probably only really scratched the surface.

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Chloe James

I think there's a lot more innovation there in bacterial physiology that we don't even know about yet. But for those mechanisms that we do know about, we now have several different ways that we can identify those and look to see how that changes across the world.

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Clare Baker

Got use the surveillance. It's it's working out your enemy I suppose, and gathering as much information as you can, but it's also targeting and informing your response as well.

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Chloe James

Yeah, absolutely. Because as well as the sort of molecular biology side of understanding how the resistance works and how it develops, I think that it's our responsibility as microbiologists to work with others, to help with education and to understand behaviors and look to see how how we can use data as evidence to help to change behaviors, to be smarter about how we use antibiotics.

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Clare Baker

So I'm guessing that's where your social scientist kind of partner then comes in and it's a bit more of a it's not just a research project, it's a sort of a, I suppose, a full 360 approach to the problem of AMR in Uganda.

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Chloe James

Yeah, Yeah, absolutely. I'm very involved in outreach events both in the UK and Uganda. And so as an educator I do a lot of teaching as well. I'm always looking for innovative ways that we can get threshold concepts across and help people to understand sometimes quite complex microbiological concepts. Yeah, and even if you haven't had, you know, 20 years of training, I think that we can find ways to help people understand AMR.

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Chloe James

And so that's what we've been trying to do with a lot of our outreach and public engagement activities.

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Clare Baker

Yeah, interesting. So I did a patch, maybe a cynic may say, well, what can one individual do in terms of this massive crisis? I'm not a doctor who prescribes antibiotics. I'm just a regular person. I mean, what's your response to that?

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Chloe James

Well, I think the, you know, just conversation with all kinds of different people is really important. As an individual. You can be a bit smarter about the antibiotics that you use. So you can maybe not take antibiotics if you don't need them or if you do need them, you can make sure that you take them properly. So as an individual, there are some things that we can do to preserve the efficacy of antibiotics, but it's also about infection prevention control.

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Chloe James

So things like hygiene and handwashing and preventing the spread of infections to communities. So again, every individual has a responsibility there. But I think the other thing is that especially with the younger generations that might not know if they're going to be scientists or not, any conversation that you have out at parties with taxi drivers down the shops, you're spreading the word about antimicrobial resistance and the more sort of social conscience there is about being careful about antibiotics, then who knows?

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Chloe James

These people might end up being policy makers that will make an absolutely massive difference.

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Clare Baker

Yeah, yeah, that's a really good point. Definitely. I mean, do you think maybe that as society covered maybe has been a bit of a help in terms of talking about kind of AMR and working together, or is it been a hindrance for you hopes?

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Chloe James

I, I think it's been a help. I think obviously COVID has been really damaging and the the intricate problems that it has spread. We could talk for 8000000000 hours.

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Clare Baker

We could.

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Chloe James

But I do think that there's a there's an increased social conscience about science and data and trying to unpick the data and understand what it really means and how it affects us. So I think in some cases it's made some people thirsty for more information and want to talk to scientists to find out the issue. I think on the flip side, it's made some people really fed up and tired and scared and want to hide away from the science and don't want to hear anything that you everybody's different, of course.

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Chloe James

But I think as as microbiologists, we have to see it as an opportunity to talk to the people that want to talk to us. And if they want to find out more to help them to understand that data better.

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Clare Baker

Yeah, yeah, definitely. And so I suppose it's, you know, it's a huge crisis. It's World War I, world wide problem. It's something that's going to have to have a huge amount of working together to be able to tackle. But it is not complete all doom and gloom. There are alternatives of ways that scientists, microbiologists, everybody is working together to combat microbial resistance.

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Clare Baker

Could you tell me about these kind of alternative therapeutics?

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Chloe James

Yes, I would love to see a boost. Bigger part of my research is actually on bacteriophages now. Bacteriophages are viruses, but nothing like I would say viruses are actually I mean, people probably

know that viruses are very, very specific and they will only target certain cells. Well, bacteriophages only target bacteria. Not only do they only target bacteria, but they only target very specific bacteria.

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Chloe James

So they're quite precision weapons. And what they do is when they recognize their target bacterium, they will infect it, replicate inside it, burst open, killing it, and then releasing new viruses that can go on and kill more of their target bacteria. So we've known about phages for over 100 years and they have been applied as but we call this phage therapy.

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Chloe James

So they've been applied as phage therapy for almost as long. But it's not been a very exact science. And so it's one of because they're so specific, phage therapy works amazingly when it works, but when it doesn't work, it does nothing. So I'm really excited to be involved in phage research now, though, because the technology has really advanced over the last sort of ten or 20 years.

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Chloe James

And I feel like there's a real head of steam building on stage research now that we have a lot more power with things like genome sequencing and bioinformatics, but also synthetic biology and genetic engineering, meaning that now more than ever, understanding how phages interact with bacteria. And we're starting to really make some very good progress in in tailoring phages to be able to target the bacteria that are really causing massive, massive problems and particularly the multi-drug resistant bacteria.

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Clare Baker

So is that sort of, I suppose, target to start off with is the most dangerous sort of most resistant bacteria?

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Chloe James

I think so. So I mean, this year the government launched an inquiry into the use of bacteriophages as antimicrobial agents, and they started they started hearing evidence towards the end of last year and they finished hearing all of the evidence. Now, and we're waiting on their response. But I think the government is really interested in phages as part of the solution to AMR.



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Chloe James

And so that particularly interested in those multidrug resistant bacteria. And there have been some some quite high profile stories of late with some real successes of really managing to clear some some of the big, big baddies.

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Clare Baker

And that's good. So I think I've come across phages before and I have definitely my complete misunderstanding of how it works. So it's like, well, if it's a virus that kills the bacteria, then like what are the kind of key hindrances in using phage therapy?

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Chloe James

So there's big challenges in getting phage therapy right? And we're really not quite there yet. But I'm really excited that we might be soon. Some of the challenges are I mean, there are massive untapped resource, so there's absolutely billions of them out there that the most abundant organism on the planet. But finding the right one that will kill the bacterium that you're after is quite difficult.

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Chloe James

And of course there's so many different strains out there that usually you need to have a cocktail of, you know, six or seven phages that could target different strains so that you can use them effectively across a population. But there's big, big regulatory challenges with that because in order to license a medicine, you need to be able to really clearly define exactly what's in it.

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Chloe James

Yeah, because phages are replicating entities they can evolve. And also when when you constantly have to tailor your cocktail to to fit the right targets. And so there's a lot of sort of financial and regulatory challenges around being able to produce them to the right manufacturing standards to be allowed to use them. And so so that's a big, big, big problem.

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Chloe James

I think that the other problem that I got to talk about is that not all phages efficiently kill bacteria.

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Clare Baker

All right.

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Chloe James

So my specific area of research is on a group of phages called temperate bacteriophages. They infect their target bacterium in the same way as virulent phages, which is the ones that we focus on for phage therapy. They inject their DNA into the target bacterium, but then that DNA becomes integrated into the bacterial chromosome and they form a partnership with their bacterial host.

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Chloe James

So a lot of temperate phages actually can coexist with their bacteria over a long period of time and can help them to evolve and to adapt better to their environment. So some of these phages can actually make bacteria more difficult to treat and sometimes cause more severe disease. So it's really, really important that we understand that nuance and to be able to distinguish between those different types of phages.

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Clare Baker

And to say, okay, so it's quite clearly not just a slop situation. Good. That's quite a lot.

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Chloe James

No, but I'm so excited to be involved in this research area at the moment because the possibility is of being blown wide open by things like genetic engineering where we can take the bits of the phage that work well and take away the bits of the phage that don't work well so that we can make this real. We are precision tool, but I think a lot of we also need a lot of public engagement in that in that arena because there's a lot of misunderstandings and misgivings and fear about viruses, about genetic modification.

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Chloe James

And so I think that we really, really need quite desperately to talk quite in-depth to lots of people from different aspects of society to see what people think about phages.

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Clare Baker

Definitely, Definitely. I think he's speaking it, you know, GM seeds, for example. That is huge kind of fear around things like that. And so I suppose the the messages that you're putting out there have to be so carefully put together. And so is part of your kind of public engagement involved in that as well?

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Chloe James

Yeah, absolutely. So over the last couple of years, we've been really ramping up our public engagement. I'm really lucky because at Salford University we've got quite a lot of quite an interdisciplinary team and lots of computer scientists and animators, experts in digital media. And so we've developed a couple of virtual reality experiences, sort of full virtual reality, but also augmented reality and big immersive experiences where people can really immerse themselves in an environment to understand a threshold concept.

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Chloe James

And so my, my particular area of interest is in cystic fibrosis, which is a genetic disorder that causes people to be highly susceptible to respiratory infections. And so they they tend to suffer really chronic and lifelong severe bacterial infections. That's quite complicated with lots of different bacteria. All working together and foggy and viruses. And we've been investigating where bacteriophages sit in that.

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Chloe James

So I work with a team from Liverpool University, some some of whom are developing possible virulent phages as possible phage therapy, but others that are trying to understand how these temperate phages interact with bacteria in complex situations. So what we've done, we've created a virtual reality lung so people can go immerse themselves in the lungs, learn about these chronic infections that can happen.

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Chloe James

And look in the exper science they go through how different types of phages can sometimes kill certain bacteria, how resistance can develop, and how temperate phages can sometimes complicate the situation. And we find that that really helps people to understand the context of what we're talking about.

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Clare Baker

Yeah, yeah. And this phase is giving a kind of real life situation in which they're aware of how it could potentially work. So I suppose if they then perhaps have opinions about policy, for example, later on down the line about phage therapy, they can draw back to that individual experience I think is very effective.

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Chloe James

Absolutely. And it does trigger a lot of conversations afterwards because particularly in the cystic fibrosis world, so too people with CF know that they have a shorter life expectancy than normal and tend to be very, very well read on the disease and the different types of treatments that are coming up. And some people are quite excited about the idea of phage therapy because there's been some big success stories in my area recently.

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Chloe James

But I think it's important that we manage expectations because actually we're not yet in a situation where if someone has a chronic infection, we've got the magic phase formula that's that that will definitely was. Yeah. So, so we are I think having conversations on that level is important, but also on the level of just getting people excited about science and wanting to kind of come up with their own solutions.

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Chloe James

Really. So we also have some interactive models that we make in our makerspace itself. It's they're 3D printed and we've got these absolute massive giant bacterial models sort of about the size and weight of a baby. My baby's these are working models where people can take phases and try and find the right phage to infect the bacterium. And if they get the right one, it pops open a bit like pop up pirates releasing more phages, or sometimes it doesn't actually grow superpowers.

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Chloe James

And it shows how some phages can help bacteria adapt to their environment. So I think as well as the sort of virtual reality where it's a bit of a passive experience, we've got these really like active learning tools as well that people can really get to. And I think that they really help with a younger audience as well.

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Clare Baker

Yeah, Yeah. And it's like it's so important to kind of have these sort of engagement activities to bet for people to be able to understand science. They're not fearful of it, but also understand the limitations of science. I'm not quite kind of thought that in that way this law is just kind of, I suppose, making them aware of what you're doing and how hard it is.

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Chloe James

Yeah, absolutely. I think it's really important that we don't oversell this and say everybody's saved and we don't need to worry because we've got phages. I think the phages are definitely going to be part of the solution and it's a really exciting time to be a phage researcher. But we have to remember that this has to be a multi-sector multi-discipline global effort to tackle Amal that is going to have lots and lots of different parts that all work together to find new solutions.

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Chloe James

And I think a big part of that is exciting the younger population to want to become scientists and to trust that, you know, it's it's really a worthwhile career move to become a scientist and to really try and come up with these solutions.

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Clare Baker

Yeah, yeah. And to show the creativity of science as well. It's about thinking about solutions. And I think potentially sometimes the way that kids sort of approach science in schools is very written down. It's very light, like my book and the actual problem solving, I suppose, is the bare minimum kind of bottom level of it.

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Chloe James

Yeah, absolutely. I'm really glad you said creativity, because when I was very little, I wanted to live on a hill double and paint pictures and I really wish I was quite a creative person. And I am I really sort of I love science, but I was quite sad because I thought I was leaving art behind. And actually I'm bringing art and creativity more and more into my practice now and seeing just how important it is and how valuable art is in the world of science.

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Clare Baker

Yeah, yeah. It's like not only is multidisciplinary working kind of at the, you know, in your research really important, but also you're a multidisciplinary person do and you can provide that experience and into the work that you do, which is autism important.

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Chloe James

Absolutely. I mean, we worked with our students just last year in animation and digital media, so these are not scientists at all. But I had a lecture with them where I talked all about phase and waxed lyrical about all of the different ways that phages and bacteria interact and for their final assessment, they each had to produce an animation that's inspired by this story, and that crazy creativity was absolutely awesome.

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Chloe James

And they came up with really diverse ways to put the story across. I never would have thought of in a billion years, and they had all of these character developments and narrative arcs that really enriched my excitement about my work and really helps me to tell stories to other people from all different walks of life.

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Clare Baker

Space, kind of turning it ever so slightly. And you touched on it before about the policy and the sage response from the government. Why is it so important that also engage with policymakers when we're talking about the antimicrobial resistance crisis?

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Chloe James

I think that the government plays a massive role in tackling antimicrobial resistance because at the end, ultimately they hold the purse strings and we desperately need more money to be able to develop solutions. But obviously they don't have this endless pot of money. And so it's really important that policymakers understand where that money is going to be better spent.

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Chloe James

And this has to be a continual bilateral conversation that we have. And the more understanding that we have in government and in people with positions of decision of power and people that have the power to make these decisions, we need them to understand on a basic level, we don't want them to become expert scientists that don't have to know everything, but just so that we've got the same language so that we can talk to each other, so that that money can be best spent rather than spewed somewhere when actually it's not making that big a difference.

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Chloe James

And so I think, you know, as a microbiologist, it's really important that we're not scared to talk to policymakers and that we're not scared to get out of the lab and not only get into museums and schools and talk to the public, but actually get into businesses and companies and governments and talk to them so that we can work together on the challenge.

00:28:42:12 - 00:29:12:06

Clare Baker

I've got one last question, but I want to check back before that last question. So we talked about kind of alternative therapeutics and how important surveillance is. And I realize that we haven't touched on diagnostics and how important that is, I suppose. Could you give me a brief overview, I suppose is what diagnostic options we have available to us at the moment and perhaps the future of that is looking like.

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Chloe James

So every country across, well, maybe not every country, but lots of countries across the globe have developed strategies for how we're going to tackle AML and the UK. The UK has a big 20 year plan at the moment and it has these ambitions for change and these major targets. And one of those major targets is in diagnostics. So it's a very threshold concept.

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Chloe James

The antibiotics are useless at treating viral infections, for example. But how do you know if you've got a viral infection? Well, if we have better diagnostic tools, even simple ones, that can distinguish if your infection is caused by a virus or caused by a bacterium. Yeah, then that can massively reduce the amount of unnecessary antibiotics that are being used and then that can preserve our antibiotics that do still work because some of them do still work.

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Chloe James

We do still rely on them and desperately need them. Yeah. And so too to preserve that if we have more accurate diagnostic tools that are firstly more accurate but also more rapid so that we can get the right treatment at the right time, then that's a big, big, big part of tackling AMR. So I'm not an expert in diagnostics.

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Chloe James

And so my knowledge of exactly which ones are out there is a little bit ropey. But obviously with things like things that in my mind have been a big success is the lateral flow test for COVID. And so that technology exists. And if that can be used for a differentiating other thing. So I know there's a diagnostic tool for recognizing from a sore throat if that's caused by streptococcus or by a virus.

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Chloe James

And so rapid diagnostic tests like that that people can do at home and do a quick test could be really, really useful. Of course, no one wants to wake up in the morning and do 20 different test to see if they're doing it. But I think in GP surgeries and possibly in pharmacies as well, so people not necessarily having to go to their GP, diagnostics like that could really, really happen.

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Chloe James

And bringing it back to face there, some people are actually using phages as precision diagnostic tools now as well, which is really exciting.

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Clare Baker



Yeah, let's be scientist then. Kind of ties in quite well to this kind of mentality. So if you've got an answer, kind of I suppose a on paper answer that your your infection is a virus, we can't give you antibiotics. It kind of at the personal level of the person you know very well makes it easier for you to then be like, okay, well, that's how it works rather than if you don't know, you can be like, No, I need you to treat me.

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Chloe James

Yeah, absolutely. I mean, I definitely feel and obviously I don't have the data to support this. This is just my life experiences that in the UK we've done all right at managing people's expectations about antibiotics. And I think that quite a lot of society is comfortable with their GP saying this is a virus, drink plenty of water, house arrest, have some paracetamol, you don't need antibiotics.

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Chloe James

I don't think that's the same everywhere I think that and I've lived in several other countries where there's still really an expectation that if you go to your GP you want antibiotics. Yeah. And having some sort of tool, diagnostic tool that can show people you do not need antibiotics because they're not going to work, I think could be really, really strong.

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Chloe James

Yeah, for.

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Clare Baker

Sure. Yeah, definitely. Okay, that's amazing. I've learned so much. Thank you so much. But my final question and approach is however you'd like that and what changes would you like to see in the next ten years or so when it comes to our policy or research or public understanding? If that was like a personal goal for you, what would that be?

00:33:15:23 - 00:34:04:05

Chloe James

I mean, there's so many changes. I would like to see it. Obviously, there's money. I would like to see that being a lot more funding for research into new diagnostics, into new antimicrobial discovery, and also in basic science to understand how bacteria and viruses interact with humans and animals. So obviously a big boost in funding, but I would also like to really see a lot more interaction between

business and science and industry and science so that we could find sort of better economic ways to develop new drugs.

00:34:04:07 - 00:34:27:23

Chloe James

I don't know exactly how you do that, but I think it's really important that, you know, we're talking with clinicians and with industry partners so that we're not just sitting in our academic ivory tower feeling clever about ourselves and making sure that that our research has impact. And I think that has happened a lot, to be honest, over the ten or 20 years.

00:34:27:23 - 00:34:46:16

Chloe James

But I think we can do a lot more. And I would really like to see kids in schools across the country, particularly schools that might be poorly resourced, feeling excited about science and feeling like they could be scientists and that they have it in their capacity to be part of the solution.

00:34:46:16 - 00:35:07:09

Clare Baker

Yeah, as I say, it's a big X. It would be silly for me not to mention that a big part of this kind of future that you're looking to could be influenced quite heavily by the impact and influence at the Microbiology Society. You were the chair of the committee. Could you tell me a little bit about your time in that role?

00:35:07:11 - 00:35:33:24

Chloe James

I was really I'm really proud to be part of the microbiology Society and I loved my term as chair of the impact and influence Committee. I really loved how it helped me to get involved with so many of their different activities and have influence across the UK and Ireland, but also beyond that. It really empowered me to be able to think that I could influence policy and people.

00:35:34:04 - 00:36:01:23

Chloe James

And so I think that the Microbiology Society has a massive role, particularly nationally, but actually across the globe now as well. They have this big project that they're launching called Knocking out Armagh, and I'm really happy to have been invited back to be part of the steering committee of that project. And this is a big, ambitious project pulling together lots of people from different areas across the world to tackle AML.

00:36:01:23 - 00:36:28:22

Chloe James

And the drive of that is to really focus on positive solutions and how we can have impact in key areas like diagnostics and vaccines and novel therapeutics, but also surveillance and also global conversations. And we're really hoping that there can be a big kind of showcase of this work in the near future that brings lots and lots of people together.

00:36:28:22 - 00:36:30:21

Chloe James

So I'm really, really excited about that project.

00:36:31:01 - 00:36:40:16

Clare Baker

Yes, Fabulous. Did you tell me so what is your role within the kind of knocking out and projects? Where do you enjoy it?

00:36:40:20 - 00:37:10:06

Chloe James

Yes, I'm really excited to come back officially and be part of an oversight group of this new, exciting project called Nothing at All. So there's lots of groups that are looking at different aspects to come up with real strong solutions for AML. And in in the Oversight Committee, our role will be to look at that whole and make sure that that's all joined up and make sure that we can report on it and really get the best out of the whole project.

00:37:10:08 - 00:37:15:07

Chloe James

So I'm really excited to be able to have a role in steering that.

00:37:15:09 - 00:37:21:03

Clare Baker

Fabulous, fabulous. And I think I've always said, thank you so much.

00:37:21:07 - 00:37:30:01

Chloe James

It's because it's because we go down so many avenues that you forget like these things...

00:37:30:03 - 00:37:50:09

Clare Baker

Thank you so much to Chloe for joining me on this episode of Microbe Talk. If you'd like to know more about her research, you can do so by following the links in the description. If you're interested in taking part in the 'Knocking out AMR' project at the society, please visit our website or click the link in the description to register your interest.

00:37:50:11 - 00:38:01:23

Clare Baker

You can also follow us on social media to keep up with the project's activities. You've been listening to Microbe Talk. If you liked this episode, please like and follow wherever you're listening.