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Katie O'Connor

Hello. You are listening to Microbe Talk, the podcast by the Microbiology Society. I'm Katie O'Connor, the Policy and Engagement Officer at the Society and following on from our previous episode about collaboration, in this episode, I met with Professor Hilary Lapin-Scott. Hilary is the president of the Federation of European Microbiological Societies and the former president of the Microbiology Society.

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Katie O'Connor

She has over 30 years of experience as a research scientist and was also awarded an OBE for services to microbiology and the advancement of Women in STEM. In this episode, we chatted about collaboration, about her career, about the role of academic societies, and about Horizon Europe, the EU funding program for research and innovation. The UK was locked out of this program until very recently, and at the time of recording we had not yet rejoined Horizon, but just to disclose that we have now rejoined, which is a huge win for UK science. I hope you enjoy this episode.

00;01;06;14 - 00;01;21;05

Katie O'Connor

Thank you so much for joining us on this podcast episode today. So firstly, if you'd just like to introduce yourself and talk a bit about your background and the research that you're working on at the moment.

00;01;22;00 - 00;01;56;03

Hilary Lappin-Scott

Oh, happy to. So hello, I'm Hilary Lappin-Scott, I'm President of the Federation of the European Microbiology Societies and Professor of Microbiology. I'm based in Southwest England. I describe myself as a late career scientist. That's really because most of my job so different roles that I play are away from bench science and more to do with like science strategy, science policy and more really in supporting the microbial and the scientific community.

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Hilary Lappin-Scott

So it's more like leadership roles where I might be working to look at promoting people to associate professor or professor at a university anywhere in the world, or writing references for that or involved in the decision making. I do that more than supervise my own PhD students and I look to work on shaping things like the REF process for the UK more than I do writing my own research proposals.

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Hilary Lappin-Scott

But to my mind it's kind of an ecosystem actually. So of course we all play quite different roles. But regarding my own research groups, so we've worked very much on unravelling the complexities of the interactions within within biofilms. But early on and with the research group, a big push was convincing many others that biofilms existed and were of such significance and really worthy of of a focus.

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Hilary Lappin-Scott

And we were working on moving away from pure culture, single culture microbiology, much more to these mixed microbial communities now called the microbiome, and that helped to understand how micro-organisms kind of affect each other in their survival and their growth as well.

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Katie O'Connor

I know that you've also had quite a lot of involvement with academic societies throughout your career, as well as the research you've been doing. And so you were the president of the Microbiology Society. You've been the president of the International Society for Microbial Ecology. And as you say, you are now the president of FEMS, which is the Federation of European Microbiological Societies.

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Katie O'Connor

So you've dedicated quite a lot of your time throughout your career, kind of contributing to society activities. So I wanted to ask you a bit about FEMS specifically, what exactly is FEMS and how is it different to other societies and kind of how did you get there and how did you become the president?

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Hilary Lappin-Scott

So you've very nicely explained that FEMS is the Federation of European Microbiological Societies, of which obviously one of the member societies, one of the founding member societies too, is the Microbiology Society of the UK. There's actually over 50 different societies within FEMS already, and they can be from the very large societies like the Microbiology Society. Some of them are much more niche, perhaps within a very specialised area of microbiology, some of them are virology societies, clinical societies, microbial ecology societies.

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Hilary Lappin-Scott

And we all come together as one big federation. It was actually started nearly 50 years ago, so in 1974, very much as we are today talking about Horizon and Europe and collaborations, it was started by a very smart group of scientists from many countries who looked at the formation of the European Economic Community as it was called. Now the European Union, because it could see, well, if there's benefits to bringing together countries across Europe, wouldn't there also be benefits to bringing together different microbiology societies to try to promote international collaboration?

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Hilary Lappin-Scott

So that was the start of it all to try and promote international collaboration. But FEMS provides, like the Microbiology Society, a great deal of funding, particularly for early career researchers, to help them network internationally, there's a lot of training courses, smaller focused meetings and then a large biennial Congress. Yes, you're quite right. This is my third presidency, so I'm getting towards the end of my fourth year as the president of FEMS, 12 years as elected president of those three societies or federations.

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Hilary Lappin-Scott

So I kind of feel like I've done my bit now, actually. But in terms of how did I get here, it's a little bit of an unusual story. So if you kind of bear with me, I'll I'll explain what I mean about that, because I've actually had an unusual route to becoming a microbiologist, a professor and a president.

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Hilary Lappin-Scott

So I actually come from quite a humble background. And what I would call that, they are the back streets of Middlesbrough and no one from my family had stayed on beyond right up to and including my parents' generation. They all left at the earliest opportunity had left school so there was nothing to draw upon and experiences.

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Hilary Lappin-Scott

My parents encouraged me and my six siblings, so I'm one of seven children, that we should get stuck in and even now we have quite a laugh going 'what did Mum and Dad mean by get stuck in?'

We were never sure, but they were encouraging and in the in the ways that they knew how. I didn't know anything about microbiology.

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Hilary Lappin-Scott

I have to put my hands up and say I don't know if I was interested in science particularly. I didn't really like school. I loved astronomy. I absolutely loved it. It's been a passion of mine since I was about eight years old and I'd go to the local library with my library cards and get out all the books on astronomy and just be fascinated by it.

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Hilary Lappin-Scott

So I actually left school with my O-levels so that's my GCSE qualifications. I didn't do very well in them. And I got various jobs like kind of junior office roles. I did work in a quality assurance lab as well, but then I started to think, I'd quite like to be able to travel and see the world and thought a career in science would help with that.

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Hilary Lappin-Scott

So I took my A-levels at night school, so I went to further education colleges for evening classes while I was working full time. So my A-levels were compressed into a very short just for nine months that I studied at night class. So I got used to working at quite a pace and thankfully Warwick University accepted me on to a degree course.

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Hilary Lappin-Scott

Still, I'm grateful for the opportunity because certainly my qualifications were pretty, pretty meagre. And then I learned about microbiology and I just absolutely loved it when this microbiology world opened up in front of me. So I've never had a career goal. I've just always looked at the next rung on the ladder and looked and asked 'what do those people do in that that job?'

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Hilary Lappin-Scott

And I looked at it and thought, you know, I think I could have a go, and I would try for the next rung on the ladder. So honestly, so there's never been a big career plan, and I find myself now quite surprised to look back at the opportunities. I'm very grateful for the opportunities that I've had along the way.

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Hilary Lappin-Scott

And regarding the three presidencies, I don't know if anyone else has undertaken that, but I'd be keen to find out.

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Katie O'Connor

Yeah, well, it's actually reassuring to hear that you didn't have a career plan in mind when you started out because I think especially with like earlier career researchers specifically in microbiology that I've spoken to, it seems like that there's a lot of pressure to know exactly where you want to go and what you want to do. So yeah, I think it is reassuring for me as well, just as an individual.

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Katie O'Connor

To not really knowing what you want to do and kind of working things out as you go. And, and yeah, it's interesting that you went, you've kind of gone all the way through in terms of your research and also the society's kind of starting with Microbiology Society and moving through to the European one. It's quite a nice progression of kind of collaborating with bigger and bigger groups, I guess, which actually leads me quite nicely into the thing I wanted to talk to talk about today, which is collaboration and and kind of why it's important that scientists have spaces.

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Katie O'Connor

They can go to kind of network and collaborate. And as you said, as FEMS, you are president of 50 microbiological societies all under this one umbrella. So why do you think it is important that those 50 societies have a space which in this case is FEMS where they can meet and like kind of a hub where they can all go to collaborate and form connections with each other.

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Katie O'Connor

Why do you think it's important to have kind of something set up for them to do that?

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Hilary Lappin-Scott

It's really interesting that you use the term hub, because that's been in my mind as well. When I think about what it is that's important in terms of research. And I do really believe that it's important for scientists to be part of a hub, big research hubs, if you can, and to be part of collaborations because the challenges that we have are so enormous.

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Hilary Lappin-Scott

The biggest global challenges, most of them, many, many of them have microbial solutions or microbiology at the heart of them. So this international research effort into solutions for to overcome antimicrobial resistance, massive issues around climate change, about having a healthy soil so that we can grow crops globally, a clean water supply. We need to be part of these networks.

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Hilary Lappin-Scott

and collaborations, for example, Horizon Europe provides and that's why it's so valuable. Horizon Europe, another big hubs, they help drive these big steps forward because it's about big science and it's about really, really big ideas. Lots of people do put this focus on the funding, the money, and that's what this if you like this Plan B that is talked about at the moment as an alternative, it's all about put the money forward, but it's missing the access to the networks collaborations.

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Hilary Lappin-Scott

That's always, to me what's key.

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Katie O'Connor

Because I suppose the networks that are within Horizon are probably way more difficult to recreate than the money. But in terms of what we can do, because you've been so involved with academic societies throughout your career, why do you think academic societies are important for facilitating those collaborations and to kind of encouraging scientists to network?

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Hilary Lappin-Scott

You know, there's many, many examples of academic societies that already play really big roles in nurturing these international collaborations. I often think that academic scientists don't always understand how that they are shaping these collaborations and shaping many, many, many careers. Actually, some of the biggest roles really there are. It's about any ways academic societies make

opportunities to bring people together or provide opportunities to what I would call push out research findings.

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Hilary Lappin-Scott

So, for example, for the Microbiology Society, a big emphasis on publishing for the community. That way of rapidly disseminating people's science to a wider audience, because then other researchers contact you after you've published work. And that can often start international collaborations. Conferences, anything that brings people together. So conferences are a key role and there's so many opportunities to network.

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Hilary Lappin-Scott

I'd be amazed, and I think it's time that we started to collecting some stories of how many new UK and international collaborations are set up during a coffee break and a lunch break or over dinner over a couple of beers at a at a conference as well. But thinking about early career researchers, which is a big part of what my interests are of how to make more opportunities, ensuring there's opportunities for early career researchers to present their work, but significantly meet some of the mid-career, more senior scientists as well.

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Hilary Lappin-Scott

That makes all the difference to the encouragement that people give you. But societies also, many of them, offer funding to support visits to other labs to learn techniques that often results in a broader and a bigger collaboration. A couple of others, some of the academic societies have like a special interest group within them that bring together kind of a small, maybe a small focused meeting or some training courses as well.

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Hilary Lappin-Scott

I'm thinking in particular of of a summer school that I ran just kind of 12 months ago for FEMS that was based in Croatia. And what we did was that the early careers researchers that attended, it's a so they're all at post doc level, they are still in touch and they still I still see that they're finding new ways to put together new research collaborations.

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Hilary Lappin-Scott

They are from totally different areas of microbiology, from different countries, you know, even slightly different career stages. But they're still looking and using that as their kind of jumping off point to look for innovative funding applications as well.

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Katie O'Connor

So you mentioned earlier about the kind of crises we're facing right now, like antimicrobial resistance, climate change, kind of food security, and they're all so international in their nature. And have you noticed an increase in how much international collaboration has been going on throughout your career? Have you noticed that there's been a bigger push towards international collaboration?

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Hilary Lappin-Scott

I mean, I really have seen that. When I started my bachelor's degree, really this was what I would call this lone researcher was a general model in scientific research. So it would be literally as it sounds, one person working on their own in a particular field, working very hard, but kind of without that ability to bounce ideas off others or think that, well, hold on, we're working in microbial physiology.

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Hilary Lappin-Scott

We could get some help from the biochemists, from the physiologists, perhaps some chemical analysis and bring in multidisciplinary teams and skills that help make bigger jumps. So I've absolutely seen a change in that direction as people appreciate the benefits of that type of interdisciplinary collaboration as well. And seeing that they can be more successful in addressing some of these really big questions that they're looking at.

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Katie O'Connor

Thank you for listening to this episode of Microbe Talk. It was an absolute pleasure to chat to Hilary about her career and about her thoughts on collaboration. It's fantastic news that we have now rejoined the Horizon Europe funding program, and you can read the official Society response to our re-association on the Microbiology Society website. Thank you again for listening.