

# Anna Fellowship Int Final

Thu, Jun 15, 2023 4:29PM 13:38

## SUMMARY KEYWORDS

amr, antibiotic, people, session, young, work, science, students, area, project, gaps, school, antimicrobial resistance, awareness, superbugs, develop, generally, awareness campaigns, ucl, ai



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My name is Anna, I'm a science writer and communications manager at ISense. So I sent is a large, over 11 million pound research programme funded by the EP SRC. And it spans over seven different universities across the UK. And it's been running for just over 10 years. So Ma, I'm based at the London Centre for nanotechnology, it was just part of UCL. And I sent itself is kind of a multidisciplinary group group of researchers who aim to build a new generation of digital sensing systems to identify and prevent outbreaks of infectious disease in the future, along with also antimicrobial resistance. So my role is quite diverse. I do lots of science editing. So this ranges from editing scientific journal articles, but also to online content and annual reports. So across the outputs across ISense. I also support with grant applications, I manage internal and external communications, and also public outreach. So whether that be public engagement events at science festivals, outreach projects, online engagement, so it's quite diverse. But what I do, I said, Yeah, so what I really liked about this impact fellowship was it allowed access to various different experts across UCL and also externally as well. And provided these asked me anything sessions, where we were able to kind of meet people who we never normally wouldn't be able to have a really open space to be able to ask questions. And specifically in terms of impact. For me, you know, working with a younger audience in this in this project, and having the support to understand the measurement of impact as well was really helpful. It's nice to kind of have this side project alongside my my main role. My initial Project AIM was, I think, somewhat vague looking back, it was it was focusing on antimicrobial resistance and awareness surrounding that, amongst young people, antimicrobial resistance, or AMR is essentially when treatments such as antibiotics or anti microbials, no longer successfully work against microbes. So it's, it's largely driven by overexposure, or improper use of antibiotics. And essentially, it's leading to the threat of superbugs. So World Health Organisation have have listed AMR is one of the top 10 global threats to the public. So it's a really important area, but it's not often talked about, and it's largely underfunded. And it's a huge kind of area of potential for public awareness, because a lot of AMRs, a lot of AMR could be prevented by it by AMR stewardship, so, proper prescribing and also proper, proper patient adherence to antibiotic regimes. So, I mean, it's a quite it's complex issue. And it's actually much wider than that and also involves pharmaceutical companies, the development of antibiotics in the future, and, and also the use of across agriculture and various other systems in the environment. But there is a there is a real possibility to make improvements in awareness. And so I was particularly interested in and using this project to develop accessible relevant training for young people and Amr, and I think genuinely just to better understand misinformation and learning gaps. So that was my initial sort of vague plan. And it was it was to develop some kind of training workshops for young people. So that yeah, the project was

essentially a day which happens also fall on International Women's Day, which is quite nice. So at first sort of women in STEM event, and I attended a school Norwich school in in London, and essentially provided an activity sort of like a workshop day for five different classes of about 30 children. And they varied in ages sort of, yeah, Key Stage Three, and reached about 150 students in total, which was much larger actually, than I'd anticipated initially. So that was great. And essentially the session involved developing an understanding of current, you know, current awareness of AMR and identifying learning gaps. And then, you know, it vary depending on the age age group, but providing an informative session and interactive quiz. is a kind of interactive quiz at the start to gauge a baseline of understanding, providing this session and do it during this interactive quiz. It also involves more of a kind of creative spin. So we did an art and science session again on Amr. And the whole idea was, it would be this educational but very accessible, hopefully fun session for for children to promote awareness around AMR and AMR stewardship. Yeah, I think I definitely did face surprises. So I think I went in with the assumption, incorrectly, that this group of young people would all naturally be really interested in this area. And really curious about it. I think, you know, I obviously have, I'm biased I have a deep interest in antimicrobial resistance. I'm just science more generally. And I think I think it was, it was partly that, but also, you know, confidence if you're creating an interactive session like this, even just, you know, walking into a room full of these young students and asking them, you know, Does, does anyone have questions, and having a room full of people who may be, you know, quite shy, and this was a very new new area to them. So having to think on the spot and really changed the way that the session was delivered to ensure that people were comfortable asking questions, and maybe, you know, changing things to group work, or even really subtle changes, like, you know, giving a post it note and asking them to write it down and stick it on a board rather than putting their hand up things like that were actually really key for, for getting the most out of the session, I think, and building the children's confidence. And I think the other thing is, which was really important, actually was that the school was, was fantastic. And that had a very diverse and multicultural group of students. And in fact, actually, there was about 20% of students there who were refugees. Many students had limited English abilities. And I think it was really important for me to have, you know, a diverse and inclusive group of students to work with, to understand different barriers and different. Yeah, gaps in, in the knowledge pathways around antimicrobial resistance. And it made me come up with different creative ways as well. To kind of to get across the ideas that we're making. So actually, for example, this art, this, you know, arts side side of the project wasn't something initially planned, but actually asking the students to draw these microbes and kind of creating this kind of science art aspect of it was really important, especially for the for the children who kind of weren't as confident with with the written or verbal work. So, yeah, it was definitely quite dynamic session, and I had kind of changed things on the spot that I hadn't planned for, but it was really helpful in the end to be able to address that, I think, I think so after the sessions I did one on one check ins with a handful of students, obviously, there wasn't the capacity to do it with all of them, almost in the form of a survey, but like a semi structured survey, and it was quite informal, really. And I felt like it really made it made a difference. And you know, some of the students I felt really learned quite quite a lot just from this. It was literally, you know, a two hour session but whether it'd be about AMR specifically, but just developing that interest generally and infectious diseases, I think at the moment as well, you know, it's so topical, following COVID-19 I think there's a lot of Yeah, questions around. There's an interest to capitalise on definitely. But I think that it was nice to come out of it and feel like actually, the children had gone in, literally not knowing they'd never heard of Amr, they didn't know what it was, and they'd come out having learned something, and also importantly, not in a really scary way, I think this is really tricky with these things, you know, going in and saying AMR is one of the top 10 You know, World Health Organisation, threats to humanity, and you want to you want to teach people but you don't want it to be scare mongering, you don't want

it, you know, especially in these young age groups, people to actually come up more confused or more scared. And, you know, especially in this kind of scientific topics that maybe they're not familiar with. So yeah, it was really nice to feel like they not only learned something, but came out feeling positive about



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about, you know, being able to make changes, but also like science more generally. So that was really nice. Especially going into this kind of creative school and doing these art and science projects with them and kind of finding a hybrid between the creative side of things and the scientific side of things was really nice. First of all, working directly with the school is certainly something I'd want to do. I've spent, you know, stayed in touch with the teachers at the school. And I think they're really interested in doing further sessions. And I think, as I mentioned, this fell on International Women's Day, which was on the Eighth of March. And I think I'm personally quite keen on a more general level to be able to do more women in STEM work, I work with a charity called Stemettes, as well. So there is definitely potential to do a larger event to reach a wider audience and particularly amongst females. So yes, and then and then more specifically, in an AMR awareness in my role, there's definitely going to be potential for me to, to kind of expand and develop some of what I've already done in terms of public awareness, in Amr, not only in young people, but generally, you know, this huge scope. And I think it's such an important area, and I think it will be great to be able to link up with policymakers also kind of industry professionals, also charities, you know, it's not about reinventing the wheel here, lots of charities are in this space already, who have developed AMR awareness campaigns and workshops and training. And also, you know, I say, there's people in the space and there are but it's but it's not, it's not reaching the audience. It's not a there's not enough public awareness in this space, generally. But yes, specifically, having awareness campaigns, and not not even awareness campaigns, but actually looking at national curriculum for young people. It's all about antibiotic stewardship. So it's about understanding when and why and how to take antibiotics. So obviously, it's prescribing guidelines, but it's when, to me, you know, when young people reached the age that they may start to be managing their own antibiotic use or their own kind of medicines. And I think it's, that's a really interesting area to be able to hone in on not just the general public in general, antibiotic kind of awareness, but but homing in on young people. And you're right, yeah, that there's definitely a gap there at the moment, generally, but But yeah, in amongst young people specifically. You know, this was a much smaller short term project, but I think there's definitely scope to be able to expand what I've already done further down the line in my in my in my role, that London Centre for nanotechnology. Also, interestingly, literally a couple of days ago, in in the news, it was announced about a new superbugs killing antibiotic was discovered using AI. And so yeah, really topical kind of scientists have used artificial intelligence to discover this new antibiotic that can kill it a deadly species of a Super Book. So yeah, it's really exciting. Obviously, AI is super topical at the moment as well. And I think in terms of my role, and where I sit in the London Centre for nanotechnology and working in AI sense, which, you know, has obviously links to machine learning and data scientists, and it's, you know, it's very broad and multidisciplinary. But certainly, this link between AMR and AI is is a really exciting area and this kind of this, this, bridging this gap. So I think that could potentially in the future, also be an area of interest as well.