So much of what technicians do just doesn’t get noticed with Andrew Cripps

(Research Adjacent 94)

The vital role technicians play in making research happen

https://researchadjacent.com/andrew-cripps-episode-94/

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[00:00:16] **Andrew Cripps:** It's a very complex and well-thought-out process which is often quite lazily projected on TV and in films. The animal units are specially designed, specially built. The animals are kept in the best conditions.

[00:00:34] **Andrew Cripps:** Learning about patents, learning about funding, marketing, et cetera, et cetera. So that was a, really eye-opening and really shifted the way I look at work in general.

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[00:00:46] **Sarah McLusky:** Hello there. I'm Sarah McLusky and this is Research Adjacent.

[00:00:53] **Sarah McLusky:** Each episode, I talk to amazing research adjacent professionals about what they do and why it makes a difference. Keep listening to find out why we think the research adjacent space is where the real magic happens.

[00:01:08] **Sarah McLusky:** Hello, and welcome to episode 94 of Research Adjacent. My guest today is Andrew Cripps, and just getting in the room for our conversation was a bit of a challenge for a couple of reasons. Firstly, Andrew is a technician. Now, I have wanted to get a technician on the podcast since it started. They are like the OG research adjacent professionals.

[00:01:29] **Sarah McLusky:** But I quickly discovered that technicians seem to be the kind of people who like to be behind the scenes rather than guesting on podcasts. So thank you very much to Andrew for being willing to chat, and also to previous guest Simon Cutler for making the first introduction, which eventually led me to Andrew.

[00:01:48] **Sarah McLusky:** The other reason our conversation was challenging for me personally is that Andrew is Technical Head of the Small Animal Research Unit at the University of Reading. So things to know about me. I am the person who turned vegetarian as a teenager and ultimately studied botany because although I loved biology, I didn't like doing animal dissection.

[00:02:08] **Sarah McLusky:** That means that I don't really like thinking about animals being used in research, and I suspect many people listening will be the same. However, I also totally accept that if we want to have new drugs and medical treatments, then it is essential. I also have asthma, and I wouldn't be here to present this podcast at all if it wasn't for the drugs that kept me alive as a child, and those drugs will have been tested on animals.

[00:02:33] **Sarah McLusky:** So ultimately, I am grateful to people like Andrew and the researchers that he collaborates with. I also think that it's important to have honest conversations about these topics, so I hope that you will be open to hearing Andrew's perspectives. In our conversation, we talk about his long career working in universities even though he never went to university himself, busting myths about what it's like for the animals in a research unit, and also stepping out of his comfort zone to enter and win an entrepreneurship competition.

[00:03:04] **Sarah McLusky:** Listen on to hear Andrew's story.

[00:03:08] **Sarah McLusky:** Welcome along to the podcast, Andrew.

[00:03:09] **Sarah McLusky:** It's fantastic to have you here. As I think you know, I have wanted a technician along for a long time. So tell us a bit about who you are and what it is that you do.

[00:03:19] **Andrew Cripps:** Thank you very much for having me. I'm excited to be here. My name is Andrew Cripps. I am the technical head of the bio-resource unit at the University of Reading.

[00:03:30] **Andrew Cripps:** So the bio-resource unit, I guess would, could be known otherwise as an animal unit, small animal research unit where do a lot of research, mainly medical research using animals, small animals, rodents, rats, mice, and some zebra danio fish, mainly.

[00:03:51] **Sarah McLusky:** Yeah. So tell us a bit about on a day-to-day basis what that actually entails, what kinds of things you're working on.

[00:03:59] **Andrew Cripps:** So my job, as I say, is a technical head, but I'm also a dual role alongside that is the named animal care and welfare officer, so NACWO. There's a lot of acronyms in- ... in universities in general, isn't there?

[00:04:14] **Sarah McLusky:** Every- Yes ... every discipline has their own acronyms, yeah.

[00:04:17] **Andrew Cripps:** Yes. So I'm the NACWO here, which is a named role that is needed in the regulations set by government, the Home Office.

[00:04:27] **Andrew Cripps:** So I am the NACWO here, which the name suggests the named animal care and welfare officer. So it's my role is to ensure that the regulations are upheld in the unit when research is going on, and the animals' welfare is at the forefront of the thoughts and the planning for when research happens. So we've got a whole team of technicians here who work in the unit.

[00:04:52] **Andrew Cripps:** We have technicians who are looking after the animals on a day-to-day basis. We have a manager who's looking after the unit on a day-to-day basis. We have a technician who is an ancillary technician looking at cleaning the cages, washing, sterilizing equipment. It's a 365 day a year process. The unit is running on, due to home office specifications, so it has to be set temperatures, set humidity, light schedules, et cetera, et cetera.

[00:05:23] **Andrew Cripps:** So it's keeping an eye on those 365 days a year as well. There are people coming in every day, Christmas Day included, obviously, where there's animals involved. So it's ensuring rotas, that members of staff are trained. It's a fairly nonstop job.

[00:05:40] **Sarah McLusky:** It sounds like it. It sounds like it. It sounds like a lot of both responsibility in terms of the care of the animals, but also you've got a big team and then following all these guidelines and regulations and things like that.

[00:05:53] **Andrew Cripps:** Yeah, absolutely. Training for our team, but also training for the researchers taking part in the work, ensuring they are trained adequately. They're signed off as competent in the skills and techniques they're doing, and everything is legal according to the licenses that everybody holds. So we have a lot of systems in place to ensure that we're on top of all of this.

[00:06:18] **Sarah McLusky:** Yeah. So you said that you're mainly doing medical research. Are you able to tell us a little bit about any of the projects that you've got going on there?

[00:06:28] **Andrew Cripps:** We're signed up to a concordat on openness. So we do, the university does have webpages where we list the type of work we're doing. Obviously you can't go into complete details, a lot of the information about the work that's happening is out there and available. We do a lot of work on platelets. We do some aging. We do some cancer work. We do pain research, things like that. So some of it is fundamental science looking at whole body systems, looking at how different aspects of the body work and looking at how disease progresses through the body.

[00:07:08] **Andrew Cripps:** And then, moving on to treatments that can eventually move into the clinic to solve real world human health problems.

[00:07:17] **Sarah McLusky:** Yeah. And obviously one thing that's really important with doing research using animals is the ethical side of things. Is that something that you're involved much in, or are you more looking at it from a safe and legal perspective?

[00:07:29] **Andrew Cripps:** I, as part of my role in the NACWO, I sit on the, another acronym, AWERB, Animal Welfare Ethical Review Body. That's where we, when somebody wants to start a body of work and some research, they have to apply to the Home Office to get a license to do that work. And before it goes to the Home Office, it goes through the, our AWERB, internal AWERB.

[00:07:52] **Andrew Cripps:** So I'm part of that, which looks at the ethics of that. So on that AWERB, there'll be a NACWO, there'll be a vet, there will be some lay members who are looking at it from a lay perspective. There will be a scientist from, a researcher from another department, which we would call a disinterested scientist.

[00:08:13] **Andrew Cripps:** So it is looked at from a lot of different angles. Like we're looking at it mainly on a welfare basis. But everybody's more than welcome to chip in with their thoughts on any aspects of the license and how it's been written, and what the plans are for the work.

[00:08:30] **Sarah McLusky:** Yeah. So it sounds like this is a process that it's really carefully done and really carefully thought through in terms of what's, what experiments you're doing and whether they're appropriate and ethical.

[00:08:42] **Andrew Cripps:** Oh, absolutely. Yeah. A lot of work goes into it. And then once that license has been granted, anybody working on that license have to have their own personal license- which they are, get approved from the Home Office for. But even before, once they have the license, they still need to do the training and be signed off by a competent assessor that the work they're doing and their techniques are adequate for the welfare of the animals. So a lot of thought and a lot of process goes into this before any work actually starts.

[00:09:14] **Sarah McLusky:** Yeah. And do you think that's one of the misconceptions that people have about the use of animals in research. I don't know, what do you think? What are some of the things that you... You've said there it's clear how much care and thought goes into the processes. Is there anything else that you wish people knew about how animals are used in research?

[00:09:34] **Andrew Cripps:** I think the typical initial response from people is about lipstick on rabbits, smoking monkeys

[00:09:41] **Sarah McLusky:** Yes

[00:09:41] **Andrew Cripps:** deodorant in rabbits' eyes, the things like that, the, that sort of work hasn't it's never really happened like that. But the cosmetic type stuff hasn't happened since the '90s, before I started in the industry.

[00:09:55] **Andrew Cripps:** So that's the sort of the typical initial response from people. The other response that the way people think about it is how it's portrayed on film and TV. You will quite often see a film in a lab, usually with some sort of disease that escapes from a lab or something, and it's and it's usually some typical lab bench with microscopes and things, and a cage with a monkey sat in the corner and some mice on a bench. It, it's nothing like that. These are the animal units are specially designed, specially built. The animals are kept in the best conditions. As I've said previously, 24/7 humidity, temperature monitoring air changes so they've got fresh air at all times. It's a very complex and well-thought-out process which is often quite lazily projected on TV, yeah, and in films. We're quite keen here on openness. We signed up to the Concordat on Openness with Understanding Animal Research, and they do an awful lot of work in myth-busting and explaining what really goes on to the general public.

[00:11:06] **Andrew Cripps:** We're in the process we've just finished making a short film about, of the inside of our animal unit and showing what it looks like, how the animals are kept, how we work in there and what it actually looks like inside an animal unit. So we're pleased to be releasing that probably in the next month, I think.

[00:11:24] **Sarah McLusky:** Okay. Yeah. If it does come out before the episode comes out, we'll have to try and get the link to that, and we can share it-

[00:11:29] **Andrew Cripps:** Yeah, absolutely.

[00:11:30] **Sarah McLusky:** Yeah ... along with everything. But yeah is there somewhere that if people want to know more about this, you said there's this Concordat on Animals in Research. Is there a website or something?

[00:11:40] **Andrew Cripps:** Yeah, looking for Understanding Animal Research on their website. Which hopefully we can link to,

[00:11:44] **Sarah McLusky:** Yes, we'll be able to get a link, yeah

[00:11:46] **Andrew Cripps:** yeah, will give a lot of answers to those common questions.

[00:11:49] **Sarah McLusky:** Yeah. Okay, thank you. And so you, you've said that you got into this work in the kind of when things had changed.

[00:11:57] **Sarah McLusky:** But what was it? How did you get into this career? Why was it something that you were interested in, whether it was becoming a technician- ... or doing this particular kind of research?

[00:12:06] **Andrew Cripps:** I think when I was younger, I'd always wanted to work with animals. And just fortuitously, somebody, sort of a friend of a friend happened to mention that they were in this industry, and they found me a work experience post when I was 16.

[00:12:20] **Andrew Cripps:** At the it was called, back then it was called the Cancer Research Campaign, Mount Vernon Hospital. So I worked for a couple of weeks there and realized I quite enjoyed it, and I was quite capable of do- of doing that sort of work. So I then went to college, Berkshire College of Agriculture, and in the summer breaks at college, I got some summer work at the National Institute for Medical Research, which used to be at Mill Hill. So I worked there for a couple of summers, and then as soon as I left college, I got a job at the Institute of Ophthalmology in London which was a good interesting start in the industry, and I've not really stopped since. Yeah. I've just been working in the industry since.

[00:13:03] **Sarah McLusky:** Oh, excellent. It's rare on this podcast that I have people on who, who knew what they wanted to do and followed it through, and have been still, are still doing it now,

[00:13:12] **Andrew Cripps:** Yeah. Yes, it's yeah, I dunno, I've ended up here. And then worked various places gained various new skills and moved into sort of this sort of more leadership position, as I am at the moment. Yeah. So it's been quite a varied, interesting career- Yeah ... up to this point.

[00:13:29] **Sarah McLusky:** So you said that you went to college rather than university. Was that a specific technician's qualification that you did, or was it a more general qualification?

[00:13:38] **Andrew Cripps:** That was... So that was Berkshire College of Agriculture. That was like an animal care BTEC, 'cause I wanted to work with animals- ... but I wasn't sure how. Yeah. I was never really that interested in going to university. At that point, that was education, formal education done for me.

[00:13:52] **Andrew Cripps:** Yeah. I've, as I say, I never went to university, but I have worked for universities ever since, yeah.

[00:13:58] **Sarah McLusky:** Interesting.

[00:13:59] **Andrew Cripps:** Yes, bit different. Yeah.

[00:14:01] **Sarah McLusky:** And how have you found that? Have you found that the fact that you've come from a slightly different kind of background has been tricky at times? Or you've obviously made a career of it, so you've managed it.

[00:14:14] **Andrew Cripps:** I don't know if it's been tricky really. I've been a technician a l- going, not going to university is... A lot of technicians do, but a lot don't as well, so it's not, I've never felt out of place or anything like that.

[00:14:29] **Andrew Cripps:** Within the industry I do, a part of the Home Office legislation is that people have to be constantly trained and updated with the latest skills and techniques and knowledge. So the Institute of Animal Technology, which is the sort of the body which we're members of run a lot of training courses, formal training, on the job training.

[00:14:55] **Andrew Cripps:** So there's a lot of different ways that you can progress your knowledge and learning outside of formal university setting.

[00:15:04] **Sarah McLusky:** And you've said there that some people now, some people do degrees and some people don't. What's the sort of, if somebody was thinking about a career as a technician, what kind of path would you encourage them to take?

[00:15:16] **Andrew Cripps:** I guess it's up to the individual. I've got colleagues who do have degrees. I've got colleagues who don't. I've worked with people that do, I've worked with people that don't. I don't feel I missed out on anything by not doing that. You can look at apprenticeships in this now as well.

[00:15:32] **Andrew Cripps:** I know there's some places which run that. There's, it really depends on the individual- Yeah ... what they want to do and what specialisms they want to do.

[00:15:39] **Sarah McLusky:** Yeah. Yeah. Oh that's really useful to know that there's lots of different ways that you can get into it. And certainly-

[00:15:45] **Andrew Cripps:** Yeah, absolutely

[00:15:46] **Sarah McLusky:** Yeah, I used to be a college lecturer and I had people who were technicians in various places coming in day release to do a degree, so yeah, there's definitely- yeah ... definitely pathways to do it. Yeah.

[00:15:57] **Andrew Cripps:** Yeah. There's, through our industry you can do a degree on the job as well- Yeah ... through the industry as well, so it's- Yeah there's lots of ways.

[00:16:06] **Sarah McLusky:** Lots of ways. That's good to hear, 'cause there's, I think... Yeah, sometimes people- Sometimes some roles in this space, there's often a very kind of prescribed

pathway, to get into it. But it sounds like for this it's more potentially aptitude that's more important.

[00:16:23] **Andrew Cripps:** Yeah. Yeah. Absolutely.

[00:16:25] **Sarah McLusky:** Yeah. And another thing, talking about this career progression for technicians and ways into it the reason that I started this podcast was because I was very aware of this slightly two-tier system in places like universities, where there's the academics and then there's everybody else.

[00:16:42] **Sarah McLusky:** And even though those people are contributing to research, they don't necessarily get the same recognition or promotion opportunities. And technicians have been on the case with this for a bit longer than I think some of the other roles. And so there's now, there's the technicians commitment, and then there's these kind of structured frameworks, and I understand Reading is signed up to the Technicians Commitment.

[00:17:05] **Sarah McLusky:** Is that something that's made... Have you noticed it's made much of a difference to either your career progression or to the people that are in your team?

[00:17:14] **Andrew Cripps:** So Reading signed up to the Technician Commitment in 2017 I believe. And that is about the same length of time or the same time that technical services as a university-wide structure has been in place. It was a slightly different structure before then. So it was in 2017. Technical service has been a single sort of entity on its own, and we've been signed up to the Technician Commitment. So the Technician Commitment has underpinned everything that's happened since 2017 in, in terms of technical services.

[00:17:52] **Andrew Cripps:** I should probably explain that other places I've worked previously as an animal technician, you're an animal technician in the animal unit, and that it was your silo, basically. The way technical services works here is we're part of a larger technical services, which deals with all the schools, all the different things, so the science schools, the art schools, the film and television.

[00:18:14] **Andrew Cripps:** So there's a range, so we work with a range of technicians who are colleagues from across the whole university. So the sort of the Technician Commitment, has underpinned the whole structure since technical services started at Reading, really. So that's talking about training, career development, the health and safety- all aspects along those lines.

[00:18:40] **Sarah McLusky:** Yeah. So it provides a bit more of a framework for making sure that people get that professional development.

[00:18:47] **Andrew Cripps:** Yes, absolutely. And I think it, it sort of, Technician commitment encourages a sort of a self-reflection about how you've been doing and actually what you are gonna be doing for technicians going forward as well.

[00:19:01] **Andrew Cripps:** Yeah ... so yes, it does cover that framework.

[00:19:04] **Sarah McLusky:** Yeah. Yeah, and obviously you've managed to go from being, starting as a, essentially apprentice, and then now you're head of a unit. Has that been a straightforward career progression, or has it just been like, you've changed jobs and applied for more senior opportunities? How's that gone?

[00:19:20] **Andrew Cripps:** For a long time I just worked various animal technician roles. And then when I came to Reading about 15 years ago, the opportunities were there to progress. And

as roles change or structures change, then I've got... I'm in this position I am now. Yeah. So that, we are looking at the opportunities by taking on the responsibilities needed, learning the skills needed.

[00:19:45] **Sarah McLusky:** Yeah, no, 'cause that's, I know that's one thing that a lot of people in these research adjacent roles find is that the academics have a very kind of structured career progression- Yeah ... pathway, and other roles, it's often a bit more fluid, but I think that... I always think it's academia that's unusual rather than everything else that's unusual- Yes, yeah ... from all the places that I've worked. I think it's academia having a very kind of structured process that, that is, is the outlier rather than everywhere else I've worked it's been a much more kind of fluid system.

[00:20:19] **Andrew Cripps:** Yeah, absolutely. It, I suppose going back to our technical services structure we have here, you can see across technical services what sort of other roles and jobs people do, how they operate, and what sort of opp- other opportunities there are slightly, on a slightly wider field.

[00:20:36] **Sarah McLusky:** Yeah. And I think that's one thing that, that you picked up on, picking up on something you said earlier, is obviously people, I think people think of technicians in the sciences very much, maybe in things like engineering, but perhaps don't think of the fact that there are technicians in arts and, visual, like film. You're looking after, after all that equipment as well.

[00:20:59] **Andrew Cripps:** Yeah. No. I wouldn't have, until we started in this structure, I wouldn't have even known those people existed or what they did. Yeah. But now we're working with for example, our film that we've made of the animal unit we needed to do a voiceover for that, so we made contact with some of the technicians in the film and theater school and used their recording booth to, to make the voiceover for that. So it was really good to work across the university on those projects

[00:21:27] **Sarah McLusky:** Yeah. It sounds like it's really good both for helping awareness of opportunities, but as you say, also encouraging that collaboration and using the equipment and things you've got on- Yeah ... the doorstep.

[00:21:38] **Andrew Cripps:** Yeah, absolutely. Yes.

[00:21:39] **Sarah McLusky:** Yeah. Oh thinking then about some of the things that you've worked on over the time. I've... You've mentioned this video a couple of times, so perhaps it's one of them, but are there particular projects or things you've been involved with that you're really proud of?

[00:21:52] **Andrew Cripps:** I suppose there's countless treatments that, obviously we work on a lot of treatments, we work on a lot of research, which quite often won't come to the clinic for another 10, 15 years- Yeah ... longer, and long after you've finished working on it. So there's countless treatments that we've worked on that you do see come to fruition at later life.

[00:22:11] **Andrew Cripps:** We did something here on some childhood epilepsy treatments, which got into the clinic, and it was a real breakthrough. I've done some work on Parkinson's in the past, cancer treatments, like I say, in the early days. So in terms of that side of work, there's a lot of things that I'm proud of that I've been involved in.

[00:22:30] **Andrew Cripps:** In more recent years, we, what was it? I don't know, about four or five years ago, we moved from an old, quite dated facility, and we built a brand-new building and brand-new animal facility, which was a lot of work. I was heavily involved in starting everything from scratch, from the ground up, new equipment, building materials.

[00:22:54] **Andrew Cripps:** I learned an awful lot about project planning and architectural plans and-

[00:23:01] **Sarah McLusky:** Things you never thought that you'd

[00:23:02] **Andrew Cripps:** Yeah, never thought I would ever be involved in. So moving to this new building, and when people come who don't really have any skin in the game are, really complimentary of the unit and really like it, and think- we've done a good job. That's something that you've got to be proud of.

[00:23:18] **Sarah McLusky:** Must be nice as well to be able to do things the way that you want them to be. To start from a blank sheet and

[00:23:27] **Andrew Cripps:** Absolutely. The industry is changing, the legislation is always changing, so the... and the kind of work that people want to do is always changing. So the old unit wasn't really fit for purpose for any of those things. Yeah. So to have a, to build a unit that sort of fits for the 21st century- ... and the work that people want to do going forward is really important.

[00:23:50] **Sarah McLusky:** So are there any other projects that you've worked on that particularly stand out for you?

[00:23:56] **Andrew Cripps:** There was, so last year myself and a colleague joined a scheme here, it's a nationwide scheme, but at the university called Your Entrepreneurship Scheme. YES. It's called YES, another acronym. To encourage, so it was originally set up 30 years ago for PhD students to learn about commercialization and entrepreneurship. A few years ago, it was opened up to technicians as well from universities to get involved in this sort of thing. So we thought we would take that opportunity.

[00:24:31] **Andrew Cripps:** So we joined a team at the university of mainly PhD students from around various schools and university to come up with a hypothetical business plan, business idea that we then had to pitch to investors at large companies in the UK. And then we got through to the final, which was held at The Royal Society, and we won the prize for best sustainable agriculture idea.

[00:25:01] **Andrew Cripps:** So that was a really useful, interesting thing that I've never even considered or thought I'd be involved in, entrepreneurship, commercialization, those sort of business skills. Learning about patents, learning about funding, marketing, et cetera, et cetera. So that was a, really eye-opening and really shifted the way I look at work in general, and careers, and how things can go.

[00:25:31] **Sarah McLusky:** Yeah. Fantastic. Congratulations for that. So tell us a little bit more about what was the actual thing, when you said it was the best sustainable- Oh, so yes- agriculture project.

[00:25:41] **Andrew Cripps:** Yeah. So we looked we did a detectable bovine TB vaccination. Because bovine TB is a massive problem in the UK. But if you, the short answer is if you

vaccinate a cow with a TB vaccination and then you test it, you can't tell if it's actually got TB or just been vaccinated.

[00:26:04] **Sarah McLusky:** Oh, okay.

[00:26:05] **Andrew Cripps:** So this, our idea was a a marker to put on the vaccine so you can, when you do test it, you can see it's actually got the vaccine rather than TB.

[00:26:13] **Sarah McLusky:** Yeah, that sounds really useful, 'cause I gather as well there's issues with importing and exporting, around rules with whether they've been vaccinated- Yeah, and stuff like that ... it, if you,

[00:26:25] **Andrew Cripps:** It depends. You shut down whole areas of farming in the country if there's an outbreak on a farm and they can't move animals, they can't do this, that or the other, so it causes massive problems. So we had to come up with this. It's a sort of a hypothetical idea, but based on some reality of science.

[00:26:44] **Sarah McLusky:** Yeah. Yeah, and so is that something that is gonna go forward? Is somebody taking that idea and trying to figure out if they can make it work?

[00:26:53] **Andrew Cripps:** I don't know. Not me. Okay. Not you. Yeah. That's fine.

[00:26:58] **Sarah McLusky:** Yeah. If there's anybody listening, yeah, there's a market for this thing, so yeah. Yeah. See if you can make it work. Yeah. Yeah. Excellent. Oh, that's brilliant.

[00:27:09] **Andrew Cripps:** Yeah, so that was, yeah, that was a really useful experience that I would encourage other technicians to take part in.

[00:27:18] **Sarah McLusky:** Yeah, that's great as well because I think people often think of these kind of schemes as being for students or researchers. Yeah.

[00:27:26] **Andrew Cripps:** Yeah. Yeah. It was, when we did the... There's still a lot, if you looked at the scheme and similar schemes, there is a still a lot of the information they put out there is based and is aimed at students and PhD students. But you've just gotta be a technician, have a thick skin, and just say, "This is for me as well," and get involved.

[00:27:46] **Sarah McLusky:** Yeah, sometimes I feel that if you read the, if you read the blurb, it says who's this for and it doesn't exclude you, it's like- Yeah ... just go for it. Yeah,

[00:27:53] **Andrew Cripps:** exactly. Yes. Yeah.

[00:27:55] **Sarah McLusky:** Yeah. Excellent. Oh, I can see why that would definitely be something to be proud of. So I do like to ask my guests, if they had a magic wand, what would they like to change about the world that they work in?

[00:28:08] **Andrew Cripps:** I don't know how your other guests answer this, but it might be a common one, is to be, is for technicians, animal technicians and technicians in general, to be properly recognized by the university they work at, to be properly remunerated by the institute, to be recognized in publications, papers. I know this is something that is starting to be pushed more and more but it's something that I think still needs a lot of work. So it's, yeah to be properly recognized as, quite important, vital skills which, not just any old person can do. These are, people that have put a lot of time and effort into their careers and have these skills, and to be properly recognized for those skills.

[00:28:49] **Sarah McLusky:** Yeah. Absolutely. I think those skills are so valuable. I often say to people that when I... And it's true. When I was doing my PhD, the people who taught me were the technicians. You know- Yeah ... I they, they were the people that I was in the lab with every day, who showed me how to use the equipment, who showed me how to, helped me to design experiments and helped me to fix things when it was going wrong, 'cause obviously my supervisor, you know, busy doing all- Yeah, kinds of other stuff, and teaching and everything. So I'm... I think technicians just play such an important role that is so easily overlooked.

[00:29:25] **Andrew Cripps:** Yeah, absolutely. It's so surprising, or not really how much technicians do, which just doesn't get noticed, is keeping equipment running, finding that little bit of something to fix something, finding the right person within the university who can sort this, organize that. It's, there's an awful lot that goes on which is not seen or recognized.

[00:29:48] **Sarah McLusky:** Yeah. And they're very much these roles that, there are often certain roles where, you know, if somebody leaves, and then you go "what did that person actually do?"

[00:29:55] **Sarah McLusky:** And then everything falls apart.

[00:29:57] **Andrew Cripps:** Yeah. Yeah, absolutely.

[00:29:58] **Sarah McLusky:** And you just go- Yes ... "That's what they did." Yes.

[00:30:00] **Sarah McLusky:** They're the one who knew how to fix this thing, or they're the one who knew all the people who could do the various things. Yeah.

[00:30:07] **Andrew Cripps:** Yeah, absolutely. Yes. That's a common problem. Yeah. All the time. Yeah.

[00:30:12] **Sarah McLusky:** Yeah. Yeah. Oh, fantastic. So I think it, it just remains really to say thank you so much for coming along and sharing all about what you do and and some of the misconceptions that people might have about it. So thank you very much. If people want to get in touch with you or find out more about the work that you, that is happening at Reading, whereabouts would you send them to?

[00:30:36] **Andrew Cripps:** So there's, the University of Reading has our animal research pages- So we can link to those. Yeah, link to that. And Understanding Animal Research has a lot of information, and the Institute of Animal Technology, yeah, has more information as well.

[00:30:52] **Sarah McLusky:** Yeah. Excellent. I will get some links to those and put them in the show notes. Thank you very much, Andrew.

[00:30:59] **Andrew Cripps:** Okay, thank you very much.

[00:31:01] **Sarah McLusky:** Thanks for listening to Research Adjacent. If you're listening in a podcast app, please check you're subscribed and then use the links in the episode description to find full show notes and follow the podcast on LinkedIn or Instagram. You can also find all the links and other episodes at www.researchadjacent.com.

[00:31:17] **Sarah McLusky:** Research Adjacent is presented and produced by Sarah McLusky, and the theme music is by Lemon Music Studios on Pixabay. And you, yes you, get a big gold star for listening right to the end. See you next time