

Participant #1

Field: Chemistry

Rank: Professor

Q: Why did you decide to become a scientist?

A: I initially chose chemistry, because it was my favorite A-level. Originally I was going to do medicine, because I'm from a very medical family, but I wasn't wholly percent show, but for that kind of career you have to 100% dedicated. So, I thought, oh, I'll go and do chemistry and I'll see what that leads do and then and second year undergraduate I got to do a research project in my summer and from there I thought, oh, I'll do my PhD and go into academia. So, I just really loved it. I stayed in [undergraduate university] and did my PhD there. I was quite lucky. It wasn't an industrial funded PhD, so I had quite a lot of freedom just to do -- I supposed you'd just call it more academic research than applied. So, sort of pottering around and making new compounds just to see why they're interesting and so on. And then I went to do a postdoc in America in [state], but that was a bit more applied. So, that was a big funding thing that America was doing at the time, where they funded these science and technology centers in universities. I think it was 11 million dollar funded thing for a ten year rolling. So, we were doing much more applied research there, but that kind of bridged both. My postdoc research was a bit more of blue skies research, so I kind of used to potter with that on the side as well. I don't know. I just really always liked it [science]. When I started my own independent career when I came here [present university] in 199[X] unless you had some sort of application and some drive for research it was actually very difficult to get funding and so I went more and more into research that was more directly applicable to industry and getting quite strong industrial support. And now I actually probably prefer that than the blue skies, because I can actually see that potentially what we do here could be useful in the future. So, I just found it a lot easier getting funding if I sort of just linked with industry and as I did that I found I enjoyed it a lot more than just sort of making things in the lab for the sake of understanding the chemistry and so on.

Q: How would you define what a scientist is?

A: I suppose a scientist is about trying to understand what's going in the world around us. I don't know how to put it into words. I suppose it's sort of trying to discover things that can make an understanding of how we understand how processes work or the body works or industrial things or space or so on through to developing news things that would make life better for people.

Q: Some people describe scientists as truth seekers. Do you agree with that?

A: I suppose. It is quite ideal, but I do understand what they mean. With science you can say there is a right or there's a wrong, which is why a lot of scientists perhaps struggle a bit with religion, or not religion, or something science couldn't explain. I do agree with it to an extent, but I do think it's a bit idealized.

Q: When you started your academic career as an undergraduate student versus now as a full Professor, how do you think your idea of science has changed?

A: Ah, yes, we probably have. I think nowadays people are a lot more clued up on to a lot of things for example how important it is getting funding, getting your publications in the highest impact journals, trying to get citations, making sure you do cite yourself a little bit, so then those other people will then cite you so you can get your h-index higher and so on. When I started I didn't even think about that and the people I worked for didn't either. It was very much, oh, great, we got this! We must write a paper! Oh, which journal does that fit in? It didn't really matter the impact factor of the journal it was most appropriate who would that appeal to, the readership was more important. I think that's changed an awful lot. Plus when I first started the EPSRC would fund my area. They were giving out more studentships and so on. So, I knew quite a few people had very little funding themselves but managed to stay in quite a good research group just by getting these studentships. But nowadays if you don't bring in your own funding you may get lucky and get the odd student who wants to work with you, self-funded or by a university initiative, but generally you struggle if you don't bring the funding in. That's very much changed. It's perhaps taken away a bit more of the fundamental research that was easier to do back in those days.

Q: Do you believe that's a change that has happened over time, but not over your career? That it's a change between the 90's and now rather than a change based on your career developing from an undergraduate student to a Professor?

A: Yes. So, I think it was a conscious thing of the EPSRC to particularly make sure the UK was very competitive in certain areas, so they bought out a lot of different initiatives. I got a big grant last year and that was a specific call on manufacturing. It was meant to reduce the lead time from academic research to manufacturing. We do get the research done in the UK into the UK industry to keep the UK competitive. And I think that's a big difference to back in the early 90's.

Q: You mentioned early high impact factors and getting a high h-index score, do you feel that your value as an academic is really tied into hitting those marks?

A: Um. Yes, I think it has something that is brought up in appraisals now. I don't believe it's specific to [university] at all, but certainly it is something now that is important. It's still fine to do the lower impact publications and choose the journals that are most appropriate for the work, but one of my objectives is to get one or two higher impact publications per year. It has changed in that way.

Q: Is your objective to get those high impact factor publications, because it is something you need for your appraisals? Or do you believe it is the best way for your research to be shared, read, and cited?

A: I think there's probably different answers to that question. I think part of the reason is that it does help your career progression. There's no doubt about it. Obviously I'm a Professor now, but you can go up different bands of Professor and that sort of thing. I think secondly it can help with your future funding as well. For example, I had a publication in Science this year and we now want to get funding. I think the fact that we have a Science publication, we can hit that straight away in the introductory bit and reviewers will look favorably on it. I think that side of it is important.

This department did a conscious thing a few years ago by pushing the higher impact publications up, which really was a result of the last REF. Not the one that's just gone, but the 2008 one, I think. Trying to push higher. I think it really did well. There was a drive for that and obviously you see your colleagues publishing in higher impact you get a little bit competitive. I got quite a bit research group, about 20 now, and they're starting to get a bit competitive amongst themselves now, not in a horrible way. They work well together. Oh, so-in-so, got a Chemistry Materials publication and that's got a quite good impact factor and they are always driving to push it higher. It does then link back into your research as well, because one of the ways into getting a higher impact publication isn't thinking 'oh, that's a really nice result, I'll write this up,' is actually thinking, in what way can we make this a better story? So, you do do it for the science. I think perhaps initially I started doing it more for the appraisals and so on. I'm the sort of person that if I'm told to do something on my appraisal I'll try to do everything I can to achieve that. But as I've managed to do it, I can see how it benefits the science as well.

Q: You mentioned that you're the kind of person who if you're told to do something on your appraisal, you'll do it. Is that just your personality? Or is it because you feel you need to hit those marks in order to have a good appraisal.

A: No, I think I've probably changed a little bit. When I was finished the PhD and so on, I was actually a sort of a quiet, not very confident person at all. But I was quietly competitive at that point. I had been promoted reasonably quickly, but some of it has been hearing that someone else was being promoted and thinking, 'I could do that as well' sort of thing. But I think more now I would be like that. When I was just doing my postdoc and my PhD, you're so focused on the research. I was quite happy to work long hours. I would get a buzz from writing the papers. I knew I wanted to go into academia, so I knew the number of papers and publications were important. I think you get a bit more clued on to career structure as you go on.

Q: So, even as a PhD student you felt the pressure to publish?

A: It wasn't really pressure, no. I was really lucky, because the person who was my supervisor was quite a younger academic at the time, so he was very keen to publish. And I wrote my papers, but of course he had to work on them a lot when I started writing. But he had a very strong drive to publish as well. Then the guy I did my postdoc for he is a really big name in the field, so he liked to publish an awful lot as well, so the momentum just got going from there really.

Q: You said you wouldn't describe it as pressure to publish as a PhD student. Was their pressure to publish at other stages in your career?

A: It can be pressure, definitely. I'm a line manager now to a lot of people, so I do their appraisals, so I know sometimes they do feel that pressure. So, for example, they got things almost ready to write up but not quite and so the number of papers they've published has been a bit low and they might want to go for promotion. But I have to be honest with them and say, 'Look, you really need a few more first author papers to really go that next step.' I think that can be a bit of pressure for people like that. For myself, personally, I've always been in the mode of publishing. I got very lucky with results of my PhD and postdoc, so I got over 20 papers in each of them. The time I did find it hard was when I came here [university] first, because I had gone from being in a big group to suddenly being on my own. The other time it was difficult was during my two maternity leaves. You can actually see, if you look at my Web of Science profile, you can almost map the two times I was off, because it is hard to sustain that. I think that if there was any pressure, I've never been put under any from the department, from work, because I've always had a good publication record. If there has been any pressure it's been myself, personally.

Q: Do you feel your students feel pressure to publish?

A: I do think they do feel some pressure. The pressure comes more from the fact that I have quite a big collaborator with another group. So, I think they feel pressure when knowing their friend is already submitting their second paper and they haven't submitted a paper yet. One of the other persons I collaborated with has this drive for publication, perhaps more so than me, and I think the students feel that until they've done the first publication they haven't gotten the notice of the professor if that makes sense.

Q: How do you feel about Open Access publishing?

A: Mixed views really. I still need to get my head around it. All my stuff goes in the RPS, but I haven't been very good at working out the journal Open Access. I think most of the RSC agree that green Open Access, but I haven't really done much on the gold. I think the problem with it is that the UK is really driving it and not many other countries are doing it at all. I can see some benefits and I can see we are being funded some of the research by public money, and so why shouldn't it be Open Access? But a lot of it seems a hassle to me. And I know one of the rules of HEFCE that is being brought in is that you have to put it on the RPS within 3 months of acceptance, which is a real pain, because at the moment what happens is as soon as mine is published or at some point I get an email from RPS saying "We have found these potential your publications" and they do that very quickly from publication date. And if they did it from publication date that would be absolutely fine, but at the moment it's from accepted date. But no one knows it's been accepted except me, so I'm going to have to work out how --- I don't think this comes into next year --- but it just seems like a bit of a hassle to be honest.

Q: How do you think Open Access publications are reflected in appraisals?

A: At the moment I don't think they are reflected at all. That will probably be something that will become important, because a couple of reasons --- the next REF exercise, I think from April of next year, everything has to be Open Access or it can't be considered for your submission to the REF. In which case it will be quite important that they are aware of it and one way to make sure they are aware of it is during their appraisals. And secondly, [university] will need to make sure people comply, so I can see that being fed down to the appraisal system or at least the head of department.

Q: Many Open Access journals are relatively new, so many don't have high impact factors. If you found a journal that was perfect for your paper, but it didn't have the high impact, would you still want to publish in it?

A: That's a very tricky one. I get emailed all the time, "We're an Open Access journal, would you consider submitting" and I just ignore them. Perhaps I shouldn't. I suppose I got my group of journals that I like publishing in. The main reason I am hesitant is that I need to probably see people I know publish in there, so even if it doesn't have an impact factor, that there is still decent work going in there, because otherwise it just seems, what's the point? It almost seems pointless, but it probably is something I need to look into more.

Q: Would you agree that your choice of where you choose to publish is partially habit and also that you need these high impact factor publications for promotion and funding?

A: Yes. It has changed slightly, because I've changed my research a bit. But I got this scale of journals, so there's the top ones with impact factor greater than 10, then there are very good ones at about an 8 or 7, or lower ones that are below 5. So, there's a large degree is habit, but also I am aware of the sorts of journals other people read, so I feel my work is actually getting out there to more relevant people and then it's more likely to be cited.