

## Pathways Podcast Transcript: Season 4, Episode 5 – Careers Advice from Infineum

### 00:10 – Niraali

Hello and welcome back to another episode of the Warwick Chemistry pathways podcast. My name is Niraali Mehta um I'm a final year chemistry student. And I'm joined by Hannah Ben and Michaela if you'd like to introduce yourselves.

### 00:24 – Hannah

Hi Niraali, thank you for having us. So, my name is Hannah, I went to the University of Warwick between 2018 and 2022 and I graduated with a Master of Chemistry and then I went on to join Infineum in September 2022 and I joined as the Crude Transportation and Refining Chemist in our fuels development team. And yeah, I'm really excited to talk to you.

### 00:50 – Niraali

Cool. Thank you. How about you Ben?

### 00:53 – Ben

Hi everyone, I'm really excited to be here too. It's great to have the opportunity to share some of my experiences so I went to the University Of Cambridge from 1996 to 2000 and then did my PhD at the University Of Sussex in Brighton from 2000 to 2003, and then had a couple of years as a postdoc in the University Of Aachen in Germany before joining Infineum in 2005, and I've been here ever since. I've had various roles in technology, in team leadership, and I'm now in a business development and marketing role.

### 01:33 – Niraali

Great. Thank you and finally Michaela would you like to introduce yourself.

### 01:38 – Michaela

Hi everyone, I'm Michaela and I graduated from the University Of Manchester in 2019 with an integrated master's in chemistry with medicinal chemistry and Infineum this is actually my second job and at the moment I'm a chemist within the component delivery team and I do organic synthesis with specialisation and process development and scale-up.

### 02:06 – Niraali

That's great. Thank you. So, it's currently week eight of term 2 and our third years start their exams next week and at this point in the year many final years are probably starting to think about next steps and career pathways. So, with that in mind we thought that this would be a perfect opportunity to welcome back some Warwick chemistry alumni and chat to you guys a little bit about your experiences. So, let's kick off with some questions for our listeners who are looking ahead and wondering what comes after graduation. Hannah, could you share what your biggest concerns were about entering the job market?

### 02:45 – Hannah

Yeah, of course. So I think one of my biggest concerns at the time, I was very aware that when I was graduating we'd just come out of the pandemic, and I was a bit uncertain about what that was going to look like, so I was aware unfortunately a lot of people had been furloughed and I was really quite concerned about, um, how I was going to approach that. Because I was aware that we had a lot of people graduating at the same time but then a lot of people who I felt would probably have a lot more experience than I did, and I was wondering how could I compete with that. How am I going to stand out in this job market? So that was something I was really quite concerned about and then I didn't know anything about the interview process. What that would look like and I think yeah, I'm aware that's really something that was kind of playing on my mind when I first started looking and then I think it's just like it can be very daunting especially if you don't really know what you want to go into because chemistry is a field like that could be anything really, so it was very much a trying to get my head on straight. What did I want to do?

### 03:45 – Niraali

Yeah, and so how did things pan out for you. Do you think your career followed the path you expected while you were at Warwick.

### 03:54 – Hannah

It's a good question, I think when I was at Warwick, I was really open about what my career path would be. I didn't know exactly what I wanted to do, I knew I wanted to go into research, I really loved my research project in my master's year, lab work in particular. So, I knew that's kind of what I wanted to do but I was really torn at the time between approaching a PhD and doing that or whether I wanted to take the opportunity to move into industry and then what that would look like. So I think where I've ended up now, I think what I find is that it wasn't exactly what I was expecting because in my master's year I really didn't know where I was going to be, I just knew maybe it be in a lab. But other than that, it could be anything. It might have been pharmaceuticals say but what I find, yeah, it's a case of, I'm doing what I really wanted to do but I just didn't know it at the time if that makes sense.

### 04:52 – Niraali

Yeah, that makes sense. Thank you. Um Ben and Michaela do you guys have anything you'd like to share about your concerns about getting a job and your respective career paths.

### 05:02 – Ben

And I had a similar thought process to Hannah about doing a PhD and in the end, I decided that that's what I did want to do. In my first, second and third year I didn't really enjoy the practical side of chemistry, I much preferred the book side of chemistry and thinking problems through. It was only in my fourth year when I did a research project that I got the bug for doing more research and decided I definitely wanted to do a PhD and great credit to my supervisor...I worked in Dominic Wright's team in Cambridge and he was fabulously creative and really gave me the sense of enjoyment of research work in a group and I then had the dilemma of where to go whether to stay in Cambridge or to move elsewhere. And I decided that I wanted a different type of university experience. So having been to a collegiate school I wanted to go to a more modern university perhaps experience a different city as well. So, I applied to 5 or 6 different universities that were known for inorganic chemistry which was the branch of chemistry I was doing my final year project in and having interviewed at University Of Sussex in Brighton met Geoff Cloke who became my supervisor. We got on very well, I also got on well with his research group and enjoyed it.

The kind of areas that they were looking at and the environment in the lab decided that that's where I wanted to go so in the end went for a PhD I would certainly do it all again if I had the opportunity to it was ah a great three and a half years and really gave me that rounded view on chemistry from the bookie side if you like from my undergraduate work, and then the more practical and research-oriented side from the graduate studies side.

#### 06:56 – Niraali

Perfect. Thank you. Finally, Michaela, do you have anything that you like to share about your experience getting a job after Uni.

#### 07:04 – Michaela

So, for me, the decision making between getting a job or doing a PhD was relatively easy at the time. I didn't want to do a PhD based on some experiences I've had doing my master's project. So, I knew that I wanted to go into industry. Um having heard Hannah talk about how her fears were relatively concrete about the fallout from the pandemic. For me, it was much more nebulous though that I was terrified that I wouldn't be able to get a job at all. Let alone one in a field that interested me.

#### 07:44 – Niraali

Thank you. Um, so switching gears a bit. What about beyond the classroom Hannah were there any extracurriculars or research projects that were valuable for your professional development.

#### 07:59 – Hannah

So, I think I would say there was 2 different things that helped me when I was at Warwick. So my master's project that I did helped me so much really when I was coming into this job. So I did my master's project with Dr Anne Dixon at Warwick and it was a very different area, it was kind of proteins and characterization techniques. But really, I learned so many different transferable skills when I was doing that so like just for example, the resilience you need when you're going into research. Like so many different things they don't go how you plan, they don't go exactly how you expected them to and you have to learn that that's okay and actually that can be just as useful as if it had gone to plan because you've still got the information. And I just got exposed to so many different lab techniques and it was a really valuable time for me. But I think equally extracurricular activities were also really helpful. So, in my first year I was lucky enough to do some of the chemistry society outreach so we went into local primary schools and we did like little science experiments with the kids and tried to like explain some concepts to them and that was really good fun but actually when it comes to job searching that's still really important because it's, for example, scientific communication. You have to be able to pitch to different levels. So equally I need to be able to go to different academics and pitch my research project. But also, you need to just as easily be able to talk to someone who has no idea about anything chemistry related and still make sure they understand. And I think it's really your time at University, it's so much that you can bring forward and it's just yeah, you just have to look for it.

#### 09:38 – Niraali

Yeah, that's amazing. That's so similar to my experiences currently at uni like I love getting involved in outreach events and you know where you can speak to school children and teach them about science. So, I think yeah, you definitely show. Your understanding of a topic if you can simplify it and explain it to younger children. So, I love that thank you? Um so Ben um, let's talk about the big leap after uni. Um obviously securing that first job can be really daunting. So how did you tackle your job hunt. Did you focus on specific industries and companies or cast a wider net.

#### 10:20 – Ben

Yeah, maybe I can talk about my postdoc which was my first job after the PhD and then I can talk a bit about getting the job at Infineum as well. So, for the postdoc it was through a connection that I'd established during my PhD. We had a visiting PhD student from a group in Germany with Jun Okuda and I got on well with both the student and the supervisor, they gave me the opportunity to do the reverse and have a couple of months over in Germany as a PhD student working in their labs. And so, when I came to be looking for a post-doc position, I was able to get in touch with them and already have that relationship established, already have the network across our two groups. So, part of my advice to anybody looking for a job at the moment would be to work on your network find people that are already in that area, maybe in the country or the particular field, either the company or the university that you might be interested in going to and find a way to get to know them. Perhaps find somebody who could introduce you so that you can on an informal basis get to know them and what their organization and what the people are about.

And then when it came to the job with Infineum I answered an advert that was out on the website for one of the scientific journals. So, I was subscribing to that journal's job page and it came into my inbox as a job spec; I answered the advert and then there was the interview process and there was a certain amount I think of being in the right place at the right time when a particular type of profile was being looked for they wanted an inorganic chemist in a company that has largely organic and polymer chemists; relatively unusual profile for this type of Industry. So, I would say keep your eyes open for adverts. Make sure you subscribed to the relevant channels be that through agencies, websites, or different ways in which jobs are advertised so that you get as much as possible of the opportunities that are out there, and you can then go through them and see which ones are a good match and that you might want to apply for.

#### 12:45 – Niraali

Thank you. So, it sounds like networking played a really big part in securing that first role as well. So um, Michaela like wanted to ask you do you think networking played a big role in securing your first job.

#### 13:00 – Michaela

Not really, I think for me and my first job there was definitely the aspect of the right place and right time. So, my first job was only about an hour's drive from where I went to university, and I think it was that local connection that I heard about it in the first place. But other than that, I didn't really find that networking made a difference one way or another.

#### 13:28 – Niraali

Yeah, I like that you mentioned right place at the right time. Um, but like tying into what Ben said, I just wonder did you have any tips to ensure that you can take these opportunities when they come up.

#### 13:40 – Michaela

That's a good question I think, ultimately, having clear expectations about the logistics of it. So, what salary are you prepared to take, where you are prepared to move to and where you wouldn't want to live. Ah, really means that you can filter out the opportunities that are right for you and from those that aren't.

#### 14:07 – Niraali

Amazing. Thank you. And Hannah what about you? Um, would you say played a big role in securing. Your first job was it more right place at the right time, networking anything in particular.

#### 14:21 – Hannah

So, I would say for me I would very much count it as right place, right time but I suppose there was a little bit of aspect of networking but more of the University sense. So, for me for my job when I came to Infineum I actually saw the job advertised on the Warwick chemistry Teams Page. So, someone in the department has made use of the connections with Infineum and said oh okay look they're looking for a research chemist and they're keen for new undergraduates who are graduating. Ah, have a look at the job posting. So, I did, I went on the website, and I really liked everything I read, and I knew the area well as well. So, it was very much. Ah, all this sounds really interesting, let me apply, and then just from that moment on it was very much it just all fell into place.

#### 15:08 – Niraali

That's really good advice as well for students. Um, there is I know it's quite difficult to keep on top of emails but there are quite often useful tips, and you know job opportunities posted on there. So definitely keep an eye out on Moodle, on emails. Ben, you mentioned interviews when you were talking about your job hunt. Ah, do you have any tips you could share with listeners regarding interview prep.

#### 15:35 – Ben

So yes, interview Prep is very important. I bought a book that was popular at the time called [Great Answers to Difficult Interview Questions](#) and it's probably in multiple new editions since then but if it's still in print you might want to look that up. It certainly gave me a set of perspectives towards the type of competency questions that you tend to get asked, so that means questions that start with can you tell me about a time when and then you're invited to insert an experience here. Be that in leadership or creativity or problem solving. So that's the kind of thing which a chemistry degree doesn't necessarily prepare you for.

So, I would urge people to think through what their answers would be and to have plenty of examples to bring because if you have a hobby playing football, that's great. If all of your answers in a 45-minute interview are about playing football then that might not look so good. So have some examples from the football club, but then maybe have some from the chemistry society, perhaps some from your experiences on your year in industry. And then build up that portfolio of potential good answers to experiences that you've had that will come out in competency questions. You can also expect to be asked some chemistry questions and so making sure that you're reasonably on top of your work. But if you've just taken exams or you graduated recently then I'm sure that'll be the easy bit.

#### 17:08 – Niraali

That's really great advice. Thank you? Um Michaela could you share any interview prep wisdom with our listeners. Yeah.

#### 17:15 – Michaela

Oh, I wouldn't go as far as to call it wisdom. But I think maybe we could start with what an interview process actually looks like because I didn't know that when I left university. So, from my experience it can sometimes be several

stages, so you will start with a quick um interview over the phone where they will filter out the first set of candidates and then if you're successful often, especially for the bigger companies, get invited back for up to 4 hours of interviews and what will often come at that point is the competency interview Ben mentioned, also technical interview where you are asked to solve problems. Usually, what the company wants to solve, and they also often ask you to prepare a presentation. So, I think what I would advise upcoming graduates to do is to think about what they're going to be asked for and then prepare for it and also...don't forget about the logistics like you have to get there. Often, chemical companies are based in the middle of nowhere, so you need to think about the logistics as well.

#### **18:40 – Niraali**

Perfect. Thank you. Hannah, do you have anything you'd like to share regarding interview top tips.

#### **18:46 – Hannah**

So, I think Ben and Michaela really cover quite a lot of it there, all I can share is my own experiences. I think I agree you want to try and be as prepared as possible. So, whoever you're applying for I'd recommend make sure you're looking at their website, looking at what they do, make sure you're informed and then that can also help how you prepare. I mean when I first got offered my interview part of me wanted to just like cram everything I'd ever learned at Warwick in because I was like oh my goodness, what could they ask me. And then naturally I think taking a step back and thinking about what areas do they actually work in, you can kind of inform what you want to prepare. And then also like I also interviewed for a PhD and they sent me a journal article and they asked me to give a presentation on the journal article and ask a couple questions present, choose a figure and present on it, and it will be on something that you may not have ever seen before, mine was on global warming, and what you really just want to do is take a step back, think about it and read it through carefully and then look for the key facts. Um, do some other reading, look for other journal articles that might have mentioned it and just it's all about trying to be prepared as possible. But also don't stress too much if when you get to your interview, you're not prepared for what they ask you because you don't want to panic. You don't want to blank and say I don't know, just take a minute and breathe and then think it through. If it's a problem that you've not seen before what they're really looking for is how you approach the problem like how, what is your thought process, how do you do it if you're challenged? Rather than just say I don't know how I would do this, think about it and ask questions.

#### **20:28 – Niraali**

Thank you! There's ah, some really good tips. I think yeah you mentioned they want to see your thought process which is really important. There's no need to cram every single bit of chemistry. You've learned. Um, yeah, just be chill. Take a breath.

And also, what Ben said having ah a wide range of experiences. It's really key. You know you want to be able to show that you know you're not just a chemistry graduate there. Ah you want to be able to apply those. What's the word you want to be able to apply your skills that you've learned elsewhere in the department as well. So, that's great, thank you. And so, moving on to the early days of your career Hannah. What surprised you most about the working world compared to your expectations.

#### **21:16 – Hannah**

It's a good question, I think one of the biggest things when you're moving into industry from University is you're adapting to... it's a very different environment. So, for University it's very much, it's your own project, it's your degree. It's very much everything is yours to do. Whereas when you're moving into a company, there's a lot of other things to consider. You're part of a team but then also we're very much customer centric. You've got to consider

what your customer needs and safety. We're massive on safety here and it's a lot of different considerations, you have to think, take into your work when you're moving forward, not just...How can I achieve this grade or how can I do this as quickly as possible. You want to take your time, work with everyone you need to, to make sure you're getting the best possible result.

#### **22:02 – Niraali**

Thank you? Ben and Michaela, do you have anything to share about your first taste of the working world and any challenges you may have faced.

#### **22:11 – Ben**

And I think Hannah said it very well that adapting to the culture of the company adapting to corporate culture compared to university culture and the way I would give a perspective on that is that the decision-making process. As an academic it relies on the funding channels and the research purpose of the piece of work ultimately success is measured in impact be that through a university and industry collaboration or through a publication. In a company the impact is measured ultimately in the business outcomes that the R and D has enabled and so the decision-making framework has the much greater commercial element to it and can appear complex, can appear very matrixed, and decision making can appear very slow compared to a University environment. The other thing I would say is adapting in terms of culture. Every company has got a different culture to it and that's partly a product of the location. The size of the company I was coming from Germany back to the UK. So, although, British culture was familiar I was coming into an international company but also having to readapt to British working culture having spent two years in Germany. So consider the part of the country or the particular geography if you're moving abroad, the size of the company...a small startup with 10 people working out of the garage will have a very different culture to 100,000 people working for a company like ExxonMobil or BASF.

#### **24:02 – Niraali**

That's great. Thank you, Ben and Michaela do you have anything, you'd like to share about your first taste of the working world.

#### **24:09 – Michaela**

I think both Ben and Hannah talked about adapting to the culture very well. What I would like to add to that is that going from university where you're mostly in a group of your peers, you suddenly get to potentially a relatively large company, and you are working with people from lots of different backgrounds, with lots of different experiences and lots of different expectations, which can be quite difficult to navigate as a graduate.

#### **24:44 – Niraali**

Thank you. Ah so to finish off. Um I'd like to ah I'll ask this question to you Michaela and what would be your top tips for students about adapting to a professional environment.

#### **24:56– Michaela**

I think observe - look at what the people around you are doing because that's usually quite a good way to find out how things actually work. For example, for us at Infineum somehow it has been decided a long time before I got here that lunchtime is twelve o'clock. S

So at twelve o'clock everybody gets up and walks over to the canteen and that's when lunch happens and it's lots of little things that aren't necessarily written down, that could be useful.

#### **25:36 – Niraali**

That's great. Thank you so much Ben could we hear your finding top tips for students about adapting to a professional environment.

#### **25:44 – Ben**

So, when you've started in a new company you might try to find a group to join that's not associated with your main project work or your main customer if you're in a customer-facing role. So, for example at Infineum we have a running group, there's a group that meets to play football on the Tuesday evening, there's various affinity groups. There's a sustainability group that people can get involved in...there are also social groups around other different interests and that will enable you to adapt more quickly to the corporate culture as Michaela was pointing out by observing a wider group of people, getting to know perhaps those from beyond R and D if that's the part of the company you've joined. Try to meet somebody from sales, try to meet somebody from purchasing, or manufacturing, get to know them socially and find out what it is to do a day's work in those sorts of areas. That will give you a broader sense of how the company is and give you the chance to make some friends outside of your immediate working group.

#### **26:49 – Niraali**

That's amazing. Thank you, Ben, and to finish off with Hannah could you share your final top tips with our students.

#### **26:56 – Hannah**

I think my final top tips would be don't be afraid to ask questions. Everyone's going to understand, especially if it's your first job, they're going to understand that you are not familiar with everything. So just don't be afraid to go to everyone you work with and just say could you help me with this...oh I don't fully understand this. Everyone here at Infineum, they've been really welcoming, and they were always happy to just say oh would you like some help with this or I can cover this and tell you what this is for you and it's really just talking to everyone. Everyone here has had so many different experiences, different career paths, and you can learn so much just from having a quick, even if it's a talk over a coffee break. You can learn so much just from a single conversation. And then I think it's also you have to be really open to challenging yourself and coming out of your comfort zone because that's how you're going to like to learn new things and expand in your role and really grow and I think it's just yeah, being. Just try not to let fear hinder you too much and just really jump in and embrace it.

#### **27:57 – Niraali**

That's really great advice from all of you Hannah Ben Michaela thank you so much for taking the time to share your experiences with us to our listeners. We hope this episode helps you navigate your own paths stay tuned for more stories and tips on the Warwick Chemistry Pathways Podcast.