

Season Three, Episode Four – Women in Chem

00:00 Jess

Welcome to the fourth episode of the Pathways Podcast, I am Jess Man and today I am joined by Tom Ritchie, Director of Student Experience here, and also a group of second year Chemistry students to talk to you all about their experiences as Women in Chemistry and at University so far.

00:22 Charlotte, Liz, Sadie, and Sophie

Hi, I'm Charlotte. I'm currently doing a bsc, but I'm looking at a placement year.

Hi, I'm Liz. Um, I'm currently on the bsc, but with Medicinal Chemistry, and I'm thinking about transferring onto the MChem.

I'm Sadie. I'm doing the MChem and I'm doing a placement next year.

Hi, I'm Sophie and I just transferred onto the mc Chem in my second year.

00:45 Jess

So do you guys all want to give a brief to maybe a bit of history about your secondary school education and application process to University

00:57 Charlotte, Liz, Sadie, and Sophie

Yeah. Yeah. Um, yeah. I was never the kind of person who knew what they wanted to do. I didn't even really consider chemistry. It didn't really seem like an option to me. I don't really know why. It just wasn't really talked about. I don't know if that was because I was a woman or what. Um, but yeah, kind of choosing A levels, I was like, I'm quite good at it.

I get good. I'll carry it on, see where it goes. And then during A levels, actually I really enjoy this. Um, why not consider it? It's got so many options, so many doors to open. So carried it on and luckily I'm enjoying it now that I've got here. Yeah, I was similar. I originally considered pharmacy. Um, but the more I looked into it, the more I kind of realized it wasn't for.

And I wanted to do something that would open more doors for me. And I thought, what eye level am I enjoying right now? What do I want to do? And it was chemistry. So I wrote my personal segment for chemistry and now I'm here. I was going to say, I took textiles a level and was very sit close to taking textiles, um, at degree level.

And I saw a chemistry course and my A-level teacher was really inspiring. And I was like, you know what? I'll do chemistry instead. I was the complete difference. I was raised in a house from a scientist like my dad did a chemistry degree, Mum did psychology. Uh, I've got chemistry degrees going back several generations in my family. So I knew it was what I wanted to do. I picked all my A levels around wanting to do chemistry. I had a really clear idea of this is the route I wanted to go down. Um, and yeah, I set my mind to it and I achieved it, doing the degree.

02:45 Jess

Yeah I think that is so nice – it is really interesting that you all came from different backgrounds and have your own reasons for why you got into Chemistry. For me, I went to a co-ed sixth form, so a mix of guys and girls – the secondary school was all boys. It was very strange at first going into predominantly male science classes, so its nice you touched on that point.

Yeah, so I wonder what inspired you guys to all choose Chemistry?

03:23 Charlotte, Liz, Sadie, and Sophie

And for me it was my teacher. I had a really good teacher in year 12, and then unfortunately he left in Christmas year 13. And then I got a horrible teacher, but I was like, my personal statement and everything is in so I can't change my mind now. And I'm so glad I stuck with that because I'm really enjoying it now.

For me it was kind of similar, my, uh, high school and sixth form biology. Miss Jarvis, shout out to you! She was just amazing. Like she was so intelligent. She like knew her stuff. She was an incredible teacher and like as a girl wanting to do science, I really looked up to her and I was like, I want to be you. Like she was so great. So yeah, she definitely inspired me to pursue science.

Yeah, I think. I always, not knowing what I wanted to do, but always wanted to help people. I wanted to use my skills to do something that would help a wider range of people. And then sort of when I realised I could do chemistry, it kind of made sense in my head and I was like, well, why don't, I was looking at going sort of pharmaceutical direction as well, and using my skills in the best way. It just kind of inspired me to realize how much you could do with Chemistry, and how many different directions it could lead, how many different things you could try out to see what fit me to help other people best.

Yeah, I suppose I, I grew up with stories of like, my great uncle had worked for the Ministry of Defense with his chemistry degree and worked in bomb disposal devices. So that was a very sort of like explosive introduction into chemistry and really seeing sort of the... literally... the practical, yeah, the practical side of things and then how that could be used to like help people. Um, but also I got given so many science kits growing up because like, that way of thinking was really encouraged from what my parents had done.

05:18 Jess

Yeah that is really nice, its nice that you guys all have different stories that fuelled your interests. I think another really big topic the department are trying to tackle is women in Chemistry and women in STEM. So on that topic did you face any adversity about being a woman in STEM?

05:45 Charlotte, Liz, Sadie, and Sophie

Well, at my sixth form it was me and one other girl that were going into STEM to do a degree, So I felt there wasn't that much support and I don't know, I guess I was also inspired by her and we definitely encouraged each other. I just wish there was more outreach in high schools to encourage girls to go into science and to, you know. Yeah. Dunno what I'm gonna say. Develop it. Yeah. Just encourage girls to pursue what they want to do, no matter what the stereotypes around it are.

Yeah, definitely. I've got a lot younger sister, she's seven and I watch. Sort of, you know, ask her what she's doing at school this week and all this. And she always go back. She's like, Oh, I really enjoying maths at the moment and I'm really enjoying science. And it, it makes me really happy to see her talking about it. And I think even just in the time that I was that age, I think they are involving girls at a younger age to see that that's a possibility, but there's also so much still that could be done. I don't know if she knows what the possibilities of that are yet, but maybe she's too young. But I think my personal experience, I didn't...there were quite a few girls at my school doing STEM, but I definitely remember it being a conscious thought when I was picking my degree. Like, Oh, I don't wanna be like the only girl, or I don't want, I don't want, I felt a bit intimidated by the

thought that it might be a male dominated work. Actually when I've got here, I'd say it's pretty 50:50.

Yeah, I'd say too.

I remember ruling universities out if like I looked online and they like if they didn't have an almost 50 50 gender split for chemistry, I was like, I'm not going there. I just wouldn't feel comfortable. Like one university I looked at, it was like 30% girls, 70% boys, and I was like, I just can't do that. I wouldn't want to feel like one of the only women.

For A Levels. I went to a sixth form college. Um, so it was really big. So there I never really felt, um, like bad, if you want better word, um, about going for STEM. It didn't really cross my mind, but it was definitely a male dominated class for chemistry.

No, my class was 50 50 for chemistry. But yeah, I think for you still notice that there's a gradual tail of like biology is generally mainly women. Chemistry you're getting towards 50 50. And then physics is like, no girls pretty much.

Yeah. Yeah.

And I think they also, like, it's reflected on TV a lot. Like if you are having a science show and it's like chemistry based, it's generally not a female presenter or a female professor from university. Whereas if it's biology based, it is. So I think there's still a lot, there's a big gender divide. Even like within science.

There's a lot to do.

Yeah, there's a long way to go.

08:38 Tom

It is really interesting to hear your different experiences coming into study at Warwick, but I wonder if anything that you would like to see department do to better support women in Chem?

08:47 Charlotte, Liz, Sadie, and Sophie

Um, I know last year they ran, we all went to Women in Chemistry talk and that was amazing. I found that really inspirational and I think. They should basically do more of it. Um, I just, you know, they were talking about the challenges they faced, but also it was inspirational seeing these women that are professors or, and even there was someone who was not doing anything related to chemistry. She'd done a chemistry degree, but she'd done so completely different. And just seeing it, like, not just talking about it, you know, everyone's always saying like, we need to work on equality and always doing this, but actually seeing it and being inspired by these women who have been in our position and done it and smashed it. It was just like, actually it is possible. It might be hard, but you can do it.

Yeah. I think more outreach to not only us, but also more outreach within schools and within the community. Maybe even to like more male dominated subjects. Why are we not going? And yeah, I don't know. Yeah. I definitely think that like if I had of like when I was little, had.

Sciences coming to school who were women and not just seeing like men do the demonstrations. I think, I think far more people would've been interested. Yeah, definitely.

I think I would've, yeah, going into schools, having that opportunity to us to be able to go into schools and show them what we are doing and what they could do.

Yeah. Would be amazing. I think within the University, even now, there's a massive divide. I know I've looked at, like looking through the staff list of the professors. We've got 23 professors of chemistry, 21 of them are men. Like there are only two female professors of chemistry at this university. And I think about how many like amazing lecturers we've had and like women who have just, who are doctors who are doing, um, really interesting research. I think it's a real shame that still within an institute of this size, there's such a gender divide within sort of who's got the, um, the professorship and can put that in front of their name.

10:55 Tom

Yes it's really interesting to hear you say that and talk about the Women in Chem event. The department is looking to run another event this year and looking for students to be part of that.

11:07 Charlotte, Liz, Sadie, and Sophie

I don't, I think though not a lot of people turned up to it. No. And I don't know why, because there was a lot of stuff on the Instagram and things and it was just, it was our group and then like another group of girls. They were barely anyone and that was disappointing. So it was so good.

Yeah, it was so inspiring.

Also, I was going to say also within that it might have been even more inspiring and more useful if they could have talked more about their research or maybe, Yeah, gave a talk on what they did and how they got to that point in their journey and you know, it could inspire people to go in that direction and how they would get there. I think that would've been useful as well.

I don't think we learn a lot about what research is going on, especially the.

I think also things like the, the divide between, like you talked about, like not many people going, and part of that is there's almost like this stigma around like if you go to like a specific Women in Chem event, you've kind of got to admit there's a problem with your subject in a way. It's kind of like if you ignore it or like if you're not, maybe people who just aren't planning on going into lab work and people thought it was going to be aimed at those who want a academic career, whereas actually it was just for anyone, any Women doing Chemistry. Yeah. Who was good for.

12:27 Tom

Yeah, I think those are really interesting points in terms of wanting to see more examples of research that Women in Chem and Women in STEM are doing. That would be a really interesting way to have more role models that we are lacking in the department. We can't magic up women professors if there aren't people going for those roles – and there are challenges and problems around that – so we need to have other ways of creating role models in the department. And I think it is a really good point you made as well about people being uncomfortable to admit there is a problem in these things, but that is why we have these events. So thank you for sharing that.

13:07 Jess

So yeah moving off that topic and moving back to how you integrated into the course – how did you find that period when you first joined?

13:23 Charlotte, Liz, Sadie, and Sophie

I personally found it very difficult term one year one.

I think it's safe to say we all did. Yeah!

Um, I think trying to adjust to moving to uni as well as starting switching intense course. Any science course is intense –

Whilst it's all online.

- whilst it was all online for us last year. So that was another challenge added on top of that.

Um, I think the thing to say, we were actually talking about this earlier at lunch. We, you have to do it. You have to learn how to do it yourself. It's like, I don't. Saying it's really hard. I don't want to scare people off. We've all said we would all do it again, like we are in a lot better place. But it is a lot more than just doing your degree. You're moving out of home. You are shoved in with a load of random people you've never met, and it's meant to be the best time of your life is what we are taught. And actually it's really hard and you can be really sad and just want to run home.

No one says how overwhelming it's going to be. Yeah. Or how difficult it is to transition.

Yeah. And the fact is chemistry is a very intense course. So, some of your flatmates are all sat chatting, having a coffee or going out every night and they only have to do like one essay a week. And you think that's not fair. I feel like I'm missing out because I'm not doing that. But I've got so much to do. I can't.

Yeah, I remember our first Monday we had, what was it like five lectures online or something? Yeah. And I just heard everyone talking in the kitchen and I was like, I feel so left out, but I also have all this work to do. Like how do I balance it?

But then that's how we all met. Like none of us lived together last year. But I think especially in Chemistry. Your course mates become your closest friends because it's like we all know how each other feel. We will want to stick together and just work it out.

We don't have time to see anyone else.

Yeah, I think what? Oh, sorry. No, no, you're good. I think just one piece of advice, if you're listening and you are also struggling, I would just say easy said than done, but just try and chill out. Give yourself credit. You've got here, you've got the grades. You deserve to be here just as much as anyone.

Imposter Syndrome. Everyone's got it.

Yeah. I think I still have it, to be honest.

Yeah.

Yeah. Everyone's in the same boat. You're all experiencing the same things.

I thought also just it's part of your life. It's not. It's not all your life, it's part of it. You've got to still do the things you enjoy, find hobbies, go to societies, just hang out with friends. There's no pressure to, and also if you don't want to do that, there's no pressure to do all the things. Just do what you want to do because you'll get there. If it doesn't work out, it doesn't work out. If it works out, it works out. You're what you're doing now and that's what matters.

And so, we said earlier as well that university is like advertised as this place where you'll make loads of memories, but I think we can all say that we'll be friends long after university and we'll carry on making those memories. So it's not a...

So the be all in end all. If it's not the best

You're here to get your degree so you can open doors to the rest of your future. But it doesn't mean time stops, your life stops until you get to that point. Like you still have to live your life even though you are doing your degree. But yeah, like I said, we would all do it again. We really glad we are here, but it is a journey. There are ups and downs and shouldn't feel bad if you feel sad. I think that's, I felt guilty that I found it hard cause like everyone else is like they're having an amazing time and I should be. Yeah. It's okay to feel how you're feeling cause that's how you feel. Just accept it.

I think we don't realize how much other people are struggling. Like I thought all of you guys seemed absolutely fine. And then talking to you, like I cried every week. Oh my God. So did I. We were all crying every week.

I don't think I realized how bad it was until we were talking out about it as a group and I felt all of that.

And when we were actually in person and second term and seeing each other every day. And I remember talking to my parents at Christmas being like, I don't want lectures to become in person. It's going to be horrible. Yeah. Be awful. I'll have no time to do anything. And now it's like looking back, like I was mad to think that. Yeah. Yeah. It's like I can now have friends I can see people. First term, first year was hell, doing everything online. I'm so, I'm so glad no one will ever have to go back to that again. Cause I wouldn't wish, wish out on anyone.

But no, it's just you're figuring so much out. Like we've all said, how much happier we are this year and we are enjoying the course more. And you know, it's always a lot to balance. A Chemistry degree is a lot of work. But if you enjoy it and if you are, you know, you don't have to be crazy passionate about it. It doesn't have to be your life.

But it's a cool part of your life.

Yeah. Yeah.

And it's a little bit like bragging rights. Yeah. I do a chemistry degree. Yeah. I'm cool.

A number of times. I've brought it up in conversations. I was at a Christmas market and I brought it up with, um, with two of the stores I went to. And one was because this guy was trying to explain electro plating to one was jewellery store. And I was like, I know about it.

18:33 Jess

Yeah thanks for that guys. I think you've touched on some fundamental points for prospective students – we are all in the same boat and awkward situation of being in a new situation. It is enlightening and good to show them it is not as daunting as it first seems. So moving onto the final stage of this podcast, I have a final question...what tips would you give for women and other girls wanting to come and study Chemistry at Warwick.

19:18 Charlotte, Liz, Sadie, and Sophie

I would say do what you enjoy. Don't let anyone or anything stop you. If you enjoy a subject and you are good at that subject and you want to pursue that, do it. Go for it. Don't think about the stereotypes. Don't stress yourself out thinking what it might be like or what could happen. I think just go for it.

Yeah, just do it.

Just do it.

Yeah. Don't give into the imposter syndrome. I think you might not think you're good enough, but like if you are thinking of doing a Chemistry degree, you are good enough to do a Chemistry degree. Like the fact it's crossed your mind means that you enjoy the subject enough. You are probably good at it and can do it. Like don't, don't. You are your own worst enemy sometimes. Convincing yourself, you're not capable.

I think also try and find empowerment in the fear.

Kind of like use it to drive you.

Yeah. Use that as a driving force. If you are feeling a bit apprehensive, think no, I am going to do it. I am going to do it for myself.

I think that's what changed for me. I was like, it scares me, but I don't, I don't like being scared of things, like I want to prove myself wrong, so I just do it. Yeah. And I think also, stay true to yourself. I think it's very easy in first year, you want to fit in with people, you want to find friends. So you, you become someone to please other people and then you get to sort of second term, you're like, What the hell am I doing? Like, this isn't who I am. And the fact is, you will find people if you, if your flatmates aren't the people you get along with, you will find people. You do it just happens. University is such a big place. Don't stress about finding friends because you will. It's inevitable.

They will find you.

They'll find you. I can't get rid of this slot.

I was going say, one of my best friends, um, in one of the societies I'm in, I met her because I had a breakdown crying at a party in her flat and ended up hugging her cuddly toy while sat on her bed. Um, and yeah, and found out we were in a society together and now we are good friends.

Yeah. Like I was saying, I think recognising that your life and uni aren't separate things. They're the same thing, and you've got to be happy. That is the main objective, surely for everyone, is to be happy. So just focus on that and see what happens.

And do whatever makes you happy.

21:40 Jess

That's amazing and the perfect way to end the podcast, so thanks for that guys. A massive thank you again to Sadie, Charlotte, Sophie, and Liz for joining us today to share all your experiences. Join us next time in the next instalment of this podcast, thanks everyone, Bye!

22:02 Tom

Bye!

22:05 Charlotte, Liz, Sadie, and Sophie

Thank you.

Thanks.

Bye.