

Meet the Academic – Dr Claire Dancer

Introduction

My name's Doctor Claire Dancer. I'm an associate professor here at WMG and I lead a research group working on ceramic processing of materials.

What route did you take into your current role?

I started off with an undergraduate degree in natural sciences and I specialized in material science and carried on to do a PhD in the same subject at the University of Oxford. After that, I became a postdoctoral researcher for five years and moved here in 2013 to start my own research group as an assistant professor. And since then I've been climbing the ladder up to associate professor.

When you were younger what did you want to be when you grew up, did you want to be a scientist?

I really did enjoy science at school. It was probably my favourite subject when I was very young. I wanted to be a ballet dancer, but when I realized I wasn't graceful enough, I decided science was for me. But yeah, always had a fascination with science.

What inspired you to become a scientist?

Well, definitely my dad inspired me coming from a family of where someone's an academic and they can show you the way is a really valuable thing. And I was really lucky to have that, and so he definitely inspired me. Another person who inspired me was Jocelyn Bell Burnell, who she discovered pulsars during her PhD. Remember reading the story of how she discovered them, how she went through the process of not being believed and really stayed persistent with her discovery. Really inspirational. I was lucky enough to meet her when I was in Oxford and it was really, really interesting to hear her story and all the things she had to go through. She's still resilient and still going.

What challenges have you faced over the course of your STEM career?

So there's always a lot of challenges in science, and it's difficult to get to the point where you can be independent. That's a big challenge for everyone who come in at a lower level. You spend a lot of time being told what to do by someone else. With that, it's all about persistence, and showing that you have the skills and looking for opportunities to to jump forward. Another thing I've had to overcome is that I didn't used to like standing up and talking to people, I think a lot of people think if you if you're a university academic, that's your job and you must have always been good at that. But as a teenager I definitely wasn't good at this and I've had to learn how to prepare and how to get myself through it in a way that means that I can do it for my job.

What advice would you give to someone aspiring to go into a STEM career?

The main piece of advice I would have is don't be confined to the subject you study at school. You study physics, chemistry, maths, computer science, biology. Those aren't the only science subjects out there. There's lots of things that sit in between. So my field, material science. It's a bit of physics. It's a bit of chemistry and it's a bit of itself. It's a different thing as well, and you won't get to experience that unless you get a chance to try it out. But there's always opportunities to switch track, change yourself into a slightly different version, move maybe more towards engineering. And you know, move fields slightly and do something you really really love.

What would be your dream research project if you had unlimited funds?

I would go and do all my experiments in space. I'm really fascinated by this idea that if we're ever going to go and colonize Mars, for example, or set-up a base on the moon, we're going to have to manufacture things there and there won't be the same gravity and an awful lot of our manufacturing processes assume we have gravity. So what happens when you take that away? So if that was an option, give me lots and lots of money and a big spaceship and we'll go and do some experiments on Mars.