A day in the life of a Higher Education lecturer

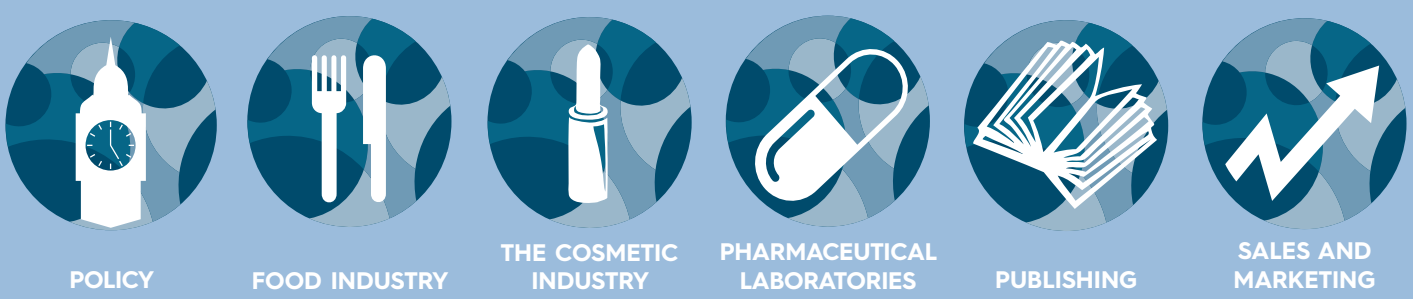
David Smith is a Reader in Biochemistry at Sheffield Hallam University and a National Teaching Fellow. He is a Senior Fellow of the Higher Education Academy and has received the Sheffield Hallam Vice Chancellor's Award for Inspirational Teaching, as well as the Royal Society of Biology Higher Education Bioscience Teacher of the Year Award 2019. David has been an active researcher in the field of biosciences for over 20 years, focusing on the molecular basis of neurodegeneration in diseases such as Alzheimer's and Parkinson's. He completed a PhD at the University of Leeds, before working as a postdoctoral researcher first at the University of Melbourne and then at the University of Leeds. Lorenza Giannella (Training Manager, Biochemical Society) spoke with him about his work.

How did you get into science?

I have always been fascinated by exploring how things work. At school, I had a fantastic biology and chemistry teacher who really made the subject come alive for me with practical hands-on experiments and field trips. Not being able to decide between biology and chemistry for a degree I went with the best of both and did a BSc in biochemistry at the University of Warwick. During my degree, I became captivated by protein folding and amyloid formation (protein misfolding) and went on to do a PhD at the Astbury Centre (University of Leeds) with Professor Sheena Radford. Following that, I was lucky enough to gain a Wellcome Trust travelling fellowship and did my first postdoctoral work at the University of Melbourne, Australia. There I picked up skills in cell biology and used my knowledge of spectroscopy to investigate protein aggregation in Alzheimer's disease. I then took a second postdoctoral position in the UK, developing the method of ion mobility spectrometry mass-spectrometry to investigate protein conformational change and amyloid assembly, before getting my lectureship position in biochemistry at Sheffield Hallam University.

Can you describe a typical day?

I teach on the topics and methods that I use directly in my research, so a typical day is a mixture of both. Most days start with a train journey to work catching up on new papers on teaching or biochemistry. I lead my own group looking at the molecular basis of Parkinson's disease, and I will often have catch-up meetings on one of my research projects. Around an hour or two is spent with my PhD students looking over new data or Skyping collaborators about grants we are writing. Teaching undergraduate students is a big part of my job, and during the semester, a lot of time is spent in face-to-face delivery. Lectures and teaching sessions will be centred around methods used in biochemistry with examples taken directly from my own research or the papers I have read. I often ask the students to solve the problems we



are facing in the lab so they get to put into practice what they have learned. I also like to try out new ways to teach and will experiment with different teaching methods during my sessions. Those that work well I share with other lecturers on my blog or twitter on the way home.

What's the most interesting project you've worked on?

In my teaching, the most interesting project has been looking at why students sit in a particular place in the lecture theatres we use. The research determined not only where the students were sitting but why they chose that location. We found that students would sit in friendship groups, whom all gained similar marks during assessments. Most importantly, we found that anxious and nervous students would sit at the edge of the room. It was interesting as it challenged the idea that 'good' students sat at the front and made us change the way we interact and teach in that environment.

What is your advice for someone who would like to pursue a career as a lecturer in higher education?

You will need to find your niche, an area that you truly enjoy working in as you will live and breath that topic. If you're a PhD student or a postdoctoral researcher, try and get some teaching experience and work towards getting your Associate Fellowship of the Higher Education Academy; it will give you an edge during the interviews.

What inspires you about your job?

The best bit about my job is the freedom I have to follow my interests and explore my ideas. If I want to do some research into a new idea, I can plan some work, get preliminary data and write grants to follow it up. If I have a new idea for a teaching session or a way of interacting with my students, I can go ahead and try it out. All the time, I am gathering data and evidence to share with others. ■

Job Profile – Higher Education lecturer

Higher Education (HE) lecturers teach their subject of expertise to undergraduate and postgraduate students, and undertake research and administrative duties in their specialist areas.

Qualifications and key skills

A PhD relevant to the subject you want to teach is essential for almost all disciplines. For more vocational modules or courses, you may not need a PhD, but several years of work experience, as well as a good degree in a relevant area and a professional qualification (for example, if you'd like to teach a specific module on a Biomedical Science degree, you may need substantial experience as biomedical scientist and a Certificate of Competence for the Health and Care Professions Council (HCPC) registration).

The majority of HE lecturers also have, or are working towards, a teaching qualification, such as the Postgraduate Certificate in teaching and learning in HE, after which they are awarded a Higher Education Academy Fellowship.

Additional requirements are an enthusiasm for your areas of expertise, published research, excellent communications skills and the ability to manage your time within competing demands.

Responsibilities

HE lecturers plan and deliver curricula, lectures and tutorials, set and assess coursework and exams, and supervise students' research activities. They also carry out administrative tasks related to the department and contribute to the research profile of their institutions. At a more senior level, lecturers can be responsible for managing other staff in the department.

Salary and career development

The nationally agreed single pay spine covers the majority of HE institutions within the UK. Salaries typically range from around £35,211 to £58,089. HE lecturers can develop their teaching skills and research profile for career progression, taking up more senior lecturing roles and managerial duties, and positions such as chair, professor or dean.