



Profiles	Government agencies
Name	Jeremy Hyett
Age	34
Job	Separation scientist

I enjoy working in a relaxed, friendly environment. The job is challenging and it is very rewarding when I am able to solve some quite tricky problems.

Career path and qualifications so far

I studied Maths, Physics and Chemistry at A Level, then went on to do a BSc course in Chemistry with Physics at Plymouth Polytechnic. After graduating I moved to the University of Leeds to carry on my scientific studies with a PhD in Physical Chemistry.

My first job was a postdoctoral research position, also in Leeds. I was then offered a role as Head of the Analysis Laboratory at BHR Group Ltd, an independent group of technology companies specialising in fluid flow (eg water purification and waste disposal).

Finally, I moved to my current role as a Separation Scientist at the Laboratory of the Government Chemist (LGC), Europe's largest independent analytical and diagnostic laboratory. LGC carry out chemical, biochemical and forensic analysis, DNA testing and genetic screening, research, method validation and consultancy.

Has anything you've done been especially useful in your career?

At Plymouth I joined the Jiu-Jitsu club, where I developed many useful skills, including the ability to stand in front of crowds with confidence. In time I got involved with the running of the club, and gained experience of controlling budgets, managing other people and organising large social events. All of these skills were readily transferable to new roles throughout my career.

What is a Separation Scientist?

As a Separation Scientist I separate a range of different types of compounds (pharmaceuticals, environmental contaminants, illegal drugs, etc) from mixtures using several techniques, but mainly chromatography. I then have to identify the compounds, usually by using a spectroscopic technique such as mass spectrometry or ultra violet detection. However, before I can carry out the separation, the mixture of compounds must be extracted from its initial matrix (such as urine, eggs, meat, soil or plant material). For example, when testing for illegal drugs in humans, such as heroin or amphetamines, the matrix is urine.

Day to day activities

The job involves developing different assays or methods for separating and extracting the compound I am interested in. For example, I have recently been working on a procedure for detecting cannabis in hair. Hair acts like a memory stick that stores information about everything a human has been doing. So, if somebody has been taking drugs on a regular basis then both the newest and the oldest bits of hair will contain traces of the drug. This is useful for Forensic Scientists as it tells them if somebody has been using drugs for a long time or has just taken them once.

Whilst the method development part of the job is fun, it is also necessary to analyse samples. This can sometimes be mundane, but it is no good having a method if it is not used and the results of the analysis are important. In most cases, don't know what the answer should be and so it is vital that the results I get are accurate.

Other parts of the job include looking at new technologies and new ways of analysing things. This involves internet searches and going to the library. It is important that I have a good understanding of new technology as it can save the company money and help me improve the analysis.

Does your job involve travel or activities outside the office/laboratory?

LGC is a contract research organisation so it looks to find work from larger companies. Our sales staff visit other companies and sometimes invite a laboratory person, such as myself, along to answer some of the more technical questions. This is interesting as it allows me to see how other laboratories operate. I occasionally attend conferences, both in the UK and overseas and have given a presentation at a conference in Orlando. Fortunately there was quite a lot of time to see the sights and I had a great time.

Further qualifications

I have been on several management training courses, both at LGC and when I worked at BHR Group. I found this a great way to develop new skills and to learn different techniques for helping me to communicate with and organise my staff.

Why did you choose your current job?

Although I enjoyed working at BHR Group, I had reached a point where my role could not be developed any further. Also, it was quite a small company and I wanted to experience the different environment of a larger company, although that's down to personal preference. I have always enjoyed analytical work, so I wanted to stay in this field. The job with LGC provided a fresh challenge in a much larger organisation and gave me new career prospects.

What do you most enjoy about your job?

I enjoy working in a relaxed, friendly environment. The job is challenging and it is very rewarding when I am able to solve some quite tricky problems.

What skills do you need, other than your scientific knowledge?

The ability to communicate with and influence people is key to doing this job well. Everyone has to share expensive equipment so it is essential that we tell each other what work we need to get done and plan accordingly. Good presentation skills are handy, as I have to do quite a few presentations now – at meetings and for training purposes.

Having an efficient way of working is also important, as is being reasonably neat and tidy – hours of work can be lost if I put a sample down somewhere and forget where I put it! Being realistic about how long things will take is also a good quality to have.

Is a science degree essential for your area of work?

Although LGC does recruit some people with A Levels, all the staff at management level have a science degree. Having a science degree is a major benefit and allows quicker career progression as you already have a good deal of practical knowledge and are ready to apply it. Also, many of the general skills you develop whilst doing a degree like Chemistry (communication, problem solving, data-handling, etc) make you very attractive to employers.

How do you hope your career path will progress?

I am hoping that I can move into more senior positions in the near future. This will take me away from the laboratory and will require me to use even more of the transferable skills I mentioned earlier.

Examples of other career opportunities in this area

Analytical Chemist – quality control departments employ a lot of analytical chemists but they may also work in research, customs, forensic science and a wide range of other areas.

Research Chemist (eg Flavour Chemist), Associate Scientist (analytical chemistry) – researchers work on a wide variety of projects in many different organisations and companies, from large pharmaceutical firms to small and medium-sized enterprises, to research charities and academic institutions.

Laboratory Technician – technicians work in all sorts of organisations, from government agencies to industrial research laboratories, to academic institutions.

Further information/contacts

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