



<b>Profiles</b>	Product Development
<b>Name</b>	Mark Staff
<b>Age</b>	29
<b>Job</b>	Project chemist

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### Career path and qualifications so far

Although I started studying for A Levels in Physics, Chemistry and Biology, I decided that this wasn't the right route for me. Instead I left school to take a job as a Laboratory Technician at a small ink manufacturer, where I stayed for three years. I then moved to Sericol Ltd (now Fujifilm Sericol), a large international inks company. I began as a Laboratory Technician. Over the past eight years, support from the company has allowed me to study part time to gain a GNVQ (General National Vocational Qualification) in Science, an HNC (Higher National Certificate) in Chemistry and an HNC in Print and Packaging. These qualifications and my increasing experience have led to several promotions. I am now a Project Chemist with responsibility for my own set of clients and am in the final year of a five-year part-time BSc degree in Colour Chemistry, Print and Packaging at the University of Leeds.

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

A good understanding of chemistry is necessary for my job so gaining an HNC in Chemistry was essential for me to progress beyond technician level. My degree is very relevant to the area of chemistry in which the company operates and the course also includes detailed information about the final application (printing) of the products I develop. This is helpful when I meet customers to talk about how they are using the inks I've formulated.

### What is a Research and Development Project Chemist?

As a Research and Development Project Chemist I am in charge of formulating new ranges of ink. Inks are used for all sorts of applications, from printing CDs to household products to billboards. They have to be formulated differently depending on their final application. They might need to be weather resistant, detergent resistant, flexible, hard or quick to cure (dry) and the customer may require an ink with all sorts of other properties depending on how it is to be used. I have developed inks for customers ranging from Body Shop to AOL.

I am involved in the whole development process, from the initial fundamental research to sourcing raw materials, product formulation, scaling up procedures for large-scale manufacture, customer trials and final manufacture.

### Day to day activities

I have responsibility for supervising others, as well as working in the lab myself. I carry out fundamental research to try to understand the different mechanisms involved in the way inks behave during the printing process. This involves making simple test inks on a small scale in the laboratory and analysing how they behave under a range of conditions. I also evaluate raw materials, meet with suppliers and attend technical meetings.

Formulation of new inks takes up a large amount of my time. I start with a few basic raw materials and carry out tests at every stage of development until I can produce a finished product that satisfies all the goals of the project. I then attend customer trials around the UK and worldwide. I also meet with customers on an ongoing basis to provide technical support if problems arise.

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

I travel to other Sericol sites and to customers around the world several times a year. I also occasionally attend conferences abroad.

### What do you most enjoy about your job?

My role is extremely varied. I do a mixture of laboratory and office-based work, and work together with other departments within the company such as Quality Control and Production. I particularly like having contact with customers and it is always a great feeling to see inks that I've developed on the packaging of well-known products in the shops.

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

Good commercial awareness is important. The ability to communicate clearly with customers and to build up good working relationships with them is vital, as is good time management.

### Why is it useful to study a science subject at university?

A good knowledge of chemistry is essential for my job and has allowed me to progress to a more senior position within the company. My studies have also helped me develop a systematic approach to my work and good report-writing skills.

### Examples of other career opportunities in this area

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

Analytical Chemist, Quality Controller – 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 Scientist – 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.

### Further information/contacts

The Chemical Industries Association (CIA), Kings Buildings, Smith Square, London SW1P 3JJ  
Tel: 020 7834 3399 [www.cia.org.uk](http://www.cia.org.uk)

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### For further information on careers in the chemical sciences contact:

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