

# > Case Study

Emma Roberts

STEM WORKS

Cogent skills  
for science industries



## Profile:

**Age:** 19

**Location:**  
Macclesfield, Cheshire

**Company:** AstraZeneca

**Job:** Analytical  
Scientist Apprentice

### My job – what I do

I am a second-year apprentice in **Pharmaceutical Technology & Development** at AstraZeneca. I work in the on-market support team and I am responsible for testing the ingredients of drugs.

### My qualifications

GCSE's in Maths, English, Chemistry, Biology, Physics, German, History, Geography and IT AS Level in Maths and Applied Business A Levels in Chemistry, Biology and PE Now studying towards **FdSc** Chemical Science.

### How I got into science

I came straight in to an apprentice role within industry after completing my A levels. An apprenticeship was so much more appealing to me than going on to university as they combine both practical and classroom based learning which is much better suited to my learning style. Taking this route in to science was one of the best decisions I have ever made, I will complete my apprenticeship with a Foundation Degree from university, with the chance to top up to the full BSc, 3 years' work experience in industry and no student debt.

### What I do on a typical day

There is no such thing as a typical day, every day is different. The work I do is the establishment and development of new **methodologies**, it is not routine test work. My job role is 80% lab based and 20% office based. When working in the lab I conduct analytical testing using specialised equipment and procedures. When I am working in the office I write up experiments, plan future experiments and draw conclusions from analysis that I have conducted in the lab. I take part in other activities to improve processes within the business such as **SHE** activities.

### Best 3 things about my job

1. I love that my role is patient focused, it is easy to forget how you impact patients' lives when you are not in contact with them, however it is an amazing feeling knowing that the work I complete daily helps to deliver medicines to the patients in need.
2. Every day consists of on the job learning as I am surrounded by AstraZeneca employees who are passionate experts at what they do.
3. There is a lot of flexibility within my role and I can learn about different areas of the business. We get a lot of time to focus on our personal development and this is key to success.

### The biggest science inspiration

There are many people within the scientific industry who are inspiring, however those that challenge the boundaries and question others in the industry are those that stand out the most to me. Frances Kelsey, an FDA inspector prevented the approval of **Thalidomide** in the USA. The Thalidomide disaster meant that over 10,000 babies were born with disabilities. Kelsey's work prevented this number from increasing.

### In the future

I would love to secure a permanent role at AstraZeneca as an associate scientist in an analytical development team, my first year has confirmed my passion for **analytical chemistry** and this is something that I wish to continue with. I would also like to continue my university studies to complete the full bachelor's degree.

### Why should young people consider a career in science?

Science is so much broader than I ever imagined it to be, there is more to science than becoming a doctor and it is a rewarding job to be a scientist who, as part of their daily role, impact the life of others in one way or another. There are such a wide variety of jobs and the need for more scientists is growing in this country. Scientists can challenge current knowledge and collaborate with other scientists to discover more about life and understand the bigger picture and the whole truth.

### Jargon Buster

**Pharmaceutical Technology & Development** - Pharmaceutical Technology is a science-based course that teaches graduates skills in developing and delivering drugs and medicines.

**FdSc** - stands for Foundation Degree which is a different level degree. Some people will 'top up' their qualification to gain an BSc.

**Methodologies** - specific ways of doing things that may be used to interpret or solve different problems within a specific area of work.

**SHE** - Safety, Health and Environment.

**Thalidomide** - Thalidomide is a drug that was developed as a sleeping pill, but was prescribed to pregnant women to prevent morning sickness in the 1950s and 1960s. It caused unexpected and serious damage to unborn babies.

**Analytical Chemistry** - An area of chemistry that uses equipment and methods to separate, identify, and quantify material such as the active drug or the formulated medicine (e.g. tablets).



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