

## Industrial placements: a guide for recent graduates, graduate & postgraduate students

A summer internship, trainee programme or an industrial placement during a postgraduate degree can kick-start your career and help you build a network of professional contacts. They also provide an opportunity to receive on-the-job training while gaining relevant work experience.

### What are internships?

Internships are temporary positions with an emphasis on training 'on the job'. Internships are usually intended for recent graduates without a large amount of (relevant) work experience.

The term 'internship' covers a broad range of schemes and programmes, but these commonly fall into three categories.

**Summer internships:** usually around three months long

**Graduate trainee programmes:** temporary employment schemes often with structured training

**Postgraduate degree-integrated industrial placements:** PhD programmes that are part of [CASE studentships](#)

### Why do an internship?

An internship is a great way to achieve the following.

- Find out whether a job is for you and find out how your degree course fits into the wider world.
- Explore jobs that aren't directly related to your degree or to gain industrial experience within the area of your degree.
- Kick-start your career, and become more employable by gaining new skills or developing existing skills in a new setting; many employers look for experience on your CV and you might benefit from a business reference.
- Build a network of professional contacts and connections; the internship may even be your foot in the door for a permanent position.
- Gain insight into the way organisations operate and the challenges they face.

■ [Find out what others say about doing internships](#)

### Finding internship opportunities

- Some universities (placement or careers offices) offer internship services by drawing from their extensive network of companies and organisations.
- Many large companies offer internship or graduate trainee programmes, search company websites or online job boards such as [ChemistryWorldJobs](#) or [Cogent Skills](#).
- You could approach companies directly, ask for internship opportunities or write a speculative application.
- Doctoral colleges often support industrial placement during postgraduate studies.
- Certain PhD studentships (such as CASE) or doctoral training centres arrange industrial placements during postgraduate studies or collaboration schemes with an industrial partner.

### Payment and salary

- Internships that involve fixed working hours, tasks and responsibilities similar to a permanent employee need to be paid. Unpaid internships, though rare in the science sector, are illegal and should not be accepted.
- Employers [have to pay](#) at least [minimum wage](#), though many decide to pay [living wage](#) or above.

- If your placement is part of a university degree, employers aren't legally obliged to pay you, although it is still strongly recommended. See our guidance for undergraduate industrial placements for more information.

## Useful links

- [RSC Careers](#): careers and advice across the chemical sciences
- [Making internships work](#): quick guidance on internships
- [Prospects](#) and [Step](#): Internship advice and international internship opportunities
- [The Biopharma Skills Consortium](#): Resource collection on placements in the biopharma sector

## Case studies

### Pharmaceutical development graduate trainee programme at AstraZeneca

Clare Gregson's career at AstraZeneca started with an industrial placement during her undergraduate studies – now she's completing the company's graduate trainee programme.

When Clare started studying at the University of Liverpool she didn't initially want to do a placement. However, a presentation by multinational biopharmaceutical company AstraZeneca promoting industrial placements changed her mind; Clare transferred to an MChem course with a year in industry, which she did at AstraZeneca.

“I enjoyed being in the lab full time. This made me realise that I wanted to continue on to an industry career rather than an academic one”

Her experience that gave her the necessary business contacts to open up further opportunities and Clare returned to AstraZeneca for a three-months placement after finishing her degree. “They were looking to bring some ex-students back to do some publication work over the summer”, Clare explains.

That same summer, AstraZeneca launched its global graduate programme for which Clare was accepted. “In my year group there are 17 people, a mixture of chemists and bioscientists”, Clare explains. “The second year group is even bigger now; 30 graduates globally.”

Split into three rotations, the programme introduces trainees to a variety of different research departments. “I did computational chemistry, medicinal chemistry, drug metabolism and pharmacokinetics (DMPK), and structure and biophysics”, Clare says. “AstraZeneca encourages you to step outside your comfort zone. For me, DMPK, and structure and biophysics were quite new but I got training and support when I first started and became more independent as the rotation went on.” Apart from their team and manager, each trainee gets assigned a mentor from a different department who offers additional support and insight into other areas of the business.

Clare has now secured a permanent position at AstraZeneca. “I'm happy that I joined [the trainee programme]. You're very much project-focused and get a wide range of experience within the pharmaceutical industry, which will be very helpful when I start in my role in September”, she says.

### PhD placement at drug development organisation Argenta, a Charles River company

Working alongside a group of medicinal chemists, Jo cracked one of her key research problems.

Jo Sampson is a final year PhD student at the University of Bristol's centre for doctoral training (CDT), where she researches new organic synthesis routes. The doctoral training centre maintains strong links to industrial collaborators, and many students' projects are funded by industrial sponsors. “My project wasn't picked [to be funded] by a company straight off”, Jo recounts. However, CDT managers identified a placement opportunity at Argenta, a Charles River company in Harlow, Essex, UK, that supplies research and development services for the pharmaceutical industry.

For three months, Argenta hosted Jo as a visiting researcher in their laboratories. “I was in the lab with nine scientists who worked for the company”, Jo explains. “I was in the lab almost as if I was part of their team but actually I was working on my own [PhD research] project. In order to get a taste of what it would be like to be in their project group, I attended some of their group meetings.”

Two mentors supported Jo during her time with Argenta, introducing her to the new lab and to the world of industrial medicinal chemistry. Using the company's high-end equipment gave Jo more time to reflect on her work and the experience stimulated daily knowledge exchange between Jo and Argenta's researchers, helping them tackle some of their chemical challenges. "The placement came at a time when we had hit a real barrier in my research", Jo explains. "We were having trouble overcoming a key step in my total synthesis, but with the help of a fresh set of eyes and a new environment, we managed to crack it!"

‘It was probably the most productive time in my PhD. It solidified the fact that industry is a career I'm interested in.’

For the placement Jo relocated from Bristol to Harlow, where Argenta had arranged and paid for her accommodation. Jo thinks that the upheaval of moving to a new location for only three months may put some people off, but "working in this fast-paced environment rubbed off on me", she laughs.