Day in the life

…of a food biochemist

by Amanda Hellyer

How does a biochemist start her day? Quiet moments of contemplation and scientific thought? Not for me!

Our daughter’s biological clock sets the pace and I am jolted awake into a whirlwind of two young children (though it seems like more!), breakfast, school bags, PE kits and music books. Fleetingly, I consider the biochemistry of taste and smell as breakfast is devoured, and for a moment my mind is detracted to yesterday’s surprising results. But only for a moment, before the milk is spilled. There’s certainly no time for biochemical reveries in our house.

Mercifully, the pace begins to ease when I walk out of the door, leaving my husband to take our children to school. I enjoy the drive to work. It’s peaceful and only 15 minutes by car along quiet country roads. On a busy day I encounter no more than a dozen cars and the post van. Today the weather is bright and cold and the hoarfrost sparkles in the early morning sunshine. I arrive at work at about 8.30 in the morning, calm and ready to become a biochemist again.

Colworth House is situated in a North Bedfordshire village and was once a privately owned country estate. Now, 50 years later, it’s part of Unilever Research. The main house is surrounded by modern, purpose-built laboratories, and everyone has a view of the countryside.

But now it’s down to work. I check my e-mail, glance at my diary and then I’m off to the first task of the day, notebook in hand.

I currently work on spinach but, like most of my colleagues, I have worked on a number of project areas over the years. As a biochemist working in the food industry, projects come and go, and it is important to be flexible and to learn quickly.

I’m new to the spinach programme and was on a sharp learning curve for the first few months of this year. The programme covers a wide range of research activities, from cultivation to consumer science, with the aim of delivering new and superior products to the business. In Britain we generally prefer peas, but Unilever markets both leaf and creamed spinach all over Europe. Fortunately, I do actually like eating spinach.

My role in the team is centred on flavour. In particular, I’m trying to establish the link between spinach flavour perception and natural flavour molecules, so that we may identify markers for high-quality spinach. We intend to use these markers to select new varieties with improved flavour.

My first task today is to find out how my colleague John is getting on with some aroma analysis. The mass spectrometer has not been working well recently and we have some important experiments to perform next week. The engineer has been called, and John is hopeful that we’ll be ready.

Then it’s off to see Marie in
Consumer Science. We discuss the experiment for next week and the selection of spinach samples for the sensory panel. The latest results are coming in from the Dutch Preference Map study and we are starting to understand which spinach products Dutch consumers prefer and why. We are pleased to see that our products are rated highly.

I walk along many corridors in the course of a day — I’m sure the exercise does me good. E-mail is an important line of communication across the lab, but I prefer to discuss issues face to face.

When I return to my desk, I check out flights to Amsterdam to work out my schedule for next month. There is a flavour science meeting organized by our sister laboratory in Vlaardingen, The Netherlands. It’s a good opportunity to make contacts and learn about the flavour of a wide range of Unilever food products. But for now my thoughts are back on spinach, and I phone Sandra in the transport office. I’m anxious to check on the progress of frozen samples arriving from Germany. They were due at Heathrow at 7.20 in the morning, and I’m wondering where they are now. A little wiser, I send out e-mails to those directly involved in the marker sub-project to let them know.

Lunch is spent either enjoying the countryside (a quick jog to refresh the mind) or, more often, catching up on my reading. My literature pile (and why. We are pleased to see that our products are rated highly.

Before going home, Marie and I hurriedly set up a presentation to senior business managers for the following day. The venue is the long gallery of the ‘New Foods’ building. Recently built, the style is typical of the 90s, with acres of glass and abundant natural light. Fortunately, our poster is already prepared from a previous occasion and we have only to set up and organize. While Marie prepares the tables for product tasting, I dash up to the glasshouses to collect living spinach plants grown in pots for just this purpose. We are nearly ready.

Business presentations are always important because it is the business that funds research, and our visitors tomorrow control our budget for the following year, 13 months from now. As I’m relatively new to this arena, I need to ensure that my message is clear and free of scientific jargon. This all seems a long way from my biochemical training, but I don’t complain because variety is the spice of life.

Finally, at 5.15 in the afternoon I switch off my computer and dash to pick up the children from the child-minder. Again, the short drive through quiet countryside gives me the opportunity to reflect on the day’s activities. I enjoy my work. In my particular position, I think that you need to have biochemistry knowledge, along with an ability to understand other disciplines, and good communication skills. Teamwork is essential for all our projects and the ability to multi-task helps. We are appraised every year on the achievement of targets, so ideas generated at home in the shower count, whereas the time in the lab goes unrecorded. I think that this works well in a research environment.

I am now ready to mentally ‘morph’ from Amanda the biochemist to Mummy, and I am once again caught up in the family whirlwind. We eat, chat, relax and just occasionally watch TV. Tonight it’s yet another cookery programme. Spinach… pukka!

Amanda’s Career Tips

Entry qualifications:
Relevant PhD. Colworth laboratory recruits from a range of disciplines, including biochemistry, cell and molecular biology, and biochemical engineering. Opportunities to gain a PhD while working exist, but are determined by business need.

Career path: Team member to project leadership and beyond. Opportunities in both product-oriented and exploratory projects. As part of your career development you may move, permanently or on secondment, to positions in other parts of Unilever.

Salaries: As with all jobs in the private sector, salaries are variable. For a recently qualified PhD, starting salary with Unilever Research is currently around £24K. Other benefits include the pension scheme and health insurance.

Further info: http://research.unilever.com