

Chemistry & healthcare: a strange alchemy

A researcher's perspective



Name: **Rachel Bridson**
Research Area: **Chemical Engineering**
Institution: **University of Birmingham**
Placement School/
College: **Alderbrook Leading Edge
School and Arts College**

About Researchers in Residence (RinR)

Researchers in Residence benefits researchers, young people and teachers via UK-wide school placements across social, physical, life and earth sciences and the humanities subjects.

Researchers:

- Work with some of the most challenging and inquisitive minds
- Renew your enthusiasm for research and develop communication and teaching skills

Schools:

- Access valuable classroom support
- Interact with researchers to motivate, inspire and maximise student learning
- Enhance learning experiences and realise improved grades

What was the aim of your placement?

"When the school found out I had a background in healthcare, it was keen for me to incorporate that area of my experience into lessons. We covered cardiovascular disease, lipid metabolism and the use of statins in managing the risk of heart disease."

What did you hope to get out of the placement?

"There were two reasons really. First, being an RCUK academic fellow, I am required to complete an outreach activity. Second, it was a good way of developing my existing teaching skills."

How did you determine the structure of your placement, was it a joint effort with school or your own decision?

"Over a three-week period, I worked with the students two days per week, for between 2 and 4 hours per day.

The decision on which topics I should cover was decided jointly between myself and the teachers. I planned the lessons myself and, being a lecturer, was already fairly confident in my teaching abilities."

Did you have any apprehensions prior to beginning the placement?

"I was absolutely terrified about my first class. I've not had to interact with teenagers since being one myself, so the prospect was quite daunting. I was even nervous about what to wear! I was unsure how the students would perceive me. I wanted to make sure I made the right impression; be respected as an academic and expert in my field, but still remain approachable so the students felt comfortable enough to ask me questions and interact."

How was this different from the reality?

"The reality of giving a class was far better than I had imagined. The students and teachers were great, very enthusiastic and responsive to questions. Interacting with the students allowed me to dispel the myths they had about scientists in general. The teachers commented that it was good for the students to actually be able to see what I looked like and interact with me. I think they found it surprising that I was a) a woman and b) a scientist working in engineering."

Highlight of the project?

"Working with the year 10, top sets, on synthetic biology. It was phenomenal how quickly they picked up on quite complex ideas. Although they lacked the technical knowledge of the older students, I was very impressed with how quickly they grasped the overall ideas and concepts."

Best thing about being a researcher in residence?

"The 'whys' were great. The students constantly asked questions about everything we covered. To be constantly posed with the question, 'why miss?', was great for me, as a teacher and researcher, because it kept me on my toes and forced me to revisit things I studied years ago and update my knowledge about the latest developments."

What did you learn/get out of the experience?

"The experience reinforced the fact that students aren't just prepared to sit there and be talked at for

"It's a great way to get feedback on your teaching/presentation skills, as teenagers don't hold back on their opinions! They'll just tell you what they think, which is brilliant in terms of gathering honest, clear feedback that you can use to develop your skills."

50 minutes; you have to find ways to engage them. This is obviously helpful to me because conversing with different audiences is part of my everyday role as a lecturer. As well as that, doing Researchers in Residence helped me to fulfil my course requirement of taking part in a community outreach activity."

Life after Researchers in Residence, what have you been up to since finishing your placement?

"I finished my placement in the last week of September 2009, so I've not really had a chance to be involved in anything else since then. At the moment, I'm continuing with my research and teaching."

Would you recommend Researchers in Residence to a fellow researcher?

"Yes. I found the whole experience to be quite inspiring really. It was great to hear fresh ideas from uncynical minds. They weren't constrained by knowing 'too much'. It was wonderful to experience that degree of imaginative involvement. They also seemed less worried about peer opinion."

Eligibility

RinR is open to all PhD and post doctoral researchers funded directly or indirectly by one of the seven UK Research Councils or the Wellcome Trust.

Training

Participating researchers attend a one-day training session covering effective communication and pupil engagement and the do's and don'ts in the classroom. Advice on activities past researchers have used to engage young people is given and you'll find out more about the kind of situations you may encounter during your placement.

How to apply

Complete the online application form at:
researchersinresidence.ac.uk
our RinR co-ordinators will then match you with a suitable school and contact you.

