

Report for the Babraham Institute's Schools' Day 2012

The Babraham Institute's annual Schools' Day aims to enthuse young people about bioscience and inspire them to pursue scientific careers. On 21st March 2012, 115 GCSE and A level students from 19 different local schools and sixth form colleges spent the day in Institute laboratories, experiencing bioscience research alongside 'real' scientists.

Students worked in small groups (maximum 6) on two different projects led by Institute scientists and PhD students. Projects included getting to grips with the principles of molecular cloning and PCR, fluorescent microscopy, flow cytometry, protein extraction and SDS-protein electrophoresis. In addition to the 20 different lab-based projects on offer, one project was discussion-based, aimed to stimulate discussion around some of the ethical issues confronting scientists doing bioscience research.

One teacher commented after the event, "A great opportunity for my students to get hands-on in a lab. They come away confidently using words they have previously been afraid to discuss. It's great to be able to discuss electrophoresis, separation of DNA fragments and genetic engineering with students over lunch."



In 2006, career talks were introduced into the event at lunchtime, to raise awareness of careers that a degree in science offers. This year the Director of the Babraham Institute and a science Group Leader gave a talk, with the opportunity for students and teachers to ask questions about their research and career paths. Many students commented that the event had helped with career decisions, for example one student said, "It has definitely made me consider research as a future career" and another explained that they were, "more interested in biochemistry now."

For the third year running, the teachers attending were invited to talks by Institute scientists to hear about bioscience research whilst their students were participating in the morning projects. In this way, Schools' Day also contributes to teachers' CDP, providing recent research findings to enrich curriculum teaching. One teacher commented after the event, "I was really impressed and enthused by the talk the teachers had on epigenetics."

In addition to inspiring students and teachers, this event also improves the communication skills of our scientists with non-specialist audiences. We encourage Group Leaders, Post-Docs, PhD students and science facility staff to participate. This year around 80 Babraham Institute staff and PhD students contributed to Schools' Day 2012.

In 2010 we worked together with the British Science Association and STEM TEAM Cambridgeshire to get Schools' Day accredited with the CREST scheme, thereby enabling participants to apply for the bronze award. Teachers from several schools wrote to us after the event this year that their students were planning to complete the award. In order to do this, students must communicate one of their Schools' Day projects to other people after the event, e.g. members of their class who did not attend, helping to enthuse other students about bioscience research.

One teacher from a local sixth form college explained, "The Babraham Schools' Day has evolved into one of the most important events of the year for local schools and colleges. Hands-on activities led by active research workers open young eyes and minds to the real world of science which is impossible to do in a classroom. Over the years many of my students look back on Schools' Day as a highlight of their A level studies and for some it has influenced their higher education choices."

We would like to thank the Biochemical Society and the Biotechnology and Biological Sciences Research Council (BBSRC) for funding the event in 2012.

The Babraham Institute

The Babraham Institute, which receives strategic funding from the Biotechnology and Biological Sciences Research Council (BBSRC), undertakes international quality life sciences research to generate new knowledge of biological mechanisms underpinning ageing, development and the maintenance of health. The institute received £22.4M investment from BBSRC in 2010-11. The Institute's research provides greater understanding of the biological events that underlie the normal functions of cells and the implication of failure or abnormalities in these processes. Research focuses on signalling and genome regulation, particularly the interplay between the two and how epigenetic signals can influence important physiological adaptations during the lifespan of an organism. By determining how the body reacts to dietary and environmental stimuli and manages microbial and viral interactions, we aim to improve wellbeing and healthier ageing. (www.babraham.ac.uk)

About BBSRC

[The Biotechnology and Biological Sciences Research Council \(BBSRC\)](http://www.bbsrc.ac.uk) invests in world-class bioscience research and training on behalf of the UK public. Their aim is to further scientific knowledge, to promote economic growth, wealth and job creation and to improve quality of life in the UK and beyond. Funded by Government, and with an annual budget of around £445M, BBSRC supports research and training in universities and strategically funded institutes. BBSRC research and the people we fund are helping society to meet major challenges, including food security, green energy and healthier, longer lives. BBSRC investments underpin important UK economic sectors, such as farming, food, industrial biotechnology and pharmaceuticals.

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