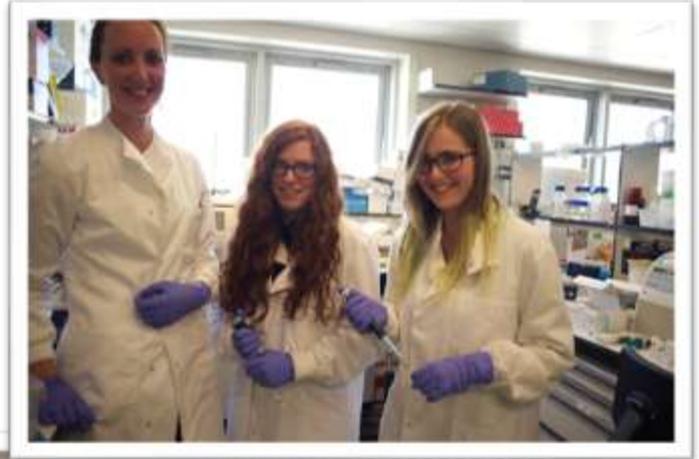


Case Study: Science Insights



Case Study: Science Insights

Project Overview

The activity in this case study is organised and delivered by the Communications Manager at the [MRC Institute for Genetics and Molecular Medicine at the University of Edinburgh \(IGMM\)](#) in partnership with the Public Engagement Officer at [The Roslin Institute](#) and the [Widening Participation Team](#) at the University of Edinburgh.

Science Insights is a week-long programme in July that gives secondary school pupils an insight into research and different careers in Biological Sciences. The programme is spread across three University of Edinburgh campuses and includes a mixture of lab time, facility tours, discussion sessions, talks and workshops.

Project Aims

- Overcome current challenges together: respond to high demand of requests from students for lab-based experience whilst reducing the admin burden of ad-hoc placements
- Reduce demand on individual researchers: less time required from individual researchers and including areas such as bioinformatics, epidemiology, social science to include new researchers
- Improve pupils experience: broad programme, meeting like-minded pupils
- Provide placements for pupils who've had fewer opportunities

Audience

- School pupils in 5th year of Secondary School (aged 16-17yrs)
- Enthusiastic and interested in biological sciences
- Curious, keen to learn and ask questions
- Pupils from range of social, cultural and educational backgrounds (based on Widening Participation criteria)
- NOT selected based on academic grades

Project Outputs

Partnership working

- Fostered new working relationships within the University of Edinburgh, enabling
 - shared workload
 - pooled set of skills
 - no duplication of work: existing connections with schools used
- Showcased the variety of research and different campuses across the College of Medicine and Veterinary Medicine at the University of Edinburgh
- As a result of the programme's success, Science Insights will be rolled out in other research areas/campuses of the University of Edinburgh from 2016

Participation

School pupils

- 70 applications in 2014, 89 applications in 2015 from all four areas in the Lothians (as well as some applications from across UK & Asia)
- Recruited pupils from a variety of socio-economic backgrounds (based on Widening Participation criteria)
- Free text sections of application form allowed prioritisation of pupils who'd had fewer opportunities

Staff and students involved

- All levels of the organisation involved
- All IGMM/Roslin research areas involved
- Lab hosts: 27
- Speakers: 10
- Tour hosts: 8
- Workshop leaders: 15
- New University colleagues and research areas involved, including bioinformaticians, epidemiologists, social scientists and clinical scientists
- Due to the large number of volunteers, demand on individual researcher's time was minimal

Programme

The programme content, session format and locations were varied throughout the week:

<div style="float: right; text-align: right;"> WORKSHOP/DISCUSSIONS LAB TIME TALKS FACILITY TOURS </div> <h1 style="margin: 0;">Programme</h1>					
Science Insights 2014 Programme					
	MONDAY 30 JUNE	TUESDAY 1 JULY	WEDNESDAY 2 JULY	THURSDAY 3 JULY	FRIDAY 4 JULY
	MRC Institute of Genetics and Molecular Medicine	MRC Institute of Genetics and Molecular Medicine	The Roslin Institute	The Roslin Institute	George Square, Central Campus
10-11	Welcome & programme overview	Welcome & day 2 overview	Welcome & Roslin overview	Welcome & day 4 overview	Welcome & final day overview
11-12	Health & Safety overview Welcome activities	Tours of IGMM facilities (imaging, fish facilities & WT clinical research facility)	Roslin Institute Building Tour Shadowing researchers (in pairs)	Dryden Farm Tour	Advice on UCAS applications and research Feedback session and review of photos from the week
12-1 (LUNCH)	Catered lunch				Finished at 1pm with packed lunch
1-3	Shadowing researchers (in pairs)	Shadowing researchers (in pairs)	Shadowing researchers (in pairs)	Shadowing researchers (in pairs)	
2-2.45			Veterinary Teaching Building Tour		
2.45-3	Refreshment break				
3-4	"Careers in science" talks	"Genome generation" ethics workshop	"Using animals in research" talks	"Studying science" An opportunity to meet PhD students studying science	

Project Outcomes

Attendees mixed well together and enjoyed the varied programme. Feedback was sought from pupils formally and informally throughout the week, as well as from the researcher volunteers at the end of the programme.

Attendee Feedback

Informal Feedback

Post-it notes and flipcharts were used at the start and end of the week to assess pupils thoughts on questions such as "What is science?" and "What are scientists like?" as well as at the end of each day to assess learnings (please contact for more info).

Feedback Wordle

Pupils noted the ten words they'd use to describe the Science Insights programme on post it notes and drew a Wordle based on their thoughts (the larger the word, the more pupils that listed it):



Formal, written feedback at the end of the week

"This week has been very interesting and gave me an insight into the work of different scientists. Thank you for giving me this great opportunity! 😊"

"Fascinating! It was fantastic to have the opportunity to experience a real, working lab."

"An amazing experience"

"What I enjoyed most was meeting a variety of new people (including the scientists) and realising how many different aspects there are to science."

Ad-hoc email feedback after the programme

Many pupils emailed after the programme to express their thanks and one pupil asked for a reference from Science Insights for her University application.

"I just wanted to formally say thanks to everyone involved in organising Science Insights - it's been such a great opportunity and I'm so grateful to everyone who gave up their time to offer it to us. As well as being really fun, I think this week has made me a lot more certain about what I want to do in future - so thank you for allowing me this opportunity, it's been really valuable!"

"I just want to thank you again for the amazing time I had on the programme. It really was beyond compare. I only hope the course runs for many years, so more young adults can be afforded this opportunity."

"I would like to thank you for allowing me to participate in the "Science Insights" programme. I had such a great time and I am sure it will help with choosing a university course/career path.... Thank you again and I hope next years "Science Insights" programme is equally a success!"

Researcher Feedback

The programme was equally popular with the researchers and PhD students who took part:

“A great way to enable students to see what working as a scientist could be like - I would have loved this to be available when I was at school!”

“An excellent opportunity for young students to experience a research environment and the various aspects of day to day lab life. Also good for us Scientists to think about how to explain our work simply, at a level that the students will follow. Helps to remind you of the 'bigger picture' - why you're doing what you're doing, which is sometimes lost in the minutiae of daily experiments.”

“Science Insights was a fantastic opportunity for budding scientists - very jealous I wasn't exposed to something similar when I was in high school!”

“My favourite part of volunteering as part of Science Insights was seeing that students were enthusiastic about doing some hands on work. Also being asked a few questions which showed that they understood what you were talking about!”

“Very well organised, and a wonderful opportunity to see how enthusiastic and knowledgeable that young school leavers are about science.”

“I was amazed to see such interaction with students.”

Tips to make it work

- Work in partnership where possible - share the workload and make use of pre-existing connections with schools for promotion/recruitment
- Set strict criteria for shortlisting applications as quality and number of applications will be high
- Create a varied programme
 - Varied locations work well and enable pupils to visit different research environments
 - Pupils engage well with group work rather than asking questions in front of whole group
 - Discussion sessions work better than talks at the end of the day for this age group
- Provide catering throughout the programme and offer transport costs (e.g. bus fares)
- Ensure one or two consistent members of staff coordinating throughout the week, so the pupils get to know the organisers and feel relaxed/comfortable

Any questions?

Sarah Patrick, Communications Manager at the MRC Institute for Genetics and Molecular Medicine at the University of Edinburgh

Sarah.Patrick@igmm.ed.ac.uk

Case study created: June 2015