Rising Stars

Rising Stars is a HEFCE-funded programme that gives outstanding Cambridge undergraduates, post-graduates, post-docs and early-career academics the chance to develop communication skills.

So far, some 1,500 students and early careers researchers have taken part. Below, we hear from three of them: **Stephanie Moore**, **Amy Milton** and **Niraj Lal**.

Cancer and nutrition

Stephanie Moore thrives on outreach

For me, Rising Stars was an opportunity to learn more about outreach in a safe and creative environment. Outreach involves getting out there, meeting people and talking about what we do and why, which is both daunting at times and great fun. Not being from a purely scientific background myself, I appreciate the need for good, engaging information about science.

I work at the Norfolk branch of EPIC, the European Prospective Investigation into Cancer and Nutrition. It's part of the Europe-wide EPIC study, the largest study of diet and health ever undertaken. It involves over half a million people in ten countries.

Quid pro quo

Outreach is important not only because we get public funding but also because the EPIC study involves thousands of participants who give up their time to tell us about their lives. They want to understand the research and what has been found out. It's also important to us that people understand the value of contributing to large-scale studies such as EPIC.

Rising Stars was a fantastic opportunity to push myself in new areas such as presenting, being interviewed and event organisation with the guidance of expert facilitators. One of the most useful aspects of the course was its mixture of arts, humanities and science researchers, which forced us all to start thinking about how to communicate our subjects from the off and gave me feedback from people from different perspectives. I also got the chance to learn about an interesting array of topics from the marvels of medieval manuscripts to stem cell research.

Into practice

The beauty of the Rising Stars course is that not only do you learn new skills but you get to try them out – and they really can be used anywhere! We try to make outreach fun at EPIC whether that be by taking King Kong, Princess Leia and Super Woman (the team in disguise) along to run our 'test your strength' activity at the Town and Gown show, or holding the Great Gut Race 2010 at the Cambridge Science Festival using a life-size model of the human alimentary tract. All of these activities are underpinned with simple key scientific and research messages.

We've got a great team at EPIC and our public engagement remit is growing. We are now actively advertising our activities and talks in Cambridge and Norfolk. We're also aware that outreach is a two-way process, so we're developing a Participant Panel to advise us on our research.

Stephanie Moore is a senior research assistant on EPIC - Norfolk, the European Prospective Investigation into Cancer and Nutrition – www.epic-norfolk.org.uk
She was a 2009 Rising Star
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Enabling discussion on memory

Amy Milton is looking to films

Memory is a topic that fascinates many people; our experience, to a large extent, makes us who we are. However, a lot of the terminology used in memory research – such as 'medial temporal lobe amnesia' – means that people without a background in neuroscience can feel unable to participate in discussions on this topic.

I've spent years teaching undergraduates about neuroscience, and they've consistently expressed surprise that neuroscience isn't as hard as they thought it would be; I believe that all it takes is someone to explain it well. It was this belief that led me to participate in the Rising Stars programme.

Film festival

I wanted to stretch myself, so I've embarked on an ambitious outreach activity: organising a film festival that celebrates, and explains, different aspects of memory research. I'll be showing a range of mainstream films that are relevant to memory research, and will appeal to a diverse audience – from Total Recall to Finding Nemo, there should be something for everyone.

Each screening will be preceded by a short introduction by a memory researcher, who will highlight and explain the scientific issues that the film raises. Following the film, there will be an informal question and answer session with the researcher. Many people will have seen the films before, but probably will have not thought about them in this way – or will have, but without the opportunity to ask questions.

Tapping into networks

Being on the Rising Stars programme has really helped with organising the film festival. There are many existing networks that I've been able to access through the course; for instance, another Rising Star was able to put me into contact with the key people in the Cambridgeshire Film Consortium. Her input ultimately led to the Arts Picturehouse in Cambridge agreeing to launch the festival for me! This is a fantastic outcome, and I doubt I'd have been able to achieve it on my own.

There are still challenges ahead - such as fundraising, and getting the publicity right – but I'm confident that with the skills I've developed and the contacts I've made, those challenges can be overcome. The team organising the Cambridge Science Festival (who have a huge amount of experience in these areas) are now backing the project, and they have agreed that the film festival can be one of the many exciting outreach activities during National Science & Engineering Week next year. I hope that this will be the start of a long collaboration.

Dr Amy Milton is a Lecturer in the Behavioural and Clinical Neuroscience Institute, in the Department of Experimental Psychology. She is in the current cohort of Rising Stars. The memory film festival will start in Science Week, in March 2011

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Giving something back

Niraj Lal finds the right energy level

Outreach is something that I love.

I think a lot of science is hard to understand at first, and many people, and kids especially, can feel it's too complicated, or that it's not really relevant, or that it's best left to little nerdlingers who like peering down microscopes. But when the best bits of science are conveyed in a way that's intuitive and understandable, and I think all good science can be, the amazement shines through. Seeing that expression of wonderment – the realisation that nature truly is incredible – is absolutely priceless and is one of the biggest joys of engaging in outreach.

The second reason why I'm keen on outreach is because it's a way of giving back to the communities that give us vast amounts of funding. Every pound we get for science is a pound that can't be spent directly upgrading our schools, or refurbishing our hospitals or providing clean water for the 2.5 billion people that don't have access to it.

I think we need to communicate what we do not only because our science really does produce truly remarkable outcomes, but also to let people know what is being done with our taxes, and to give something back.

Speaking and writing

It's for these reasons that I was so excited to take part in the Rising Stars Public Engagement Course. It was an opportunity to be trained in good communication at the same time as exploring outreach opportunities across the region.

Through the programme I was able to appear on the BBC radio Naked Scientists show on the science of solar, write an article on how solar cells work, give presentations to foster-care and in-care students on the science of electricity, and work with hard-to-reach students on a film for the science of the future.

Communicating science to kids that aren't initially keen is especially challenging. Not only does the content have to be spot-on, but you've got to stay with them at the right energy level. It's a skill that the Rising Stars programme helped teach, and I think it's immensely valuable when communicating with all sorts of audiences – including august academic ones.

I'm absolutely stoked to be involved. Outreach is a passion I hope to continue for the rest of my PhD and for as long as I'm engaged in the amazing world of science.

Niraj Lal is studying for a PhD in physics as a Gates Scholar at the University of Cambridge. He's in the NanoPhotonics Group researching how to make solar cells more efficient with nanosized Buddhist singing bowls. He was a 2009 Rising Star

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