Promega Prize

Tracey Duncombe caught up with some of the Promega Prize contestants at the Society dinner (over a few glasses of wine) to find out their views on the competition and what they felt about career opportunities for PhDs in the UK and abroad.

On 11 September, at the University of East Anglia, 10 postgraduate students faced a panel of judges in the SGM qualifying round of the Promega Prize. Although we say this every year, it was truly amazing to see the very high standard of presentations, which would be envied by any academic. In recognition of this excellence the SGM decided to present each finalist with a cheque for £25.

The two SGM heat winners were Fionnuala McAleese from Trinity College Dublin with her presentation *The loss of clumping factor B fibrinogen binding activity by Staphylococcus aureus involves cessation of transcription and cleavage by metallo-protease* and Rut Carballido-Lopez of Oxford University with a talk on *The bacterial cytoskeleton: cell shape determination in Bacillus subtilis*. Both received cheques for £200 and now go forward to compete in the *Young Life Scientist of the Year* final next year.

'I was quite overawed at the standard of the talks. Everyone was *very* confident and the presentations were all fantastic. I think everyone was pretty nervous beforehand and we all had a bit of trouble setting up. We got on really well; nothing like a bit of computer trouble to bring people together,' said Fionnuala.

According to Karen Keith of Imperial College, London, 'When I heard that I was nominated for the competition I couldn't believe it. I was only 6 months into my PhD and had very few results. Speaking at UEA was an excellent opportunity and it will stand me in good stead for future talks. It's something worthwhile to have on my CV too, especially as more and more people are now aware of the competition. Also, the opportunity to win money is certainly enough to catch the attention of any student!'

Sarah Cassidy of Kings College London said, 'As I was talking first it was quite a relief to get it over with, but I felt guilty during the coffee break as I had done my bit and those still left to talk were looking nervous. Once the talks were over, everyone seemed more relaxed and I think everyone enjoyed the Society Dinner without even giving a second thought to the competition, especially in the light of the terrorist attacks, which seemed to put everything into perspective.'

Joo Wook Ahn of University College London emphasized, 'It's very important to give lots of talks because it is one of the main ways of communicating your work to a larger audience than just to your specific peers. Gauging a presentation to the audience allows you to practise important skills, which come in very useful when you're down the pub and someone asks 'what do you do?'

And in the future?

'As far as the situation for PhD career opportunities in Ireland is concerned there are plenty of postdoc positions available. However, there is a bit of a bottleneck if you want to continue in academia as only five or six lectureships become available every year. With regard to industry there are virtually no pharmaceutical / biotech industries that carry out R&D; it's all manufacturing (though apparently this is all changing at the moment),' noted Fionnuala.

Karen said, 'I seriously doubt that I will stay in academia when I complete my PhD. Working on short-term contracts for low wages doesn't really appeal that much. I'd love to work abroad and could certainly see myself working for a large pharmaceutical company.'

Wook had strong views. 'I'd like to work in a lab outside the UK, probably in Europe, not because of lack of jobs here, just a wish to spread my wings. However, it's really being reinforced in my mind that the practical aspects of a career in academia can really suck. I don't want to be too pessimistic, but it does seem that you don't get rewarded for performing what I regard as a valuable role in society. Some friends of mine who left university and started jobs, for example as engineers or journalists, are being paid close to £30K at this stage with secure long-term prospects.'

Karen Jolly of Leeds University followed on saying, 'Science research appears to be so much faster and better funded in America that I have been considering going out there for a postdoc. However, the lack of job security and difficulty in returning following a career break, whilst not immediate problems, definitely make me wonder about pursuing other options. Also, as Wook pointed out, academic careers are unlikely to provide much financial recompense for the hours of hard graft put in, plus within any given area of science the number of places which specialize are limited and if you are part of a couple, it can be difficult to reconcile the locations which are suitable with the other person's job.'

A continental perspective was provided by Erik Gimpel of Cambridge University. 'The situation in France is far worse than in the UK and Ireland. Most French scientists have to complete two or three postdocs abroad before they can hope to get a position of any value in France (but at least once they get such a position, it is a long-term contract). Pay is also not particularly high in France, but research positions have a much higher social value than they do in the UK. You may not earn as much as bankers or lawyers, but you are considered as their equals, if not better.'

Erik continued, 'Switzerland is a very different kettle of fish. A PhD salary in Switzerland is higher than that of an experienced postdoc in the UK and tenure positions have salaries equivalent to industry. However, these opportunities are highly sought after because they are few in number. Also, it is expensive to live in Switzerland and you can expect your salary to be reduced by about 20 % in real terms due to the increased cost of living. But you would still be significantly better off than in the UK.'

An encouraging point of view (for microbiology in the UK) was provided by Anne McKie of CPHL, London, who said, 'I feel that there are good career opportunities for me in this country and I have no real desire to work abroad. I currently live in London so I shouldn't have a problem finding a job, whether I decide to stay within PHLS or make a move into industry.'

Annie Tan of the University of Newcastle shared the same opinion. 'After my PhD, I'd like a postdoc position in the UK, although I haven't decided whether this should be in industry or academia. One day I plan to return to my home country to cultivate new scientific minds in academia.'

● If you have any stories or news for publication in Gradline, or if you would like to see any topics featured, please contact Tracey Duncombe at pa@sgm.ac.uk

Student Membership

Student Membership of SGM is available to postgraduate students worldwide who have no taxable income. For an annual subscription of only £20.00 (US$35.00) Student Members can take advantage of benefits such as free registration at Society meetings and the purchase of SGM publications at greatly discounted prices. In addition, Student Members who are resident and registered for a higher degree in any European Union country may apply for awards from the President's Fund and Postgraduate Conference grants (see p. 196 for details) which provide financial assistance for attendance at scientific meetings.

Undergraduate Membership

Undergraduate Membership is open to students resident and registered for a first degree in the UK or Republic of Ireland. For the bargain subscription of £10.00 Undergraduate Members receive *Microbiology Today* and may attend SGM meetings without payment of a registration fee. Careers advice is also freely available. However, Undergraduate Members are not eligible for travel or conference grants.

Life Science Careers 2001

- 3 November 2001 — University of Bristol
- 17 November 2001 — University of Newcastle
- 1 December 2001 — University of Westminster, London

These all-day conferences are for life science undergraduate (graduating in 2002 or 2003) and postgraduate students. Each conference includes a range of talks on career choices and further training, an exhibition and a CV clinic. Full details and a booking form were published in the August issue of *Microbiology Today*. Don't miss the chance to attend the nearest event to your institution – further information and a booking form are available on the web: www.sgm.ac.uk/meetings.htm

Sponsored by Science Next Wave

Science next wave

Organized by members of the UKLSC

UKLSC

Soapbox!

From genetics to journalism

Dear Soapbox

When I was a wet-behind-the-ears first-year PhD student I was really passionate about the importance of communicating science to an increasingly suspicious lay-public. Coming from a family almost entirely composed of arts graduates and literateurs who were at once interested, and yet completely baffled by what I had chosen to do, I was already well-versed in explaining biological terms to people who thought that DNA was a kind of perfume. When I went into research I saw it as a challenge to try and prevent my friends having to stare embarressedly into their pints whenever they were brave enough to ask what I was studying (though, I admit 'functional genomics of yeast' must be one of the most successful conversation-stoppers I've ever come across).

However, over the last 3 years I have become increasingly disillusioned by the way that science is reported in the non-specialist press, in that very frequently only science that is perceived as being 'of interest' to the public is actually written about or published. In fact, on a recent BBSRC workshop we were told that in an average broadsheet newspaper, when science is generally competing for space with some pressing world issue, the Editor would only include your article if he or she deems it of sufficiently broad appeal. In fact, a scientist who was lucky enough to get a media fellowship with the BBC was told the role of the science journalist was to entertain and not to educate.

While I can see that this all makes some kind of sense (the importance of drawing people towards science, igniting their interest so that they are encouraged to look further into it and so on) I also feel that the public, or those that are sufficiently 'interested', gain a very skewed perception of what actually goes on in research. Microbiology and molecular biology seem most often to compete for and lose column space to behavioural studies, psychology and zoology – fields which people are perceived as being better able to relate to.

My argument is that surely the true skill of the science journalist should lie in the ability to write (or speak) interestingly and engagingly about any science (and I truly think this is possible!), especially fields that are conceptually more challenging or marginal. Surely otherwise the public will ultimately become increasingly removed from them.

I remember as an undergraduate being inspired by Mark Ptashne's *A Genetic Switch*. It was perhaps the first science that I had read that was as page-turning as fiction and yet it was describing the complex regulatory circuitry of a phage. Extrapolating from lambda to *E. coli* and other familiar undergrad stalwarts, I became fascinated by how amazingly intricate these organisms were, to the extent that they became transformed from the pathogenic germs of 'Domestos' adverts to almost (if you will forgive the journalistic anthropomorphism) individual 'people'. This is how I wish microbiology could be portrayed in the news, were it only given the chance.

Jess Allen, Institute of Biological Sciences, University of Wales, Aberystwyth, UK

Whether you're an undergrad or a postgrad the SGM wants to hear from you. Anything goes as long as it's relevant to microbiology.

Win £25 for the best letter published in *Microbiology Today*. Send your contributions to soapbox@sgm.ac.uk

SGM reserves the right to edit letters prior to publication.

PLUS Meeting

Science in Society

Over 250 postgraduate students attended a meeting of the Postgraduate Lifescience Universities in Scotland (PLUS) at the University of Glasgow, 17 September, to discuss a broad range of issues affecting both science and society. Tracey Duncombe reports.

TOP RIGHT:
'A new slant on Bioethics?' Prof. Neil Gow (Aberdeen) chairs and starts the morning session giving an outline of PLUS and its activities.

BELOW:
'Men in suits' at the entrance to the Boyd Orr Building where the lectures took place. *Left to right*: Prof. Willie Russell (St Andrews), Prof. Tony Trewavas (Edinburgh), Prof. John Coggins (Glasgow), Prof. Gordon Graham (Aberdeen), Sir Kenneth Calman (Durham), Dr Austin Smith (Edinburgh) (not shown Dr Mark Matfield of RDS).

PHOTOS COURTESY UNIVERSITY OF GLASGOW

The event, which was co-sponsored by the SGM, hosted several speakers of national prominence, including Sir Kenneth Calman, Vice Chancellor of the University of Durham, former Chief Medical Officer at the Department of Health and recently co-opted member of the Nuffield Council on Bioethics. Sir Kenneth emphasized the importance of engaging in debate with members of the public instead of the out-dated approach of talking at people as a means of increasing understanding on both sides. He also raised the possibility of a code of ethics for scientists, which could have parallels with the Hippocratic oath taken by physicians, as a way to increase public confidence in scientists carrying out research.

The problems of how scientists should tackle public fears and uncertainties, and how these fears can be capitalized upon by certain environmental and animal rights pressure groups, also featured heavily in two separate presentations on GM crops and animals in research.

Prof Trewavas of the University of Edinburgh explained how the precautionary principle is being exploited by Greenpeace in their campaign for a permanent and complete ban on the release of GMOs to the environment, irrespective of further scientific research or improved procedures with regards to safety. There is no question that developing countries face increasing difficulties to produce enough food to feed their ever-growing population, or that the amount of land for agricultural use cannot increase at the same rate. Prof Trewavas said that although the Green revolution increased crop yields successfully in the late 20th century through the application of fertilizers, pesticides and the development of dwarf crop varieties, new technologies are now needed to gain further improvements if people around the world are to be adequately fed in the future. But by opposing testing Prof Trewavas argues that Greenpeace are denying a solution to a problem where the benefits could far outweigh any possible risks.

Dr Mark Matfield of the Research Defence Society gave a dramatic example of how animal experiments have saved the lives of over 22 million people with type I diabetes since 1922. This figure, he said, is bigger than the entire population that has ever lived in Scotland. Dr Matfield pointed out the results of a recent MORI poll which indicated that most members of the public will accept the need for research on animals in the case of life-threatening diseases, such as cancer, although their main concern is for the welfare of the animals. The perception of cruelty to laboratory animals amongst the public is one which needs to be addressed. Dr Matfield said that one of the best ways to reassure the public that animals are well-cared for is to let them look around animal houses and laboratories. Simply by talking to the technicians who care for the animals assuaged many of the anxieties of those who had visited.

Other topics addressed included:

- The importance of the Royal Societies, professional bodies and the need for scientists to be more interested in politics
  Professor Willie Russell (University of St Andrews)
- The essentials of stem cell technology and the need to use pre-implantation embryos
  Dr Austin Smith (Director, Centre for Genome Research, University of Edinburgh)
- The commercialization of science
  Professor John Coggins (University of Glasgow)
- Science and religion
  Professor Rick Randall (University of St Andrews)

PLUS aims to be the forum for postgraduate training and education in all biological, biomedical and related life sciences in research-led universities in Scotland. Details of PLUS events can be found on the web at `http://www.plus.ac.uk/`