

Talking of jobs.....

Nancy Lane*



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The great turnout for the first ELSO Career Development Committee meeting during ELSO 2000 in Geneva proves that there is massive concern for the career prospects of young scientists in Europe. The wide-ranging discussion identified ways for ELSO to start making a difference.

The first open meeting of ELSO's Career Development Committee (CDC) entitled '*Academic career prospects in the life sciences in Europe, and how to identify them*' took place in a packed meeting room at the ELSO 2000 conference in Geneva on Sunday, 3 September. The gathering included around 100 scientists from academia and industry and from diverse European countries, as well as a smattering of science journalists. The chairperson of this working group, Daniela Corda (Italy), led the meeting with the participation of the eight

other CDC members, Maria Leptin and Mary Osborn (Germany), Alexandros Pintzas (Greece), Susan Gasser (Switzerland), Elina Ikonen (Finland), and Shamshad Cockcroft, Robert Insall and Nancy Lane (United Kingdom).

The CDC's premiere

As its very first public action, the CDC announced its decision to award the first ELSO Early Career Award to Elisa Izaurre for her work on identifying the proteins and mechanisms that underlie RNA export from the cell nucleus. Elisa, a Swiss citizen originally from Uruguay, was a graduate student with Ueli Laemmli in Geneva, a postdoctoral fellow with Iain Mattaj at the European Molecular Biology Laboratory in Heidelberg, Germany, and she began her independent career in the Department of Molecular Biology at Geneva University. She has recently returned to the EMBL to establish a group in the Gene Expression Programme. The Early Career Award recognizes the achievement of scientists in the early years of their independent research careers and will be awarded annually. The presentation of the award – a cheque for DM 2000 (€ 1022) and a one year subscription to the *European Journal of Cell Biology*, both generously provided by Urban and Fischer Verlag GmbH, the publisher of the journal – took place later in the week before the whole conference immediately after the final session on Wednesday, 6 September.

The main course

After the Early Career Award *hors d'oeuvre*, the meat of the session took the form of three rounds of presentations, each followed by an opportunity for the audience to raise issues or

put questions to the speakers. Daniela Corda introduced the main theme: the need to generate excellent European science by nurturing excellent European scientists. She suggested that the ELSO membership should feed in their concerns and suggestions for action to CDC members either through the Forum section of *The ELSO Gazette* or through the CDC mailbox (elso-cdcforum@elso.org). The discussion, Corda explained, would be about careers in academia "because that is what we know most about", but the CDC was equally concerned about career opportunities for young scientists in industry and other domains, and these topics would be covered by discussions at subsequent meetings.

Maria Leptin considered the problems that young scientists encounter in career development and suggested ways to address these concerns. The major problems she identified were:

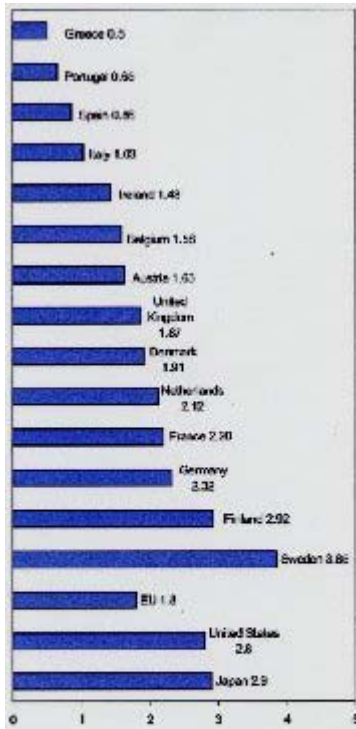
- An imbalance in the job pyramid – to have excellence at the top, there has to be selection, but the pyramidal career structure is distorted in different ways in different countries. It is important that there are enough, but not too many, junior short-term positions and enough long-term positions in the next layer.
- The issue of fairness – scientific careers for young people, particularly women and ethnic minorities, are often not fostered because of the traditional 'old-boy' structures. There has to be equal opportunity in recruitment and promotion in higher education.
- The absence of career counselling and mentoring especially in the early stages of careers.
- The difficulties for men and women to co-ordinate work and family responsibilities.

Possible ways of dealing with these problems include lobbying government policy makers and granting agencies to improve salaries and to provide more funding for infrastructure and more academic posts at all levels. Other decision-makers, like the organizers of scientific meetings, should also be lobbied, in this case to ensure a reasonable gender balance among the speakers and chairpersons at conferences. Kai Simons, the President of ELSO hoped "that ELSO members in their thousands will send letters and e-mails to their local MEPs" about the Sixth Framework Programme's funding priorities, which are being devised now.

In addition to lobbying, lobbying and lobbying, Leptin emphasised the need to collect appropriate data – a task that should perhaps only be attempted by professionals on behalf of ELSO – and also to provide help to individuals. Here the CDC can act by providing information through its pages on the ELSO web site about fellowships, grants and positions. It can also inform through articles in *The ELSO Gazette* and, in the future, perhaps through mentoring and tutoring schemes.

National specialities

The second tranche of speakers gave examples of national programmes to promote career development. Robert Insall considered the various senior fellowships and career development awards that are available in the UK from government agencies and charities. Although they offer only 'soft money', they bring high status and respect to their recipients and provide an excellent springboard to an independent career.



EU member states' investment in R&D as a % GNP. Taken from the EU document 'Towards a European Research Area'.

At the opposite extreme of the spectrum, Alexandros Pintzas described how Greece and other European nations with 'less favoured region' (LFR) status suffered from lack of adequate funding for young researchers to work in labs with appropriate infrastructures. He quoted the percent of gross national product (% GNP) allocated to national science budgets and noted the differences in the relative amounts given by the different nations (taken from the EU's 'Towards a European Research Area' document); compare 0.5% in Greece with 3.85% in Sweden and 2.8 and 2.9% in the USA and Japan, respectively. He argued that all EU nations should be compelled to allocate at least 2% GNP to scientific research as a qualifying criterion for membership of the EU. Pintzas recommended a three-pronged approach to improve research in LFRs: more competitive 3–5 year grants; connecting labs together in 'virtual' institutes, and encouraging scientific careers outside academia. His tables of relevant data on national science budgets can be found in the CDC pages of the ELSO web site.

Ladies and gentlemen

In the final talk of this round, Susan Gasser spoke of the success of the Swiss National Science Foundation programme entitled 'Swiss Talents for Academic Research and Teaching' (START). START was set up to replenish the pool of potential professors that will be needed in Switzerland after a wave of retirement in 2000–2005. START is rather like the career development awards in the UK; it provides outstanding scientists between 32–36 years old with up to seven years funding, a guarantee from the host institute for infrastructural support, and a hook into a later university position. Although generally welcomed, the START scheme is not without its problems, not least a watery response from the host institutions; and the scheme has done little to improve the number of women moving into academic positions. The problem of continuing a career in research as a women is particularly acute in Switzerland where cultural factors contribute to the high attrition rate. A new Swiss NSF programme, the Marie Heim-Voegtlin Fellowships, is trying to compensate for some of these factors, Gasser reported. She also mentioned that the Human Frontiers Science Program offers start-up grants for new group leaders in Europe through their Young Investigator Program.

This section of presentations generated a great deal of discussion from the audience in the now overheating room. The main points included:

- How to make funding more widely available throughout Europe – should not all national funding programmes be open to applicants throughout Europe?
- How best to go about lobbying – and to let governments know that we are watching them!
- The need to lobby at the national level, to affect local policy, as well as at the European level.
- That young researchers should take on some teaching duties.
- That quota allocations for recruiting women scientists are generally counterproductive, although positive discrimination schemes like professorships

specifically for women can sometimes be very helpful.

- The problem of age discrimination – considering real, chronological age rather than the actual number of years in the job (the ‘academic age’).

But the comment that drew the most applause was the suggestion by Andras Merdes that the EU should start its own Career Development Awards along the lines of the Wellcome scheme in the UK. Mary Osborn commented that "similar schemes to support outstanding individuals to do independent research past the postdoctoral level had already been proposed to the Research Directorate both by the Max Planck Society (modelled on the Max Planck Junior Groups) and in the ETAN Report on Women in Science". The consensus was that ELSO should push for the creation of these awards in the Sixth Framework Programme.

In the next group of presentations, Nancy Lane spoke about the effectiveness of lobbying government as shown by the recent UK White Paper on *Opportunity and Excellence*, published in late July 2000. In this White Paper (a government report on its policy), a number of new opportunities for postdocs and women were initiated based on pressure imposed on the current government by the Royal Society, the Wellcome Trust and other institutions. She also described the Athena project, set up in the UK in 1999 as a result of a few women lobbying the Chief Executive Officer of the UK higher education funding councils. This is now also backed by the UK university heads 'Committee of Vice Chancellors and Principals' and the UK government's Office of Science and Technology. The Athena Project (named after the Greek goddess of wisdom, practical skills and prudent warfare!) aims to encourage more women in higher education into science, engineering and technology. It will do so through development grants to fund mentoring schemes, by encouraging networking between women scientists and by persuading university administrators to develop policies of best practice. The project is also constructing a database of information on women scientists' whereabouts and fields of expertise.

The Athena project also proposes a Code of Ethical Practice to encourage best employment practice in science departments and labs including how to ensure equal opportunities for recruitment, retention and promotion of researchers, career and personal development training, mentoring schemes at all levels, etc.. Nancy Lane has prepared this Code, which is designed to benefit all young scientists, male and female, and a pilot scheme is underway at Cambridge University. Details of the draft Code can be found on the CDC pages of the ELSO web site.

The last speaker, Mary Osborn, spoke about the ETAN Report ‘Promoting excellence through mainstreaming gender equality’, published by the European Commission in early 2000. This report can be obtained from the EC web site. Its findings are enough to convince even the hardened sceptic of the bias against women in the sciences in Europe. It recommends a host of actions from modernising peer review processes to changing science policy, ‘destereotyping’ science and improving our abilities to measure inequality in the sciences in order to systematically integrate equal opportunities for women and men into science culture. "The report has been very positively received by the European Commissioner for Science, Philippe Busquin, and CREST [the EC scientific and technical research committee]," Osborn says.

Savouries

In the final session of debate that followed, a number of issues were revisited and new ones were raised. When, where and how to lobby continued to be in the forefront of many minds. Jacques Dubochet (University of Lausanne, Switzerland) commented that compared to other groups, scientists are not good at lobbying. "Learning how to lobby from PhD level up is essential," he remarked. "This coming out is really necessary." Mary Osborn reminded people to find out who their European Parliament representatives are. Others reiterated the need to lobby at national level as well as at the EU level. Only one voice warned ELSO against too much lobbying; Boris Engelson, a freelance journalist from Geneva commented that "too much lobbying can backfire" if it is not supported by all the other relevant discussions and activities.

The issue of age limits came up several times more and Susan Gasser emphasised a simple practical step "to make the age limits [for applications for fellowships etc,] *recommended* rather than *absolute*", allowing an individual's personal circumstances to be taken into consideration.

A new issue that was raised by at least two participants was how to integrate the Eastern European countries like Yugoslavia, Croatia and Poland into science in Europe. One participant from Poland, for example, commented that "Poland has already paid a lot of money to the EU [for the Fifth Framework Programme] and there is a general fear that it won't get this money back." Mary Osborn remarked that we can comment on this issue through the EU's 'Towards a European Research Area' web site. A participant from Asia commented on the problems of obtaining funding in Europe as a non-EU national. We should not discriminate against non-Europeans who choose to come to Europe to pursue their research. On the contrary, science thrives in a truly international environment. There was also the question of how to encourage today's 15 and 16 year olds to enter science at a time when fewer and fewer are opting to study physics and chemistry.

Finally, John Lackie of Yamanouchi UK (Oxford), part of the Japanese Yamanouchi Pharmaceutical group, made the interesting point that the well-being of the pharmaceutical industry depends very much on the health of academic science, which provides not only its manpower, but also much of the basic knowledge upon which pharmaceutical research and development is based. We should not forget the many long-established and start-up European pharmaceutical companies when we attempt to recruit support for our activities to improve the environment for life scientists in Europe!

With apologies to those members of the audience whom I did not manage to identify by name.

Links:

<http://www.ELSO.org/content.php3?Career+Development>
<http://www.hfsp.org/>
http://www.cordis.lu/improving/src/women_documents.htm
<http://europa.eu.int/comm/research/area.html>

* Nancy Lane is a cell biologist in the Department of Zoology at the University of Cambridge, UK. She chaired the commission that wrote *The Rising Tide*, a report on women in science, published in 1994 by the UK Cabinet Office, and is Deputy Chair of the Athena Project.