

Editorial

With its sixth international congress in September, ELSO has shown the life science community definitively that it can deliver a regular meeting that matches the best of the big US meetings.

■ ELSO 2007 in Dresden (1–4 September) marked the tenth anniversary of the founding of ELSO. The success of this year's intense and exciting meeting demonstrates that ELSO has the formula right: a mix of top-notch international speakers, vibrant poster sessions, one of the biggest opportunities for commercial exhibitors in Europe and a whole slew of interesting workshops, socials, career development events and debates that make the ELSO congress more than simply a scientific meeting.

Jeff Schatz' Keynote Lecture after the get-together on Saturday evening got the congress off to a challenging start by questioning what Europe should do for its young scientists ... and what young scientists should do for themselves. The universities and funding systems came in for most criticism, accused of failing to nurture intellectual creativity, but young scientists too were warned that they have to be passionate, hard-working and willing to invest themselves in the 'civic duties' of science as well as in research itself. This means participating in the many aspects of scientific infrastructure that are crucial to creating a healthy environment for research, for the career development of young scientists, the growth of leaders of our institutions, *etc.*

There were 17 plenary lectures in the three main days of the meeting and a total of 180 speakers spread over four full days of subgroup meetings, plenary sessions and minisymposia. Around 1500 total participants, 600 posters and 60 exhibitors contributed to the event. Some 40% of the participants were PhD students, making for a youthful and energetic atmosphere, and a great party that ran on late into the night.

There were prizes too for the three best posters and for the winner of the ELSO Early Career Award, which this year went to Thomas Lecuit of the IBDML (Institut de Biologie du Développement de Marseille Luminy) at the University of Marseille (see page 3). The Early Career Award is just one of six different events organized this year by ELSO's Career Development Committee; the Career Mentoring Lunch, Careers Outside Academia, Funding Showcase and Meet-a-Mentor sessions were all great successes, as was the Open Floor Debate, which this year tackled the question of how to develop a coherent career structure for academics throughout Europe (see page 4). Touching on several of the issues raised by Schatz in the opening session, this important issue for Europe's future really got people talking!

■ ELSO 2008

Next year ELSO will return to Nice on the French Riviera. The date is set for Saturday 30 August to Tuesday 2 September, so put it in your calendar now!



Poster sessions at ELSO are a great networking opportunity.

Poster prizes

■ First prize for the best poster at the meeting went to Kay Eckelt and colleagues of the University of Barcelona who won a subscription to *Nature* and free registration, accommodation and travel to ELSO 2008. Second and third prizes went, respectively, to Emmanuel Reynaud, Carolina Taengemo and colleagues from EMBL in Heidelberg and to Fátima Pereira and colleagues of the Gulbenkian Institute in Lisbon.

BioClips prize

■ Stefan Weißhaar from Cologne found the three hidden movies in Christian Sardet's presentation *Cells in the media*. Stefan wins free registration to ELSO 2008.

BioClips: <http://www.bioclips.com>

Green Paper defines and refines the European Research Area

■ Seven years after the European Union (EU) adopted the notion of a European Research Area (ERA), the Commission has launched a new Green Paper to review and provoke discussion about Europe's progress towards creating this ideal European environment for research. The 23-page Green Paper, *The European Research Area: New Perspectives*, launched in April, raises questions for debate by researchers and policy makers; ELSO is invited to contribute to this debate at a high-level conference in Lisbon next month.

In 2000, Philippe Busquin, then European Commissioner for Research, introduced the concept of an ERA that would underpin the European knowledge economy of the future. The idea was closely tied to the agreement by heads of government in Lisbon that year that Europe should become the leading knowledge-based economy in the world by 2010, and by their subsequent agreement in Barcelona in 2002 that Europe would invest 3% of its Gross Domestic Product (GDP) in research and development by 2010.

The new document acknowledges that investment in European R&D is stagnating at around 1.9% GDP and recognises the growing challenge from emerging economies. Two-thirds of the 3% GDP target was expected to come from the commercial sector, yet the conditions in Europe are currently discouraging companies from investing here. Businesses look primarily for favourable conditions for commercialisation of technologies, the paper reports. To meet these requirements, it proposes that Europe should focus on creating: an adequate supply of competent researchers; world-class research infrastructures; excellent research institutions; effective knowledge sharing; well-co-ordinated research programmes and priorities, and an ERA open to the wider world.

In addition to the needs of business, the Green Paper proposes that the ERA should respond to the concerns of European society regarding sustainable development, health, energy and climate change, and should involve society in setting ethical principles for responsible scientific and technological progress. Finding the right



ELSO is invited to the EU Presidency meeting at the Gulbenkian Foundation Centre in Lisbon.

balance between competition and co-operation within Europe is important, it says, as is benefiting fully from Europe's diversity.

■ Consultation

Public consultation on the Green Paper was open on the ERA web site until 31 August, but several other political and institutional conferences and meetings will also contribute to the debate before the end of the year. Among these is a conference organized by the Portuguese Presidency of the EU at the Gulbenkian Foundation in Lisbon (8–10 October), entitled *The future of science and technology in Europe*, to which ELSO is invited. If you would like to make your opinions about the issues and proposals raised in the Green Paper heard through ELSO, please contact us.

ERA web site: http://ec.europa.eu/research/era/index_en.html

Green Paper: http://ec.europa.eu/research/era/consultation-era_en.html#greenpaper

Conference on The Future of Science and Technology in Europe: http://ec.europa.eu/research/era/progress-on-debate/scienceandtechnologylisbon2007_en.html

Training researchers in lab management

■ Being good at experiments and data crunching doesn't necessarily equip us well to be good group leaders. Most of us can recount experiences on the one hand of young researchers struggling to get the attention of their advisors or, on the other hand, of group leaders unable to manage their team of headstrong and bolshy students, postdocs and technicians.

Group leaders are expected to hire good people, teach them, devise their projects and supervise their research, co-ordinate several research themes, write successful grant applications, manage the budget, resolve conflicts, advise on career moves, etc., yet they are often hopelessly ill-prepared for these challenges.

To help group leaders acquire management skills, EMBO is offering courses that address many of the basic issues, as well as courses on more advanced leadership skills. The courses are open

to all independent scientists. The four-day basic management courses involve practical exercises in the form of role-play and discussion groups. The registration fee of €1500 includes accommodation, meals and training. Five such courses were on offer throughout 2007.

EMBO is also proposing three-day, advanced leadership skills courses (€1100) in self and time management (October 2007), conflict management (November 2007) and coaching (January 2008), as well as three-day courses for its Long-Term Fellows, designed specifically to meet the needs of postdocs.

EMBO Young Investigator Programme Laboratory Management

Courses: http://www.embo.org/yip/lab_mgm.html

EMBO YIP Programme: yip@embo.org

2007 ELSO prize for Thomas Lecuit

■ ELSO has selected French developmental cell biologist, Thomas Lecuit, as the recipient of its Early Career Award for 2007. Lecuit and his team at the IBDML (*Institut de Biologie du Développement de Marseille Luminy*) at the University of Marseille are working on the mechanisms that control formation and remodelling of a multicellular epithelium from the single-cell embryo of the fruit fly, *Drosophila*. The award of €1,000 plus a pair of binoculars was presented to Lecuit at the ELSO congress in Dresden this month by a representative of the prize sponsor, Carl Zeiss.

ELSO's Early Career Award is an annual prize intended to recognise a woman or a man who has made a very significant contribution to the molecular life sciences during their early career as an independent scientist in Europe. Lecuit was a student at the *Ecole Normale Supérieure* in Paris and obtained his PhD in 1998 for research he carried out in Steve Cohen's group at the EMBL in Heidelberg. He went on to postdoc with Eric Wieschaus at Princeton University (NJ, USA) before taking up an independent group leader position in Marseille in 2001. At the age of 35, he now directs a team of eight people and he is the father of three children under ten years old!

■ Embryo membranes

Lecuit says, "My group is interested in understanding how biological tissues both maintain a robust architecture and exhibit remarkable plasticity." *Drosophila* is well suited to studying these phenomena because it first forms a surface epithelium *de novo*



Thomas Lecuit

from a syncytial embryo; the cells in this epithelium then migrate to form the three germ layers from which all of the larval tissues develop. Lecuit's interest in these processes stems from his time in the Wieschaus lab where he discovered that the production of a multicellular epithelium from the unicellular embryo requires polarised membrane growth through the mobilisation of intracellular membrane pools.

As an independent group leader, he and his team have pursued this theme by characterising the intracellular trafficking routes that underlie this membrane growth as well as the role of adherens junctions and the actin network in creating a polarised cell layer at the surface of the embryo.

Lecuit's research is characterised by a willingness to embrace and develop new technologies including functional genomic screens, optical methods to measure cortical tension at junctions and computational models of cell intercalation during remodelling of epithelia.

ELSO Early Career Award: <http://www.elseo-cdc.org/M3.shtm>

Institut de biologie du développement de Marseille Luminy:

<http://www.ibdml.univ-mrs.fr>

Thomas Lecuit: lecuit@ibdml.univ-mrs.fr

ERC Starting Grants round one

■ The ERC announced on 26 July that it had completed the first round of the evaluation process for its Starting Independent Researcher Grants (ERC Starting Grants). Of the 9,167 outline proposals it received in response to this first call – three times more than anticipated – 559 (6%) were selected to submit full proposals for further evaluation. Around half of these will be funded after the second round.

The ERC Starting Grants are aimed at individual Principal Investigators (PIs) who are intending to establish or are already leading an independent research team. An application must be submitted in conjunction with a host institution that agrees to support the PI and her or his team to carry out independent research. The proposals are evaluated by one of 20 panels covering all areas of research, each panel normally comprising 10–12 members and one Chair. Another 600 reserve panelists had to be drafted in, however, to deal with the unexpected number of applications. Fotis Kafatos, President of the ERC and chair of its Scientific Council, explains that these additional evaluators "submitted written reviews, which assisted the actual panel members in reaching their decisions." Despite these emergency measures, Kafatos says he is "absolutely satisfied" that the evaluation was fair, consistent and transparent.

The average age of the candidates selected in this first round was around 36 years old; 45% were from physics, mathematics and engineering, 37% were from the life sciences and 18% were from the social sciences and humanities. The grants will last for up to five years and provide €100,000–400,000 of funding per year, amounting to a total of €0.5–2.0 million per grant – a substantial sum for a start-up lab. These funds will come from the Framework Programme 7 budget and the grants will be administered by the European Commission.

The use of 'grants' is a welcome departure from the usual Framework Programme 'contracts', whose red tape has made life miserable for many researchers. Yet the Commission is restricted in just how far it can go to simplify the ERC's procedures while the council remains an integral part of Framework Programme governed by the European Parliament. The Grant Agreement documents on the ERC's web site suggest that much of the old 'contract' language and procedures remain. Kafatos believes, however, that, "the reporting procedures as outlined in the Work Programme are reasonable and are valid."

The big question is if and when the ERC will become an agency independent of the Framework Programme and the Commission, free to administer its funds with the minimum of bureaucracy, as do the most successful funding agencies.

European Research Council: <http://erc.europa.eu>

The tenure-track debate: career structures more important than tenure

■ In his Keynote Lecture at ELSO 2007, Jeff Schatz highlighted the importance of the tenure-track career structure for attracting the best scientific talent to North America; he lamented the lack of a similar system in Europe that would open up the job market for scientific careers and provide a transparent career structure for our academic researchers. The Career Development Committee's Open Floor Debate at the ELSO meeting picked up this theme with four short talks and a long and lively discussion about what might constitute a European career structure.

■ Changes afoot

Tony Hyman kicked off the debate with his statement that not only did Europe not have an academic career structure but, he believes, no country in Europe can provide a simple description of its own career structure. He contrasted this to the advantages of the North American structure, which has clearly defined career stages and where progress from one stage to another (eg. from Assistant Professor to Associate Professor) is based on fulfilling agreed criteria and not on competition with other candidates. We heard from Beate Scholz of the German research agency DFG about the Heisenberg programme, which aims to appoint in the 'Associate Professor' niche of the German career structure. Scholz talked also about some of the legal and political hurdles that must be overcome to change existing structures. Katarina Bjelke from the Karolinska Institutet's Junior Faculty office described the university-wide career development programme that is being implemented at her institution, which includes a five-step 'research' track from doctoral student to Professor, as well as a 'teaching' track and a 'senior researcher' post that branches off the main research track. Schatz would describe this as a 'fake tenure track', however, because it involves open competition at every rung of the ladder. Finally, Janet Rossant described some of the strengths and weaknesses of the North American system. She concluded that an ongoing career structure is the key issue rather than tenure itself.

■ Opinion

Pietro De Camilli, Peter Walter and Nenad Ban joined the speakers on a panel that led the ensuing discussion. One important talking point was the question of whether or not tenure is really necessary for an academic career. Some thought it was crucial to give researchers the security to carry out long-term, risky



Tony Hyman is chairing the ISE working group on academic career structures on behalf of ELSO.

projects and for universities to be able to guarantee their supply of teachers. Others felt that, in the current economic climate, there is no reason to give academics more job security than any other type of employee. Perhaps a form of 'rolling tenure' would be most appropriate, with 'exit packages' for those who fail to have their contracts renewed after review.

Other important points made by many contributors concerned: the need for clear definitions of each stage in the career path; harmonisation of academic careers as an extension of the Bologna Process that has harmonised degree structures; the transparency of appointments with international advertising of posts (perhaps co-ordinated once or twice a year); the application of best practice regarding pension rights, health insurance and social security benefits, and how to address the need of dual-career couples to find two jobs in one location.

Last, but not least, by involving researchers at all stages of the career ladder from junior principal investigator upwards in all the processes of departmental and institutional management, as in the US, we would create a 'pipeline of excellence' that would begin early on to train individuals in the skills that they might need as future leaders of our scientific institutions.

The Initiative for Science in Europe (ISE)'s working group on academic career structures, chaired by Hyman, is beginning the process of documenting the various career structures that exist in Europe and plans to propose an ideal model that would not be a 'bolt-on' version of the USA's tenure-track system but something tailored to Europe's unique needs.

Speakers' PowerPoint presentations can be viewed on the ELSO CDC web site: <http://www.elseo-cdc.org>



ELSO 2008

■ Saturday 30 August to
Tuesday 2 September in Nice!