

Special

Essays from ELSO



This September in Dresden, the European Life Scientist Organization (ELSO) will host its sixth international congress. In anticipation of that occasion, *Lab Times* invited ELSO to present essays about issues that are close to the hearts of its council and members. On the following pages, read about: how to create a thriving environment for science in Europe; the status of women in the European life sciences; life sciences in Poland and Eastern Europe; career opportunities for young investigators, and, of course, about ELSO and the congress itself.

The European Life Scientist Organization (ELSO)

Recent History, Future Prospects

by Kai Simons

The European Life Scientist Organization (ELSO) was founded in 1997 to meet a challenge that was both puzzling and disturbing. The unification of Europe was advancing with spectacular speed and success: a common currency was about to be introduced; customs and passport controls between the European Union (EU) member states were disappearing, and a host of new member states were being integrated after the demise of the big divider in Europe, the iron curtain. Surprisingly, science and research were lagging behind. If any area ought to exemplify these moves to bridge national boundaries it should be the natural sciences, particularly in Europe. Europe is the birthplace of modern science, and science and technology was the mighty driving force in Europe's ascent to prominence amongst the world's civilisations.

Scientific activity does not recognise or depend upon national boundaries. On the contrary, science has always thrived on the exchange of ideas and techniques. The first European universities, created in the 11th and 12th centuries, already recruited their professors and students from all over Europe. On the brink of the new millennium, one might have expected European science policy to be a prime example of successful European collaboration, initiated, devel-

oped and supported by the EU Framework Programme for research and development. Unhappily, this was not the case.

There were, of course, several outstanding examples of successful European projects making the case for European collaboration in science (look at CERN, the world's largest particle physics laboratory, and the European Molecular Biology Laboratory, EMBL, ranked second in the world in its field). In the life sciences, organizations such as EMBO and FEBS were also successfully supporting European researchers by organizing meetings, workshops and courses and by distributing short-term and long-term fellowships, but something was clearly missing. Most activities in the molecular life sciences were confined within national borders. There was, for instance, no European meeting that could attract a large crowd of active scientists, young and old, to enjoy the best of contemporary research. Instead, many European researchers went to the big annual congresses in the USA. This exposure to the US life science scene attracted many young researchers who decided to pursue their postdoctoral work there; many of the very

best stayed on to continue their scientific careers in US universities.

ELSO was established with the primary goal of fulfilling the need for a large congress in Europe. The molecular life sciences were entering an exciting new era of post-genomic research where the boundaries between traditional disciplines were rapidly disappearing. We could no longer afford to be as narrow-minded as we had been in the era of reductionist molecular biology. We needed to integrate the deluge of new discoveries to make best use of the growing body of knowledge. Whether biochemist, cell biologist, developmental biologist, geneticist, immunologist, microbiologist, molecular biologist, neurobiologist or pharmacologist, we were now all using the same molecular tools and speaking the same scientific language. ELSO would stage an annual congress that would address this new reality, working in parallel with the existing national and international societies.

ELSO was modelled on the successes of the American Society of Cell Biology (ASCB). First of all, it was designed, like the ASCB, as a grass-roots organization; its

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members are individual scientists, not other national scientific organizations. Today, ELSO has more than 5,000 members, the vast majority of them active scientists, many of them at the early stages of their careers. Like the ASCB meetings, the ELSO annual congress provides a forum in which plenary symposia and mini-symposia lectures

ELSO is not only a conference organizer, however. Its other important goal is to become a forum through which the molecular life science community in Europe can communicate both with itself and, perhaps more importantly, with national and European science policy makers. Just as the ASCB and other American scientific soci-

need of young researchers around Europe for support as independent investigators. ELSO proposes that the following rounds should continue to be limited to young researchers to avoid flooding the agency with more applications than it can yet afford to fund.

The creation of the ERC shows that it is high time to stop moaning about Europe; we researchers have only ourselves to blame if we cannot persuade the political authorities to assemble programmes that promote European science efficiently. Another lesson learned from this success is that we have to work together to formulate research policies for Europe. Soon the infighting about EU agricultural subsidies will start again; we need to mobilise ourselves to ensure that part of these subsidies is re-directed to research. Not least, the ERC will need a substantial increase in its budget if it is to serve its purpose as a motor for basic research in Europe.

Another major issue that Europe is facing is the lack of a credible career structure for the future leaders of research. ELSO will make this issue central to its agenda in the coming years. We feel that it is essential that the EU build a pipeline for excellence that is clear, transparent and homogenous across all the member states. This system should have at its heart the encouragement of the best young postdoctoral scientists to proceed through the career structure of academic science and produce future leaders of research departments and institutes. With the accession of the new member states, Europe has almost half a billion inhabitants, easily big enough to generate an internal market for talent. Most of the pieces are in place. A high standard of living, good salary support for training scientists and easy visa policies (when compared to the USA). All that Europe needs now is a career structure that allows European scientists to move seamlessly between different countries, and that attracts talent from other continents.



catch the excitement of today's molecular life sciences.

In the first phase, we had to create a 'core' group of regular participants that ELSO could rely on, so we chose scientific themes similar to those of the ASCB meetings. This strategy proved successful. ELSO has now held five meetings each with 1,500–2,000 participants. Around 40% of the participants are PhD students, and they come from the best labs in Europe. The poster sessions are a great success, allowing young researchers to network with the other members of their field. We have experienced the same humming 'beehives' of activity around the best posters as at the ASCB meetings.

ELSO has kept the registration fees for its congresses to a minimum, even though this has put a strain on the organization's finances. We are fortunate to have a fantastic patron in the Klaus Tschira Foundation. Without its generous support ELSO could not have afforded to hold these meetings, which some say are superior in scientific quality to those of the ASCB meetings today. Another important source of support for the ELSO congress is the exhibition hall of commercial goods and services for life science. Poster stands intermingle with the exhibitors' booths in the hall, bringing scientists and exhibitors in close contact. ELSO has aspired to give the companies serving the molecular life scientist community a very effective venue to exhibit their products, as at the ASCB meetings.

eties have had an important voice in influencing funding and policy in the USA over the past two decades, the aim of ELSO is to represent the interests of its members to national and European governments.

One success story has been in lobbying for the European Research Council (ERC), which started its activities this year. The major life science organizations, led by

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EMBO, EMBL, FEBS and ELSO, were the key to establishing the ERC; between them, they managed to mobilise leading organizations in all domains of academic research to fight for this new European basic research-funding agency. ELSO fought hard for the principle that in the initial rounds the grants should be limited to supporting young researchers, and this policy was adopted. The ERC had over 9,000 applications for its first round of Starting Independent Investigator Grants at the start of this year, demonstrating the

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