

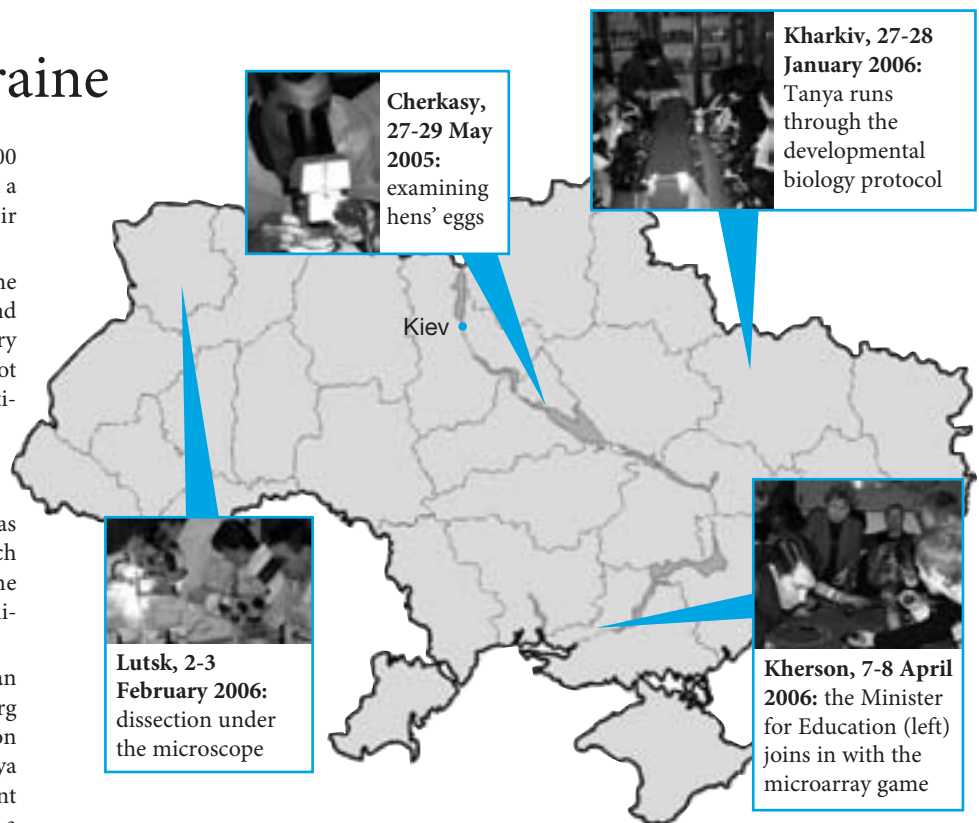
## A year in the Ukraine

ELLS found itself covering more than 2,000 kilometres of Europe's biggest country in a year-long initiative to bring their LearningLABS to the Ukraine.

The European Learning Laboratory for the Life Sciences targeted about 90 teachers and educational officers from all over the country in a series of events which began with a pilot workshop in Cherkasy in May last year, entitled "Exploring the Molecules of Life", and ended in April this year.

The initiative took off thanks to Ukrainian postdoc Tanya Klymenko, who has been active in science education and outreach activities and has connections with the Ukrainian education and scientific communities.

The first step was to bring four Ukrainian educators to a workshop at EMBL Heidelberg to learn how to conduct a LearningLAB on their own. Then ELLS, accompanied by Tanya and Maxim Nekrasov, an E-Star PhD student from Russia, took the microarray game, a Science and Society activity and other materials developed by UK's National Centre for Biotechnology Education to eager teachers at a the first host institute, the Bogdan Khmelnytsky Cherkasy National University.



After the success of this initial visit, the Ukraine's Ministry of Education and Science in Kiev agreed to support more LearningLABS in Kharkiv, Lutsk and finally Kherson in April this year. The E-Star solidarity fund also con-

tributed by providing funds for travel and equipment. The Ukrainian participants are now well prepared to embark on a second wave of visits to more cities to run the LearningLABS themselves.

## Adieu SPINE, bonjour SPINE2-COMPLEXES!

SPINE2-COMPLEXES, which starts in July 2006, will build on and continue the philosophy of SPINE (Structural Proteomics in Europe), which ended in March 2006.

SPINE began in October 2002 as one of the three EU FP5 pioneer integrated projects and was dedicated to the development and implementation of high-throughput techniques applicable to structural biology.

SPINE2-COMPLEXES will focus on protein expression technologies (e.g. directed evolution expression screening strategies and eukaryotic expression systems) and "From receptor to gene: structures of complexes from signalling pathways linking immunology, neurobiology and cancer". The targets are exclusively eukaryotic (indeed, mainly human) and viral proteins that interfere with signalling pathways. A novelty in SPINE2-COMPLEXES is the inclusion of two labs from new EU member states in Eastern Europe, in Prague and Budapest. There is also additional funding for a project called TEACH-SG that will pay for training workshops on SPINE2-COMPLEXES related technologies.

In SPINE2-COMPLEXES, EMBL and ESRF are again among the partners. ESRF will work on new technologies to measure very small crystals and EMBL will develop an improved online

humidity device to screen improvements in diffraction, which should be set up on BM14. In addition EMBL will pursue target areas in innate immunity, and, with the IVMS, viral proteins that interfere with host cell processes.

SPINE2-COMPLEXES has some solid foundations to build on. Over SPINE's lifetime, it has become commonplace for European structural biology laboratories to run high-throughput cloning, expression and nano-volume crystallisation robots. SPINE has also encouraged standardisation of high-throughput methods to facilitate interchange between labs. It has gone beyond the potentially divisive dichotomy between the "traditional" way of doing structural biology; the SPINE model of structural proteomics whereby high-throughput techniques are exploited for high-value targets is likely to become the norm for structural biology. Finally, SPINE laboratories have produced many structures ([www.spineurope.org](http://www.spineurope.org)).

For Grenoble, SPINE was an important integrative factor underpinning the establishment of the PSB/CISB and what are now the PSB platforms in high-throughput expression (ESPRIT platform of Darren Hart) and crystallisation (Josan Márquez team, with initial important input of the IBS). Third, SPINE was one of the

driving forces behind the automation programme on the ESRF beamlines, a joint venture involving ESRF, EMBL and MRC-France. SPINE funds contributed to the development and mass construction of the sample changer as well as great progress on other aspects of automation (automatic crystal alignment, ISPyB database, etc), often in collaboration with other projects (e.g. eHTPX, DNA and BIOXHIT).

– Stephen Cusack

## Spanish steps

A new partnership has been established with the Center for Genome Research (CRG) in Barcelona to form the EMBL/CRG Systems Biology Research Unit. It will be headed by Luis Serrano, who will move to Barcelona later this year. Five research groups in the unit will be funded by the Spanish government for nine years; the scientific focus will be the development of a quantitative understanding of biological systems. The research unit will be modelled on those at EMBL, and four group leaders will be recruited internationally and awarded time-limited contracts.