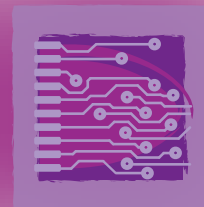


To continue as an  
FP7-funded project

© Stock exchange



## FELICS: Free European Life Science Information and Computational Services

Everything you always wanted to know about biological research but were afraid to ask could soon be at your fingertips, thanks to FELICS (Free European Life Science Information and Computational Services) – an EU-funded Research Infrastructures project to organise and release a complete range of biomolecular information upon which European life-science research depends. Public-domain databases are to be set up with the expertise of the European Bioinformatics Institute (EBI), Europe's pre-eminent curator and disseminator of biological data, and the excellence of the Swiss Institute of Bioinformatics (SBI). These two project partners will link up with the University of Cologne (Year 1) and the Technical University of Braunschweig (Years 2 to 5) to feed the information into the University of Cologne's BRENDA enzyme function database and to build a network giving European scientists free access to a comprehensive range of world-class biological databases. The initiative has even got another heavyweight on board – the European Patent Office – to ensure that the biomolecular information from patents is also included, and that people searching the databases for patenting reasons are well supported.

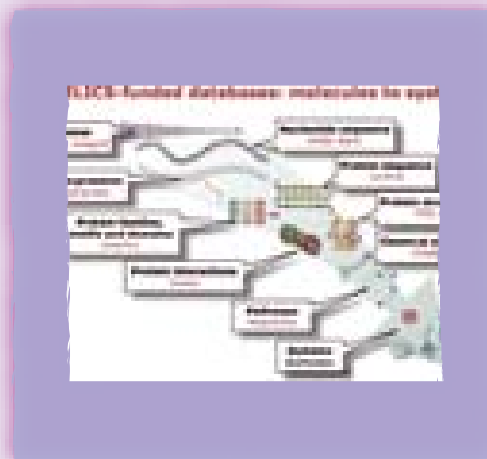
### ● ROAMING THE BIOLOGICAL KNOWLEDGE SPACE

Biomolecular databases have become a crucial part of the scientific infrastructure and, thanks to cyberspace, research into this crucial life sciences field will no longer be an exclusive domain but will be free for all. Bioinformatics experts no longer sit between biologist and database.

Researchers expect to directly access databases and do real work. FELICS gives scientists the electronic right to roam the biological knowledge space. User-friendly software, developed within FELICS and other EU-funded projects, will facilitate navigation of that space. It certainly has an audience. By the end of 2007, the EBI's website was receiving over 3 million hits every day, a figure forecast to rise to many millions by the end of the project.

Launched in March 2006, FELICS is the largest ever project for computing infrastructure to support biological research in Europe. It will include many of the EBI's well-known databases, but will also feature new resources by, for example, supporting the University of Cologne in making access to its BRENDA enzyme database free for the public as part of an interlinked collection of information, something which was hitherto prevented by licensing restrictions.

In addition, FELICS will offer specific support for accessing patent literature in collaboration with the European Patent Office. Another database ChEBI, a library of chemical entities of biological interest, is also part of the project. Its first ontology and annotation data have already been released for incorporation into the BRENDA database. While most of the EU grant is being allocated to the first



three years of the project, the BRENDA database funding extends over five years.

The project leader, the European Molecular Biology Laboratory's Cambridge-based European Bioinformatics Institute (EBI), has played a leading role in ensuring genome sequences are provided free to scientists and the public. Its predecessor, the EMBL Data Library, launched the world's first public database of DNA sequences in the early 1980s. It is now involved in developing, enhancing and interlinking the most important data sources and making them more accessible to the scientific community worldwide. It will make use of an emerging model, grid computing, to provide wide access to the biomolecular databases. This method allows higher throughput computing by using the resources of many separate computers connected by a network.

## ● FEEDING INTO BIOMOLECULAR DATABASES

FELICS is a real transnational team effort, bringing together Joint Research, Networking and Transnational Access Activities to develop the biomolecular databases, support personnel exchanges and training and outreach, and encompassing web access to EBI data and services, including FELICS-funded resources. Connections to the wider community will be made through three EU-funded Networks of Excellence: BioSapiens ([www.biosapiens.info](http://www.biosapiens.info)), EMBRACE ([www.embracegrid.org](http://www.embracegrid.org)) and ENFIN ([www.enfin.org](http://www.enfin.org)).

With funding from EMBL, the European Commission, the United States' National Institutes of Health, industry and various national research funders, the FELICS partners have built a range of core biomolecular database applications. These include EMBL-Bank (Europe's primary nucleotide sequence resource), GO (Gene Ontology international consortium), InterPro (an integrated documentation resource for protein families, domains and

functional sites.), Reactome (a curated database of biological processes in humans) and Medline (the premier biological literature database).

Also under FELICS, the EBI will provide transnational access to this broad range of database applications, many of which are created by the FELICS partners, including Genome Reviews (curated versions of complete genome entries), Integr8 (a browser for completed genomes and proteomes), IntAct (a protein interaction database and analysis system), ArrayExpress (a database for microarray based gene expression data), ChEBI (a dictionary of 'small molecular entities'), MSD (Macromolecular Structure Database), BRENDA (an enzyme and ligand information service), GPSDB (a Gene and Protein Synonyms database) and PatentSeqDB (a patent sequences database). Most of the FELICS resources will be dedicated to the development of a coherent subset of these databases.

## ● FREE EUROPEAN LIFE SCIENCE INFORMATION AND COMPUTATIONAL SERVICES IN SUMMARY

**Project acronym:** FELICS

**Funding scheme (FP6):** Integrated Infrastructure Initiative (I3)

**EU financial contribution:** €16.7 million

**EU project officer:** Jean-Emmanuel Faure

**Duration:** 60 months

**Start date:** 1 March 2006

**Completion date:** 28 February 2011

**Project webpage:** [www.felics.org](http://www.felics.org)

**Coordinator:** Graham Cameron, European Bioinformatics Institute, [cameron@ebi.ac.uk](mailto:cameron@ebi.ac.uk)

**Partners:** EMBL Outstation-European Bioinformatics Institute (UK), European Patent Office (DE), Swiss Institute of Bioinformatics (CH), University of Cologne (DE) – Year 1, Technical University of Braunschweig (DE) – Years 2 to 5