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# SLING: Serving Life-science Information for the Next Generation

Europe has at its disposal a vast amount of information pertaining to biomolecular studies. To ensure that European researchers are optimally equipped to exploit this information, the SLING project involves the same Consortium partners as the FELICS project, and will provide extensive, high-quality training for biomolecular databases. This will support both commercial and academic research, improving the overall quality and scope of life-science research in Europe.

## ● 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 in order to do real work. Accordingly, SLING gives scientists the electronic right to roam the biological knowledge space. User-friendly software, developed within SLING and other EU-funded projects, will facilitate navigation of that space. It certainly has an audience, with key databases receiving millions of hits every day.

Launched in March 2009, SLING is expanding Europe's computing infrastructure to support biological research. Building and expanding on the work of the FELICS project, SLING will utilise some of the same resources to enhance the content, data capture and standardisation of the

underlying information served to users. In addition, SLING will offer specific support for accessing patent literature in collaboration with the European Patent Office.

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. The EBI is now involved in developing, enhancing and interlinking the most important data sources and making them more accessible to the scientific community worldwide. The EBI 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

SLING is a real transnational team effort, bringing together joint research, networking and transnational access activities to develop the biomolecular databases, support personnel exchanges, training and outreach, and include web access to EBI data and services, including SLING-funded resources.

The project will support European researchers' exploitation of biomolecular information in several ways. First, it will provide high-quality electronic services which will give researchers access to comprehensive, accurate and up-to-date information. Secondly, it encompasses a programme of work-packages which will serve to enhance and develop electronic services

in response to ever changing science. Lastly, extensive pan-European user training will be used to facilitate exploitation of information.

The different life-science databases are a rich source of information and are just as important as published journals. SLING is working to connect these different databases and promote exchange of knowledge throughout Europe so that the maximum number of European scientists can take advantage of the database information. To this end, SLING is promoting high-throughput methods to increase both the scale and complexity of information exchange.



**Project acronym:** SLING

**Funding scheme (FP7):** Integrating Activities (IA)

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**EU project officer:** EU project officer: Lorenza Saracco

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**Partners:**

European Molecular Biology Laboratory (INO)

Swiss Institute of Bioinformatics (CH)

Technische Universitaet Braunschweig (DE)

European Patent Office (INO)

Enzymeta (DE)

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