



UK leads European research programme with £10M investment in bioscience data handling capacity

Hinxton, 25 August 2009 – The UK has made its first substantial commitment to a major emerging pan-European science project with a £10M investment (25 August) by the Biotechnology and Biological Sciences Research Council (BBSRC).

BBSRC has awarded funding to the European Molecular Biology Laboratory's European Bioinformatics Institute (EMBL-EBI), based at Hinxton near Cambridge, to permit a dramatic increase in the institute's data storage and handling capacity. The funding is the first step in developing the existing data resources and IT infrastructure of EMBL-EBI towards its planned role as the central hub of the emerging European Life-Science Infrastructure for Biological Information (ELIXIR), placing the UK at the forefront of this multinational initiative. The estimated total cost of establishing ELIXIR is significantly more than £200M.

Modern bioscience research, including the new generation of high through-put sequencing technologies, generates huge amounts of data. In order to use the data efficiently and to accelerate bioscience advances, such as the development of new drugs and therapies or higher yielding crops, scientists require better ways to deal with this avalanche of information.

ELIXIR is an initiative involving 32 partners from 13 countries aimed at establishing a sustainably funded infrastructure for biological information in Europe. It will support life science research and its applications to medicine, agriculture and food security, the environment, the bio-industries and society.

The UK's involvement in ELIXIR is supported by BBSRC, MRC, NERC and the Wellcome Trust.

EMBL-EBI Director and ELIXIR coordinator, Professor Janet Thornton, said: "The UK's decision to invest in ELIXIR is an important milestone in creating the infrastructure for biological information in Europe. The EBI will form the hub of a network of ELIXIR nodes that will empower European science at the interface of biology, computing and data management – one of the most vibrant areas of contemporary research. In particular it means that we will be able to implement next-generation data-handling and storage solutions, which will be able to cope with the flood of biological data and fuel future developments in basic biology, medicine, agriculture and environmental sciences."

Professor Doug Kell, Chief Executive of BBSRC, said: "Biology is an information science that is rich in data. UK science funders and EMBL-EBI are committed to ensuring that our researchers can use the latest computational technologies to store, access and analyse the huge amounts of data generated in contemporary bioscience, and thereby to turn them into knowledge and information. These data hold the key to tackling some of our most pressing challenges such as feeding an expanding world population, coping with climate change and providing new, high-efficacy therapeutics with minimal side effects. The UK will now be at the hub of an exciting European partnership to accelerate the application of science in these and other areas." ●

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About BBSRC:

The Biotechnology and Biological Sciences Research Council (BBSRC) is the UK funding agency for research in the life sciences. Sponsored by Government, BBSRC annually invests around £450 million in a wide range of research that makes a significant contribution to the quality of life for UK citizens and supports a number of important industrial stakeholders including the agriculture, food, chemical, healthcare and pharmaceutical sectors. BBSRC carries out its mission by funding internationally competitive research, providing training in the biosciences, fostering opportunities for knowledge transfer and innovation and promoting interaction with the public and other stakeholders on issues of scientific interest in universities, centres and institutes.

The Babraham Institute, Institute for Animal Health, Institute of Food Research, John Innes Centre and Rothamsted Research are Institutes of BBSRC. The Institutes conduct long-term, mission-oriented research using specialist facilities. They have strong interactions with industry, Government departments and other end-users of their research. www.bbsrc.ac.uk

About ELIXIR:

The purpose of ELIXIR is to develop the plan for a sustainable infrastructure for biological information in Europe. This plan focuses on generating stable funding for Europe's most important publicly accessible databases of molecular biological information, and the development of a compute infrastructure that can cope with the biological data deluge. ELIXIR is one of 44 research infrastructures recommended by the European Strategy Forum for Research Infrastructures (ESFRI, <http://cordis.europa.eu/esfri/>) as being of key strategic importance to Europe's future. ELIXIR holds a special place among these because it will provide infrastructure for the other biological, medical and environmental research infrastructures being developed. ELIXIR will provide: data resources; bio-compute centres; an infrastructure for integration of biological data, software tools and services throughout and beyond Europe; support for other European infrastructures in biomedical and environmental research; and services for the research community, including training and standards development. This will enable ELIXIR's users to meet the European Grand Challenges, which are almost all biological, namely: health-care for an aging population, a sustainable food supply, competitive pharmaceutical and biotechnology industries and protection of the environment. To date, Sweden and the UK have committed funds to ELIXIR and the project is actively seeking the support of other nations. www.elixir-europe.org

About EMBL-EBI:

The European Bioinformatics Institute (EBI) is part of the European Molecular Biology Laboratory (EMBL) and is located on the Wellcome Trust Genome Campus in Hinxton near Cambridge (UK). The EBI grew out of EMBL's pioneering work in providing public biological databases to the research community. It hosts some of the world's most important collections of biological data, including DNA sequences (EMBL-Bank), protein sequences (UniProt), animal genomes (Ensembl), three-dimensional structures (the Protein Databank in Europe), data from gene expression experiments (ArrayExpress), protein-protein interactions (IntAct) and pathway information (Reactome). The EBI hosts several research groups and its scientists continually develop new tools for the biocomputing community. www.ebi.ac.uk

About EMBL:

The European Molecular Biology Laboratory is a basic research institute funded by public research monies from 20 member states (Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom) and associate member state Australia. Research at EMBL is conducted by approximately 80 independent groups covering the spectrum of molecular biology. The Laboratory has five units: the main Laboratory in Heidelberg, and outstations in Hinxton (the European Bioinformatics Institute), Grenoble, Hamburg, and Monterotondo near Rome. The cornerstones of EMBL's mission are: to perform basic research in molecular biology; to train scientists, students and visitors at all levels; to offer vital services to scientists in the member states; to develop new instruments and methods in the life sciences and to actively engage in technology transfer activities. EMBL's International PhD Programme has a student body of about 170. The Laboratory also sponsors an active Science and Society programme. Visitors from the press and public are welcome. www.embl.org

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