



## Open access to large-scale drug discovery data

Data on drugs and small molecules is placed in the public domain, helping the discovery and development of new medicines

**Hinxton, 23 July 2008** – The Wellcome Trust has awarded £4.7 million (€5.8 million) to EMBL's European Bioinformatics Institute (EMBL-EBI) to support the transfer of a large collection of information on the properties and activities of drugs and a large set of drug-like small molecules from publicly listed company Galapagos NV to the public domain. It will be incorporated into the EMBL-EBI's collection of open-access data resources for biomedical research and will be maintained by a newly established team of scientists at the EMBL-EBI. These data lie at the heart of translating information from the human genome into successful new drugs in the clinic.

The human genome sequence provided a molecular 'parts list' for a human being, comprising all the genes and proteins that are encoded by our genetic blueprint. But to develop new medicines, it is important to catalogue how each of these 'parts' interacts with drugs and drug-like molecules. This interface of the genome with chemistry is a core part of the new scientific area of chemogenomics. For the past eight years, researchers at BioFocus DPI, the service division of Galapagos, have been integrating the existing collections of information in these two areas to develop a set of well-structured chemogenomic databases that can be used to help determine whether a particular molecule has the right properties to make an effective drug. BioFocus DPI licensed this information to pharmaceutical and biotech companies worldwide. As part of the Wellcome Trust grant announced today, the EBI will obtain the rights to the databases from BioFocus DPI. The award will make it possible to provide free access to this information for all researchers. "The scientific community worldwide will greatly benefit from unrestricted access to these data. It will aid their efforts in predictive drug discovery," says Galapagos CEO Onno

van de Stolpe. "Galapagos has successfully accelerated its research programs with these, and BioFocus DPI used the data to deliver on its contracts with customers. After this transfer, which we hope will contribute to the advancement of drug discovery research by improving access to the data that we have collected, we will continue to use these resources."

The transfer will empower academia to participate in the first stages of drug discovery for all therapeutic areas, including major diseases of the developing world. In future it could also result in improved prediction of drug side-effects. "We are excited to be able to provide information that defines the effects of a large number of small molecules on the body, and link this to the proteins that these molecules interact with, as part of our mission to provide wide access to bioinformatics tools to promote scientific progress and disseminate cutting-edge technologies to industry," says EMBL-EBI Director Janet Thornton. "With this transfer, we aim to facilitate faster and better drug discovery. It speaks to the importance of this information for translational research that the Wellcome Trust has chosen to support this particular transfer with sufficient long-term funding."

This unprecedented transfer of pharmaceutical data resources from the private sector to the public domain will have the greatest impact on researchers in academia and in small companies on limited budgets. "The Wellcome Trust has a strong commitment to making vital research tools freely available to the academic research community," says Dr Alan Schafer, Head of Molecular and Physiological Sciences at the Wellcome Trust. "Enabling these previously proprietary data to enter the public domain will allow researchers worldwide to make free use of knowledge essential for drug discovery." ●

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## **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 180. The Laboratory also sponsors an active Science and Society program. More information on EMBL can be found at [www.embl.org](http://www.embl.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 Macromolecular Structure Database), data from microarray 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](http://www.ebi.ac.uk)

## **About the Wellcome Trust**

The Wellcome Trust is the largest charity in the UK. It funds innovative biomedical research, in the UK and internationally, spending over £600 million each year to support the brightest scientists with the best ideas. The Trust supports public debate about biomedical research and its impact on health and wellbeing. More information about the Wellcome Trust can be found at [www.wellcome.ac.uk](http://www.wellcome.ac.uk).

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