News Release - Monday, 23 January 2017

€16m cash boost for adverse drug reaction research

A new 16 M € european research project has been launched which aims to improve the understanding of adverse drug reactions and the approach of systems modelling approaches to drug safety.

Adverse drug reactions (ADRs) are the unwanted side effects of medication. They can contribute significantly to patient morbidity, mortality and hospitalisation costs.

Funded by the Innovative Medicines Initiative 2 Joint Undertaking (IMI 2 Joint Undertaking) the five-year project, called Translational Quantitative Systems Toxicology (TransQST), aims to develop novel computational approaches using the best available data from the public and private domains to address the problems of drug safety.

TransQT is a partnership between ten academic institutions, three Small and Medium-sized enterprises (SMEs) and eight pharmaceutical companies, with a total budget of £14m / €16m. The project will be coordinated by the University of Liverpool, and the pharmaceutical company AbbVie is the Project Leader.

One of the main focuses of the project are “off-target reactions” which cannot be predicted from the known pharmacological properties of the drug. The main organs of concern for such reactions are the liver, the kidney and the cardiovascular and gastrointestinal systems.

Professor Kevin Park, co-ordinator, said: “The fear of ADRs is a major impediment to the development of new, safe and effective therapies.

“This project will enable us to leverage the best available data and expertise from both public and private domains to generate and validate novel computational models that will help to address the problems of safe drug development.

“Our ultimate aim is to maximise the benefits of medicines and minimise the harm.”

The focus of the TransQST project will be to provide innovative methodologies and software tools for systems toxicology modelling.

For more information about TransQT please visit: www.transqst.org

ENDS

Editors Notes:

The TransQST project will:

- Provide fit-for-purpose QST models addressing key toxicity outcomes for liver, kidney, heart and GI-tract.
- Provide quantitative risk assessment for off-target toxicities in man based on in vitro and in vivo models.
- Provide a quantitative mechanistic read-across from species (in vitro and in vivo) currently used for the toxicological evaluation of a new drug.
- Provide definition and applicability of the human physiological and pharmacological relevance of preclinical test systems.

- Provide a battery of translational biomarkers that can be used for quantitative read-across from in vitro systems to man, and which relate to intracellular pathways (and systems) relevant to drug toxicity.

The **TransQST** partners are:

1. University of Liverpool
2. Unversiteit Leiden
3. Fundació Institut Mar d'Investigacions Mèdiques (IMIM)
4. Synapse Research Management Partners SL
5. Universiteit Maastricht
6. European Molecular Biology Laboratory
7. The Chancellor, Masters and Scholars of the University of Oxford
8. Simcyp Limited
9. Universität Wien
10. Universitätsklinikum Aachen
11. Forchungsgesellschaft für Arbetisphysiologie und Arbeitsschutz e.V.
12. OcellO B.V.
13. Erasmus Universitair Medisch Centrum Rotterdam
14. AbbVie Deutschland GmbH & Co. KG
15. Eli Lilly and Company Ltd
16. Sanofi-Aventis Recherche & Développement
17. AstraZeneca AB
18. Glaxosmithkline Research and Development LTD
19. Institut de Recherches Internationales Servier
20. Janssen Pharmaceutica NV
21. Orion Corporation

About the Innovative Medicines Initiative

The Innovative Medicines Initiative (IMI) is Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients. IMI supports collaborative research projects and builds networks of industrial and academic experts in order to boost pharmaceutical innovation in Europe. IMI is a joint undertaking between the European Union and the European Federation of Pharmaceutical Industries and Associations, EFPIA.

More information can be found at www.imi.europa.eu

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