Avisos de noticias de Investigación en la UE

News Alert

The EU invests €30 million to map new territory in health research

Brussels, 3 October 2011

The EU has invested €30 million to understand the epigenome - a link between genes, environment and health. BLUEPRINT, a new large-scale research project, will lead to targeted diagnostics, new treatments and preventive measures for specific diseases in individual patients; an approach known as 'personalised medicine'. BLUEPRINT, officially launched on 1 October, is the European cornerstone of an international research cooperation effort – the International Human Epigenome Consortium (IHEC), bringing together organisations and researchers from across the globe. The project upholds the EU's pledge to maximise open access to results of publicly-funded research, as teams from around the world will have a platform to openly share their results.

Máire Geoghegan-Quinn, European Commissioner for Research and Innovation, said: "Our genes may produce the ingredients that make us who and what we are, but it is the recipe – or epigenetics – that determines how those ingredients are put together. Europe is showing leadership in medical research with this groundbreaking international project that will improve prevention, diagnosis and treatment of disease." The project has a total budget of close to € 40 million of which € 30 million comes from the EU. 41 leading European universities, research institutes and industry entrepreneurs will participate in what is one of the first so-called high impact research initiatives to receive funding from the EU. These large-scale projects are driven by the need to produce significant outcomes addressing major societal needs. Thanks to their large sizes and budgets, the consortia are able to oversee and coordinate numerous strands of research, ensuring that synergies are not overlooked and that new advances within a given field of research can be integrated in the ongoing work.

Background: Understanding the epigenome – a key step towards personalised medicine

Epigenetics is the study of factors which affect gene expression – whether a gene is switched on or off – and it can tell us why stem cells can develop into any cell in our bodies or why certain diseases or processes of aging occur. Since epigenetic changes are reversible, they could be targets for the development of novel and more individualised medical treatments. Understanding the epigenome therefore shows great potential in advancing the field of personalised medicine.
The BLUEPRINT project aims to further the understanding of how our genes are activated or repressed in both healthy and diseased human cells. It aims to generate at least 100 reference epigenomes and study them to advance and exploit knowledge of the underlying biological processes and mechanisms in health and disease. This aim feeds into the over all objective of IHEC, which is to decipher at least 1000 epigenomes within the next 7-10 years. BLUEPRINT will focus on distinct types of blood cells from healthy individuals and on their malignant leukemic counterparts. Reference epigenomes will be generated by state-of-the-art technologies from highly purified cells for a comprehensive set of epigenetic marks in accordance with quality standards set by IHEC.

Project details
Name: BLUEPRINT - A BLUEPRINT of Haematopoietic Epigenomes
Start date: 2011-10-01
Duration: 54 months
Project cost: €39 867 279
EU Contribution: €29 996 664
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