Creation of the REDiEX Network Advances the Science of Personalised Medicine in Spain

Network of Excellence for Research and Innovation on Exosomes working to develop new treatment strategies for cancer and parasitic diseases

Barcelona, 4 February 2016. Ten research centres in Spain working in the field of exosome research have formed a network of excellence (Network of Excellence for Research and Innovation on Exosomes — REDiEX), an initiative funded by the Ministry of Economy and Competitiveness (MINECO). The new network will advance the development of personalised medicine in Spain.

Practically unknown until recently, exosomes are cell-derived vesicles present in almost all bodily fluids. They play an important role in the intercellular transfer of information and molecules as well as in the regulation of many physiological and pathological processes. Exosomes are also selective carriers of biomarkers for certain diseases.

“These vesicles have great potential in diagnostics and for new therapeutic strategies in cancer and other diseases, such as parasitic infections” explains Hernando del Portillo, coordinator of the new network and ICREA Research Professor at the Barcelona Institute for Global Health (ISGlobal) and the Germans Trias i Pujol Health Sciences Research Institute (IGTP). He goes on to spell it out, “Exosomes have opened the door to the medicine of the future, which will be totally personalized."

REDiEX was created to strengthen the relationships between the scientific groups, to increase mobility between the centres, to ensure optimum use of resources, and to attract funding for the study of these vesicles. The new network will develop and standardise methodologies and speed up the process of identifying and developing noninvasive biomarkers and therapeutic strategies for diseases such as cancer and parasitic infections. In fact, a biomarker associated with pancreatic cancer exosomes has already been identified. Other recent research has shown that tumour-derived exosomes are directly involved in the metastatic process and can be used to predict which tissues will be affected by malignant spread.

Hernando del Portillo says that the network “marks the beginning of a new chapter in biomedical research in Spain in a field now seen as a frontier in clinical research”. REDiEX represents a shift towards personalised medicine in search of products that will have social impact, generate economic returns, and will help us to achieve greater equity in global health.

The immediate predecessor of this new network was GEIVEX (Grupo Español de Investigación en Vesículas Extracelulares), a working group set up in 2012 by Spanish researchers specialised in the field of extracellular vesicles. Hernando del Portillo is also the current president of GEIVEX.

Learn more:
http://rediex.og
http://geivex.org

ISGlobal
The Barcelona Institute for Global Health (ISGlobal)—the result of an innovative alliance between academic, government and philanthropic institutions—was founded to contribute to the work being done by the international community to overcome the challenges facing health in a globalised world. ISGlobal represents the consolidation of a hub of excellence in research and health care that traces its origins to work started by Hospital Clínic and the University of Barcelona and has accumulated over 30 years of experience in the field of global health. ISGlobal and its allied centre CREAL form part of the CERCA network of Catalan research centres.

REDiEX
The Network of Excellence for Research and Innovation on Exosomes brings together researchers from ten Spanish research institutes. Hernando A. del Portillo, Barcelona Institute for Global Health (ISGlobal) and Germans Trias i Pujol Health Sciences Research Institute (IGTP); María Yáñez-Mo, Department of Molecular Biology at the Autonomous University of Madrid; Juan Manuel Falcón-Pérez, Centre for Cooperative Research in Biosciences (CIC bioGUNE); Francesc E. Borrás, Germans Trias i Pujol Health Sciences Research Institute (IGTP); Antonio Marcilla, Department of Cell Biology and Parasitology at the University of Valencia; Antonio Osuna, Institute of Biotechnology at the University of Granada; Mar Valés, Spanish National Research Council's National Centre for Biotecnology (CNB-CSIC); Isabel Guerrero Vega, "Severo Ochoa" Molecular Biology Centre (CSIC-UAM); Héctor Peinado, Department of Molecular Oncology at the National Centre for Oncological Research (CNIO); and Francisco Sánchez-Madrid, Hospital Universitario de la Princesa.

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