

EpimiRNA Consortium Receives €11.5 Million funding by EU to Uncover the Effects of microRNA in Epilepsy

Major new funding for research into epilepsy is announced today. The EpimiRNA Consortium, involving 16 partners from 8 European countries, the USA and Brazil has received €11.5 million funding from the European Union's Framework Programme 7 to investigate molecular mechanisms, diagnostics and treatments for epilepsy.

Over 50 million people across the world suffer from epilepsy, making it the most common serious neurological disorder for which there is no cure. The causes for epilepsy are insufficiently understood with currently available treatments being sub-optimal and with a significant proportion of patients not responding. Recent discoveries have identified a new type of molecule in cells called microRNA which may be critical to controlling the changes in brain chemistry that accompany the development and course of epilepsy. The EpimiRNA Consortium represents a major interdisciplinary effort between epilepsy researchers, geneticists, clinicians, experts in advanced molecular sciences and research-active companies working together to understand molecular mechanisms, diagnostics and developing novel microRNA-based therapeutics to prevent the development of epilepsy, the occurrence of seizures or reverse epilepsy once established.

Prof. David Henshall, Department of Physiology & Medical Physics, Royal College of Surgeons in Ireland, Coordinator of the EpimiRNA consortium comments: *"Improved understanding of the causes of epilepsy is critical to the development of more effective treatments and, hopefully, a cure. The EpimiRNA consortium will build on recent scientific breakthroughs that identified a new family of molecules controlling brain cell structure and function - microRNAs. We will now take the first ever large-scale international effort to uncover the complete spectrum of effects of microRNA in epilepsy, from designing drugs of the future to genetic tests and diagnostics."*

Prof. Dr. Felix Rosenow, Co-coordinator of the EpimiRNA consortium from Philipps University Marburg comments: *"For the many unlucky epilepsy patients which today cannot be cured by medication or surgical resection of the seizure focus we need NEW MEANS of treatment. Over the last decade new ways to define and reach the seizure focus even in deeply localized brain structures have been developed. Now we need to understand how this accessible discharging focus can be prevented from firing and disrupting normal brain function. MicroRNA and their antagonists may well be important players in modifying epileptic activity either directly or via brain stimulation when applied to the focus. I am intrigued by the unique opportunity the EpimiRNA consortium provides to explore these options and feel privileged that I can be part of this exciting journey."*

The Consortium is coordinated by Professor David Henshall, Royal College of Surgeons in Ireland with Professor Felix Rosenow at Philipps University Marburg (Germany) as Co-coordinator, with the following academic partners: Professors Jochen Prehn, Gianpiero Cavalleri and Norman Delanty also from the RCSI in Dublin, Professors Gerhard Schratt, Carsten Culmsee and Rainer Schwarting and Karl M. Klein PhD at Philipps University Marburg (Germany), Prof. Jeroen Pasterkamp at the University Medical Center Utrecht (Netherlands), Dr Stephanie Schorge at University College London (U.K.), Prof. Paolo Fabene at the University of Verona (Italy), Prof. Hajo Hamer at Friedrich-Alexander Universität Erlangen/Nuernberg (Germany), Prof. David Goldstein at Duke University (U.S.A.), Prof. Iscia Lopes-Cendes at University of Campinas (Brazil), Prof. Jorgen Kjems at Aarhus University (Denmark) and Prof. Jens Andersen at University of Southern Denmark (Denmark).

The consortium is accompanied by experienced companies: DIXI Microtechniques (France), Cerbomed GmbH (Germany), InteRNA Technologies (Netherlands), Bicoll GmbH (Germany-China), BC Platforms (Finland) and GABO:mi (Germany).

The project is funded by the European Union's 'Seventh Framework' Programme (FP7/ http://cordis.europa.eu/fp7/home_en.html) under Grant Agreement n°602130 from September 2013 to August 2018. For a more detailed description of the project see: www.epimirna.eu.

Contact details:

Coordinator:

Prof. David Henshall

Tel.: +353 14028629

Email: dhenshall@rcsi.ie

Co-coordinator

Prof. Felix Rosenow

Tel.: +49 642 15861365

Email: rosenow@med.uni-marburg.de

