

EpimiRNA Consortium concentrates on developing novel mRNA-based therapeutics to prevent epilepsy

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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.

Co-ordinator of the EpimiRNA consortium, Professor David Henshall commented on the research funding, '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.'

The consortium features a number of RCSI researchers as it is coordinated by Professor David Henshall and consists of, academic partners, Professor Jochen Prehn, Head of the Department of Physiology & Medical Physics; Dr Eva Jimenez-Mateos (Physiology & Medical Physics); Dr Gianpiero Cavalleri (Molecular and Cellular Therapeutics Department); and consultant neurologist at Beaumont Hospital, Professor Norman Delanty.

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

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Source: RCSI