

Munich, April 6, 2018

Press Release

Brussels, May 23: Seven large EU-funded projects have joined forces – epiXchange 2018 brings together Europe's best brains to pave the way for future epilepsy research.

Around 50 million people worldwide suffer from epilepsy, making it one of the most common neurological diseases. To decrease this figure and pave the way for future ground-breaking epilepsy research, seven large EU-funded projects have joined forces. epiXchange 2018 is a unique global community building event, designed to gather a critical mass of epilepsy researchers to exchange about latest progress in research aiming to improve the way epilepsy is diagnosed and treated and thereby increase the quality of life of affected people.

Despite a great progress in the management of epilepsy, 30-40% of epilepsy patients are refractory to all available medications. Moreover, about 50% of children with epilepsy suffer from epilepsy-related co-morbidities, including developmental delay, learning disabilities, and autism spectrum disorder. Diagnostics is another issue. *'Diagnosis of epilepsy is really difficult,'* explained Prof. David Henshall, coordinator of the epiXchange 2018 co-organising EpimiRNA project. *'Seizures are the main clinical symptom for the disease but it is very rare that a doctor will witness the patient having a seizure.'*

New innovative solutions to diagnose and treat epilepsy

As published in [HORIZON – The EU Research & Innovation Magazine](#) on [February 12](#), one of the major results from the epiXchange projects is the development of biomarkers for epilepsy diagnosis. Identifying biomarkers and changes to brain structures may ultimately lead to new treatments. *'Combining biomarkers is key,'* said Prof. Merab Kokaia, coordinator of the co-organising EPITARGET project. *'It could make treatment more personalised in the years to come.* Another interesting result as published in HORIZON on [April 6](#) is the fact that delaying epilepsy onset through preventive medication in children with related disorders could reduce the impact on development of epilepsy and other related symptoms. *'If you have a brain malformation... there is nothing you can do to reverse it. But... if you can prevent epilepsy from aggravating the situation you can improve the clinical status of these patients'*, said Renzo Guerrini, coordinator of the co-organising DESIRE project. Efforts have been made to pin down the genetics behind the disorders. Blood samples of babies at four key moments – at birth, when the EEG first begins to pick up problems, when seizures begin and at two years of age may help us to develop new drugs. *'We have a very, very unique situation. For the first time we have access to the molecular story before epilepsy'*, said Prof. Sergiusz Jozwiak, coordinator of the co-organising EPISTOP project.

These findings and many others will be showcased at epiXchange. To boost the impact of the event, the **epiXchange partners are preparing a white paper**, presenting the current state of the art in epilepsy research, major bottlenecks and recommendations to shape the way for further research breakthroughs, to move forward to new ways of treatment and to bring research results closer to clinical application.

Five major areas

The epiXchange 2018 scientific conference focuses on five major themes in epilepsy research:

Genetics: Development of novel treatment strategies based on optogenetics, gene and stem cell therapies.

Therapeutics: Development of effective epileptogenic therapeutics, many of which face different kinds of bottlenecks e.g. regulatory hurdles.

Biomarkers: Identification of new biomarkers in blood, peripheral organs, brain tissue, electrophysical data, behavioural data and imaging data, in order to develop novel preventive strategies in at-risk patients.

Biobanks and databases: Integration of Biobanks and databases into clinical care to facilitate preclinical research. A collaborative approach as foundation for the future of epilepsy research and other disease model biobanks.

Co-morbidities: Exploration of the mechanisms underlying bi-directional relations between epilepsy and neurological co-morbidities to reduce the high burden of co-morbidities in epilepsy.

epiXchange 2018 is open for scientists, EC representatives, industries and other stakeholders from the epilepsy community as well as the press.

epiXchange 2018 key data

Organisers: DESIRE, EpimiRNA, EPISTOP and EpiTarget; Scientific contributions by EpiCare, EpiPGX and Epixchange

Venue: THE EGG, Brussels, www.theeggbrussels.com

Date: May 23, 2018

Homepage: www.epiXchange2018.eu

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