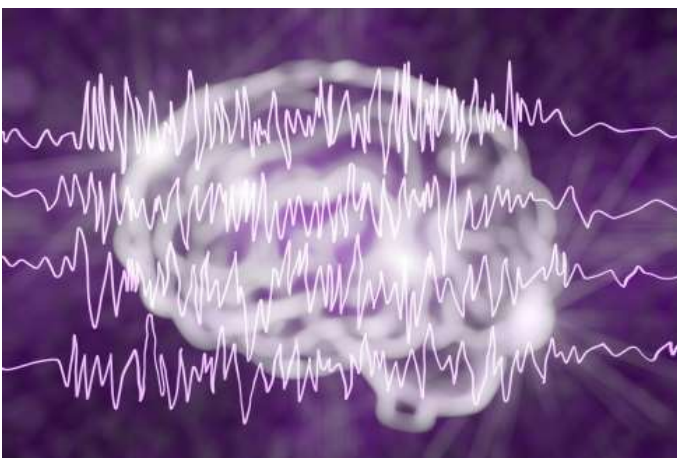


Research projects to improve diagnosis, prevention and treatment of epilepsy



Epilepsy is a chronic non-communicable disorder of the brain characterised by recurrent episodes of involuntary movement known as seizures.

This condition affects people of all ages, making it one of the most common neurological diseases. It has been estimated that in Europe alone approximately 6 million people suffer from epilepsy.

Although anti-epileptic therapy is available, only 60-70% of patients respond positively to it, leaving many people without treatment.

The EU devotes around EUR 500 million per year to brain research through the EU Framework Programmes for Research and Innovation. Over the last decade, the EU dedicated nearly EUR 176 million to epilepsy research in order to advance diagnostic tools and therapeutic interventions. This money supported 62 projects in the 7th Framework Programme and 30 projects in Horizon 2020. Future funding opportunities in this area may continue to emerge in Horizon2020, notably from the societal challenge "[Health, demographic change and wellbeing](#)".

Part of this support resulted from the commitment of the European Parliament which in 2011 submitted a 'Written Declaration on Epilepsy' which triggered the European Commission to fund four large collaborative research projects receiving a total of EUR 45 million through the 7th Framework Programme for Research & Development (see table) and to the establishment of the European Reference Network for the care of individuals with rare and complex epilepsies ([EpiCARE](#)) in 2015.

Support for epilepsy research continues in Horizon 2020 framework through the [Innovative Medicines Initiative](#) which launched a collaborative research programme ([RADAR-CNS](#)) to explore the potential of wearable devices to help prevent and treat brain disorders including epilepsy. Furthermore, in January 2018 the Human Brain Project (HBP) announced a [call for expression of interest](#) to develop and run an operational framework for federated analyses of human intracerebral stimulation and recording of data to gain insights into the pathophysiological mechanisms of neurological disorders like epilepsy.

Overview of relevant projects

Project	EU funding	Number of Partners	Coordinating Institution
EPITARGET : Targets and biomarkers for antiepileptogenesis	EUR 12 million	20	Lunds Universitet, Sweden
EpiMiRNA : MicroRNAs in the Pathogenesis, Treatment and Prevention of Epilepsy	EUR 11.6 million	19	Royal College of Surgeons, Ireland
EPISTOP : Long-term, prospective study evaluating clinical and molecular biomarkers of epileptogenesis in a genetic model of epilepsy – tuberous sclerosis complex	EUR 9.4 million	17	Children's Memorial Health Institute, Poland
DESIRE : Development and Epilepsy - Strategies for Innovative Research to improve diagnosis, prevention and treatment in children with difficult to treat Epilepsy	EUR 12 million	28	Universita degli Studi di Firenze, Italy
RADAR-CNS : Remote Assessment of Disease and Relapse – Central Nervous System: A collaborative research programme exploring the potential of wearable devices to help prevent and treat depression, multiple sclerosis and epilepsy	EUR 25 million	23	King's College London, UK and Janssen Pharmaceutica NV

More information:

[EU Health Research](#) [EU Brain Research](#)

[SC1 Work Programme 2018-2020](#)

[Participant Portal](#)

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