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Epilepsy Society, UCL, Congenica unite to identify cause of epileptic death

23 October 2018 | News

Whole genome and exome sequencing and analysis will be carried out to determine possible genetic causes of sudden unexpected death in epilepsy (SUDEP), using Congenica's gold-standard Sapientia™ diagnostic decision support platform.

Congenica, the global diagnostic decision support platform provider, announced a key partnership with the UK's Epilepsy Society to study the genomics of sudden unexpected death in epilepsy (SUDEP). The new collaboration, announced on SUDEP Action Day, aims to improve the clinical understanding, prediction and treatment of the devastating and unpredictable condition, which affects approximately 1 in 1,000 adults and 1 in 4,500 pediatric patients with epilepsy every year.

SUDEP, which often occurs while epilepsy patients are asleep, is thought to be caused by a complex interaction of genetic factors rather than a single gene. As part of the partnership, an initial joint study will look at a cohort of 100 SUDEP clinical cases to better understand the condition's underlying genetic causes. The multi-disciplinary research team will include scientists from the Epilepsy Society and members of Prof Sanjay Sisodiya's clinical research team at UCL (University College London), alongside Congenica's clinical scientists.

Prof Sisodiya (UCL Queen Square Institute of Neurology) who is also Director of Genomics at the Epilepsy Society, said:
"This important study may help us find and understand some possible risk factors for SUDEP. Collaborating with Congenica will ensure analyses of the data are robust and comprehensive, optimizing the chances of discovery."

Whole genome and exome sequencing and analysis will be carried out to determine possible genetic causes of SUDEP, using Congenica's gold-standard Sapientia™ diagnostic decision support platform. Based on technology developed at the world-renowned Wellcome Trust Sanger Institute, Sapientia is being used as part of Genomics England's ground-breaking 100K Genomes Project and the recently-launched NHS Genomic Medicine Service. Congenica supports several other major national projects, including China's national 100K Wellness project.

Nick Lench, CSO at Congenica, said: "We are excited to form a partnership with such a prestigious organization as the Epilepsy Society and collaborate with Prof. Sisodiya at UCL, whose pioneering use of genetic medicine is beginning to enable the use of precision medicine for patients. The genomic knowledge generated in this project has great potential to positively impact the way we manage epilepsy patients by better understanding any underlying genetic factors that might contribute to SUDEP."