

STREAMLINE HUB: a high capacity hub for research of neurodevelopmental disorders in the Western Balkan region

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Neurodevelopmental disorders (NDDs) are caused by alterations in early brain development. They are a group of geographically dispersed, complex and heterogeneous disorders that give rise to the psychiatric conditions such as autism spectrum disorders, intellectual disability, schizophrenia and bipolar disorder. In order to build global research activity for study of NDDs, the main goals of the Twinning project STREAMLINE are to enhanced strategic networking and reinforce research and innovation potential of the Institute of Molecular Genetics and Genetic Engineering, University of Belgrade (IMGGE) in order to develop IMGGE as a high capacity hub for research of NDDs in the Western Balkans. This will be achieved by twinning IMGGE with three top-class research institutions in Europe (Cardiff University, University of Maastricht and Centre for Research and Technology Hellas) with an exceptional expertise in the stem cells based research of NDDs, -OMICS technologies, bioinformatics data analysis and drug testing and through staff exchanges, training, and organization of summer schools, Industry Open Days, symposia and workshops. In order to increase research and innovation capacities and empower research staff of IMGGE, short-term staff exchanges of IMGGE researchers to partner institutions are planned: Cell reprogramming, Generation and analysis of brain organoids, Analysis of electrophysiology of the neurons, RNA-seq, Bioinformatics data analysis and formation of a digitalized repository and High-throughput cell-based assays for *in vitro* drug testing. In conclusions, formation of the STREAMLINE hub will position IMGGE as a leader in NDDs research in Western Balkan region with equivalent research capacity and codes of practice as similar centres in Europe.

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