



EU-funded ChildBrain project aims to lighten the burden of neurocognitive disorders in children

The BESA GmbH participates in a EU-wide consortium consisting of five universities, three companies and six associated partner institutions aims to alleviate the social and economic burden of neurocognitive disorders in children by training a new generation of interdisciplinary scientists who can contribute to the development of new, innovative differential diagnostic tools through research and industry. Neurocognitive disorders include developmental disorders such as dyslexia and ADHD which affect as many as 5% of school-age children.

“Developmental disorders carry an increased risk of societal exclusion and state-dependency, and hence there is a great need to improve differential diagnosis and guide appropriate intervention at the youngest age possible,” says the coordinator of the ChildBrain project Professor Paavo Leppänen of the University of Jyväskylä, Finland.

“The direct medical and non-medical costs for ADHD alone were calculated to be 2.5 Billion Euros in the EU in 2010,” adds Professor Leppänen, “Therefore we will emphasize research into the causes and developmental pathways of neurocognitive disorders. The goal is to eventually develop much-needed individual clinical diagnostic tools.”

“Obviously, it was not easy to come up with an integral research program that covers cutting-edge methodological advances with developmental neuroscience and translation to clinical and educational use,” Leppänen continues, “But with this interdisciplinary consortium, we did it.”

The EU obviously agreed and funded the ChildBrain project with 3.9 million Euros as part of the Marie-Sklodowska-Curie Actions framework of the Horizon 2020 program. 250.000 Euros will go to BESA GmbH.

Eight young scientists were recently employed who will gain their doctoral degrees working on the ChildBrain program. They will become the new generation of creative, entrepreneurial and innovative interdisciplinary researchers who are able to bridge the disciplines of neuroimaging analysis methods and typical and atypical child neurodevelopment, in academic and industrial settings.

BESA’s early stage researcher will work on an automatic pipeline for segmenting children’s MRI images and creating individual realistic volume conductor models. This is the basis for precise source localization of brain activity in children.

“The ChildBrain project is not only about doing research behind closed doors,” explains Professor Leppänen. “We will reach out to the public at various stages: We will host open days at our institutions, participate in schools outreach programs and publish research and clinical guidelines on our homepage. So hopefully, we will be able to stir wide interest in our mission.”

“Ultimately, we want to reach other researchers, practitioners, educators, companies, policy-makers, and promote the growth of this new interdisciplinary field.”

For more information, visit the ChildBrain homepage: www.childbrain.eu

Hosting Institutions: University of Jyväskylä, Finland; University of Leuven, Belgium; Radboud University, Netherlands; University of Aston, UK; University of Münster, Germany; BESA GmbH, Germany; Elekta Oy, Finland; Icometrix, Belgium