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PHD POSITION

Title

Modelling rare neurodevelopmental disorders in order to better understand the underlying genetic and physio-pathological mechanisms

Project description

Rare neurodevelopmental disorders are responsible for 5–10% of health care costs and are a leading cause of referrals to pediatric, neurological and genetic counseling services. One of the most prevalent and severe neurodevelopmental disorders is intellectual disability. It affects 1-3% of the population and yet despite its high prevalence, intellectual disability is also one of the least understood and the least investigated of all health problems. This thesis deals with the problem of the «missing» (as yet unidentified) genes in syndromic forms of intellectual disability.

The general aim of the project is i) to identify novel human cognition genes by screening abnormal morphology of the mouse brain in a high-throughput manner; and ii) to better understand physio-pathological mechanisms underlying malformations of the developing brain. The student will use several cellular models as well as *in vivo* approaches in the mouse (*in utero* electroporation techniques, knock-in and knock-out mouse models). In brief we propose a multidisciplinary approach to advance our understanding of the genetics of intellectual disability and other rare neurodevelopmental disorders, ultimately aiming to improve molecular diagnosis and genetic counseling in affected families.

Thesis direction

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Profil

A diploma or a master's degree in Genetics, Neuroscience or Developmental Biology is requested. The student should be highly-motivated to pursue a PhD thesis and well-organized, have good communication skills and a team-oriented work style.

Candidature

Please send a CV and a motivation letter to Binnaz.Yalcin@inserm.fr