Characterization of the role of Scrib1 and Vangl2 in neuronal migration

Fact Sheet

Project Information

MigPCP

Grant agreement ID: 303820

Project closed

Start date
1 March 2012

End date
28 February 2015

Funded under
Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013)

Total cost
€ 75 000,00

EU contribution
€ 75 000,00

Coordinated by
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE
France

Objective

Although the cerebral cortex is responsible for all the intellectual life that makes us human, we know remarkably little about how this amazing structure is formed. We do know, however, that genetic conditions in which the cortex is not formed properly

have devastating consequences. Neurological disorders are frequently associated with developmental brain malformations. Progress toward understanding the pathologic basis of these diseases has so far come from research on animal models of cortical malformation and from molecular genetic approaches to human neuronal migration disorders.
The aim of this 3-year project is to elucidate the molecular and cellular mechanisms of one of the Planar Cell Polarity (PCP) genes,Scribble 1 (Scrib1) and Vangl2, in shaping the mammalian cortex. More specifically, the fellow applicant will analyze the role of these genes in neuronal polarity and migration. He plans to use conditional knockout mice combined with advanced cell imaging analysis and in vitro experiments that will synergize to provide a powerful approach to address this goal. We believe that the experiments from this proposal should bring
novel insight into the mechanism by which PCP genes can regulate neuronal migration and cortical development.
Results from proposed experiments will bridge our knowledge from molecular mechanism of cortical neuronal migration to the formation of human brain, and will also provide important insight into the pathogenesis of human neurogenetic disorders. The candidate has a background in biomedical science, and has had intensive training in molecular approaches during Ph.D. and postdoctoral training. He now seeks further training in mouse genetics and neuroanatomy under the mentorship of Drs. Mireille Montcouquiol. With help of CIG grant, this training will greatly enhance the candidate's potential in conducting independent scientific research and reaching permanent position.

Fields of science (EuroSciVoc)

natural sciences > biological sciences > **genetics**

natural sciences > biological sciences > cell biology > **cell polarity**

medical and health sciences > basic medicine > **neurology**

Programme(s)

FP7-PEOPLE - Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013)

Topic(s)

FP7-PEOPLE-2011-CIG - Marie-Curie Action: "Career Integration Grants"

Call for proposal

FP7-PEOPLE-2011-CIG
See other projects for this call

Funding Scheme

MC-CIG - Support for training and career development of researcher (CIG)

Coordinator

INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE

EU contribution

€ 75 000,00

Total cost

No data

Address

RUE DE TOLBIAC 101
75654 Paris
France

Region

Ile-de-France > Ile-de-France > Paris

Activity type

Research Organisations

Links

Contact the organisation Website
Participation in EU R&I programmes
HORIZON collaboration network

Last update: 2 August 2019

Permalink: https://cordis.europa.eu/project/id/303820