

Research evaluation

FINAL RESUME ON THE RESEARCH UNIT: Cognitive Neurolmaging (UNICOG)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Université Paris-Sud Institut National de la Santé et de la Recherche Médicale - INSERM Commissariat à l'énergie atomique et aux énergies alternatives - CEA

EVALUATION CAMPAIGN 2018-2019GROUP E

Report published on June, 03 2019



In the name of Hcéres¹:

Michel Cosnard, President

In the name of the experts committee2:

Peter Hagoort, Chairman of the committee

Under the decree No.2014-1365 dated 14 November 2014,

¹ The president of Hcéres "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, paragraph 5);

² The evaluation reports "are signed by the chairman of the experts committee". (Article 11, paragraph 2).



Tables in this report were filled with data provided by laboratories and supervising bodies in the unit's application and in the Excel files "Données du contrat en cours" and "Données du prochain contrat".

UNIT PRESENTATION

Unit name: Cognitive NeuroImaging

Unit acronym: UNICOG

Requested label: UMR

Application type: Restructuration

Current number: 992

Head of the unit

(2018-2019):

Mr Stanislas Dehaene

Project leader

(2020-2024):

Mr Stanislas Dehaene

Number of teams and/or

themes:

5

EXPERTS COMMITTEE MEMBERS

Chair: Mr Peter Hagoort, Radboud University, The Netherlands

Experts: Mr Joachim Gross, University of Muenster, Germany

Ms Tatjana Nazır, CNRS/Institut des Sciences Cognitives

Ms Caroline ROWLAND, Max Planck Institute for Psycholinguistics, The

Netherlands

Mr Denis Schwartz, Inserm/Centre de Neuroimagerie de Recherche

(supporting personnel)

Mr Fabrice Wendling, Université de Rennes 1 (representative of Inserm CSS)

HCÉRES REPRESENTATIVE

Mr Jacques Noël

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Etienne Auge, Université Paris Sud

Mr Alix de la Coste, Commissariat à l'énergie atomique

Mr Etienne HIRSCHE, Inserm

Mr Xavier Mariette, Université Paris-Sud



INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The Cognitive NeuroImaging unit was created in 2002 as part of the Service Hospitalier Frédéric Joliot in Orsay. The unit moved in 2007 to the NeuroSpin facility, the neuroimaging research center at CEA in Saclay, outside of Paris, where it is still located. The unit is affiliated to Inserm, the French Atomic Energy Commission, and Université Paris Sud.. Researchers are employed by different agencies (e.g., INSERM, CNRS, University and CEA).

MANAGEMENT TEAM

The director of the unit was Mr Stanislas Dehaene during the evaluation period. He will remain director for the next term.

HCÉRES NOMENCLATURE

SVE4.

SCIENTIFIC DOMAIN

The scientific domain of the unit is in cognitive neuroscience. This is organized in 5 themes which are Brain computation (Theme 1), Language of the brain (Theme 2), Neuroimaging of development (Theme 3), Cognition and brain dynamics (Theme 4), and Primate cognition and consciousness (Theme 5). This includes investigating the neural basis of central cognitive functions such as language, consciousness, attention, perception. In addition, it includes research on brain development in connection to the development of cognitive functions.

UNIT WORKFORCE

	Cognitive Neuroimaging Unit	
Active staff	Number 30/06/2018	Number 01/01/2020
Full professors and similar positions	2	2
Assistant professors and similar positions	0	0
Full time research directors (Directeurs de recherche) and similar positions	3	3
Full time research associates (Chargés de recherche) and similar positions	5	8
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	0
High school teachers	0	0

Unit workforce



Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	8	9
Permanent staff	18	22
Non-permanent professors and associate professors, including emeritus	1	
Non-permanent full time scientists, including emeritus, post-docs	10	
PhD Students	15	
Non-permanent supporting personnel	5	
Non-permanent staff	31	
Total	49	22

GLOBAL ASSESSMENT OF THE UNIT

The UNICOG is a cognitive neuroscience center with an outstanding international reputation. It provides an open, intellectually stimulating environment for top-level research under the charismatic leadership of its director. His recent appointment as director of NeuroSpin, the neuroimaging research center at CEA Saclay, has increased the interaction between UNICOG and the other units of NeuroSpin, thereby tailoring the development of neuroimaging infrastructure more strongly to the needs of cognitive neuroscience research. This development is not yet finished and needs to be continued in the coming years.

The overall organization of UNICOG is excellent. The research program of the unit is organized in 5 research themes. A very important focus of the project is on the singularity of the human brain. The possibility to do cross-species research comparing humans with non-human primates allows to investigate which anatomical and functional differences explain uniquely human abilities such as language, mathematics, music, etc. In addition, the infrastructure for and the research program dedicated to studying early brain development in connection to the acquisition of cognitive skills are a unique contribution of the unit.

The scientific production of the unit is excellent with a large series of papers in the highest impact journals. Funding from international, ERC, and national sources is excellent. In addition, the unit contributes to optimizing the educational system in France through its links to the Ministry of Education and the local school system, and to creating interventional programs for developmental disorders such as dyslexia, dyscalculia and dyspraxia.

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