

May 2011

Roshan COOLS

Professional history

Professor of Neuropsychiatry, Radboud University Nijmegen Medical Centre, Department of Psychiatry

(2011 - now)

Principal Investigator, Donders Institute for Cognition, Brain and Behaviour; Centre for Cognitive

Neuroimaging (2007 - now; permanent)

Royal Society University Research Fellow, Dept Exp Psychology, Univ Cambridge, UK (2006-2007)

Royal Society Dorothy Hodgkin Research Fellow, Dept Exp Psychology, Univ Cambridge, UK (2002-2006)

Postdoctoral Fellow, Helen Wills Neurosci Inst, Univ California, Berkeley (2003-2005) (Mark D'Esposito)

Junior Research Fellow, St John's College, Cambridge, UK (2002-2006)

Education

Doctor of Philosophy, Exp Psychology, Univ Cambridge, UK (10 May 2003) (Trevor Robbins).

Title: Parkinson's disease as a model of dopamine-dependent fronto-striatal cognitive dysfunction

Master of Philosophy, Exp Psychology, Univ Cambridge, UK (19 Feb 2000) (Trevor Robbins)

Title: Mechanisms of cognitive flexibility in Parkinson's disease

Master of Science, Exp & Neuropsychology, Univ Groningen, NL (28 August 1998) (Cum Laude)

Current grants and fellowships

-*Netherlands Organization for Scientific Research* Open Competition grant Social Sciences (€150,000; 2010–2014). Role: Co-applicant. Title: Integrating motivation, cognition and action – Frontal control of dopamine-dependent striatal processing

-*Netherlands Organization for Scientific Research* Open Competition grant Social Sciences (€209,513; 2010–2014). Role: Primary applicant. Title: Pharmacological modulation of alpha and gamma

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oscillations: implications for working memory maintenance

- *Netherlands Organization for Scientific Research* prestigious VIDI grant for outstanding researchers

who rang among the top 10-20% of their peer group (€600,000 + €100,000 additional 'Aspasia' funds to stimulate promotion of women; 2008-2013). Role: Primary applicant. Title: Dopaminergic modulation of fronto-striatal activity during cognitive control

- *Netherlands Brain Foundation* fellowship (€150,000, 2009-2011). Role: Primary applicant. Title: Role of dopamine in the interaction between motivation and cognition in Parkinson's disease

- *Human Frontiers Science Program* grant (\$350,000; 2009-2012). Role: Co-applicant. Title:

Serotonin and decision-making: integrating interspecies experimental and computational approaches.

- *Netherlands Organization for Scientific Research* Open Competition grant Life Sciences (€150,000;

2009-2013). Role: Co-applicant. Title: The Anatomical and Neurochemical Foundations of Decision-Making under Time Pressure

- *National Institute of Health* RO1 grant (\$1,459,498; 2006-2011). Role: Co-applicant (PI: Mark D'Esposito). Title: Dopaminergic modulation of fronto-striatal function

Past grants and fellowships

- *Parkinson's Disease Society of the UK* fast track grant (£10,000; 2007). Role: Primary applicant. Topic: Habit formation in Parkinson's disease

- *Royal Society* University Research Fellowship (£481,939; 2006-2011 but cut short in 2007). Role: Primary applicant. Topic: Role of the basal ganglia in cognitive flexibility

- *American Parkinson's disease Association* research grant (\$50,000; 2004-2005). Role: Co-applicant (PI: Mark D'Esposito). Topic: Cognitive effects of dopaminergic medication in Parkinson's disease.

- *Royal Society* Dorothy Hodgkin Research Fellowship (£118,174; 2002-2006). Role: Primary applicant. Topic: Cognitive and reward functions of fronto-striatal circuitry

- *St John's College Cambridge* Junior Research Title A Fellowship (2002-2005). Role: Primary applicant

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- *Human Frontiers* Long Term Fellowship (2002-2005; declined after receipt of Royal Society fellowship). Role: Primary applicant
- *Parkinson's Disease Society of the UK* CD Marsden full Studentship (1999-2002)
- *Newnham College Cambridge* Mary Anne Eward full studentship (1999-2002)
- *Cambridge European Trust* Award, Cambridge UK (1998-2001)
- British Council* Dutch-British Partnership Award, full studentship (1998-1999)

Active collaborations with cognitive neuroscientists (*Prof Mark D'Esposito and Prof Rich Ivry, UC Berkeley; Prof Matthew Rushworth and Dr Jacinta O'Shea, University of Oxford; Prof Adam Aron, UC San Diego*), computational modelers (*Prof Nathaniel Daw, New York University, Prof Michael Frank, Brown University*), clinical neuroscientists (*Prof Bas Bloem, Donders Institute Nijmegen; Prof Roger Barker and Prof Barbara Sahakian, University of Cambridge*), and non-human primate electrophysiologist (*Prof Kae Nakamura, Kansai Medical School Japan*).

Editing and reviewing

- Action editor the *Journal of Cognitive Neuroscience* (2010-now);
- Consultant editor *Cognitive and Affective Behavioural Neuroscience*;
- Regular journal reviewer for the *Journal of Neuroscience, Brain, Science, Cerebral Cortex, Neuropsychopharmacology, Neuropsychologia* and other journals
- Regular grant reviewer for the National Science Foundation (US), Netherlands Organization for Scientific Research (NWO), the Medical Research Council (UK) and other bodies.