



Belgian Brain Congress 2012

Palais des Congrès Liège, October 27

INVITED SPEAKERS

Professor **Zoe Kourtzi**



Professor Kourtzi focuses her research on imaging the neural processes in the human brain that mediate complex, adaptive cognitive functions and behaviour. The aim being to understand the neural processes that mediate complex cognitive functions (i.e. object categorization, recognition, perceptual decisions) and their experience-based and developmental neural plasticity. In particular, Professor Kourtzi combines multimodal brain imaging methods (structural and functional MRI, EEG, MEG), established behavioural paradigms from cognitive psychology and state-of-the art mathematical algorithms to understand the link between brain structure, neural function and behaviour. The development of these multidisciplinary and advanced tools has direct applications for translational research in ageing and neurological disorders with potential impact for the prevention and treatment of nervous system disorders. Within this framework research in my lab spans diverse areas in neuroscience: visual brain imaging, learning and plasticity, cognitive development of the intact and impaired brain across the lifespan from infancy to ageing.

Recent Publications

[Learning Shapes Spatiotemporal Brain Patterns for Flexible Categorical Decisions.](#)

Li S, Mayhew SD, **Kourtzi Z.**

Cereb Cortex. 2011 Nov 10. [Epub ahead of print]

[Neural representations for object perception: structure, category, and adaptive coding.](#)

Kourtzi Z, Connor CE.

Annu Rev Neurosci. 2011;34:45-67. Review.

[Ideal observer analysis for task normalization of pattern classifier performance applied to EEG and fMRI data.](#)

Peterson MF, Das K, Sy JL, Li S, Giesbrecht B, **Kourtzi Z**, Eckstein MP.

J Opt Soc Am A Opt Image Sci Vis. 2010 Dec 1;27(12):2670-83. doi: 10.1364/JOSAA.27.002670.

[Learning alters the tuning of functional magnetic resonance imaging patterns for visual forms.](#)

Zhang J, Meeson A, Welchman AE, **Kourtzi Z**.

J Neurosci. 2010 Oct 20;30(42):14127-33

Professor Glyn Humphreys



Glyn Humphreys is Watts Professor of Experimental Psychology. He has interests across many areas in visual cognition, spanning both cognitive and social neuroscience. Recent work has examined the ability to select stimuli by perceptual saliency, the role of learning in binding, the interaction between working memory, action and attention. It covers a wide range of neuropsychological disorders including agnosia, apraxia, action disorganisation syndrome, alexia and amnesia, and includes the development of new clinical screening instruments for detecting cognitive problems after brain injury. Glyn has been awarded the Spearman and President's Medals from the British Psychological Society and also that society's Cognitive Psychology Prize. He is a Fellow of the Royal Society of Medicine, the Humboldt Foundation and the British Academy. He has been Special Professor at the Universities of Leipzig, Peking and the National Academy of Sciences, China. He has edited the Quarterly Journal of Experimental Psychology, Visual Cognition and the Journal of Experimental Psychology: Human Perception and Performance. He is a former President of the Experimental Psychology Society and is President-elect of the British Neuropsychology Society.

Selected Publications

Delvenne Jean-Francois, Castronovo Julie, Demeyere Nele, and Humphreys Glyn W (2011) [Bilateral field advantage in visual enumeration.](#) PLoS One, 6(3):e17743.

Balani Alex B, Soto David, and Humphreys Glyn W (2010) [Working memory and target-related distractor effects on visual search](#). Mem Cognit, 38(8):1058–76.

Chechlacz Magdalena, Rotshtein Pia, Bickerton Wai-Ling, Hansen Peter C, Deb Shoumitro, and Humphreys Glyn W (2010) [Separating neural correlates of allocentric and egocentric neglect: distinct cortical sites and common white matter disconnections](#). Cogn Neuropsychol, 27(3):277–303.

Demeyere Nele, Lestou Vaia, and Humphreys Glyn W (2010) [Neuropsychological evidence for a dissociation in counting and subitizing](#). Neurocase, 16(3):219–37.

Professor Stefan Treue



Director, German Primate Center
Head, Cognitive Neuroscience Laboratory,
German Primate Center
Professor for Biological Psychology and Cognitive Neuroscience,
Dept. of Biology, University of Goettingen

Recent Publications

[Expansion of MT neurons excitatory receptive fields during covert attentive tracking.](#)

Niebergall R, Khayat PS, **Treue S**, Martinez-Trujillo JC.
J Neurosci. 2011 Oct 26;31(43):15499-510.

[Transcranial alternating stimulation in a high gamma frequency range applied over V1 improves contrast perception but does not modulate spatial attention.](#)

Laczó B, Antal A, Niebergall R, **Treue S**, Paulus W.
Brain Stimul. 2011 Sep 15. [Epub ahead of print]

[Misperceptions of speed are accounted for by the responses of neurons in macaque cortical area MT.](#)

Boyras P, **Treue S**.
J Neurophysiol. 2011 Mar;105(3):1199-211. Epub 2010 Dec 29.

[Diverting attention suppresses human amygdala responses to faces.](#)

Professor Rik Vandenberghe



rik.vandenberghe@med.kuleuven.be

Afdeling Experimentele Neurologie
UZ Herestraat 49 - bus 7003
3000 Leuven

Recent Publications

[DLB and PDD: a role for mutations in dementia and Parkinson disease genes?](#)

Meeus B, Verstraeten A, Crosiers D, Engelborghs S, Van den Broeck M, Mattheijssens M, Peeters K, Corsmit E, Elinck E, Pickut B, **Vandenberghe R**, Cras P, De Deyn PP, Van Broeckhoven C, Theuns J. Neurobiol Aging. 2011 Nov 25. [Epub ahead of print]

[Ataxin-2 polyQ expansions in FTL-ALS spectrum disorders in Flanders-Belgian cohorts.](#)

Van Langenhove T, van der Zee J, Engelborghs S, **Vandenberghe R**, Santens P, Van den Broeck M, Mattheijssens M, Peeters K, Nuytten D, Cras P, De Deyn PP, De Jonghe P, Cruts M, Van Broeckhoven C. Neurobiol Aging. 2011 Oct 27. [Epub ahead of print]

[Sense and sensitivity of novel criteria for frontotemporal dementia.](#)

Vandenberghe R.

Brain. 2011 Sep;134(Pt 9):2450-3. Epub 2011 Aug 22. No abstract available.

[Right hemisphere recruitment during language processing in frontotemporal lobar degeneration and Alzheimer's disease.](#)

Nelissen N, Dupont P, Vandenbulcke M, Tousseyn T, Peeters R, **Vandenberghe R.** J Mol Neurosci. 2011 Nov;45(3):637-47. Epub 2011 Aug 9.

[Lesion evidence for the critical role of the intraparietal sulcus in spatial attention.](#)

Gillebert CR, Mantini D, Thijs V, Sunaert S, Dupont P, **Vandenberghe R.** Brain. 2011 Jun;134(Pt 6):1694-709. Epub 2011 May 15.

[Amyloid precursor protein mutation E682K at the alternative \$\beta\$ -secretase cleavage \$\beta'\$ -site increases A \$\beta\$ generation.](#)

Zhou L, Brouwers N, Benilova I, Vandersteen A, Mercken M, Van Laere K, Van Damme P, Demedts D, Van Leuven F, Sleegers K, Broersen K, Van Broeckhoven C, **Vandenberghe R**, De Strooper B. EMBO Mol Med. 2011 May;3(5):291-302.

[Alzheimer risk associated with a copy number variation in the complement receptor 1 increasing C3b/C4b binding sites.](#)

Brouwers N, Van Cauwenberghe C, Engelborghs S, Lambert JC, Bettens K, Le Bastard N, Pasquier F, Montoya AG, Peeters K, Mattheijssens M, **Vandenberghe R**, De Deyn PP, Cruts M, Amouyel P, Sleegers K, Van Broeckhoven C. Mol Psychiatry. 2011 Mar 15. [Epub ahead of print]

[TMEM106B is associated with frontotemporal lobar degeneration in a clinically diagnosed patient cohort.](#)
van der Zee J, Van Langenhove T, Kleinberger G, Sleegers K, Engelborghs S, **Vandenberghe R**, Santens P, Van den Broeck M, Joris G, Brys J, Mattheijssens M, Peeters K, Cras P, De Deyn PP, Cruts M, Van Broeckhoven C.
Brain. 2011 Mar;134(Pt 3):808-15.

Dr. Farah Focquaert



Farah Focquaert has a Master's degree in 'Moral Sciences' (2001), 'Logic, History and Philosophy of Science (2002)' and 'Conflict and Development' (2003) (Ghent University). In 2007, she obtained a PhD in Philosophy on the philosophy, psychology and neuroscience of mindreading (Ghent University). She is affiliated to the Department of Philosophy and Moral Sciences at Ghent University. She was a Visiting Research Fellow at the Center for Cognitive Neuroscience, Dartmouth College (2005-06) and participated in their Summer Institute for Cognitive Neuroscience (2005). She is a Research Fellow of the Research Foundation- Flanders, and a member of the Moral Brain research group.

Her current research, situated in the field of neuroethics, focuses on the philosophical and ethical issues surrounding neuromodulation research and treatment for psychiatric conditions (e.g., questions related to personal identity, the mind-body problem and criminal behavior).

Recent Publications

[Pediatric deep brain stimulation: a cautionary approach.](#)

Focquaert F.

Front Integr Neurosci. 2011 May 2;5:9. No abstract available.

[Different resting state brain activity and functional connectivity in patients who respond and not respond to bifrontal tDCS for tinnitus suppression.](#)

Vanneste S, **Focquaert F**, Van de Heyning P, De Ridder D.

Exp Brain Res. 2011 Apr;210(2):217-27. Epub 2011 Mar 25.

[Mindreading in individuals with an empathizing versus systemizing cognitive style: An fMRI study.](#)

Focquaert F, Steven-Wheeler MS, Vanneste S, Doron KW, Platek SM.

Brain Res Bull. 2010 Oct 30;83(5):214-22. Epub 2010 Aug 20.

Professor Richard Morris



Richard Morris has been Professor of Neuroscience at the University of Edinburgh since 1993.

In 1969 he graduated with a MA from Natural Sciences at the University of Cambridge and, in 1973, completed a D.Phil at the Laboratory of Experimental Psychology of the University of Sussex. His primary research interests are the neurobiology of learning and memory, and the applications of concepts and techniques developed in this work to help develop new therapeutics for Alzheimer's Disease.

He invented and developed the 'watermaze' as a method to study spatial learning (Morris et al, Nature, 1982), discovered the role of NMDA receptors in learning (Morris et al, Nature, 1986), and co-developed the synaptic tagging theory of the persistence of memory (Frey and Morris, Nature, 1997). His research is well supported by grants from the U.K. Medical Research Council and other charitable and international bodies.

Dr Morris serves as an advisor for a number of international research institutes, is a member of the Scientific Advisory Board of the Alzheimer's Research Trust in the U.K., and the Scottish Science Advisory Council. Latterly he served as Life Sciences Coordinator of a U.K. Government initiative on Cognitive Systems. He is also an active member of the Council of the [European Dana Alliance for the Brain \(EDAB\)](#) whose mission is public awareness of neuroscience.

Recent Publications

[Behavioural and cognitive neuroscience.](#)

Graybiel AM, **Morris R.**

Curr Opin Neurobiol. 2011 Jun;21(3):365-7. Epub 2011 Jul 2.

[Cognitive flexibility and clinical severity in eating disorders.](#)

Tchanturia K, Harrison A, Davies H, Roberts M, Oldershaw A, Nakazato M, Stahl D, **Morris R**, Schmidt U, Treasure J.

PLoS One. 2011;6(6):e20462. Epub 2011 Jun 15.

[Making memories last: the synaptic tagging and capture hypothesis.](#)

Redondo RL, Morris RG.

Nat Rev Neurosci. 2011 Jan;12(1):17-30. Review.

[Relevance of synaptic tagging and capture to the persistence of long-term potentiation and everyday spatial memory.](#)

Wang SH, Redondo RL, Morris RG.

Proc Natl Acad Sci U S A. 2010 Nov 9;107(45):19537-42. Epub 2010 Oct 20.

Professor Eric Salmon



Le professeur Eric Salmon est médecin spécialiste en neuropsychiatrie, docteur en sciences biomédicales expérimentales et spécialiste en médecine nucléaire. Chargé de cours à l'Université de Liège, médecin coordinateur du Centre de la Mémoire et de l'Unité de Neuropsychologie du CHU de Liège, directeur médical du Centre de Recherches du Cyclotron de l'Université de Liège, il a publié de nombreux articles dans des revues internationales et est membre de quatre sociétés scientifiques : la Société Belge de Neurologie, l'European Neurological Society, la Société Belge de Médecine Nucléaire et la Belgian Society for Neuroscience. Les activités de recherche d'Eric Salmon ont trait à l'exploration de la physiologie et de la physiopathologie de certaines fonctions cognitives (les mémoires, les fonctions exécutives et les praxies) et de la motricité chez l'homme normal ou lors de pathologies dégénératives, et ce par l'étude en neuroimagerie fonctionnelle des paramètres hémodynamiques et métaboliques, ainsi que de l'activité des voies de neurotransmission.

Publications

WOJTASIK V, OLIVIER C, LEKEU F, QUITTRE A, ADAM S, and SALMON E. *A grid for a precise analysis of daily activities.* Neuropsychol Rehabil, 20: 120-36, 2010.

SALMON E, KERROUCHE N, PERANI D, LEKEU F, HOLTHOFF V, BEUTHIEN-BAUMANN B, SORBI S, LEMAIRE C, COLLETTE F, and HERHOLZ K. *On the multivariate nature of brain metabolic impairment in alzheimer's disease.* Neurobiol Aging, 30: 186-197, 2009.

PETERS F, COLLETTE F, DEGUELDRE C, STERPENICH V, MAJERUS S, and SALMON E. *The neural correlates of verbal short-term memory in alzheimer's disease: An fmri study.* Brain, 132: 1833-46, 2009.

LEKEU F, MAGIS D, MARIQUE P, DELBEUCK X, BECHET S, GUILLAUME B, ADAM S, PETERMANS J, MOONEN G, and SALMON E. *The california verbal learning test and other standard clinical neuropsychological tests to predict conversion from mild memory impairment to dementia*. J Clin Exp Neuropsychol: 1-12, 2009.

D'ARGEMBEAU A, STAWARCZYK D, MAJERUS S, COLLETTE F, VAN DER LINDEN M, and SALMON E., *Modulation of medial prefrontal and inferior parietal cortices when thinking about past, present, and future selves*. Social Neuroscience, , 2010, 5, 187-200.

D'ARGEMBEAU A, STAWARCZYK D, MAJERUS S, COLLETTE F, VAN DER LINDEN M, FEYERS D, MAQUET P, and SALMON E., *The neural basis of personal goal processing when envisioning future events*. Journal of Cognitive Neuroscience, 2010, 22, 1701-1713.

Professor Peter Paul De Deyn



Professor De Deyn is full Professor at the University of Antwerp and the University of Groningen. He is also Scientific Director at the Institute Born-Bunge, Scientific Director of the Alzheimer Research Center Groningen, President CME ZNA and Editor-in-Chief of Clinical Neurology and Neurosurgery

Career

Bachelor in Medicine, Free University of Brussels (VUB), 1978

M.D., Free University of Brussels (VUB), 1982

Board Certified Neuropsychiatrist, 1987

Master in Medical and Pharmaceutical Sciences, Free University of Brussels (VUB), 1987

D.Sc, University of Antwerp, 1989

Research Director Institute Born-Bunge since 1989

Chairman Department of Neurology/Memory Clinic, ZNA Middelheim, since 1990

Invited Lecturer Medicine, University of Antwerp, 1994-2002

Senior Lecturer, University of Antwerp, 2002-2005

Scientific Director Institute Born-Bunge since 2005

Professor University of Antwerp since 2006

Recent Publications

[DLB and PDD: a role for mutations in dementia and Parkinson disease genes?](#)

Meeus B, Verstraeten A, Crosiers D, Engelborghs S, Van den Broeck M, Mattheijssens M, Peeters K, Corsmit E, Elinck E, Pickut B, Vandenberghe R, Cras P, De Deyn PP, Van Broeckhoven C, Theuns J. Neurobiol Aging. 2011 Nov 25. [Epub ahead of print]

[Sinus sigmoideus thrombosis secondary to graves' disease: a case description.](#)

Hermans E, Mariën P, De Deyn PP. Case Rep Neurol. 2011 Sep;3(3):203-9. Epub 2011 Sep 7.

[Ataxin-2 polyQ expansions in FTLD-ALS spectrum disorders in Flanders-Belgian cohorts.](#)

Van Langenhove T, van der Zee J, Engelborghs S, Vandenberghe R, Santens P, Van den Broeck M, Mattheijssens M, Peeters K, Nuytten D, Cras P, De Deyn PP, De Jonghe P, Cruys M, Van Broeckhoven C. Neurobiol Aging. 2011 Oct 27. [Epub ahead of print]

[Genes involved in cerebrospinal fluid production as candidate genes for late-onset Alzheimer's disease: a hypothesis.](#)

Wostyn P, van Dam D, Audenaert K, de Deyn PP. J Neurogenet. 2011 Dec;25(4):195-200. Epub 2011 Oct 24.

[Effects of cholinesterase inhibitors in Parkinson's disease dementia: a review of clinical data.](#)

van Laar T, De Deyn PP, Aarsland D, Barone P, Galvin JE. CNS Neurosci Ther. 2011 Oct;17(5):428-41. doi: 10.1111/j.1755-5949.2010.00166.x. Epub 2010 Jul 7.

Professor A Ivanoiu



Service de Neurologie
Cliniques Universitaires Saint-Luc

Recent Publications

[Mild cognitive impairment: differential atrophy in the hippocampal subfields.](#)

Hanseeuw BJ, Van Leemput K, Kavec M, Grandin C, Seron X, **Ivanoiu A**.
AJNR Am J Neuroradiol. 2011 Oct;32(9):1658-61. Epub 2011 Aug 11.

[Associative encoding deficits in amnesic mild cognitive impairment: a volumetric and functional MRI study.](#)

Hanseeuw B, Dricot L, Kavec M, Grandin C, Seron X, **Ivanoiu A**.
Neuroimage. 2011 Jun 1;56(3):1743-8. Epub 2011 Mar 17.

[18F-flutemetamol amyloid imaging in Alzheimer disease and mild cognitive impairment: a phase 2 trial.](#)

Vandenberghe R, Van Laere K, **Ivanoiu A**, Salmon E, Bastin C, Triau E, Hasselbalch S, Law I, Andersen A, Korner A, Minthon L, Garraux G, Nelissen N, Bormans G, Buckley C, Owenius R, Thurfjell L, Farrar G, Brooks DJ.
Ann Neurol. 2010 Sep;68(3):319-29.

[Increased sensitivity to proactive interference in amnesic mild cognitive impairment is independent of associative and semantic impairment.](#)

Hanseeuw BJ, Seron X, **Ivanoiu A**.
Brain Cogn. 2010 Mar;72(2):325-31. Epub 2009 Nov 10.

Doctors Chris Baeken



Chris Baeken : Department of Psychiatry and Center for Neurosciences, Vrije Universiteit Brussel (VUB), Brussels

Recent Publications

[No influence of one right-sided prefrontal HF-rTMS session on alcohol craving in recently detoxified alcohol-dependent patients: Results of a naturalistic study.](#)

Herremans SC, **Baeken C**, Vanderbruggen N, Vanderhasselt MA, Zeeuws D, Santermans L, De Raedt R.
Drug Alcohol Depend. 2011 Aug 18. [Epub ahead of print]

[Is treatment-resistance in unipolar melancholic depression characterized by decreased serotonin_{2A} receptors in the dorsal prefrontal - anterior cingulate cortex?](#)

Baeken C, De Raedt R, Bossuyt A.
Neuropharmacology. 2012 Jan;62(1):340-6. Epub 2011 Aug 5.

[The effect of one left-sided dorsolateral prefrontal sham-controlled HF-rTMS session on approach and withdrawal related emotional neuronal processes.](#)

Baeken C, Van Schuerbeek P, De Raedt R, De Mey J, Vanderhasselt MA, Bossuyt A, Luypaert R.
Clin Neurophysiol. 2011 Nov;122(11):2217-26. Epub 2011 May 5.

[The impact of HF-rTMS treatment on serotonin\(2A\) receptors in unipolar melancholic depression.](#)

Baeken C, De Raedt R, Bossuyt A, Van Hove C, Mertens J, Dobbeleir A, Blanckaert P, Goethals I.
Brain Stimul. 2011 Apr;4(2):104-11. Epub 2010 Sep 27.

Professor Kurt Audenaert



Kurt Audenaert received his medical education and training in psychiatry at the University of Ghent, Belgium. He also holds the degree of Master in Criminology and was trained in neuropsychology. He currently is head of Adult Psychiatry at the Department of Psychiatry, University Hospital Ghent. He is Professor of Psychiatry and teaches at the Medicine Faculty and the Law Faculty at the University of Ghent. **Kurt Audenaert** collaborates closely with the Division of Nuclear Medicine at the University Hospital Ghent. Indeed, the title of his PhD thesis was

Recent Publications

[Genes involved in cerebrospinal fluid production as candidate genes for late-onset Alzheimer's disease: a hypothesis.](#)

Wostyn P, van Dam D, **Audenaert K**, de Deyn PP.
J Neurogenet. 2011 Dec;25(4):195-200. Epub 2011 Oct 24.

[Second generation antipsychotics in the treatment of bipolar depression: a systematic review and meta-analysis.](#)

De Fruyt J, Deschepper E, **Audenaert K**, Constant E, Floris M, Pitchot W, Sienaert P, Souery D, Claes S.
J Psychopharmacol. 2011 Sep 22. [Epub ahead of print]

[Are intracranial pressure fluctuations important in glaucoma?](#)

Wostyn P, De Groot V, **Audenaert K**, De Deyn PP.
Med Hypotheses. 2011 Oct;77(4):598-600. Epub 2011 Jul 20.

[Predatory violence aiming at relief in a case of mass murder: Meloy's criteria for applied forensic practice.](#)

Declercq F, **Audenaert K**.
Behav Sci Law. 2011 Jul;29(4):578-91. doi: 10.1002/bsl.994. Epub 2011 Jul 11.

Professor Stanislas Dehaene



Stanislas Dehaene is professor at the Collège de France, where he holds the chair of Experimental Cognitive Psychology. He is also the head of the INSERM-CEA Cognitive Neuroimaging Unit at NeuroSpin in Saclay, just south of Paris -- France's most advanced neuroimaging research center. His research investigates the neural bases of human cognitive functions such as reading, calculation and language, with a particular interest for the differences between conscious and non-conscious processing.

Recent Publications

[Evidence for a hierarchy of predictions and prediction errors in human cortex.](#)

Wacongne C, Labyt E, van Wassenhove V, Bekinschtein T, Naccache L, **Dehaene S**.
Proc Natl Acad Sci U S A. 2011 Dec 6. [Epub ahead of print]

[Comment on "preserved feedforward but impaired top-down processes in the vegetative state".](#)

King JR, Bekinschtein T, **Dehaene S**.
Science. 2011 Dec 2;334(6060):1203.

[How awareness changes the relative weights of evidence during human decision-making.](#)

de Lange FP, van Gaal S, Lamme VA, **Dehaene S**.
PLoS Biol. 2011 Nov;9(11):e1001203. Epub 2011 Nov 22.

[A shared cortical bottleneck underlying Attentional Blink and Psychological Refractory Period.](#)

Marti S, Sigman M, **Dehaene S**.
Neuroimage. 2011 Oct 1. [Epub ahead of print]

[The cost of serially chaining two cognitive operations.](#)

Fan Z, Singh K, Muthukumaraswamy S, Sigman M, **Dehaene S**, Shapiro K.
Psychol Res. 2011 Aug 30. [Epub ahead of print]

[The human Turing machine: a neural framework for mental programs.](#)

Zylberberg A, **Dehaene S**, Roelfsema PR, Sigman M.
Trends Cogn Sci. 2011 Jul;15(7):293-300. Epub 2011 Jun 21.

Professor John Duncan



From Cambridge scientist John Duncan, *How Intelligence Happens* tells the story of one of the great scientific mysteries. Human intelligence seems infinite in its variety and power – it builds sprawling cities, plans a dinner party, takes us to the beginnings of time and the limits of the universe. Yet intelligence is created in a brain much like the brains of other animals, with billions of nerve cells communicating in tiny electrical impulses. Can science hope to explain how brains build intelligence? Can it illuminate the controversies of intelligence testing, the bizarre changes that follow brain damage, the link of human to animal intelligence? For the general reader, *How Intelligence Happens* is the story of search for an answer.

Recent Publications

[Adaptive coding of task-relevant information in human frontoparietal cortex.](#)

Woolgar A, Hampshire A, Thompson R, **Duncan J**.
J Neurosci. 2011 Oct 12;31(41):14592-9.

[Fluid intelligence loss linked to restricted regions of damage within frontal and parietal cortex.](#)

Woolgar A, Parr A, Cusack R, Thompson R, Nimmo-Smith I, Torralva T, Roca M, Antoun N, Manes F, **Duncan J**.
Proc Natl Acad Sci U S A. 2010 Aug 17;107(33):14899-902. Epub 2010 Aug 2.

[Lateral prefrontal cortex subregions make dissociable contributions during fluid reasoning.](#)

Hampshire A, Thompson R, **Duncan J**, Owen AM.
Cereb Cortex. 2011 Jan;21(1):1-10. Epub 2010 May 18.

[Multi-voxel coding of stimuli, rules, and responses in human frontoparietal cortex.](#)

Woolgar A, Thompson R, Bor D, **Duncan J**.
Neuroimage. 2011 May 15;56(2):744-52. Epub 2010 Apr 18.

[The multiple-demand \(MD\) system of the primate brain: mental programs for intelligent behaviour.](#)

Duncan J.
Trends Cogn Sci. 2010 Apr;14(4):172-9. Epub 2010 Feb 18. Review.

Professor Guy Vingerhoets



Laboratory for Neuropsychology, Department of Internal Medicine, Ghent University and Ghent Institute for Functional and Metabolic Imaging, Ghent University, Ghent,

Recent Publications

[The cognitive effects of amygdalohippocampal deep brain stimulation in patients with temporal lobe epilepsy.](#)

Miatton M, Van Roost D, Thiery E, Carrette E, Van Dycke A, Vonck K, Meurs A, **Vingerhoets G**, Boon P. *Epilepsy Behav.* 2011 Dec;22(4):759-64. Epub 2011 Oct 24.

[Cognitive Differences Between Patients with Left-sided and Right-sided Parkinson's Disease. A Review.](#)

Verreyt N, Nys GM, Santens P, **Vingerhoets G**. *Neuropsychol Rev.* 2011 Dec;21(4):405-24. Epub 2011 Sep 29.

[Cerebral lateralization of praxis in right- and left-handedness: Same pattern, different strength.](#)

Vingerhoets G, Acke F, Alderweireldt AS, Nys J, Vandemaele P, Achten E. *Hum Brain Mapp.* 2011 Apr 15. doi: 10.1002/hbm.21247. [Epub ahead of print]

[The effect of CABG on neurocognitive functioning.](#)

Stroobant N, Van Nooten G, Van Belleghem Y, **Vingerhoets G**. *Acta Cardiol.* 2010 Oct;65(5):557-64. Review.

[Horizontal and vertical attentional orienting in Parkinson's disease.](#)

Nys GM, Santens P, **Vingerhoets G**. *Brain Cogn.* 2010 Dec;74(3):179-85.