

## Marian van der Meulen

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### Employment

- 2011 – now** Research Scientist (*Adjoint de recherche*), Institute for Health and Behaviour, University of Luxembourg
- 2008 – 2011** Post-doctoral Research Fellow, Laboratory for Neurology and Imaging of Cognition, University of Geneva, Switzerland
- 2007 – 2008** Post-doctoral Research Fellow, Human Cognitive Neuroscience, University of Edinburgh, UK
- 2006 – 2007** Research Associate, Human Cognitive Neuroscience, University of Edinburgh, UK
- 2003 – 2007** PhD in cognitive neuropsychology, University of Edinburgh, UK
- 1998 – 2003** Bachelor + Master of Science in Biology, University of Utrecht, Netherlands

### Main Research Projects

- 2017 – now** Age-related changes in human pain perception and modulation: Evidence from functional brain imaging (ACHE). *Funded by FNR*. University of Luxembourg
- 2017 – now** Quantitative sensory profiling in chronic pain patients undergoing high frequency spinal cord stimulation therapy. *Funded by Nevro Corp*. University of Luxembourg
- 2017 – now** Perceptual inference as a mechanism of mindfulness: Implications for pain regulation. *Funded by FNR*. University of Luxembourg
- 2014 – 2017** Categorisation effects in pain perception. *Funded by FNR*. University of Luxembourg
- 2011 – 2017** fMRI investigation into the role of cognitive reappraisal as underlying mechanism of placebo analgesia. University of Luxembourg
- 2012 – 2016** Self-regulation and pain. Psychological processes in endogenous analgesia. Collaboration between the Universities of Luxembourg and Ghent (Belgium)
- 2008 – 2011** Exploring the use of fMRI in patients with Mild Cognitive Impairment as a clinical prognostic tool for Alzheimer’s Disease. *Funded by Swiss National Science Foundation (FNS)*. University of Geneva

- 2008 – 2011** Investigation of the neural pathways of cognitive control of gait in elderly, using fMRI. University of Geneva
- 2007 – 2008** Investigating cognitive decision-making in medical professionals on the basis of computer-generated texts or graphs. University of Edinburgh
- 2006 – 2007** Investigating multi-tasking in high-functioning adolescents with autism spectrum disorders. University of Edinburgh
- 2003 – 2007** Exploring the interaction between working memory and long-term memory. University of Edinburgh

## Publications

### Peer-reviewed journal articles

Petersen, van den Bergh, **van der Meulen** (in preparation). The relationship between intolerance of uncertainty and pain perception.

**Van der Meulen**, Kamping, Anton (2017). The role of cognitive reappraisal in placebo analgesia: an fMRI study. *Social Cognitive and Affective Neuroscience* 12(7), 1128-1137.

**Van der Meulen**, Anton, Petersen (2017). Painful decisions: How classifying sensations can change the experience of pain. *European Journal of Pain*. DOI: 10.1002/ejp.1061.

**Van der Meulen**, Allali, Rieger, Assal, Vuilleumier (2014). The influence of individual motor imagery ability on cerebral recruitment during gait imagery. *Human Brain Mapping* 35(2), 455-470.

Allali, **Van der Meulen**, Beauchet, Rieger, Vuilleumier, Assal (2013). The neural basis of age-related changes in motor imagery of gait: an fMRI study. *Journal of Gerontology*. DOI: 10.1093/gerona/glt207.

**Van der Meulen**, Lederrey, Rieger, van Assche, Schwartz, Vuilleumier, Assal (2012). Associative and semantic memory deficits in amnesic MCI as revealed by fMRI. *Cognitive and Behavioral Neurology* 25(4), 195-215.

Saj, Catalano Chiuvé, Brugger, **Van der Meulen**, Assal (2011). Ipsilateral hyperschemata without spatial neglect after right frontal lesion. *Journal of the Neurological Sciences* 308(1-2), 142-143.

Rajendran, Law, Logie, **Van der Meulen**, Fraser, Corley (2011). Investigating multitasking in high-functioning adolescents with autism spectrum disorders using the virtual errands task. *Journal of Autism and Developmental Disorders*, 41(11), 1445-1454.

Della Sala, **Van der Meulen**, Bestelmeyer, Logie (2010). Evidence for a workspace model of working memory from semantic implicit processing in neglect. *Journal of Neuropsychology* 4(2), 147-66.

**Van der Meulen**, Logie, Freer, Sykes, McIntosh, Hunter (2010). When a graph is poorer than 100 words: A comparison of computerised natural language generation, human generated descriptions and graphical displays in neonatal intensive care. *Applied Cognitive Psychology*, 24(1), 77-89.

Allali, **Van der Meulen**, Assal (2010). Gait and cognition: The impact of executive function. *Swiss Archives of Neurology and Psychiatry* 161(6), 195-9.

**Van der Meulen**, Logie, Della Sala (2009). Selective interference with image retention and generation: Evidence for the workspace model. *Quarterly Journal of Experimental Psychology*, 62(8), 1568-80.

**Van der Meulen**, Sykes, Freer, Hunter, McIntosh, Logie (2008). Generating textual summaries of clinical data: The Baby Talk Project. *Archives of Disease in Childhood: Fetal and Neonatal Edition* 93

### Books/ Book Chapters

Assal, **Van der Meulen** (2009). Pharmacological interventions in primary care: hopes and illusions. In Giannakopoulos, Hof (Eds) *Frontiers of Neurology and Neurosciences: Dementia in Clinical Practice* 24, 54-65.

Logie, **Van der Meulen** (2009). Fragmenting and integrating visuo-spatial working memory. In Brockmole (Ed) *Representing the Visual World in Memory*. Psychology Press, pp 1-32.

### Other publications

Kebets, Richiardi, Van Assche, Goldstein, **Van der Meulen**, Vuilleumier, Van de Ville, Assal (2015). Predicting pure amnesic mild cognitive impairment conversion to Alzheimer's disease using joint modeling of imaging and clinical data. *International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, pp 85-88.

## Conference presentations (selection)

**Van der Meulen** (2018). *Pain, emotions and cognition; A neuropsychological perspective*. Talk. Lecture series "Psychology and Health". Psychology department, University of Luxembourg.

Siquier, Prats, Montoya, Sitges, **Van der Meulen**, Anton, Gonzalez-Roldan (2018). *Reduced modulatory effects of distraction on pain due to aging*. Poster. Joint congress of SEPEX, SEPNECA and AIP experimental, Madrid, Spain.

**Van der Meulen**, Anton (2015). *Prefrontal activation during placebo analgesia is related to cognitive reappraisal*. Poster. Congress of the European Pain Federation EFIC. Vienna, Austria.

**Van der Meulen** (2012). *Functional magnetic resonance imaging*. Talk. Seminar of the laboratory of Psychobiology and Neurophysiology (LPN). Luxembourg.

**Van der Meulen**, Lederrey, Vuilleumier, Rieger, Schwartz, Assal (2010). *Exploring the use of fMRI as a clinical prognostic tool for Alzheimer's Disease*. Invited talk. Conference of the Brain and Behaviour Laboratory and the Center for Biomedical Imaging. Geneva, Switzerland.

**Van der Meulen**, Lederrey, Rieger, Schwartz, Vuilleumier, Assal (2010). *Associative and semantic memory deficits in amnesic MCI as revealed by functional MRI*. Poster. European Federation of Neurological Societies (EFNS) Congress. Geneva, Switzerland.

**Van der Meulen**, Lederrey, Schwartz, Vuilleumier, Assal (2009). *Predicting the risk for Alzheimer's Disease in patients with Mild Cognitive Impairment using fMRI*. Poster. International Conference on Alzheimer's Disease (ICAD). Vienna, Austria.

**Van der Meulen**, Lederrey, Vuilleumier, Schwartz, Assal (2009). *Predicting the risk for Alzheimer's Disease using fMRI*. Poster. Alpine Brain Imaging Meeting (ABIM). Champéry, Switzerland.

**Van der Meulen**, Logie, Della Sala (2007). *Selective interference with visual short-term memory and imagery*. Talk. European Workshop on Imagery and Cognition (EWIC). Utrecht, The Netherlands.

**Van der Meulen, Logie, Della Sala (2006).** *To see or not to see: Implicit processing in patients with visual neglect.* Talk. Scottish Neuropsychology Network (SNN) Scientific meeting. Glasgow, UK.

**Van der Meulen, Logie, Della Sala (2006).** *The interaction between visual working memory and visual perception.* Talk. European Society of Cognitive Psychology (ESCoP) Summer School on Human Memory. Granada, Spain.

**Van der Meulen, Logie, Della Sala (2006).** *The relationship between visual working memory and long-term memory.* Talk. British Psychological Society (BPS) – Cognitive Section meeting. Lancaster, UK.

**Van der Meulen, Logie, Della Sala (2006).** *The interaction between visual working memory and long-term memory.* Talk. Working Memory Discussion Meeting (WMDM). Skipton, UK.

**Van der Meulen, Logie, Della Sala (2005).** *Visual Working Memory and Visual Perception Processes.* Poster. European Society for Cognitive Psychology (ESCoP) conference. Leiden, The Netherlands.

**Van der Meulen (2004).** *The Mind that Lies.* Workshop. 'Science Communication in European Science Centres and Science Museums', European Science Festival. Genova, Italy.

**Van der Meulen, Logie, Della Sala (2004).** *Visual Perception and Visual Working Memory. Two functionally distinct systems?* Talk. Working Memory Discussion Meeting (WMDM). Monmouth, UK.

## PhD Supervision

- 2017 – now** First supervisor. Project title: Age-related changes in human pain perception and modulation: Evidence from functional brain imaging. Candidate: Katharina Rischer
- 2017 – now** CET member. Project title: Perceptual inference as a mechanism of mindfulness: Implications for pain regulation. Candidate: Shervan Vencatachellum
- 2012 – 2016** CET member. Project title: Self-regulation and pain. Psychological processes in endogenous analgesia. Candidate: Silke Rost (cotutelle with Ghent University, Belgium)

## Teaching

- 2016 – now** Psychophysiology, 2 semesters per year, Bachelor in Psychology, University of Luxembourg
- 2013 – now** Neuropsychology, 1 semester per year, Masters in Psychotherapy, University of Luxembourg

## Peer Reviewing

- Frontiers in Systems Neuroscience (IF = 3.79)
- Future Science OA
- Human Brain Mapping (IF=5.969)
- Journal of Neuroimaging (IF= 1.853)
- Journal of Neurology, Neurosurgery, and Psychiatry (IF = 7.144)

Neurobiology of Aging (IF = 5.153)

Pain (IF = 5.559)

Quarterly Journal of Experimental Psychology (IF = 2.127)

The World Journal of Biological Psychiatry (IF=3.658)

## Awarded Funding

- 2017**            Role: PI  
Project title: Age-related Changes in Human pain perception and modulation: Evidence from functional brain imaging (ACHE)  
Amount: EUR 526.000,00  
Source: Fonds National de la Recherche (FNR) Luxembourg, CORE Junior project
- 2017**            Role: Co-PI  
Project title: Quantitative sensory profiling in chronic pain patients undergoing high frequency spinal cord stimulation therapy (QUASPRO)  
Amount: EUR 44.300,00  
Source: Nevro Corp., USA
- 2016**            Role: co-applicant  
PI: Ana-Maria Gonzalez, Mallorca, Spain  
Project title: Neural circuits of pain and their reorganisation by aging  
Amount: EUR 49.000,00  
Source: Spanish Ministry of Economy and Competitiveness
- 2012**            Role: co-applicant  
PI: Dr F. Assal, M.D., Geneva, Switzerland  
Project title: Functional imaging markers of the MCI brain in task and at rest: detecting memory and connectivity impairments in presymptomatic Alzheimer's disease  
Amount: CHF440.000,00 (€ 357.000,000)  
Source: Swiss National Science Foundation (SNF)