

# Curriculum Vitae

Name: **Marieke Mur**

Current employer: **MRC Cognition and Brain Sciences Unit**  
University of Cambridge

Current position: **British Academy Postdoctoral Fellow**  
Research Fellow of Darwin College

Contact information: MRC Cognition and Brain Sciences Unit (CBU)  
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## Employment and education

2011 – to date **Research staff** at the CBU, Cambridge, UK.  
Member of the Memory and Perception Group (PIs: N Kriegeskorte, R Henson) and Attention and Control Group (PI: J Duncan)  
Grant source 2011-2013: The Netherlands Organisation for Scientific Research (NWO), personal grant. Grant source 2014: Wellcome Trust, project grant. Grant source 2015-2017: British Academy, personal grant

2011 **PhD in Cognitive Neuroscience**  
“High-level visual object representations in inferior temporal cortex”

2006 – 2011 PhD candidate in joint PhD programme:  
2009 – 2011 PhD candidate at the Faculty of Psychology and Neuroscience, University of Maastricht (UM), The Netherlands  
Advisors: P de Weerd, R Goebel

2006-2008 Pre-doc visiting fellow at the Section of Functional Imaging Methods at the National Institute of Health (NIH), Graduate Partnerships Program (GPP), Bethesda, MD, USA  
Advisors: N Kriegeskorte, P Bandettini

2006 **MSc in Cognitive Neuroscience (cum laude)**  
**BSc in Psychology (cum laude)**

2004 – 2006 Master student at the Faculty of Psychology and Neuroscience, UM, The Netherlands.  
Master included an eight-month research internship at the Section of Functional Imaging Methods (PI: P Bandettini), Lab of Brain and Cognition (PI: L Ungerleider), NIH, Bethesda, MD, USA

2001 – 2004 Undergraduate student at the Faculty of Psychology and Neuroscience, UM, The Netherlands

## Awards

2015	Schlumberger Research Fellow, Darwin College, Cambridge, UK
2014	British Academy <b>Postdoctoral Fellowship</b> (£ 185.772)
2011	NWO Rubicon <b>Postdoctoral Fellowship</b> (€ 147.697)
2011	Universiteitsfonds Limburg/SWOL Research & Education grant (€ 2000)
2009	Vision Sciences Society Student Travel Award (\$ 500)
2007	NIH GPP Travel Award (\$ 1000)
2006	NIH Intramural Research Training Award (\$ 66.748)
2006	Thesis Award for best master thesis of the Faculty of Psychology and Neuroscience, UM (€ 500)

## Teaching

2015 – to date	Undergraduate workshops on fMRI, University of Cambridge
2014 – to date	<b>Graduate workshops on fMRI pattern-information analysis</b> , CBU
2012 – to date	<b>Supervision of bachelor, master, and PhD candidates</b> during extended research projects in the field of cognitive neuroscience, CBU
2014	Two-day workshop on fMRI pattern analysis, Memory and Language Research Group, University of Granada, Spain
2009 – 2011	<b>Lectures on object perception and neuroimaging methods</b> , UM
2003 – 2011	Tutor and mentor of (under)graduate students of psychology, including the following subjects: perception, memory, cognition, statistics, computer programming, scientific writing, philosophy of science
2007	Co-organiser of NIH FAES course on medical imaging methods, NIH

## Academic activities

2009 – to date	<b>Reviewer</b> for Science, Journal of Neuroscience, Neuroimage, Cerebral Cortex, Human Brain Mapping, Social Cognitive and Affective Neuroscience, Language Cognition and Neuroscience, PLoS One, Biological Psychology, Research Foundation Flanders
2006 – to date	Member of Society for Neuroscience, Vision Sciences Society, Organization for Human Brain Mapping, Cognitive Neuroscience Society
2014	Co-organiser of the Cambridge Pint of Science event ( <b>public engagement</b> )
2011	Organiser and chair of an international mini-symposium at the UM, entitled “Imaging of high-level object representations in the primate brain”
2009 – 2011	Academic staff member of the <b>University Council</b> of the UM
2006 – 2008	Member of several committees of the Graduate Student Council of the GPP, including the academic committee and the annual symposium-organising committee
2004	Chair of the <b>Student Council</b> of the Faculty of Psychology and Neuroscience, UM

## Key publications

Jozwik K, Kriegeskorte N, **Mur M** (2016). Visual features as stepping stones toward semantics: Explaining object similarity in IT and perception with non-negative least squares. *Neuropsychol* 15:30199-30208.

**Mur M**, Meys M, Bodurka J, Goebel R, Bandettini PA, Kriegeskorte N (2013). Human object-similarity judgments reflect and transcend the primate-IT object representation. *Front Psychology* 4:128. doi: 10.3389/fpsyg.2013.00128

**Mur M**, Ruff DA, Bodurka J, De Weerd P, Bandettini PA, Kriegeskorte N (2012). Categorical, yet graded – single-image activation profiles of human category-selective cortical regions. *J Neurosci* 32:8649-8662.

**Mur M**, Bandettini PA, Kriegeskorte N (2009). Revealing representational content with pattern-information fMRI – an introductory guide. *Soc Cogn Affect Neurosci* 4: 101-109. doi:10.1093/scan/nsn044

## Full list of publications

Jozwik K, Kriegeskorte N, Storrs K, **Mur M** (2017). Deep convolutional neural networks outperform feature-based but not categorical models in explaining object similarity judgments. *Front Psychol*. doi: 10.3389/fpsyg.2017.01726

Pelekanos V, **Mur M**, Storrs KR (2016). Extracting object identity: Ventral or dorsal visual stream? *J Neurosci* 36: 6368-6370.

Jozwik K, Kriegeskorte N, **Mur M** (2016). Visual features as stepping stones toward semantics: Explaining object similarity in IT and perception with non-negative least squares. *Neuropsychol* 15:30199-30208.

Henriksson L, **Mur M**, Kriegeskorte N (2015). Faciotopy – a face-feature map with face-like topology in the human occipital face area. *Cortex* 72:156-167.

**Mur M** (2014). What's the difference between a tiger and a cat? From visual object to semantic concept via the perirhinal cortex. *J Neurosci* 34:10462-10464.

**Mur M**, Kriegeskorte N (2014). What's there, distinctly, when and where? *Nature Neurosci* 17:332-333. doi:10.1038/nn.3661

Liu N, Kriegeskorte N, **Mur M**, Hadj-Bouziane F, Luh WM, Tootell RBH, Ungerleider L (2013). Intrinsic structure of visual exemplar and category representations in the macaque brain. *J Neurosci* 33:11346-11360.

**Mur M**, Meys M, Bodurka J, Goebel R, Bandettini PA, Kriegeskorte N (2013). Human object-similarity judgments reflect and transcend the primate-IT object representation. *Front Psychology* 4:128. doi: 10.3389/fpsyg.2013.00128

Goffaux V, Schiltz C, **Mur M**, Goebel R (2013). Local discriminability determines the strength of holistic processing for faces in the fusiform face area. *Front Psychology* 3:604. doi: 10.3389/fpsyg.2012.00604

Kriegeskorte N, **Mur** M (2012). Inverse MDS: Inferring dissimilarity structure from multiple item arrangements. *Front Psychology* 3:245. doi: 10.3389/fpsyg.2012.00245

**Mur** M, Ruff DA, Bodurka J, De Weerd P, Bandettini PA, Kriegeskorte N (2012). Categorical, yet graded – single-image activation profiles of human category-selective cortical regions. *J Neurosci* 32:8649-8662.

**Mur** M, Kriegeskorte N (2012). Tutorial on pattern classification in functional imaging. In: Kriegeskort N, Kreiman G (eds.) *Visual population codes. Toward a common multivariate framework for cell recording and functional imaging*. Cambridge, MA: The MIT Press.

Kriegeskorte N, **Mur** M (2012). Representational similarity analysis of object population codes in humans, monkeys, and models. In: Kriegeskort N, Kreiman G (eds.) *Visual population codes. Toward a common multivariate framework for cell recording and functional imaging*. Cambridge, MA: The MIT Press.

**Mur** M (2011). High-level visual object representations in inferior temporal cortex. *Doctoral Dissertation*. Maastricht, The Netherlands: Universitaire Pers Maastricht.

**Mur** M, Ruff DA, Bodurka J, Bandettini PA, Kriegeskorte N (2010). Face-identity change activation outside the face system: “Release from adaptation” may not always indicate neuronal selectivity. *Cereb Cortex* 20:2027-2042. doi:10.1093/cercor/ bhp272

**Mur** M, Bandettini PA, Kriegeskorte N (2009). Revealing representational content with pattern-information fMRI – an introductory guide. *Soc Cogn Affect Neurosci* 4: 101-109. doi:10.1093/scan/nsn044

Kriegeskorte N, **Mur** M, Ruff DA, Kiani R, Bodurka J, Esteky H, Tanaka K, Bandettini PA (2008). Matching categorical object representations in inferior temporal cortex of man and monkey. *Neuron* 60:1126-1141.

Kriegeskorte N, **Mur** M, Bandettini P (2008). Representational similarity analysis – a general framework for relating computational theory and modalities of brain-activity measurement. *Front Syst Neurosci* 2:4. doi:10.3389/neuro.06.004.2008

Broers NJ, **Mur** MC, Bude L (2005). Directed self explanation in the study of statistics. In: Burrill G, Camden M (eds.) *Curricular development in statistics education*. Voorburg, The Netherlands: International Statistical Institute.

## **Selected talks**

**Society for Neuroscience Annual Meeting** (2017, Washington DC, USA)  
Stimulus effects dwarf task effects in visual regions (conference presentation)

**Donders Centre for Cognitive Neuroimaging** (2017, Nijmegen, NL)  
Modelling high-level object representations in brain and behaviour (invited talk)

**Maastricht University** (2015, Maastricht, NL)  
Visual features as stepping stones toward semantics: Explaining object similarity in IT and perception with weighted representational modelling (invited talk)

**Society for Neuroscience Annual Meeting** (2015, Chicago, IL, USA)

Representational dynamics: neural population coding of objects in nonhuman primate inferior temporal cortex (conference presentation)

**MRC Cognition and Brain Sciences Unit** (2013, Cambridge, UK)

Flexible coding of object images and words in visual and multiple-demand cortex (invited talk)

**Center for Magnetic Resonance Research**, University of Minnesota (2012, Minneapolis, MN, USA)

High-level visual object representations in inferior temporal cortex (invited talk)

**Vision Science Society Annual Meeting** (2009, Naples, FL, USA)

Relating neural object representations to perceptual judgments with representational similarity analysis (conference presentation)