

Janneke F.M. Jehee

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Principal Investigator

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Academic Positions

- 2017-present Principal Investigator (tenured), Center for Cognitive Neuroimaging, Donders Institute for Brain, Cognition and Behavior, Nijmegen, Netherlands
- 2010-2016 Tenure-track Principal Investigator, Center for Cognitive Neuroimaging, Donders Institute for Brain, Cognition and Behavior, Nijmegen, Netherlands
- 2007-2010 Postdoctoral Fellow, Department of Psychology, Vanderbilt University, TN
- 2005-2007 Postdoctoral Fellow, Center for Visual Science and Department of Computer Science, University of Rochester, NY

Education

- 2006 Ph.D. in Psychology, University of Amsterdam, Netherlands
- 2000 M.A. in Psychology, University of Amsterdam, Netherlands

Grants and Fellowships

- 2016-2021 ERC Starting Grant, European Research Council (grant number 677601, Role: PI, €1,500,000)
- 2016-2019 ALW Open Competition Grant, Netherlands Organization for Scientific Research (NWO) (grant number 824.15.016, Role: PI, €262,663)

- 2014-2018 Marie Curie FP7-PEOPLE-2013-ITN Innovative Doctoral Program (IDP) grant, European Union (grant number 604063, Role: co-PI, together with 10 others, €3,349,230)
- 2010-2014 Marie Curie International Re-integration Grant, European Union (grant number 256456, Role: PI, €100,000)
- 2007-2009 Postdoctoral research fellowship, Netherlands Organization for Scientific Research (NWO) (grant number 446-06-030, Role: PI, €67,620)
- 2004 National Computer Facilities (NCF) grant, Netherlands Organization for Scientific Research (Role: co-author, together with HPC support center SARA, Amsterdam, Netherlands, €20,600)

Honors and Awards

- 2017 Vision Sciences Society (VSS) Young Investigator Award
- 2006 Travel award, Marine Biological Laboratory, Woods Hole, MA
- 2004 Travel award, International Conference on Cognitive and Neural Systems, Boston University, Boston, MA
- 2003 Travel award, Department of Psychology, Amsterdam University, Netherlands

Publications

- Van Bergen, R.S., & Jehee, J.F.M. (2017). Modeling correlated noise is necessary to decode uncertainty. Manuscript in press at *NeuroImage*.
- Moerel, D., Ling, S., & Jehee, J.F.M. (2016). Perceptual learning increases orientation sampling efficiency. *Journal of Vision*, 16:36, 1-9. doi:10.1167/16.3.36.
- Van Bergen, R.S., Ma, W.J., Pratte, M.S., & Jehee, J.F.M. (2015). Sensory uncertainty decoded from visual cortex predicts behavior. *Nature Neuroscience*, 18, 1728-30. doi:10.1038/nn.4150.
- Ling*, S., Jehee*, J.F.M., & Pestilli*, F. (2015). A review of the mechanisms by which attentional feedback shapes selectivity. *Brain Structure and Function*, 220, 1237-50. doi:10.1007/s00429-014-0818-5.

* All authors contributed equally to this work.

- Bosch, S, Jehee, J.F.M., Fernández, G., & Doeller, C.F. (2014). Reinstatement of associate memories in early visual cortex is signaled by the hippocampus. *Journal of Neuroscience*, *34*, 7493-7500.
- Jehee, J.F.M., Ling, S., Swisher, J.D., van Bergen, R.S., & Tong, F. (2012). Perceptual learning selectively refines orientation representations in early visual cortex. *Journal of Neuroscience*, *32*, 16747-16753.
- Kok, P., Jehee, J.F.M., & de Lange, F.P. (2012). Less is more: Expectation sharpens representations in the primary visual cortex. *Neuron*, *75*, 265-270.
- Ballard, D.H., & Jehee, J.F.M. (2012). Dynamic coding of signed quantities in cortical feedback circuits. *Frontiers in Psychology*, *3*. doi:10.3389/fpsyg.2012.00254.
- Jehee, J.F.M., Brady, D.K., & Tong, F. (2011). Attention improves encoding of task-relevant features in the human visual cortex. *Journal of Neuroscience*, *31*, 8210-8219.
- Kok, P., Rahnev, D., Jehee, J.F.M., Lau, H.C., & de Lange, F.P. (2011). Attention reverses the effect of prediction in silencing sensory signals, *Cerebral Cortex*, *9*, 2197-206. doi:10.1093/cercor/bhr310.
- Ballard, D.H., & Jehee, J.F.M. (2011). Dual roles for spike signaling in cortical neural populations. *Frontiers in Computational Neuroscience*, *5*. doi:10.3389/fncom.2011.00022.
- Jehee, J.F.M., & Ballard, D.H. (2009). Predictive feedback can account for biphasic responses in the lateral geniculate nucleus. *PLoS: Computational Biology*, *5*. doi:10.1371/journal.pcbi.1000373.
- Jehee, J.F.M., & Murre, J.M.J. (2008). The scalable mammalian brain: Emergent distributions of glia and neurons. *Biological Cybernetics*, *98*, 439-445.
- Jehee, J.F.M., Lamme, V.A.F., & Roelfsema, P.R. (2007). Boundary assignment in a recurrent network architecture. *Vision Research*, *47*, 1153-1165.
- Jehee, J.F.M., Roelfsema, P.R., Deco, G, Murre, J.M.J., & Lamme, V.A.F. (2007). Interactions between higher and lower visual areas improve shape selectivity of higher level neurons – explaining crowding phenomena. *Brain Research*, *1157*, 167-176.
- Meeter, M., Jehee, J.F.M., & Murre, J.M.J. (2007). Neural models that convince: Model hierarchies and other strategies to bridge the gap between behavior and the brain. *Philosophical Psychology*, *20*, 749-772.

Jehee, J.F.M., Rothkopf, C., Beck, J.M., & Ballard, D.H. (2006). Learning receptive fields using predictive feedback. *Journal of Physiology – Paris*, 100, 125-132.

Invited Talks and Colloquia

- 5/2017 Invited talk, 17th Annual Meeting of the Vision Sciences Society, FL (Young Investigator Award winner talk)
- 10/2016 Invited talk, Central European University, Budapest, Hungary
- 9/2016 Invited talk, University of Oxford, Oxford, UK
- 8/2016 Symposium talk, 39st European Conference on Visual Perception (ECVP), Barcelona, Spain
- 6/2015 Invited talk, University of Amsterdam, Amsterdam, Netherlands
- 9/2014 Invited talk, University of Amsterdam, Amsterdam, Netherlands
- 12/3013 Symposium talk, 14th winter conference of the Netherlands Society for Psychonomics (NVP), Egmond aan Zee, Netherlands
- 9/2013 Invited talk, University of Leuven, Leuven, Belgium
- 3/2013 Invited talk, University of Barcelona, Barcelona, Spain
- 1/2013 Invited talk, University of Amsterdam, Amsterdam, Netherlands
- 12/2012 Invited talk, Radboud University, Nijmegen, Netherlands
- 3/2012 Invited talk, Radboud University, Nijmegen, Netherlands
- 2/2012 Invited talk, Utrecht University, Utrecht, Netherlands
- 12/2011 Symposium talk, 13th winter conference of the Netherlands Society for Psychonomics (NVP), Egmond aan Zee, Netherlands
- 6/2009 Invited talk, Donders Center for Cognitive Neuroimaging, Nijmegen, Netherlands
- 5/2007 Invited talk, University of Leuven, Leuven, Belgium
- 4/2007 Invited talk, Vanderbilt University, Nashville, TN
- 2/2005 Invited talk, University of Rochester, Rochester, NY

Conference Symposiums

- 2013 Symposium co-organizer, 14th winter conference of the Netherlands Society for Psychonomics (NVP), Egmond aan Zee, Netherlands (with Jan Brascamp, Univ. Utrecht, Netherlands)

Ad-Hoc Reviewer*Journals*

Biological Cybernetics, Brain and Cognition, Cognition, Cortex, Current Biology, Frontiers in Computational Neuroscience, Journal of Cognitive Neuroscience, Journal of Neurophysiology, Journal of Neuroscience, Journal of Vision, Neural Computation, Neural Networks, NeuroImage, PLoS ONE, Psychological Science, Psychonomic Bulletin & Review

Granting Agencies

Medical Research Council (UK)

Research Foundation Flanders (Belgium)

Teaching and Advising*Courses Taught*

Communication in cognitive neuroscience (graduate-level, 2010-present, Donders Institute)

Perception (graduate-level, 2011-2015, Donders Institute)

HealthPAC winter school (graduate level, 2015, Donders Institute)

Bayesian neurocognitive modeling (guest lecture, graduate-level, 2013, Donders Institute)

fMRI tool-kit (graduate-level, 2010, Donders Institute)

Postdoctoral Trainees

Andrey Chetverikov (2017-present)

Awarded the Radboud Excellence fellowship (2017-2019)

Ruben van Bergen (2016-present)

PhD Students

Laura Geurts (2016-present)

Andrea Bertana (2014-present)

Ruben van Bergen (2012-2016, current position: postdoc at Donders Institute)

Awarded the Vision Sciences Society Student Travel Fellowship (2017)

Awarded the Radboud UMC Sensory Disorders Talent Award (2016)

Awarded prize for best poster at Donders Institute end-of-year poster session (2014)

Awarded prize for best abstract at Donders Discussions conference (2014)

Awarded travel fellowship for visiting the European Summer School of Vision,
Rauischholzhausen, Germany (2014)

Juraj Mesik (visiting graduate student from University of Minnesota, 2015-2016)

Rosanne Rademaker (visiting PhD student from Maastricht University, 2013-2015, current
position: postdoc at University of California, San Diego, CA)

Awarded travel fellowship for visiting the European Summer School of Vision,
Rauischholzhausen, Germany (2014)

Sander Bosch (co-supervision, 2011-2015, current position: postdoc at Donders Institute)

MSc Students

Joachim de Ronde (2014-2015, current position: graduate student at Concordia University,
Canada)

Denise Moerel (2013-2014, current position: Research Assistant at Macquarie University,
Australia)

Ilona Bloem (2013-2014, current position: graduate student at Boston University, MA)

Sridhar Jagannathan (2012-2013, current position: graduate student at Oxford University, UK)

Jasper Fabius (2012, current position: PhD student at Utrecht University, Netherlands)

Research Assistants

Klaudia Ambroziak (2013-2015, current position: graduate student at University of London, UK)

Ruben van Bergen (2011-2012, current position: postdoc at Donders Institute)

Professional Memberships

Association for Psychological Science

Netherlands Society for Psychonomics (NVP)

Society for Neuroscience

Vision Sciences Society

University Service

- 2014-present Work package leader for FP7-PEOPLE-2013-ITN grant, Donders Institute
- 2012-present Member of examination board of the cognitive neuroscience Master's program, Donders Institute
- 2010-present Departmental PI meetings, Center for Cognitive Neuroimaging, Donders Institute
- 2017 Member of search committee for principal investigator position in cognitive neuroscience, Donders Institute
- 2013-2015 Member of research infrastructure committee (RIC), Center for Cognitive Neuroimaging, Donders Institute
- 2014 Member of search committee for senior researcher position in MR Physics, Donders Institute
- 2013 Member of search committee for ICT system manager position, Donders Institute
- 2010 Member of search committee for principal investigator position in cognitive neuroscience, Donders Institute

PhD Thesis Defense Committees

- Jim Herring (Donders Institute, 2017)
- Jeroen Atsma (Donders Institute, 2017)
- Eelke Spaak (Donders Institute, 2015)
- Frank Leoné (Donders Institute, 2014)
- Iris Groen (University of Amsterdam, 2014)
- Joke Kalisvaart (Donders Institute, 2013)
- Marijke Brants (University of Leuven, 2013)
- Tessa van Leeuwen (Donders Institute, 2011)
- Ingrid Nieuwenhuis (Donders Institute, 2010)

Public Outreach

- Various lectures and demos by both myself and members of my lab at local high schools, science fairs and science museums, interviews for local magazines, etc. (2010-present)
- Keynote presentation for Brain Awareness Week event, Donders Institute (2012)
- Several presentations at the Adventure Science Center, Nashville TN (2008-2009)