

Jessica (Jeske) S. Damoiseaux

Education

- **PhD in Cognitive Neuroscience**
VU University Medical Center, Amsterdam, the Netherlands.
Degree conferral date: 5/20/2008.
- **MS in Psychology**, specialization: Neuropsychology
Utrecht University, Utrecht, the Netherlands
Degree conferral date: 10/31/2003

Dissertation

“The brain at ‘rest’; an exploration of intrinsic brain connectivity in healthy subjects and patients with Alzheimer’s disease”

Supervisors: Ph. Scheltens MD-PhD, F. Barkhof MD-PhD, C.J. Stam MD-PhD and S.A.R.B. Rombouts PhD.

Grants / Awards

- VENI grant from the Netherlands Organization for Scientific Research (2/1/2013 - 2/1/2017)
Project title: Subjective cognitive impairment: a sign of incipient Alzheimer's disease? A longitudinal study of functional and structural brain changes in healthy older adults with and without cognitive complaints.
- ‘Honorable mention award for excellence in research on Alzheimer’s disease and related disorders’ from the Alzheimer’s association of Northern California and Northern Nevada, June 2009.
- Stanford University Dean’s Fellowship Award, one-year fellowship stipend, 2009.
- Organization for Human Brain Mapping Travel Award, received three times: to attend the annual meeting in Toronto, Canada 2005; in Florence, Italy 2006; and in Chicago, USA 2007.

Research experience

- **Stanford School of Medicine, Stanford, CA**
Department of Neurology and Neurological sciences
Functional Imaging in Neuropsychiatric Disorders (FIND) Laboratory
Postdoctoral research fellow, April 2008 to present
Studying brain network plasticity and the effect of genes on brain function in healthy aging, neurological and psychiatric patient populations. PI: Michael Greicius MD.
- **VU University Medical Center, Amsterdam, the Netherlands**
Department of Neurology
PhD student, December 2003 to December 2007
Studying functional and structural brain connectivity in healthy subjects and patients with Alzheimer’s disease.
Supervisors: Ph. Scheltens MD-PhD, F. Barkhof MD-PhD, C.J. Stam MD-PhD and S.A.R.B. Rombouts PhD.

- **University Medical Center Utrecht, Utrecht, the Netherlands**
Department of Psychiatry
MS Research student, August 2002 to March 2003
The research performed here resulted in my master's thesis: "Effects of chronic XTC use on mesio-temporal brain functions in humans: an fMRI study".
Supervisors: G. Jager PhD and N. Ramsey PhD.

Clinical experience

- **Leiden University Medical Center, Leiden, the Netherlands**
Department of Neuropsychology
Intern, March 2003 to September 2003
Conducted neuropsychological assessments on neurological patients visiting the General Neurology Clinic and the Memory Clinic.
Supervisor: H. Middelkoop PhD

Teaching experience

- Instructor "Functional Connectivity: Clinical & Neuroscience Applications", Advanced fMRI Techniques & Functional Connectivity Assessment Course, ISMRM Annual Meeting, Montréal, Québec, Canada, May 7–13 2011.
- Mentoring research assistants and medical students involved in research projects at the FIND laboratory, Stanford School of Medicine, 2008-present.
- Instructor internal "Neuroanatomy" and "Functional MRI Data Analysis" courses, FIND laboratory and Stanford Cognitive and Systems Neuroscience Laboratory, Stanford School of Medicine, 2008-present.
- Tutor "Functional Brain Imaging" course in 2005, Master of Neuroscience, VU University, Amsterdam, the Netherlands.
- Instructor "fMRI in practice" in 2004 and 2005, Master course Brain and Cognition, VU University, Amsterdam, the Netherlands.

Academic service

- Reviewer for the following journals: Cerebral Cortex, Neurobiology of Aging, Biological Psychiatry, Human Brain Mapping, NeuroImage, PLoS Computational Biology, Brain Connectivity, Biological Psychology, PLoS ONE, Alzheimer Disease & Associated Disorders - An International Journal, Alzheimer's Research & Therapy, Journal of Neuroscience Methods.
- External referee (judging grant applications) for the Cognitive Neuroscience Program at the National Science Foundation; the Chief Scientist Office Experimental and Translational Medicine Research Committee of the Scottish Government; and Alzheimer's Research UK (formerly Alzheimer's Research Trust).
- Served on the Panel of Judges for the Alzheimer's Disease Neuroimaging Awards, winners were announced at a formal ceremony during the 12th Alzheimer's Association International Conference on Alzheimer's Disease (AAICAD) in Paris, France, July 16-21, 2011.
- Abstract reviewer for the Annual Meeting of the Organization for Human Brain Mapping in 2010, 2011, 2012, and 2013.
- Organizer of the "Advances in resting state fMRI" symposium Stanford University, June 17 2009, see <http://restingstate.stanford.edu>.

- Organizer of the Brain Imaging Colloquium, monthly interdisciplinary research meeting VU University, Amsterdam, the Netherlands, 2004-2007.
- Student-member University Council, Utrecht University, the Netherlands Academic year 2001-2002.

Publications

- White MP, Shirer WR, Molfino MJ, Tenison C, **Damoiseaux JS**, Greicius MD. Disordered reward processing and functional connectivity in trichotillomania: A pilot study. *J Psychiatr Res*. 2013 Sep;47(9):1264-72.
- **Damoiseaux JS**, Seeley WW, Zhou J, Shirer WR, Coppola G, Karydas A, Rosen HJ, Miller, BL, Kramer JH, Greicius MD. Gender Modulates the *APOE* ϵ 4 Effect in Healthy Older Adults: Convergent Evidence from Functional Brain Connectivity and Spinal Fluid Tau Levels. *J. NeuroSci*. 2012 Jun 13;32(24):8254-8262.
- **Damoiseaux JS**. Resting-state fMRI as a biomarker for Alzheimer's disease? *Alzheimers Res Ther*. 2012 Mar 15;4(3):8.
- Binnewijzend MA, Schoonheim MM, Sanz-Arigita E, Wink AM, van der Flier WM, Tolboom N, Adriaanse SM, **Damoiseaux JS**, Scheltens P, van Berckel BN, Barkhof F. Resting-state fMRI changes in Alzheimer's disease and mild cognitive impairment. *Neurobiol Aging*. 2012 Sep;33(9):2018-28. Epub 2011 Aug 20.
- **Damoiseaux JS**, Prater K, Miller BL, Greicius MD. Functional connectivity tracks clinical deterioration in Alzheimer's disease. *Neurobiol Aging*. 2012 Apr;33(4):828.e19-30. Epub 2011 Aug 16.
- Sanz-Arigita EJ, Schoonheim MM, **Damoiseaux JS**, Rombouts SA, Maris E, Barkhof F, Scheltens P, Stam CJ. Loss of 'small-world' networks in Alzheimer's disease: graph analysis of FMRI resting-state functional connectivity. *PLoS One*. 2010 Nov 1;5(11):e13788.
- Zarei M, Patenaude B, **Damoiseaux J**, Morgese C, Smith S, Matthews PM, Barkhof F, Rombouts S, Sanz-Arigita E, Jenkinson M. Combining shape and connectivity analysis: An MRI study of thalamic degeneration in Alzheimer's disease. *Neuroimage*. 2010 Jan 1;49(1):1-8.
- **Damoiseaux JS**, Greicius MD. Greater Than the Sum of Its Parts: A Review of Studies Combining Structural Connectivity and Resting-State Functional Connectivity. *Brain Struct Funct*. 2009 Oct;213(6):525-33. Epub 2009 Jun 30.
- Zarei M, **Damoiseaux JS**, Morgese C, Beckmann CF, Smith SM, Matthews PM, Scheltens P, Rombouts SA, Barkhof F. Regional White Matter Integrity Differentiates between Vascular Dementia and Alzheimer's Disease. *Stroke*. 2009 Mar;40(3):773-9. Epub 2009 Jan 22.
- **Damoiseaux JS**, Smith SM, Witter MP, Sanz-Arigita EJ, Barkhof F, Scheltens P, Stam CJ, Zarei M, Rombouts SA. White matter tract integrity in aging and Alzheimer's disease. *Hum Brain Mapp*. 2009 Apr;30(4):1051-9.
- Rombouts SA, **Damoiseaux JS**, Goekoop R, Barkhof F, Scheltens P, Smith SM, Beckmann CF. Model-free group analysis shows altered BOLD FMRI networks in dementia. *Hum Brain Mapp*. 2009 Jan;30(1):256-66.
- **Damoiseaux JS**, Beckmann CF, Sanz-Arigita EJ, Barkhof F, Scheltens P, Stam CJ, Smith SM, Rombouts SA. Reduced resting-state brain activity in the "default network" in normal aging. *Cereb Cortex*. 2008 Aug;18(8):1856-64.

- Oei NY, Elzinga BM, Wolf OT, de Ruiter MB, **Damoiseaux JS**, Kuijer JP, Veltman DJ, Scheltens P, Rombouts SA. Glucocorticoids decrease hippocampal and prefrontal activation during declarative memory retrieval in young men. *Brain Imaging Behav.* 2007 Jun;1(1-2):31-41. Epub 2007 Jun 1.
- **Damoiseaux JS**, Rombouts SA, Barkhof F, Scheltens P, Stam CJ, Smith SM, Beckmann CF. Consistent resting-state networks across healthy subjects. *Proc Natl Acad Sci U S A.* 2006 Sep 12;103(37):13848-53.

Abstracts

- **Damoiseaux J.S.**, White M.P., Jiang H, Shirer W.S., Greicius M.D., “Functional Connectivity Changes are Associated with Treatment Outcome in Major Depression”. Presented at the nineteenth Annual Meeting, Human Brain Mapping 2013.
- **Damoiseaux J.S.**, Seeley W.W., Zhou J., Shirer W.R., Coppola G., Karydas A., Rosen H.J., Miller B.L., Kramer J.H., Greicius M.D., “Gender Modulates the *APOE* ϵ 4 Effect in Healthy Older Adults: Convergent Evidence from Functional Brain Connectivity and Spinal Fluid Tau Levels”. Presented at the eighteenth Annual Meeting, Human Brain Mapping 2012; and the American Academy of Neurology’s (AAN) 64rd Annual Meeting 2012.
- **Damoiseaux J.S.**, Zhou J., Seeley W.W., Miller B.L., Kramer J.H., Greicius M.D., “Distinct default mode connectivity in APOE-e4 carriers independent of TOMM40 Poly-T repeat length”. Presented at the seventeenth Annual Meeting, Human Brain Mapping 2011; and the American Academy of Neurology’s (AAN) 63rd Annual Meeting 2011.
- **Damoiseaux J.S.**, Keller K.E., Menon V., Greicius M.D., “Default Mode Network Connectivity Tracks Clinical Progression in Alzheimer’s Disease”. Fifteenth Annual Meeting, Human Brain Mapping 2009.
- **Damoiseaux J.S.**, Keller K.E., Menon V., Greicius M.D., “Longitudinal Resting-State fMRI Reveals Progressive Disrupted Functional Connectivity in Alzheimer’s Disease”. American Academy of Neurology’s (AAN) 61st Annual Meeting 2009 (selected for an oral presentation).
- **Damoiseaux J.S.**, Beckmann C.F., Sanz Arigita E.J., Stam C.J., Barkhof F., Smith S.M., Scheltens P., Rombouts S.A.R.B., “Reduced resting state activity in dorsal visual-spatial attention system in Alzheimer’s disease”. Fourteenth Annual Meeting, Human Brain Mapping. Available on CD-Rom in NeuroImage; Vol. 41/S1 (2008) S1-S241.
- **Damoiseaux J.S.**, Beckmann C.F., Smith S.M, Sanz Arigita E.J., Stam C.J., Barkhof F., Scheltens P., Rombouts S.A.R.B., “Effects of normal Aging on Resting State Networks”. Thirteenth Annual Meeting, Human Brain Mapping. Available on CD-Rom in NeuroImage; Vol. 36/S1 (2007) S1-S168.
- **Damoiseaux J.S.**, Smith S.M, Zarei M., Witter M.P., Sanz Arigita E.J., Stam C.J., Barkhof F., Scheltens P., Rombouts S.A.R.B., “White matter tract integrity in aging, mild cognitive impairment and Alzheimer’s disease”. Thirteenth Annual Meeting, Human Brain Mapping. Available on CD-Rom in NeuroImage; Vol. 36/S1 (2007) S1-S168.
- **Damoiseaux J.S.**, Rombouts S.A.R.B, Barkhof F., Scheltens P., Stam C.J., Smith S.M. and Beckmann C.F., “Consistency of Resting State Networks across healthy subjects measured with FMRI”. Tenth International Conference on Alzheimer’s Disease ICAD 2006. *Alzheimer’s & Dementia*; Vol. 2 (3), Suppl 1 (July 2006) S1-S782.

- **Damoiseaux J.S.**, Oei N.Y.L., Wolf O.T., Scheltens P., Smith S.M., Beckmann C.F. and Rombouts S.A.R.B., "The effect of cortisol on Resting State Networks". Twelfth Annual Meeting, Human Brain Mapping. Available on CD-Rom in NeuroImage; Vol. 31/S1 (2006) S1-S242.
- **Damoiseaux J.S.**, Beckmann C.F., Smith S.M., Barkof F., Stam C.J., Scheltens P. and Rombouts S.A.R.B. (2005), "Consistent networks of Resting State Connectivity across healthy subjects measured with fMRI". Eleventh Annual Meeting, Human Brain Mapping. Available on CD-Rom in NeuroImage; Vol. 26/S1 (2005) S1-S102.

Invited presentations

- "Functional Brain Connectivity Changes in Normal and Abnormal Aging", Department of Psychology and the Institute of Gerontology, Wayne State University, Detroit MI, Feb 9 2012.
- "Functional Connectivity: Clinical & Neuroscience Applications", Advanced fMRI Techniques & Functional Connectivity Assessment Course, ISMRM Annual Meeting, Montréal, Québec, Canada, May 7–13 2011.
- "Genes, behavior and functional brain networks in healthy aging and Alzheimer's disease", International congress on the default mode, Sant Boi de Llobregat, Spain, June 4-5 2010 (satellite meeting to the Organization for Human Brain Mapping's annual meeting).
- "Default mode network connectivity tracks clinical progression in Alzheimer's disease", Annual research meeting of the Alzheimer's association of Northern California and Northern Nevada, Novato CA, June 30 2009.
- "Changes in resting state connectivity as Alzheimer's disease progresses", Resting State Workshop, Magdeburg, Germany, Dec 5-7 2008.
- "Resting State Connectivity: applications in aging and dementia", joint presentation with Serge Rombouts, Brain modes: Dynamical models, brain-behaviour analysis and data fusion, Berlin, Germany, Nov 24-25 2007.
- "Functional connectivity in Aging and Alzheimer's Disease", Cognitive Brain Imaging Unit, NeuroSpin, Paris, France, Nov 2007.
- "Functional connectivity in Aging and Alzheimer's Disease", Stanford Cognitive and Systems Neuroscience Laboratory, Stanford University, Aug 2007.
- "Functional connectivity in Aging and Alzheimer's Disease", 6th Dutch Endo-Neuro-Psycho Meeting, Doorwerth, the Netherlands, 5-8 June 2007.
- "Resting State Networks and Anatomical Connectivity in Aging and Alzheimer's Disease". Donders Institute for Brain, Cognition and Behavior, Nijmegen, the Netherlands, Feb 2007.
- "Resting State Networks and Anatomical Connectivity in Aging and Alzheimer's Disease", Cognitive Neuroscience laboratory, Harvard University, Boston, Jan 2007.
- "Resting State Networks and Anatomical Connectivity in Aging and Alzheimer's Disease", Leiden Institute for Brain and Cognition & Neuroimaging research group, University Medical Center Utrecht, the Netherlands, Dec 2006
- "Consistency of Resting State Networks Across Healthy Subjects Measured with fMRI", 10th International Conference on Alzheimer's Disease (ICAD), Madrid, Spain, 16-20 July 2006.