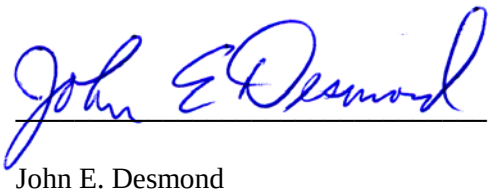
CURRICULUM VITAE

Signature: 

Name: John E. Desmond **Date Prepared:** 5/9/17

DEMOGRAPHIC AND PERSONAL INFORMATION:

Current Appointments:

University: Professor, Department of Neurology
Johns Hopkins University School of Medicine

Joint Appoinment, Department of Cognitive Sciences
Johns Hopkins University School of Arts and Sciences

Join Appointment, Neuroscience Program
Johns Hopkins University

Other: Research Scientist, Kennedy Krieger Institute

Personal Data:

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Education and Training:

1978	B.A.	University of South Florida	Psychology
1982	M.S.	University of Massachusetts, Amherst	Psychology
1985	Ph.D.	University of Massachusetts, Amherst	Psychology
1990	Postdoctoral	University of Massachusetts, Amherst	Neurosci & Behavior

Professional Experience:

9/80 - 12/82	Instructor, Statistics for Psychology, University of Massachusetts, Amherst, MA
4/83 - 4/85	NRSA Predoctoral Fellow, University of Massachusetts, Department of Psychology, Amherst, MA (Dr. John W. Moore preceptor)
9/85 - 12/90	Postdoctoral Research Associate, University of Massachusetts, Amherst, MA
11/87 - 12/90	Associate Member, Neuroscience and Behavior Program, University of Massachusetts, Amherst,
1/91 - 6/93	Associate Research Scientist, EEG Systems Laboratory, San Francisco, CA
5/92 - 1/94	Instructor (Part-time faculty), Pacific Graduate School of Psychology, Palo Alto, CA
6/93 - 3/94	Visiting Scholar, Stanford University, Department of Psychology, Stanford, CA
1/94 – 2/01	Assistant Professor (Part-time faculty), Pacific Graduate School of Psychology, Palo Alto, CA
4/94 - 4/96	NRSA Research Fellow (Postdoctoral), Stanford University, Department of Radiology, Stanford, CA (Dr. Gary H. Glover preceptor)

5/96 - 1/01 Research Associate, Stanford University, Department of Psychology, Stanford, CA
7/98 - 1/01 Senior Research Scientist, Stanford University, Department of Radiology, Stanford, CA
2/01 – 3/05 Assistant Professor, Research, Stanford University, Department of Radiology, Stanford, CA
7/01 – 3/05 Neuroscience Program Faculty, Stanford University, Stanford, CA
5/05 – 6/12 Associate Professor, Johns Hopkins University, Department of Neurology
9/05 - present Research Scientist, Kennedy Krieger Institute
7/07 – present Joint Appointment, Cognitive Science Department, Johns Hopkins University
7/07 – present Joint Appointment, Neuroscience Program, Johns Hopkins University
7/12 – present Professor, Johns Hopkins University, Department of Neurology

RESEARCH ACTIVITIES

Publications: Peer Reviewed Original Science Research:

1. Allan AM, **Desmond JE,** Stockman ER, Romano AG, Moore JW, Yeo CH, Steele-Russell I. Efficient conditioned inhibition of the rabbit's nictitating membrane response with massed training. *Bulletin of the Psychonomic Society*. 1980; 16: 321-324.
2. **Desmond JE**, Romano AG, Moore JW. Amplitude of the rabbit's nictitating membrane response in the presence of a conditioned inhibitor. *Animal Learning & Behavior*. 1980; 8: 225-230.
3. **Desmond JE**, Moore JW. A brain stem region essential for the classically conditioned but not unconditioned nictitating membrane response. *Physiology & Behavior*. 1982; 28: 1029-1033.
4. Moore JW, **Desmond JE.** Latency of the nictitating membrane response to periocular electrostimulation in unanesthetized rabbits. *Physiology & Behavior*. 1982; 28: 1041-1046.
5. **Desmond JE**, Moore JW. A supratrigeminal region implicated in the classically conditioned nictitating membrane response. *Brain Research Bulletin*. 1983; 10: 765-773.
6. **Desmond JE**, Rosenfield ME, Moore JW. An HRP study of the brainstem afferents to the accessory abducens region and dorsolateral pons in rabbit: Implications for the conditioned nictitating membrane response. *Brain Research Bulletin*. 1983; 10: 747-763.
7. **Desmond JE**, Moore JW. Dorsolateral pontine tegmentum and the classically conditioned nictitating membrane response: analysis of CR-related single-unit activity. *Experimental Brain Research*. 1986;65:59-74
8. Moore JW, **Desmond JE**, Berthier NE, Blazis DE, Sutton RS, Barto AG. Simulation of the classically conditioned nictitating membrane response by a neuron-like adaptive element: response topography, neuronal firing, and interstimulus intervals. *Behavioural Brain Research*. 1986; 21: 143-154.
9. **Desmond JE**, Moore JW. Adaptive timing in neural networks: The conditioned response. *Biological Cybernetics*. 1988; 58: 405-416.
10. Moore JW, **Desmond JE**, Berthier NE. Adaptively timed conditioned responses and the cerebellum: A neural network approach. *Biological Cybernetics*. 1989; 62: 17-28.
11. **Desmond JE**, Moore JW. Altering the synchrony of stimulus trace processes: Tests of a neural-network model. *Biological Cybernetics*. 1991; 65: 161-170.
12. **Desmond JE**, Moore JW. Single-unit activity in red nucleus during the classically conditioned rabbit nictitating membrane response. *Neuroscience Research*. 1991; 10: 260-279.
13. Gevins AS, Le J, Brickett P, Reutter B, **Desmond JE** Seeing through the skull: advanced EEGs use MRIs to accurately measure cortical activity from the scalp. *Brain Topography*. 1991; 4: 125-131.
14. Gevins AS, Le J, Brickett P, Cutillo B, Ward M, Alexander J, **Desmond JE**, Leong H, Johnston J, McLaughlin J, DuRousseau D, Raffaelli P, Filidei M, Illes J. The future of high-resolution EEGs in assessing neurocognitve effects of mild head injury. *Journal of Head Trauma Rehabilitation*. 1992; 7: 78-90.
15. Gevins A, Cutillo B, **Desmond JE**, Ward M, Bressler S, Barbero N, Laxer K. Subdural grid recordings of distributed neocortical networks involved with somatosensory discrimination. *Electroencephalography and Clinical Neurophysiology*. 1994; 92: 282-290.
16. Gevins A, Le J, Martin NK, Brickett P, **Desmond JE**, Reutter B. High resolution EEG: 124-Channel Recording, spatial deblurring and MRI Integration Methods. *Electroencephalography and Clinical Neurophysiology*. 1994; 90: 337-358.
17. Demb JB, **Desmond JE**, Wagner AD, Vaidya CJ, Glover GH, Gabrieli JDE. Semantic encoding and retrieval in the left inferior prefrontal cortex: a functional MRI study of task difficulty and process specificity. *Journal*

of Neuroscience. 1995; 15: 5870-5878.

18. **Desmond JE**, Sum JM, Wagner AD, Demb JB, Shear PK, Glover GH, Gabrieli JDE, Morrell MJ. Functional MRI measurement of language lateralization in Wada-tested patients. *Brain.* 1995; 118: 1411-1419.
19. Gabrieli JDE, **Desmond JE**, Demb JB, Wagner AD. Functional magnetic resonance imaging of semantic memory processes in the frontal lobes. *Psychological Science*. 1996; 7: 278-283.
20. Menon V, Freeman WJ, Cutillo BA, **Desmond JE**, Ward MF, Bressler SL, Laxer KD, Barbaro N, Gevins AS. Spatio-temporal correlations in human gamma band electrocorticograms. *Electroencephalography And Clinical Neurophysiology*. 1996; 98: 89-102.
21. Pfefferbaum A, Lim KO, **Desmond JE**, Sullivan EV. Thinning of the corpus callosum in older alcoholic men: A magnetic resonance imaging study. *Alcoholism: Clinical and Experimental Research*. 1996; 20: 752-757.
22. Sullivan EV, Deshmukh A, **Desmond JE**, Pfefferbaum A. Alcohol and the cerebellum: Effects on balance, motor coordination, and cognition. *Alcohol Health & Research World*. 1996; 19: 138-141.
23. Deshmukh AR, **Desmond JE**, Sullivan EV, Lane BF, Jr, Lane BF, Matsumoto B, Marsh L, Lim KO, Pfefferbaum A. Quantification of cerebellar structures with MRI. *Psychiatry Research*. 1997; 75: 159-171.
24. Deshmukh A, Sullivan EV, Mathalon DH, **Desmond JE**, Lim KO, Pfefferbaum A. Regional cerebellar volume deficits in schizophrenia, alcoholism, and schizophrenia with alcohol comorbidity. *Schizophrenia Research*. 1997; 24: 142-143.
25. **Desmond JE**, Gabrieli JDE, Wagner AD, Ginier BL, Glover GH. Lobular patterns of cerebellar activation in verbal working memory and finger tapping tasks as revealed by functional MRI. *Journal of Neuroscience*. 1997; 17: 9675-9685.
26. **Desmond JE**, Lim KO. On- and offline Talairach registration for structural and functional MRI studies. *Human Brain Mapping*. 1997; 5: 58-73.
27. Gabrieli JDE, Brewer JB, **Desmond JE**, Glover GH. Separate neural bases of two fundamental memory processes in the human medial temporal lobe. *Science*. 1997; 276: 264-266.
28. Prabhakaran V, Smith JAL, **Desmond JE**, Glover GH, Gabrieli JDE. Neural substrates of fluid reasoning: An fMRI study of neocortical activation during performance of the Raven's Progressive Matrices Test. *Cognitive Psychology*. 1997; 33: 43-63.
29. Sobel N, Prabhakaran V, **Desmond JE**, Glover GH, Sullivan EV, Gabrieli JDE. A method for generating olfactory stimuli in human imaging studies. *Journal of Neuroscience Methods*. 1997; 78: 115-121.
30. Wagner AD, **Desmond JE**, Demb JB, Glover GH, Gabrieli JDE. Semantic repetition priming for verbal and pictorial knowledge: A functional MRI study of left inferior prefrontal cortex. *Journal of Cognitive Neuroscience*. 1997; 9: 714-726.
31. Canli T, **Desmond JE**, Zhao Z, Glover GH, Gabrieli JDE. Hemispheric asymmetry for emotional stimuli detected with fMRI. *Neuroreport*. 1998; 9: 3233-3239.
32. Brewer JB, Zhao Z, **Desmond JE**, Glover GH, Gabrieli JDE. Making memories: Brain activity that predicts whether visual experience is remembered or forgotten. *Science*. 1998; 281: 1185-1187.
33. **Desmond JE**, Fiez J Neuroimaging studies of the cerebellum: Language, learning, and memory. *Trends in Cognitive Sciences*. 1998; 2: 355-362.
34. **Desmond JE**, Gabrieli JDE, Glover GH. Dissociation of frontal and cerebellar activity in a cognitive task: Evidence for a distinction between selection and search. *Neuroimage*. 1998; 7: 368-376.
35. Gabrieli JDE, Poldrack RA, **Desmond JE**. The role of the left prefrontal cortex in language and memory. *Proceedings of the National Academy of Sciences (USA)*. 1998; 95: 906-913.
36. Poldrack RA, **Desmond JE**, Glover GH, Gabrieli JDE. The neural basis of visual skill learning: An fMRI study of mirror reading. *Cerebral Cortex*. 1998; 8: 1-10.
37. Sobel N, Prabhakaran V, **Desmond JE**, Glover GH, Goode RL, Sulliven EV, Gabrieli JDE. Sniffing and smelling: Separate subsystems in human olfactory cortex. *Nature*. 1998; 392: 282-286.
38. Sobel N, Prabhakaran V, Hartley CA, **Desmond JE**, Glover G, Gabrieli JDE, Sullivan EV. Odorant-induced activation in the cerebellum of the human. *J. Neuroscience*. 1998; 18: 8990-9001.
39. Vaidya CJ, Austin G, Kirkorian G, Ridlehuber H W, **Desmond JE**, Glover GH, Gabrieli JDE. Selective effects of methylphenidate in Attention Deficit Hyperactivity Disorder: A functional magnetic resonance study. *Proceedings of the National Academy of Sciences (USA).* 1998; 95: *14494-14499.*

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42. Canli T, **Desmond JE**, Glover G, Gabrieli J DE fMRI identifies a network of structures correlated with retention of positive and negative emotional memory. *Psychobiology*. 1999; 27: 441-452.
43. Illes J, Francis WS, **Desmond JE**, Gabrieli JDE, Glover GH, Poldrack R, Lee C J, Wagner A D. Convergent cortical representation of semantic processing in bilinguals. *Brain Language*. 1999; 70: 347-363.
44. Poldrack RA, Wagner AD, Prull MW, **Desmond JE**, Glover GH, Gabrieli JDE. Functional specialization for semantic and phonological processing in the left inferior prefrontal cortex. *Neuroimage.* 1999; 10: 15-35.
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46. Seger CA, Rabin LA, **Desmond JE**, Gabrieli JDE. Verb generation priming involves conceptual implicit memory. *Brain and Cognition*. 1999; 41: 150-177.
47. Sobel N Prabhakaran V, Hartley CA, **Desmond JE**, Glover G, Sullivan E, Gabrieli JDE. Blind smell: Brain activation induced by an air-borne chemical. *Brain*. 1999; 122: 209-217.
48. Sullivan EV, Lane B, Deshmukh A, Rosenbloom MJ, **Desmond JE**, Lim KO, Pfefferbaum A. In vivo mammillary body volume deficits in amnesic and nonamnesic alcoholics. *Alcoholism: Clinical and Experimental Research*. 1999; 23: 1629-1636.
49. Seger CA, **Desmond JE**, Glover GH, Gabrieli JDE. fMRI evidence for right hemisphere involvement in processing unusual semantic relationships. *Neuropsychology*. 2000; 14: 361-369.
50. Sobel N, Prabhakaran V, Zhao Z, **Desmond JE**, Glover GH, Sullivan EV, Gabrieli JDE. Time course of odorant-induced activation in the human primary olfactory cortex. *Journal of Neurophysiology*. 2000; 83: 537-551.
51. Sullivan EV, Deshmukh A, **Desmond JE**, Lim KO, Pfefferbaum A. Cerebellar volume decline in normal aging, alcoholism, and Korsakoff's syndrome: Relation to ataxia. *Neuropsychology*. 2000; 14: 341-352.
52. Sullivan EV, Deshmukh A, **Desmond JE**, Mathalon DH, Rosenbloom MJ, Lim KO, Pfefferbaum A. Contribution of alcohol abuse to cerebellar volume deficits in men with schizophrenia. *Archives of General Psychiatry*. 2000; 57: 894-902.
53. Bunge SA, Ochsner KN, **Desmond JE**, Glover GH, Gabrieli JDE. Prefrontal regions involved in keeping information in and out of mind. *Brain*. 2001; 124: 2074-2086.
54. Canli T, Zhao Z, **Desmond JE**, Kang E, Gross J, Gabrieli JDE. An fMRI study of personality influences on brain reactivity to emotional stimuli. *Behavioral Neuroscience.* 2001; 115: 33-42.
55. Golby AJ, Poldrack RA, Brewer JB, Spencer D, **Desmond JE**, Aron AP, Gabrieli JDE. Material-specific lateralization in the medial temporal lobe and prefrontal cortex during memory encoding. *Brain.* 2001; 124: 1841-1854.
56. Menon V, **Desmond JE.** Left superior parietal cortex involvement in writing: Integrating fMRI with lesion evidence. *Cognitive Brain Research*. 2001; 12: 337-340.
57. Pfefferbaum A, **Desmond JE**, Galloway C, Menon V, Glover GH, Sullivan EV. Reorganization of frontal systems used by alcoholics for spatial working memory: An fMRI study. *Neuroimage*. 2001; 14: 7-20.
58. Rypma B, Prabhakaran V, **Desmond JE**, Gabrieli JDE. Age differences in prefrontal cortical activity in working memory. *Psychology Aging*. 2001; 16: 371-384.
59. Sullivan EV, Rosenbloom M J, **Desmond JE**, Pfefferbaum A. Sex differences in corpus callosum size: Relationship to age and intracranial size. *Neurobiology of Aging*. 2001; 22: 603-611.
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61. Canli T, **Desmond JE**, Zhao Z, Gabrieli JDE. Sex differences in the neural basis of emotional memories. *Proceedings of the National Academy of Sciences U S A.* 2002; 99: 10789-10794.
62. **Desmond JE,** Chen SHA. Ethical issues in the clinical application of fMRI: Factors affecting the validity and interpretation of activations. *Brain and Cognition*. 2002; 50: 482-497.
63. **Desmond JE**, Glover GH. Estimating sample size in functional MRI (fMRI) neuroimaging studies: statistical power analyses. *Journal of Neuroscience Methods.* 2002; 118: 115-128.

64. Golby AJ, Poldrack RA, Illes J, Chen D, **Desmond JE**, Gabrieli JDE. Memory lateralization in medial temporal lobe epilepsy assessed by functional MRI. *Epilepsia.* 2002; 43: 855-863.
65. Illes J, **Desmond JE**, Huang LF, Raffin TA, Atlas SW. Ethical and practical considerations in managing incidental findings in functional magnetic resonance imaging. *Brain and Cognition*. 2002; 50: 358-65.
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68. Sullivan EV, **Desmond JE**, Lim KO, Pfefferbaum A. Speed and efficiency but not accuracy or timing deficits of limb movements in alcoholic men and women. *Alcoholism: Clinical and Experimental Research.* 2002; 26: 705-713.
69. Vaidya C, Zhao M, **Desmond JE**, Gabrieli JDE. Evidence for cortical encoding specificity in episodic memory: memory- induced re-activation of picture processing areas. *Neuropsychologia.* 2002;40:2136-43.
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71. Sullivan EV, Harding AJ, Pentney R, Dlugos C, Martin PR, Parks MH, **Desmond JE**, Chen SHA, Pryor MR, De R, Pfefferbaum A. Disruption of frontocerebellar circuitry and function in alcoholism. *Alcoholism: Clinical and Experimental Research*. 2003; 27: 301-309.
72. Polan ML, **Desmond JE**, Pryor MR, Banner LL, McCallum SW, Atlas SW, Glover GH, Arnow BA. Female sexual arousal: A behavioral analysis. *Fertility and Sterility*. 2003; 80: 1480-1487.
73. DeRosa E, **Desmond JE**, Anderson AK, Pfefferbaum A, Sullivan EV. The Human Basal Forebrain Integrates the Old and the New. *Neuron*. 2004; 41: 825-837.
74. Illes J, Kirschen MP, Karetsky K, Kelly M, Saha A, **Desmond JE**, Raffin TA, Glover GH, Atlas SW. Discovery and disclosure of incidental findings in neuroimaging research. *J Magn Reson Imaging*. 2004;20: 743-747.
75. Chen SHA, **Desmond JE**. Temporal dynamics of cerebro-cerebellar network recruitment during verbal working memory. *Neuropsychologia*. 2005; 43: 1227-1237.
76. Chen SHA, **Desmond JE**. Cerebro-cerebellar networks during articulatory rehearsal and verbal working memory tasks. *Neuroimage*. 2005; 24: 332-338.
77. Kirschen MP, Chen SA, Schraedley-Desmond P, **Desmond JE**. Load and practice dependent increases in cerebro-cerebellar activation in verbal working memory: An fMRI study. *Neuroimage*. 2005; 24: 462-472.
78. **Desmond JE**, Chen SA, Shieh PB. Cerebellar transcranial magnetic stimulation impairs verbal working memory. *Annals of Neurology*. 2005; 58: 553-560.
79. Kirschen MP, Jerde TE, Davis-Ratner MS Schraedley-Desmond P, **Desmond JE.** Enhancement of phonological memory following transcranial magnetic stimulation (TMS). *Behavioural Neurology*. 2006; 17: 187-194.
80. Hadipour-Niktarash, A, Lee, CK, **Desmond, JE**, Shadmehr, R. Impairment of retention but not acquisition of a visuomotor skill through time-dependent disruption of primary motor cortex, *Journal of Neuroscience.* 2007; 27: 13413-9.
81. Cheng, DT, Disterhoft, JF, Power, JM, Ellis, DA, **Desmond, JE**. Neural substrates underlying human delay and trace eyeblink conditioning. *Proceedings of the National Academy of Sciences U S A.* 2008;105:8108-13.
82. Kirschen MP, Davis-Ratner MS, Milner MW, Chen SHA, Schraedley-Desmond P, Fisher PG, **Desmond J.E.** Verbal memory impairments in children after cerebellar tumor resection. *Behavioural Neurology*. 2008; 20: 39-53.
83. Arnow BA, Millheiser L, Garrett A, Lake Polan M, Glover GH, Hill KR, Lightbody A, Watson C, Banner L, Smart T, Buchanan T, **Desmond JE.** Women with hypoactive sexual desire disorder compared to normal females: A functional magnetic resonance imaging study. *Neuroscience.* 2009;158: 484-502.
84. Cheng, DT, Faulkner, ML, Disterhoft, J. and **Desmond, JE**. The effects of aging in delay and trace human eyeblink conditioning. *Psychology and Aging*. 2010; 25: 684-690.
85. Kirschen, MP, Chen, SA, and **Desmond, JE.** Modality specific cerebro-cerebellar activations in verbal working memory: An fMRI study. *Behavioural Neurology*. 2010; 23: 51-63.
86. Marvel, CL and **Desmond, JE**. Functional topography of the cerebellum in verbal working memory.

Neuropsychology Review. 2010; 20: 271-279.
87. Marvel, CL and **Desmond, JE**. The contributions of cerebro-cerebellar circuitry to executive verbal working memory. *Cortex*. 2010; 46: 880-895.
88. Marvel, C.L., Faulkner, M.L., Strain, E.C., Mintzer, M.Z. and **Desmond, J.E**. An fMRI Investigation of Cerebellar Function During Verbal Working Memory in Methadone Maintenance Patients. *Cerebellum*. 2012; 11: 300-310.
89. Marvel, C.L. and **Desmond, J.E**. From storage to manipulation: How the neural correlates of verbal working memory reflect varying demands on inner speech. *Brain & Language*. 2012; 120: 42-51.
90. Yau, J.M., Hua, J., Liao, D.A. and **Desmond, J.E**. Efficient and robust identification of cortical targets in concurrent TMS-fMRI experiments. *Neuroimage*, 2013, 76: 134-144.
91. Cheng, D.T., Meintjes, E.M., Stanton, M.E., **Desmond, J.E**., Pienaar, Dodge, N.C., Power, J.M., Molteno, C.D., Disterhoft, J.F., Jacobson, J.L., and Jacobson, S.W. Functional MRI of cerebellar activity during eyeblink classical conditioning in children and adults. *Human Brain Mapping*, 2014; 35: 1390-1403.
92. Keren-Happuch, E., Chen, S.H.A., Ho, M-H.R., and **Desmond, J.E**. A meta-analysis of cerebellar contributions to higher cognition from PET and fMRI Studies. *Human Brain Mapping*, 2014; 35: 593-615.
93. Liao, D.L., Kronemer, S.I., Yau, J.M., **Desmond, J.E**., and Marvel, C.L. Motor system contributions to verbal and non-verbal working memory. *Frontiers in Human Neuroscience*, 2014, 8:753.
94. Marien, P., Ackermann, H., Adamaszek, M., Barwood, C.H., Beaton, A., **Desmond, J.**, De Witte, E., Fawcett, A.J., Hertrich, I., Kuper, M., Leggio, M., Marvel, C., Molinari, M., Murdoch, B.E., Nicolson, R.I., Schmahmann, J.D., Stoodley, C.J., Thurling, M., Timmann, D., Wouters, E. and Ziegler, W., Consensus paper: Language and the cerebellum: an ongoing enigma, *Cerebellum*, 2014; 13: 386-410.
95. Qin, Q., Huang, A.J., Hua, J., **Desmond, J.E**., Stevens, R.D. and van Zijl, P.C., Three-dimensional whole-brain perfusion quantification using pseudo-continuous arterial spin labeling MRI at multiple post-labeling delays: accounting for both arterial transit time and impulse response function, *NMR in Biomedicine*, 2014; 27: 116-128.
96. Yau, J.M., Celnik, P., Hsiao, S.S., and **Desmond, J.E**. Feeling better: separate pathways for targeted enhancement of spatial and temporal touch, *Psychological Science*, 2014; 25: 555-565.
97. Yau, J.M., Jalinous, R., Cantarero, G.L. and **Desmond, J.E**., Static field influences on transcranial magnetic stimulation: considerations for TMS in the scanner environment. *Brain Stimulation; 2014*, 7: 388-393.
98. Cheng, D.H., Jacobson, S.W., Jacobson, J.L., Molteno, C.D., Stanton, M.E., and **Desmond, J.E.** Eyeblink classical conditioning in alcoholism and fetal alcohol spectrum disorders, *Frontiers in Psychiatry*, 2015, 6: 155.
99. Cheng, D.T., Meintjes, E. M., Stanton, M. E., Dodge, N. C., Pienaar, M., Warton, C. M. R., **Desmond, J. E**., Molteno, C. D., Peterson, B. S., Jacobson, J. L., and Jacobson, S. W. Functional MRI of human eyeblink classical conditioning in children with fetal alcohol spectrum disorders. *Cerebral Cortex*, 2016 1-16. Doi: 10.1093/cercor/bhw273.
100. Peterburs, J., Cheng, D.T., and **Desmond, J.E**. The association between eye movements and cerebellar activation in a verbal working memory task. *Cerebral Cortex*, 2016, 26: 3802-3813.
101. Peterburs, J. and **Desmond, J.E**., The role of the human cerebellum in performance monitoring, *Current Opinion in Neurobiology*, 2016, 40: 38-44.

Inventions, Patents, Copyrights: None

Extramural Funding
Current
Grants

2014-2019 Intellectual and Developmental Disabilities Research Centers 2014
U54 HD079123
NIH/NICHD
$871,320 (direct year 1)
PI: Silverrman
Role: Co-investigator, 5%

2015-2020 Effects of tDCS on spoken and written production in Primary Progressive Aphasia
R01-DC014475
NIH/NIDCD
$498,823 (direct year 1)
PI:Tsapkini
Role: Co-investigator, 7.5%

2015-2020 Investigation of cerebellar involvement in cognitive function
R01-MH104588
NIH/NIMH
$472,530 (direct year 1)
PI: John E. Desmond, Ph.D., 45%

2016-2018 Effective Biliteracy
Center for Research and Development in Learning at Nanyang Technological Univ.
Collaborative Project between NTU and JHU Science of Learning Institute
Role: Co-investigator, 5%

2017-2022 Integrative Neuroscience Initiative on Alcoholism (INIA) Consortia (Collaborative U01)
U01AA020890
NIH/NIAAA
$412,236
PI: Wand/McCaul
Role: Co-investigator, 10%

2017-2022 PET Imaging of Sex Differences in mGluR5 receptor during cocaine withdrawal
R01DA042094
NIH/NIDA
$496,222
PI: Wand/McCaul/Wong
Role: Co-investigator, 10%

Contracts/Other: ***None***

Previous Grants

1995-1998 Functional MRI Analysis of Memory in Aging and Amnesia
R01-AG12995
NIA / NIH
$640,824
PI: John D. Gabrieli, PhD
Role: Co-Investigator, 75%

1996-1999 Cerebellar Contribution to Skill Learning in Alcoholism
R01-AA010723
NIAAA / NIH
$426,810

PI: Edith V. Sullivan, PhD
Role: Co-Investigator, 25%

1998-2002 Functional MRI Analysis of Memory in Aging and Amnesia
R01-AG12995
NIA / NIH
$940,172
PI: John D. Gabrieli, PhD
Role: Co-Investigator, 75%

1999-2004 Cerebellar Structure and Function in Alcoholism
R01-AA010723
NIAAA / NIH
$1,549,981
PI: Edith V. Sullivan, PhD
Role: Co-Investigator, 25%

2000-2011 fMRI and TMS Analysis of Cerebellar Cognitive Function
R01-MH60234
NIMH / NIH
$1,250,000
PI: John E. Desmond, PhD; 25%

2000-2004 fMRI Analysis of Declarative Memory
RO1-MH059940
NIMH/NIH
$921,411
PI: John D. Gabrieli, PhD
Role: Co-Investigator, 25%

2004-2009 fMRI Analysis of Aging and Awareness in Conditioning
RO1-AG021501
NIA/NIH
$1,062,500
PI: John E. Desmond, PhD; 35%

2006-2011 Anomalous Motor Physiology in ADHD
R01-MH078160
NIMH/NIH
$1,062,500
PI: Martha Denckla, MD
Role: Co-investigator, 2.5%

2006-2011 Novel Strategies to Enhance Motor Function After Stroke
PAR-04-077
NIMH/NIH
$1,000,000
PI: Pablo Celnik, MD
Role: Co-investigator, 5%

2010-2015 fMRI Investigations of Cognition in Alcoholics
R01-AA018694-01
NIH/NIAAA
$2,028,124
PI: John E. Desmond, Ph.D., 25%

Previous Contracts:

2000-2001 Brain Activation during Sexual Arousal

192T012-2HSF903
Tap Holdings, Inc.
$57,545
PI: Bruce Arnow, PhD
Role: Co-Investigator; 15%

2002-2002 Developing procedures for fMRI to study sexual arousal and peripheral response in healthy, heterosexual women.
Pfizer Central Research
$100,676
PI: Bruce Arnow, PhD
Role: Co-Investigator; 15%

2003-2006 An fMRI Investigation of Sexual Arousal and Peripheral Response in Healthy, Heterosexual Women and Women with Hypoactive Sexual Desire Disorder.
Pfizer Central Research
$255,595
PI: Bruce Arnow, PhD
Role: Co-Investigator; 15-20%

2004-2007 MRI Studies of Medial Temporal Lobe Function
The Fidelity Foundations
$95,000
PI: Marilyn Albert, PhD & John E. Desmond, PhD
Role: Co-PI; 5%

Research Program Building / Leadership

2008-present Novel Approaches to Cognition Using Transcranial Magnetic Stimulation
Funded: Johns Hopkins Brain Science Institute, April, 2008
$300,000
Role: PI/Director; Description: This program is developing a concurrent fMRI/TMS system capable of conducting noninvasive studies of human brain connectivity for the Johns Hopkins/Kennedy Krieger neuroimaging community.

2000-present Cerebellar Involvement in Human Cognitive Function
Funded by NIMH R01s in 2000, 2004, and 2015
Funded by NIAAA R01 in 2010
Role: PI; Description: Using verbal working memory as a model system, along with an array of methods including neuroimaging, neuromodulation, and patient investigations, this project is designed to explore cerebro-cerebellar circuitry and the temporal dynamics of brain activation within this circuitry during cognitive function. Alterations in the function of this circuitry resulting from diseases such as alcoholism is a newly funded expansion of the program.

EDUCATIONAL ACTIVITIES
Educational Publications

***Peer-Reviewed Review Articles*:**

1. **Desmond JE**, Fiez J Neuroimaging studies of the cerebellum: Language, learning, and memory. *Trends in Cognitive Sciences*. 1998; 2: 355-362.
2. Marvel, CL and **Desmond, JE**. Functional topography of the cerebellum in verbal working memory. *Neuropsychology Review*. 2010; 20: 271-279.

***Invited Reviews*:**

1. **Desmond JE** Cerebellar involvement in cognitive function: Evidence from Neuroimaging. *International Review of Psychiatry*. 2001; 13: 283-294.
2. **Desmond, JE** and Marvel, CL, Cognition: Cerebellum role. In L.E.A. Squire (Ed.), *The New Encyclopedia of Neuroscience*, Oxford: Academic Press, 2009, pp. 1079-1085.

***Editorials*:**

1. **Desmond JE**, Atlas SW. Task-correlated head movement in fMR imaging: false activations can contaminate results despite motion correction [editorial]. *American Journal of Neuroradiology*. 2000; 21: 1370-1371.
2. Walsh V, **Desmond JE**, Pascual-Leone A. Manipulating brains. *Behavioural Neurology*. 2006;17:131-134.
3. **Desmond JE.** Trends in Cerebellar Research. *Behavioural Neurology* 2010; 23: 1-2.

***Case Reports*: None**

***Letters, correspondence*: None**

***Book Chapters, Monographs*:**

1. Moore JW, **Desmond JE**, Berthier NE The metencephalic basis of the conditioned nictitating membrane response. In C.D. Woody (Ed.), *Conditioning: Representation of involved neural function*. New York: Plenum, 1982. 459-482.
2. **Desmond JE**. The classically conditioned nictitating membrane response: Analysis of learning-related single neurons of the brain stem. *Dissertation Abstracts International*. 1986, 46(12-B, Pt 1): 4447.
3. Berthier NE, **Desmond JE**, Moore JW. Brain stem control of the nictitating membrane response. In I. Gormezano, WF Prokasy. R Thompson (Eds.), *Classical Conditioning III* (pp. 275-286). Hillsdale, NJ: Lawrence Erlbaum Associates. 1987, 275-286.
4. **Desmond JE**. Temporally adaptive conditioned responses: Representation of the stimulus trace in neural-network models. 88-80 (Computer and Information Science technical report) University of Massachusetts, 1988.
5. **Desmond JE**. Temporally adaptive responses in neural models the stimulus trace. In M. Gabriel J.W. Moore (Eds.), *Learning and Computational Neuroscience: Foundations of Adaptive Networks.* Cambridge, Massachusetts, USA: MIT Press, 1990, 421-456.
6. Moore JW, **Desmond JE**. A cerebellar neural network implementation of a temporally adaptive conditioned response. In I. Gormezano (Ed.), *Learning and Memory: The Biological Substrates*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1992.
7. Stoodley, C., **Desmond, JE**, and Schmahmann, JD. Functional topography of human cerebellum revealed by functional neuroimaging studies.In M Manto, D Gruol, J Schmahmann, N Koibuchi, F Ross (Eds) *Handbook of the Cerebellum and Cerebellar Disorders*. New York: Springer, 2012, 735-764.

Books, Textbooks: None

Other Media: Web-based Instruction – Johns Hopkins University

2006 Co-developer (with Dr. Marilyn Albert): Neuropsychiatry Rotation Imaging Tutorial (http://www.neuro.jhmi.edu/neuropsych_tutorial/)

Teaching:

Classroom Instruction

1980-1982	Undergraduate Instructor, Graduate TA, *'Introductory Statistics'* - University of Massachusetts, Amherst
1992-2001	12-week quarter course, *'Physiological Psychology'* (Undergraduate Level), Pacific Graduate School of Psychology, Palo Alto, CA
1997-2001	12-week quarter course, *'Introduction to Neuropsychology'* (Graduate Level), Pacific Graduate School of Psychology, Palo Alto, CA
1999	Lecture for Applications of Three-Dimensional Rendering in Medicine: '*Functional MRI,'* Stanford University
2001-2004	Lecture and demo for Neurobiology 250: *Experimental Approaches in Neurobiology:'Transcranial Magnetic Stimulation,'* Stanford University
2006	Co-instructor, ME440.813 *Current Issues In Systems And Cognitive Neuroscience,* Johns Hopkins University
2007 -2011	Co-instructor, 330.802.01: *Seminar in Aging, Cognition and Neurodegenerative Disorder,* Johns Hopkins Bloomberg School of Public Health
2013	Lecture on cerebellar structure and function, *Genes to Society* first year medical course, Johns Hopkins
2013- pres	Semester course Instructor, AS.080.370, *The Cerebellum: Is it Just for Motor Control?* Johns Hopkins University

Clinical Instruction: Not Applicable

CME Instruction: Not applicable

Workshops / Seminars

4/95	Invited Speaker: Workshop on "FMRI: How to interpret it, how to do it" Cognitive Neuroscience Society Satellite Symposium San Francisco, CA
4/22/00	Co-speaker (with Dr. Gary Glover), "Inside the Skull: Exploring the Brain," San Francisco Exploratorium live webcast, (*www.exploratorium.edu*).
6/5-6/04	Invited speaker on "The Evolving Platform for Integrated Imaging," Neuroradiology Education and Research (NER) Foundation Symposium, Seattle

Mentoring (pre- and post-doctoral)

Dates	*Name*	*Degree*	*Present Position/ Awards & Degrees Received During Mentorship*

Advisees: Primary Mentorship

Predoctoral

2001-2005	Kirschen, M	MD/PhD	Pediatric Neurology Fellow, Children's Hospital of Philadelphia; MD/PhD
2007-2011	Katzenelson, A	BS	Graduate Student, JHU Neuroscience Program; PhD

Postdoctoral

2001-2004	Chen, SHA	PhD	Assoc Prof, Nanyang Tech Univ, Faculty position
2005-2010	Cheng, D	PhD	Research Assoc, JHU Neurology; Promotion: Fellow to faculty; K01 award, Now Assistant Professor, Auburn University
2005-2010	Marvel, C	PhD	Assistant Prof, JHU Neurology, K01 award, Promotion to Assistant Professor in Johns Hopkins Department of Neurolgoy
2009-2014	Yau, J	PhD	Postdoctoral Fellow, JHU Neurology; F32 NRSA, now Assistant Professor, Baylor University
2013-2014	Peterburs, J	PhD	Postdoctoral Fellow, JHU Neurology; DFG (Germany) fellow
2015-pres	Sheu, Y	PhD	Postdoctoral Fellow, JHU Neurology
2016-pres	Peterburs, J	PhD	Visiting Scholar, JHU Neurology

K Award Primary Mentorship

2010-pres	Dariotis, J	PhD	Assistant Professor, University of Cincinnati (co-primary)
2010-pres	Marvel, C	PhD	Assistant Professor, JHU Neurology
2011-pres	Cheng, D	PhD	Assistant Professor, Auburn University Department of Psychology

K Award Co-Mentorship

2005-2008	Rosen, A	PhD	Research Scholar, Stanford Univ
2016-pres	Pantelyat, A	PhD	Assistant Professor, Johns Hopkins Dept of Neurology
2016-pres	Sebastian, R	PhD	Postdoctoral Fellow, Johns Hopkins Dept of Neurology

Visiting Medical Student Sponsor

2011	Kayali, I.	MD	Medical Student, Aleppo University, Syria

Scientific Staff

2001-2002	Pryor, M	BS	Partner & Co-founder, Sprokkit Web
2002-2005	Boshart, J	BS	Senior Interaction Design Consultant, Cooper
2003-2005	Jagtiani, N	MS-EE	Operating Systems Engineer, VMWare, Palo Alto, CA
2008	Echavarria, D	BS	Research Assistant, Georgetown Univ
2008-2012	Faulkner, M	MS	Graduate student, UNC Chapel Hill (awarded NRSA 2015)
2010-2013	Liao, D		Graduate Student, Princeton University
2010-2012	Chung, S		Undergraduate Research Assistant, JHU
2011-2013	Yang, C		Undergraduate Research Assistant, JHU
2012-2015	Rilee, J	BS	Graduate Student, Occupational Therapy
2013-2014	Hall, S.		Undergraduate Research Assistant, JHU
2014-2015	Lane, J.		Undergraduate Research Assistant, JHU
2015-pres	Blevins, L	BS	Research Program Coordinator, JHU Neurology
2016-pres	Metz, C.	BS	Research Assistant, JHU Neurology

Advisees: Co-mentorship

2000-2001	Canli, T	PhD	Associate Prof, Stony Brook Univ
2000-2003	DeRosa, E	PhD	Associate Prof, Univ of Toronto
2002-2007	Thomason, M	PhD	Postdoctoral Fellow, Stanford Univ Dept of Psychology, NRSA (postdoctoral)
2006-2007	Prabhakaran, V	MD/PhD	Asst Prof, Dept Radiology, University of Wisconsin, Madison
2007-2011	Wolmetz, M	BS	Graduate Student, JHU Cognitive Science Dept., William Orr Dingwall Foundation Fellowship
2008-2010	Eldreth, D	PhD	Research Health Analyst 2, Research Triangle Institute International Training Grant Trainee, JHU Neurology, T32AG027668
2009-2010	Dariotis, J	PhD	Assistant Scientist, JHSPH, Dept. of Population, Family & Reproductive Health K01 Award
2010-pres	Tsapkini, K	PhD	Assistant Professor, Johns Hopkins University Department of Neurology
2015-pres	Sebastian, R	PhD	Postdoctoral Fellow, Johns Hopkins University Department of Neurology

Thesis Committees

Dates	***Name***	***Degree***	***Title/Department; My Role***
2001	Kristoff, K	PhD	The role of rostrolateral prefrontal cortex in human cognition; Psychology, Stanford Univ, Chair
2001	Traill, S	PhD	Cognitive vulnerability to depression: Attention and memory biases in never-depressed daughters of depressed mothers; Psychology, Stanford Univ, Chair
2003	Hanson, M	PhD	A discourse-based account of young children's performance on the appearance-reality and false belief task; Psychology, Stanford Univ, Chair
2004	Ray, R	PhD	The mechanisms behind rumination; Psychology, Stanford Univ, Chair
2005	Kao, C	PhD	The neural basis of judgements-of-learning, Psychology, Stanford Univ, Chair
2007	Lee, C	MS	Time-dependent contribution of primary motor cortex to visuomotor memory retention, JHU Biomedical Engineering, Member

2011	Malone, L	PhD	Spatial and temporal coordination in locomotor learning, JHU Biomedical Engineering, Member
2011	Montojo, C	PhD	Rule and Item Information in Working Memory, JHU Dept of Psychological and Brain Science
2011	Wolmetz, M	PhD	How we store the sounds of words: examining the predictions of abstractionist and exemplar theories of spoken word recognition, JHU Cognitive Science, Chair
2013	Cantarero, G	PhD	Neurophysiological Mechanisms Underlying Retention of Motor Learning , JHU Neurosci Program, Member
2016	Xu, K	PhD	The neural basis of cognitive control of movement inhibition, JHU Department of Psychological and Brain Science, Chair
2017	D'Mello, A.M.	PhD	Cerebellum and Language: Applications to Autism. American University Department of Behavior, Cognition, and Neuroscience, External Reader

Qualifying Exams / Graduate Board Oral Examination Committee

2003	Thomason, M	Stanford University Neuroscience Program
2007	Fuentes, K	Johns Hopkins Neuroscience Program
2007	Pei, Y	Johns Hopkins Neuroscience Program
2009	Malone, L	Johns Hopkins Biomedical Engineering, (Chair)
2010	Mohan, V	Johns Hopkins Neuroscience Program
2010	Jayaram, G	Johns Hopkins Biomedical Engineering, (Chair)
2010	Yu, Z	Johns Hopkins Neuroscience Program, (Chair)
2011	Montojo, C	Johns Hopkins Psychological & Brain Sciences (Chair)
2012	Pham, D	Johns Hopkins Neuroscience Program
2013	Stevens, D	Johns Hopkins Neuroscience Program
2014	Gau, YT	Johns Hopkins Neuroscience Program
2014	You, W	Johns Hopkins Neuroscience Program
2016	Gamache, T.	Johns Hopkins Neuroscience Program
2016	Chen, L	Johns Hopkins Neuroscience Program
2017	D'Aleo, R	Johns Hopkins Neuroscience Program

Lab Rotation Advisor:

2001	Thomason, M	Stanford University Neuroscience Program
2004	Race, E	Stanford University Neuroscience Program
2005	Jerde, T	Stanford University Neuroscience Program
2007	Katzenelson, A	Johns Hopkins Neuroscience Program
2007	Wolmetz, M	Johns Hopkins Univ Cognitive Science Dept

Society For Neuroscience Mentorship Program

2005-2006	Alvarado, M	MD/PhD student, Univ Illinois at Urbana-Champaign

Host, Stanford Summer Research Program

2004	Rainey, C	Sponsored a neuroimaging project while an undergrad at Spelman College Provided recommendation for graduate school (2008), accepted by Duke Provided recommendation for NSF graduate fellowship (awarded, 2010)

Johns Hopkins Dept of Neurology Young Investigator's Day

2005	Marvel, C	Dept of Neurology, Johns Hopkins University
2006	Cheng, D	Dept of Neurology, Johns Hopkins University

***Training grant participation*:**

2002-04 Associated Faculty, Department of Psychology 5T32MH015157-25, "Analyzing Human Abilities," Stanford University

2007-present Associate Director, T32AG027668, "Research Training in Age-Related Cognitive Disorders," Johns Hopkins Department of Neurology

Educational Program Building – not applicable

Educational Extramural Funding – not applicable

CLINICAL ACTIVITIES

Certification – not applicable
Clinical (Service) Responsibilities – not applicable

Clinical Program Building / Leadership:

2001-2005 Implementation and operation of Clinical fMRI System, Stanford University, Dept of Radiology

Clinical Extramural Funding – not applicable

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES ***None***

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments – Stanford Univesity:

2001-2005 Member, Working Group on Neuroimaging Ethics
2001-2005 Member, Radiology Research Committee
2003 Co-organizer, Dept of Radiology Annual Retreat

Institutional Administrative Appointments – Kennedy Krieger Institute:
2005-present Faculty Member, Mental Retardation Research Center Neuroimaging Core

Institutional Administrative Appointments – Johns Hopkins University:
6/08 Co-organizer, Brain Science Institute Symposium on Neuroscience and Cognition,
2/11 Working Group Member, Johns Hopkins Science of Learning Initiative
2011-pres Ad Hoc Reviewer, Johns Hopkins Neurology internal grant review committee
7/12-3/13, 2/16 Subcomittee Member, Johns Hopkins Professorial Promotion Committee
9/12-pres Residency Selection Committee, Johns Hopkins Department of Neurology
7/13-pres Appointments and Promotions Committee, Johns Hopkins Department of Neurology
3/16-pres Finance Committee, Johns Hopkins Department of Neurology
3/17-pres Subcommittee Member, Johns Hopkins Professorial Promotion Committee

Editorial Activities:

Journal Editing
1. **Desmond JE**, Pascual-Leone, A (Eds). Special Issue: TMS Improvement of Human Cognitive Abilities. Behavioural Neurology. 2006; Volume 17.
2. **Desmond JE** (Ed). Special Issue: Trends in Cerebellar Research. Behavioural Neurology. 2010; Volume 23.

Ad Hoc Journal Reviewer
6/00 *American Journal of Neuroradiology*
8/01-2/09 *Neuroimage* (8/01, 6/03, 8/03, 2/04, 1/07, 6/08, 8/08, 10/08, 2/09)
12/01-present *Brain* (12/01, 5/02, 9/02, 11/02, 4/03, 7/08, 10/08, 1/09, 6/10, 4/11, 7/11)
4-5/02 *Brain and Cognition* (4/02, 5/02)
4/02-4/03 *Neuroreport* (4/02, 4/03)
12/02 *Epilepsia*
7/03-2/04 *Neuropsychologia* (7/03, 2/04)
9/03-9/09 *Journal of Cognitive Neuroscience* (9/03, 10/03, 2/04, 3/06, 8/07, 5/09, 9/09, 10/05, 12/05)
11/03-3/06 *Neurology* (11/03, 8/05, 3/06)
4/04-present *Alcoholism: Clinical and Experimental Research*
8/04-present *Behavioural Neurology* (8/04, 11/05, 12/11, 3/12)
6/05 *Investigative Radiology*
7-11/05 *Neuropsychology* (7/05, 11/05)
12/05-present *Behavioral Neuroscience* (12/05, 5/08, 6/12)

4/07-present	*Cerebral Cortex* (4/07, 9/11, 12/11, 3/12, 4/14)
4/07	*Journal of Neuroscience*
7/08-9/10	*Brain and Language* (7/08, 9/08, 1/09, 8/10, **Awarded Top Reviewer Certificate, Sept 2009)**
8/10	*Journal of Neurophysiology*
10/10	*Neurobiology of Aging*
6/11-present	*Experimental Neurology* (6/11, 10/11)
10/11	*Cortex*
10/11-pres	*Neuropsychology Review (*10/11, 11/14)
2/15	*Neurobiology of Learning and Memory*

Advisory Committees, Review Groups:

2002-	Ad Hoc Reviewer, NIH
2002-	Ad Hoc Reviewer, NSF
2002	Reviewer, Special Emphasis Panel ZMH1-CRB-B (01) Neuroinformatics Tools
2002	International Reviewer, Wellcome Trust
2002	Reviewer, Whitaker Foundation
2005	Reviewer, NIH SBIR/STTR applications
2/23-24/06	NIH Cognition and Perception Study Section
2006	Reviewer, Dana Foundation
2006	Reviewer, Alzheimers Disease Research Center, Johns Hopkins Medical Institutes
11/6//06	NIH Cognition, Language, and Perception Fellowships Study Section,
2006	Reviewer, NIMH B/START
2/09	NIH Sensorimotor Integration (SMI) and ZRG1-F02B fellowship review Study Sections
2009	ARRA NIH Challenge Grant reviewer, ZRG1 IFCN-A (58) July, 2009
2009	NIH AED reviewer, competitive revision grant, July, 2009
2009	Reviewer, Dana Foundation
2011	Reviewer, Johns Hopkins Institute for Clinical and Translational Research
2/21/11	International Grant Reviewer, French National Research Agency (ANR)
3/7-8/11	NIH Study Section, Neuroscience Review Subcommittee of NIAAA (AA-4)
4/26/11	International Grant Reviewer, Belgian Research Foundation Flanders (FWO)
10/26/11	NIH Special Emphasis Panel/Scientific Review Group 2012/01 ZAA1 GG (01) M
3/8/12	NIH Study Section, Neuroscience Review Subcommittee of NIAAA (AA-4)
8/2/12	NIH Study Section, Special Emphasis Group 2012/10 ZAA1 DD(03)
8/28/12	Reviewer, Johns Hopkins Brain Science Institute
10/1/15	NIH Study Section ZNR REV-T (22)
2014	Reviewer, Dana Foundation
2014	Reviewer, Erasmus University Research Excellence Initiative
2015	Reviewer, Johns Hopkins Science of Learning Institute
2015	Reviewer, Johns Hopkins Center for AIDS Research
3/3-4/15	NIH Study Section, NIH Learning and Memory, Language, Communication and Related Neurosciences panel (F01B)
3/16	Reviewer, Dana Foundation
4/16	Reviewer, Johns Hopkins Science of Learning Institute
6/30/16	NIH Study Section 10 ZRG1 BBBP-Z(05)
9/28/16	NIMH Board of Scientific Counselors, Ad Hoc Reviewer
11/30/16	NIH Study Section 2017/01 ZRG1 BBBP-Z (02)
4/17	Reviewer, Accelerated Translational Incubator Pilot (ATIP) Program, Johns Hopkins Institute for Clinical and Translational Research
6/26-27/17	NIH Cognition and Perception Study Section, mail-in reviewer

Professional Societies:

1977	Member, Phi Kappa Phi

1977 Member, Psi Chi
1981 Member, Society for Neuroscience
1995 Member, Cognitive Neuroscience Society
1998 Member, International Society for Behavioural Neuroscience

Session Chairs:

11/12/05 Working Memory I Session, Society for Neuroscience Annual Meeting, Washington DC

RECOGNITION

Awards and Honors:

1978-1981 National Science Foundation Graduate Fellowship Award
1982 Fellowship, Marine Biological Laboratory Neurobiology Course, Woods Hole, MA
1983-1985 National Research Service Award (NIMH F31MH08951)
1994-1996 National Research Service Award (NIMH F32NS09628)
1999-2001 Executive Committee (elected), International Society for Behavioural Neuroscience
2009-2013 Secretary (elected), International Society for Behavioural Neuroscience (re-elected June, 2011)
2014-present President (elected), International Society for Behavioural Neuroscience (re-elected July 2016)

Invited Presentations:

3/95 Grand Rounds, "Functional MRI," Department of Neurology, Stanford University
11/95 Cognitive Seminar, "Language Lateralization revealed by fMRI," Department of Psychology, Stanford University
12/95 Cognitive Colloquium, Department of Psychology, University of California, Berkeley, CA
2/96 Symposium speaker on "Non-Hippocampal, Non-Frontal, Non-Cerebellar Memory: The Agnosias of Man"- Annual meeting, Winter Conference on Neural Plasticity, St. Lucia, West Indies
2/97 Speaker, "Functional MRI," The PARALLEL Processing Connection, Sunnyvale, CA
4/97 Seminar, "fMRI Investigations of Semantic Encoding and Retrieval in the Left Inferior Prefrontal Cortex," Department of Neurology, Rush Medical College, Chicago, IL
2/98 Seminar, "fMRI Investigations of Cognition," NASA-Ames Research Center, Moffett Field, CA
2/99 Speaker, Stanford fMRI Journal Club, "Estimating Sample Size for fMRI Experiments"
6/99 Symposium speaker on "The Role of the Cerebellum in Higher Processes," American Psychological Society Annual Meeting, Denver, Colorado
6/30-7/4/99 Symposium speaker on "Event-related fMRI," International Society of Behavioural Neuroscience Seventh Annual Meeting, Messaria, Island of Santorini, Greece.
10/99 Society for Neuroscience NIAAA-sponsored Satellite Symposium on "Cerebellum and Alcohol: Roles in Cognitive and Motor Function" (speaker and discussant), Miami, Florida (October, 1999).
11/99 Speaker, "Workshop on Research Opportunities in Cognitive Aging." National Research Council/National Academy of Sciences Committee on Future Directions for Cognitive Research on Aging, Washington, DC
2/00 Symposium speaker on "Cognitive Functions of the Cerebellum," Winter Conference on Neural Plasticity, St. Lucia, West Indies
4/00 Symposium speaker on "Issues and Concerns in the Analysis of fMRI Data," Cognitive Neuroscience Society Annual Meeting, San Francisco, CA
4/13/01 NIH Workshop invited participant: "NIfTI Workshop: Users of Informatics Tools for fMRI Research," (NIfTI = ***N***euroimaging ***I***n***f***ormatics ***T***echnology ***I***nitiative)
11/1-2/01 Symposium speaker, on "Medical Applications of functional MRI." International Symposium on Life Science and Human Technology. Stress, Signaling, Sensing, and Imaging. AIST-Kansai, Ikeda, Osaka, Japan.
11/5/01 Invited speaker on "Cerebro-Cerebellar circuits in verbal working memory," University of Kyoto, Kyoto, Japan.
12/01 Medical Imaging Seminar speaker on "Estimating Sample Size in Functional MRI Neuroimaging Studies: Statistical Power Analyses," Stanford University.

9/27-28/02	Symposium speaker on "fMRI at High Field: Current and Emerging Applications," *First Annual International Symposium on Clinical High Field MRI*, Las Vegas, Nevada
7/02	Symposium speaker on "Functional Reorganization of the Brain in Alcoholism: Neuroimaging Evidence," *Research Society on Alcoholism Annual Meeting*, San Francisco, CA
10/02	Invited Seminar Speaker on "Clinical Applications of fMRI," University of California-San Francisco
3/10/03	Speaker on "Clinical fMRI: Applications, Caveats, and Implementation at Stanford," Radiological Sciences Laboratory, Stanford University .
4/3/03	Speaker on "Clinical fMRI at Stanford," Neuroradiology Research Meeting, Stanford University
5/30-6/3/04	Symposium speaker on "Ethics and Future Developments of Clinical fMRI," 6th European Congress on Epileptology, Vienna
6/28/04	Colloquium speaker on "Clinical fMRI: Implementation, Uses, and Practical Considerations." Johns Hopkins Department of Neurology
6/29/04	Colloquium speaker on "Cerebro-Cerebellar Circuits in Verbal Working Memory." Johns Hopkins Department of Psychology
10/17-18/04	Symposium speaker on "How to Set Up a Clinical fMRI Center," *Third Annual Global Symposium on Clinical High Field MRI*, Las Vegas, Nevada
11/17/05	Speaker on "Cerebro-Cerebellar Circuits in Verbal Working Memory," Cognitive Neurology Lecture Series, Johns Hopkins Department of Neurology
12/9/05	Colloquium speaker on "Neuroimaging Investigations of the Cerebellum," Department of Psychology, University of Massachusetts, Amherst
2/9/06	Grand Rounds Speaker on "Cerebro-Cerebellar Circuits in Verbal Working Memory," Johns Hopkins Department of Neurology
2/13/06	Colloquium Speaker on "Cerebellar Involvement in Working Memory," Indiana University, Department of Psychological and Brain Sciences
2/13/06	Neuroscience Colloquium Speaker on "Transcranial Magnetic Stimulation," Indiana University, Programs in Neuroscience and Cognitive Science
3/20/06	Seminar speaker on "Cerebro-Cerebellar Circuits in Verbal Working Memory," Neuropsychology Seminar Series, Kennedy Krieger Institute
3/31/06	Seminar speaker on "fMRI and TMS Studies of Cerebellar Function," Marquette University Department of Biomedical Engineering
10/3/06	Seminar speaker on "Cerebellar Involvement in Working Memory," Medical Psychology Seminar Series, Johns Hopkins University School of Medicine
10/6/06	Speaker on "Neuroimaging and TMS investigations of working memory and eyeblink conditioning," Systems Neuroscience Research Symposium, The Zanvyl Krieger Mind/Brain Institute,
1/25/07	Invited fMRI Journal Club Speaker on "Integrating fMRI and TMS," Department of Psychological and Brain Sciences, Johns Hopkins University
2/22/07	Colloquium Speaker on "Cerebellar Function in Verbal Working Memory," Cognitive Science Department, Johns Hopkins University
3/4/08	Invited speaker on "Executive and non-executive function of the cerebellum in verbal working memory," Johns Hopkins Department of Psychiatry Research Conference
4/22/08	Invited Speaker on "Cerebellar Involvement in Cognition," Outpatient NeuroRehabilitation Program Education Series, Department of Physical Medicine & Rehabilitation, Johns Hopkins University
6/13/08	Speaker on "Learning and Memory," Johns Hopkins Brain Science Institute 2008 Spring Symposium on Neuroscience and Cognition
12/14/09	Invited speaker on "Clinical and Neuroimaging Investigations of Cerebellar Cognitive Function," Johns Hopkins Clinical Neuroscience Seminar
3/15/10	Invited speaker on "fMRI and TMS Investigations of Conditioning: Age-Related Declines in Cerebro-Cerebellar Circuits," Johns Hopkins Dementia Consortium
5/6/10	Johns Hopkins Department of Neurology Grand Rounds speaker on "Cognitive decline in aging: Integrating neuromodulation and neuroimaging research methods," .
4/18/11	Invited speaker on "New Directions in Studying a Basic Memory Function: Clinical and Neuromodulatory Investigations of Verbal Working Memory," Johns Hopkins Clinical Neuroscience Seminar
5/12-14/11	Invited Symposium Speaker: "Cerebellar Pathophysiology in Psychiatric Disorders," Society of

Biological Psychiatry 66th Annual Convention, San Francisco, CA

6/21-26/11 Invited Symposium speaker/participant on "Cerebellum and Cognition," International Neuropsychological Symposium (INS), Mondsee, Austria

9/22-24/11 Invited Symposium Speaker: "Aging and the development of CS-US awareness in classical eyeblink conditioning: Insights from human neuroimaging." Pavlovian Society Annual Meeting, Milwaukee, WI

11/10-11/11 Invited Speaker on "Cerebellar TMS background, methods, and applications" for 2011 Society for Neuroscience Satellite Workshop, "Methods for Studying Human Cerebellar Structure and Function," Baltimore, MD

4/20-21/12 Invited Speaker on "Multimodal Imaging Approaches to Characterizing Cerebro-cerebellar Connectivity" for Unresolved Questions in Motor Control: A UCL-JHU Workshop, University College, London

2/12/14 Invited Speaker on "Cerebellar Contributions to Cognition: Insights from the Phonological Loop" Temple University, Philadelphia, PA.

3/2/2017 Invited Grand Rounds Speaker on **"**Cerebellar Contributions to Cognition: Insights from the Phonological Loop" Johns Hopkins University Department of Neurology

5/10/2017 Invited Speaker on "Cerebellar Contributions to Cognition: Insights from the Phonological Loop," Swiss Neurology Webinars

OTHER PROFESSIONAL ACCOMPLISHMENTS

Abstracts / Conference Presentations: 135 total