

Michelle W. Voss

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Summary

Dr. Michelle Voss (Ph.D., University of Illinois at Urbana-Champaign) is an Associate Professor and Dean's Scholar in the Department of Psychological and Brain Sciences at the University of Iowa, where she was awarded the Early Career Scholar of the Year Award. Research in her lab applies a cognitive neuroscience approach to study how aging affects cognition, and how health behaviors like physical activity both affect and are affected by brain structure and function as we age. She has published over 100 scientific articles that are well-cited, she's an active mentor who values learning the process and increasing diversity in science & academia, and she serves as a regular member on the NIH/NIA Neuroscience of Aging study sections. Outside of the lab she enjoys being outside with family and friends, riding bikes and reading, and volunteering at the Iowa City Bike Library.

Educational & Professional History

Education

2008-2011	Ph.D., Psychology, Brain & Cognition University of Illinois at Urbana-Champaign
2005-2008	M.A., Psychology, Brain & Cognition University of Illinois at Urbana-Champaign
1999-2004	B.S. (Honors, Summa cum Laude) Psychology University of Illinois at Urbana-Champaign

Positions

2020-	Associate Professor Department of Psychological and Brain Sciences The University of Iowa
2012-2020	Assistant Professor Department of Psychological and Brain Sciences The University of Iowa
2011-2012	Postdoctoral Research Associate The Beckman Institute for Advanced Science and Technology University of Illinois at Urbana-Champaign
2005-2011	Research Assistant, Department of Psychology University of Illinois at Urbana-Champaign
2004-2005	Lab Coordinator, Lifelong Brain and Cognition Laboratory University of Illinois at Urbana-Champaign

Honors & Awards

2022	Williams-Cannon Fellowship, Iowa Neuroscience Institute
2022	Election to the Academy of Behavioral Medicine Research
2021	Election to the Memory Disorders Research Society
2020	Dean's Scholar, University of Iowa, College of Liberal Arts and Sciences
2020	Early Career Scholar of the Year, University of Iowa, Office of the Vice President for Research
2019	Summer Research Opportunities Program (SROP) Mentoring Award, University of Iowa Graduate College
2010	Philips Travel Award

Second Biennial International Conference on Resting-State Functional Brain Connectivity held in Milwaukee, WI, (\$500)

- 2010 Quinn Memorial Exchange Fellowship
Scholarship from the Department of Psychology at the University of British Columbia for research collaboration with Dr. Teresa Liu-Ambrose (Dept. of Physical Therapy) and Dr. Todd Handy (Dept. of Psychology)
- 2009 Beckman Institute Graduate Fellowship
One year of support as a graduate fellow for proposed research agenda
- 2009 Paul D. Doolen Scholarship for the Study of Aging
\$5000 scholarship for excellence in aging research
- 2007-2009 NIMH cognitive psychophysiology training fellowship
- 2006 NCAA graduate student research grant
\$5000 grant for proposed research project that resulted in a peer-reviewed journal article
- 2004 Janet Tritsch Memorial Award in Psychology, for Honors Thesis
Awarded annually to the undergraduate student in psychology with the best research paper
- 2004 Bronze Tablet recipient
Awarded to those in the top 3% of their college graduating class
- 2003 Big Ten Medal of Honor
Awarded annually at each Big Ten conference school to one male and one female senior student-athlete who have demonstrated proficiency in scholarship, community service, and athletics
- 2003 Outstanding Scholar-Athlete Award
Awarded to the varsity athlete with the highest grade point average in each class of school
- 1999-2004 Dean's List, University of Illinois at Urbana-Champaign

Scholarship

Peer-Reviewed Journal Publications

Contribution: * Major **Secondary ***Equal ****Minor

†Graduate student author from HBC lab

††Undergraduate student or staff author from HBC lab

Link to [MyNCBI bibliography](#)

- 121) **Voss**, M.W., Jain, S.J. (2021). Getting fit to counteract cognitive aging: evidence and future directions. *Physiology*, (epub Jan 10). PMID: 35001656
- 120) ††Sodoma, M., †Cole, R., ††Sloan, T.J., †Kent, J., Magnotta, V.A., **Voss**, M.W. (2021). Hippocampal Acidity and Volume Are Differentially Associated with Spatial Navigation in Older Adults. *NeuroImage*, 245:118682, PMID: 34728245
- 119) *Loprinzi, P.D, Roig, M., Etnier, J.L., Tomporowski, P.D., **Voss**, M.W. (2021). Acute and Chronic Exercise Effects on Human Memory: What We Know and Where to Go From Here. *Journal of Clinical Medicine*. Accepted/In Press
- 118) **Colmenares, A.M., **Voss**, M.W., Fanning, J., Salerno, E.A., Gothe, N.P., Thomas, M.L., McAuley, E., Kramer, A.F. and Burzynska, A.Z. (2021). White matter plasticity in healthy older adults: the effects of aerobic exercise. *Neuroimage*, 239, p.118305.
- 117) **Aldine, A.S., Ogilvie, A., Wemmie, J., Kent, J., Schulz, J., Long, J.D., Kamholz, J., Sajjad, H., Kline, J., Shaw, E., **Voss**, M.W., Paulsen, J.S., Magnotta, V.A. (2021). Moderate Intensity Exercise in Pre-manifest Huntington’s Disease: Results of a 6 months Trial. *SVOA Neurology*, 2(1), 06-36.
- 116) ****Burzynska, A.Z., **Voss**, M.W., Fanning, J., Salerno, E.A., Gothe, N.P., McAuley, E., Kramer, A.F. (2020). Sensor-measured sedentariness and physical activity are differentially related to fluid and crystallized abilities in aging. *Psychology and aging*. Sep 24.
- 115) ****Burzynska, A.Z., Ganster, D.C., Fanning, J., Salerno, E.A., Gothe, N.P., **Voss**, M.W., McAuley, E, Kramer, A.F. Occupational physical stress is negatively associated with hippocampal volume and memory in older adults. (2020). *Frontiers in human neuroscience*. Jul 15;14:266.
- 114) ††Cole, R.C., Hazeltine, E., †Weng, T.B., Wharff, C., DuBose, L.E., Schmid, P., Sigurdsson, G., Magnotta, V.A., Pierce, G.L., **Voss**, M.W. (2020). Cardiorespiratory fitness and hippocampal volume predict faster episodic associative learning in older adults. *Hippocampus*. Feb;30(2):143-55.
- 113) ***Voss**, M.W., †Weng, T.B, Narayana-Kumanan, K., †Cole, R.C, ††Wharff, C., ††Reist, L., DuBose, L., Sigurdsson, G., Mills, J.A., Long, J.D., Magnotta, V.A., Pierce, G.L. (2020). Acute exercise effects predict training change in cognition and connectivity. *Medicine and science in sports and exercise*. Jan;52(1):131.

- 112) *Lee, H.K., †Kent, J., ††Wendel, C., Wolinsky, F., Foster, E., Merzenich, M.M., **Voss**, M.W. (in press). Home-Based, Adaptive Cognitive Training for Healthy Older Adults: Initial Efficacy Trial. *The Journals of Gerontology: Series B*. epub ahead of print.
- 111) ***Voss**, M.W., Soto, C., Yoo, S., Sodoma, M., Vivar, C., van Praag, H. (2019). Exercise and hippocampal memory systems. *Trends in Cognitive Sciences*, 23(4), 318-333.
- 110) *†Rigon, A., **Voss**, M. W., Turkstra, L. S., Mutlu, B., & Duff, M. C. (2019). White matter correlates of different aspects of facial affect recognition impairment following traumatic brain injury. *Social neuroscience*, 14(4), 434-448.
- 109) ***Voss**, M.W., †Sutterer, M., †Weng, T.B., Burzynska, A.Z., Fanning, J., Salerno, E., Gothe, N.P., Ehlers, D.K., McAuley, E. and Kramer, A.F. (2019). Nutritional supplementation boosts aerobic exercise effects on functional brain systems. *Journal of applied physiology*, 126(1), 77-87.
- 108) *VanVleet, T., **Voss**, M.W., Dabit, S., Mitko, A., & DeGutis, J. (2018). Randomized control trial of computer-based training targeting alertness in older adults: the ALERT trial protocol. *BMC psychology*, 6(1), 22.
- 107) *Pontifex, M. B., Gwizdala, K., †Weng, T. B., Zhu, D. C., & **Voss**, M. W. (2018). Cerebral blood flow is not modulated following acute aerobic exercise in preadolescent children. *International Journal of Psychophysiology*, 134, 44-51.
- 106) ****Baniqued, P. L., Gallen, C. L., **Voss**, M. W., Burzynska, A. Z., Wong, C. N., Cooke, G. E., Duffy, K., Fanning, J., Ehlers, D.K., Salerno, E.A., Aguiñaga, S., McAuley, E., Kramer, A.F., D'Esposito, M. (2018). Brain Network Modularity Predicts Exercise-Related Executive Function Gains in Older Adults. *Frontiers in aging neuroscience*, 9, 426.
- 105) **Kranz, M. B., **Voss**, M. W., Cooke, G. E., Banducci, S. E., Burzynska, A. Z., & Kramer, A. F. (2018). The cortical structure of functional networks associated with age-related cognitive abilities in older adults. *PloS one*, 13(9), e0204280.
- 104) *†Rigon, A., **Voss**, M.W., Turkstra, L.S., Mutlu, B., Duff, M.C. (2019). Functional neural correlates of facial affect recognition impairment following TBI. *Brain Imaging and Behavior*, 13(2), 526-540.
- 103) *†Rigon, A., **Voss**, M.W., Turkstra, L.S., Mutlu, B., Duff, M.C. (2018). Different aspects of facial affect recognition impairment following traumatic brain injury: The role of perceptual and interpretative abilities. *Journal of clinical and experimental neuropsychology*, 40(8):805-819.
- 102) ****Hsu, C.L., Best, J.R., **Voss**, M.W., Handy, T.C., Beauchet, O., Lim, C., Liu-Ambrose, T. (2018). Functional neural correlates of slower gait among older adults with mild cognitive impairment. *The journals of gerontology. Series A, Biological sciences and medical sciences*, gly027.
- 101) ****Chaddock-Heyman, L., Weng, T.B., Kienzler, C., Erickson, K.I., **Voss**, M.W., Drollette, E.S., Raine, L.B., Kao, S.C., Hillman, C.H., Kramer, A.F. (2018).

- Scholastic performance and functional connectivity of brain networks in children. *PLoS One*, 13(1), e0190073.
- 100) *†Clark, R., Hazeltine, E., Freedberg, M., **Voss**, M.W. (2018). Age differences in episodic associative learning. *Psychology and Aging*, 33(1), 144-157.
- 99) ***Voss**, M. W., †Clark, R., Freedberg, M., †Weng, T., & Hazeltine, E. (2017). Striking a chord with healthy aging: memory system cooperation is related to preserved configural response learning in older adults. *Neurobiology of aging*, 63, 44-53.
- 98) *†Clark, R., ††Tahan, A.C., Watson, P.D., Severson, J., Cohen, N.J., **Voss**, M.W. (2017). Aging affects spatial reconstruction more than spatial pattern separation performance even after extended practice. *Hippocampus*, 27(6), 716-725.
- 97) ****Baniqued, P.L., Gallen, C.L., **Voss**, M.W., Burzynska, A.Z., Wong, C.N., Cooke, G.E., Duffy, K., Fanning, J., Ehlers, D.K., Awick, E.A. and Aguiñaga, S., McAuley, E., Kramer, A.F., D'Esposito, M.D. (2017). Brain network modularity predicts exercise-related executive function gains in older adults. *Frontiers in Aging Neuroscience*, 9, 426.
- 96) ****Hsu, C.L., Best, J.R., Wang, S., **Voss**, M.W., Hsiung, R.G., Munkacsy, M., Cheung, W., Handy, T.C., Liu-Ambrose, T. (2017). The Impact of Aerobic Exercise on Fronto-Parietal Network Connectivity and Its Relation to Mobility: An Exploratory Analysis of a 6-Month Randomized Controlled Trial. *Frontiers in human neuroscience*, 11, 344.
- 95) ****Hsu, C.L., Best, J.R., Davis, J.C., Nagamatsu, L.S., Wang, S., Boyd, L.A., Hsiung, G.R., **Voss**, M.W., Eng, J.J., Liu-Ambrose, T. (2017). Aerobic exercise promotes executive functions and impacts functional neural activity among older adults with vascular cognitive impairment. *British Journal of Sports Medicine*, bjsports-2016-096846.
- 94) ****Burzynska, A.Z., Jiao, Y., Knecht, A.M., Fanning, J., Awick, E.A., Chen, T., Gothe, N., **Voss**, M.W., McAuley, E. and Kramer, A.F. (2017). White matter integrity declined over 6-months, but dance intervention improved integrity of the fornix of older adults. *Frontiers in aging neuroscience*, 9, 59.
- 93) ****Banducci, S.E., Daugherty, A.M., Biggan, J.R., Cooke, G.E., **Voss**, M., Noice, T., Noice, H. and Kramer, A.F. (2017). Active Experiencing Training Improves Episodic Memory Recall in Older Adults. *Frontiers in Aging Neuroscience*, 9, 133.
- 92) ****Kranz, M. B., Baniqued, P. L., **Voss**, M. W., Lee, H., & Kramer, A. F. (2017). Examining the Roles of Reasoning and Working Memory in Predicting Casual Game Performance across Extended Gameplay. *Frontiers in Psychology*, 8.
- 91) **DuBose, L., **Voss**, M.W., †Weng, T.B., †Kent, J., Dubishar, K., Lane-Cordova, A., Sigurdsson, G., Schmid, P., Barlow, P., Pierce, G. (2017). Carotid β -stiffness index is associated with slower processing speed but not working memory or white

- matter integrity in healthy middle-aged/older adults. *Journal of Applied Physiology*, 122(4), 868-876.
- 90) *†Rigon, A., **Voss**, M.W., Turkstra, L.S., Mutlu, B., Duff, M.C. (2017). Relationship between individual differences in functional connectivity and facial emotion recognition abilities in adults with traumatic brain injury. *NeuroImage: Clinical*, 13, 370-377.
 - 89) *†Weng, T.B., Pierce, G.L., Darling, W.G., Falk, D., Magnotta, V.A., **Voss**, M.W. (2017). The acute effects of exercise on the synchrony of functional networks of the aging human brain. *Brain Plasticity*, 2(2), 171-190.
 - 88) ****Fanning, J., Porter, G., Awick, E.A., Ehlers, D.K., Roberts, S.A., Cooke, G., Burzynska, A.Z., **Voss**, M.W., Kramer, A.F., McAuley, E. (in press). Replacing sedentary time with sleep, light, or moderate-to-vigorous physical activity: effects on self-regulation and executive functioning. *Journal of Behavioral Medicine*, 40(2), 332-342.
 - 87) *†Rigon, A., **Voss**, M.W., Turkstra, L.S., Mutlu, B., Duff, M.C. (2016). Frontal and temporal structural connectivity is associated with social communication impairment following traumatic brain injury. *Journal of the International Neuropsychological Society*, 22(7), 705-716.
 - 86) *†Rigon, A., Duff, M.C., **Voss**, M.W. (2016). Structural and functional neural correlates of self-reported attachment in healthy adults: evidence for an amygdalar involvement. *Brain Imaging and Behavior*, 10(4), 941-952.
 - 85) **Sutterer, M.J., Bruss, J., Boes, A.D., **Voss**, M.W., Bechara, A., Tranel, D. (2016). Canceled connections: Lesion-derived network mapping helps explain differences in performance on a complex decision-making task. *Cortex*, 78, 31-43.
 - 84) **Band, G.P.H., Basak, C., Slagter, H.A., **Voss**, M.W. (2016). Towards a mechanistic view on game-guided learning. Editorial summary on research topic "Effects of game and game-like training on neurocognitive plasticity," *Frontiers in Human Neuroscience*, 10, 123.
 - 83) ***Voss**, M.W., †Weng, T.B., Burzynska, A.Z., Wong, C.N., Cooke, G.E., †Clark, R., Fanning, J., Awick, E., Gothe, N.P., Olson, E.A., McAuley, E., Kramer, A.F. (2016). Fitness, but not physical activity, is related to functional integrity of brain networks associated with aging. *NeuroImage*, 131, 113-125.
 - 82) **Oberlin, L.E., Verstynen, T.D., Burzynska, A.Z., **Voss**, M.W., Prakash, R.S., Chaddock-Heyman, L., Wong, C., Fanning, J., Awick, E., Gothe, N., Phillips, S.M., Mailey, E., Ehlers, D., Olson, E., Wojcicki, T., McAuley, E., Kramer, A.F., Erickson, K.I. (2016). White matter microstructure mediates the relationship between cardiorespiratory fitness and spatial working memory in older adults. *NeuroImage*, 131, 91-101.
 - 81) *†Rigon, A., Duff, M.C., McAuley, E., Kramer, A.F., **Voss**, M.W. (2016). Is traumatic brain injury associated with reduced inter-hemispheric functional

- connectivity? A study of large-scale resting state networks following traumatic brain injury. *Journal of Neurotrauma*, 33(11), 977-989.
- 80) ****Hsu, C.L., Best, J.R., Chiu, B.K., Nagamatsu, L.S., **Voss**, M.W., Handy, T.C., Bolandzadeh, N., Liu-Ambrose, T. (2016). Structural neural correlates of impaired mobility and subsequent decline in executive functions: a 12-month prospective study. *Experimental Gerontology*, 80, 27-35.
- 79) ****Nagamatsu, L.S., Hsu, C.L., **Voss**, M.W., Chan, A., Bolandzadeh, N., Handy, T.C., Graf, P., Beattie, B.L., Liu-Ambrose, T. (2016). The neurocognitive basis for impaired dual-task performance in senior fallers. *Frontiers in Aging Neuroscience*, 8, 20.
- 78) ****Burzynska, A.Z., Wong, C.N., Chaddock-Heyman, L., Olson, E.A., Gothe, N.P., Knecht, A., **Voss**, M.W., McAuley, E., Kramer, A.F. (2016). White matter integrity, hippocampal volume, and cognitive performance of a world-famous nonagenarian track-and-field athlete. *Neurocase*, 22(2), 135-144.
- 77) *†Clark, R.C., Freedberg, M., Hazeltine, E., **Voss**, M.W. (2015). Are there age-related differences in the ability to learn configural responses? *PLoS ONE*, 10(8), e0137260.
- 76) ****Hsu, C.L., **Voss**, M.W., Best, J.R., Handy, T.C., Madden, K., Bolandzadeh, N., Liu-Ambrose, T. (2015). Elevated Body Mass Index and Maintenance of Cognitive Function in Late Life: Exploring Underlying Neural Mechanisms. *Frontiers in Aging Neuroscience*, 7, 155.
- 75) **Wong, C.N., Chaddock-Heyman, L., **Voss**, M.W., Burzynska, A., Basak, C., Erickson, K.I., Prakash, R.S., Szabo-Reed, A., Phillips, S.M., Wojcicki, T., Mailey, E.L., McAuley, E., Kramer, A.F. (2015). Brain activation during dual-task processing is associated with cardiorespiratory fitness and performance in older adults. *Frontiers in Aging Neuroscience*, 7, 154.
- 74) **Burzynska, A.Z., Wong, C.N., **Voss**, M.W., Cooke, G.E., Gothe, N.P., Fanning, J., McAuley, E., Kramer, A.F. (2015). Physical Activity Is Linked to Greater Moment-To-Moment Variability in Spontaneous Brain Activity in Older Adults, *PLoS ONE*, 10(8): e0134819
- 73) **Burzynska, A.Z., Wong, C.N., **Voss**, M.W., Cooke, G.E., McAuley, E., Kramer, A.F. (2015). White matter integrity supports BOLD signal variability and cognitive performance in the aging human brain. *PLoS ONE*, 10(4), e0120315.
- 72) *†Weng, T.B., Pierce, G.L., Darling, W.G., **Voss**, M.W. (2015). Differential Effects of Acute Exercise on Distinct Aspects of Executive Function. *Medicine & Science in Sports & Exercise*, 47(7), 1460-1469.
- 71) *Prakash, R.S., **Voss**, M.W., Erickson, K.I., Kramer, A.F. (2015). Physical Activity and Cognitive Vitality. *Annual Review of Psychology*, 66, 769-797.
- 70) ****Erickson, K.I., Leckie, R., Weinstein, A., Radchenkova, P., Sutton, B., Prakash, R., **Voss**, M.W., Chaddock, L., McAuley, E., Kramer, A.F. (2015). Education Mitigates Age-Related Decline in N-Acetylaspartate Levels. *Brain and Behavior*, 5(3), e00311.

- 69) ****Lee, H., Boot, W.R., Baniqued, P., **Voss**, M.W., Prakash, R.S., Basak, C., Kramer, A.F. (2015). The Relationship between Intelligence and Training Gains Is Moderated by Training Strategy. *PLoS ONE*. 10(4):e0123259.
- 68) **Monti, J.M., Cooke, G.E., Watson, P.D., **Voss**, M.W., Kramer, A.F., Cohen, N.J. (2015). Relating Hippocampus to Relational Memory Processing across Domains and Delays. *Journal of Cognitive Neuroscience*, 27(2), 234-45.
- 67) ****Leckie, L.R., Oberlin, L.E., **Voss**, M.W., Prakash, R.S., Szabo-Reed, A., Chaddock-Heyman, L., Phillips, S.M., Gothe, N.P., Mailey, E., Vieira-Potter, V.J., Martin, S.A., Pence, B.D., Lin, M., Parasuraman, R., Greenwood, P.M., Fryxell, K.J., Woods, J., McAuley, E., Kramer, A.F., Erickson, K.I. (2014). BDNF mediates improvements in executive function following a 1-year exercise intervention. *Frontiers in Human Neuroscience*, 8, 985.
- 66) **Burzynska A.Z., Chaddock-Heyman L., **Voss** M.W., Wong C.N., Gothe N.P., Olson E.A., Knecht A., Lewis A, Monti J, Cooke G, Wojcicki T.R., Fanning J, Chung H.D., Awick E, McAuley E, and Kramer A.F. (2014). Physical activity and cardiorespiratory fitness are beneficial for aging white matter. *PLoS ONE* 9(9): e107413.
- 65) ****Chaddock-Heyman, L., Erickson, K.I., Holtrop, J.L., **Voss**, M.W., Pontifex, M.B., Raine, L.B., Hillman, C.H., Kramer, A.F. (2014). Aerobic fitness is associated with greater white matter integrity in children, *Frontiers in Human Neuroscience*, 8, 584.
- 64) ****Uc,E., Doerschug, K, Magnotta,V.A., Dawson,J.D., Thomsen, T., Kline, J.N., Rizzo, M., Newman,S.R., Mehta, S.H., Grabowski, T.J., Bruss, J.E., Blanchette, D.R., Anderson, S., **Voss**, M.W., Kramer, A.F., Darling, W.G. (2014). A Phase I/II, Randomized Trial of Aerobic Exercise in Parkinson Disease in Community Setting. *Neurology*, 83(5), 413-425.
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- 62) **Nikolaidis, A., **Voss**, M.W., Lee, H., Vo, L., Kramer, A.F. (2014). Parietal plasticity after training with a complex video game is associated with individual differences in improvements in an untrained working memory task. *Frontiers in Human Neuroscience*, 8, 169.
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- 58) ****Neider, M.B., Ang, C.W., **Voss**, M.W., Carbonari, R., Kramer, A.F. (2013) Training and Transfer of Training in Rapid Visual Search for Camouflaged Targets. *PLoS ONE* 8(12): e83885.
- 57) ***Voss**, M.W., Wong, C.N., Baniqued, P.L., Burdette, J.H., Erickson, K.I., et al. (2013) Aging Brain from a Network Science Perspective: Something to Be Positive About? *PLoS ONE* 8(11): e78345.
- 56) ***Voss**, M.W., Vivar, C., Kramer, A.F., van Praag, H. (2013) Bridging animal and human models of exercise-induced brain plasticity. *Trends in Cognitive Sciences*, 17(10), 525-544.
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- 53) ****Nagamatsu, L.S., Chan, A., Davis, J.C., Beattie, B.L., Graf, P., **Voss**, M.W., Sharma, D. and Liu-Ambrose, T., 2013. Physical activity improves verbal and spatial memory in older adults with probable mild cognitive impairment: a 6-month randomized controlled trial. *Journal of Aging Research*, 2013.
- 52) ****Chaddock-Heyman, L., Erickson, K.I., **Voss**, M.W., Knecht, A.M., Pontifex, M.B., Castellì, D.M., Hillman, C.H. and Kramer, A.F., 2013. The effects of physical activity on functional MRI activation associated with cognitive control in children: a randomized controlled intervention. *Frontiers in Human Neuroscience*, 7.
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- A.F. (2013). Neurobiological markers of exercise-related brain plasticity in older adults. *Brain, Behavior, and Immunity*, 28, 90-9.
- 48) **Baniqued, P.L., Lee, H., **Voss**, M.W., Basak, C., Cosman, J.D., DeSouza, S., Severson, J., Salthouse, T.A., Kramer, A.F. (2013). Selling points: What cognitive abilities are tapped by casual video games? *Acta Psychologica*, 142(1), 74-86.
- 47) ***Prakash, R.S., **Voss**, M.W., & Kramer, A.F. (2012). Physical activity effects on brain and behavior. Chapter in, "Principles of Frontal Lobe Functions: Second Edition." Edited by Donald T. Stuss and Robert T. Knight. Oxford University Press.
- 46) **Nagamatsu, L.S., Handy, T.C., Hsu, L., **Voss**, M.W., Liu-Ambrose, T. (2012). Resistance training promotes cognitive performance and functional plasticity in seniors with probable mild cognitive impairment: A 6-month randomized controlled trial. *Archives of Internal Medicine*, 172(8), 666-668.
- 45) **Lee, H., **Voss**, M.W., Prakash, R.S., Boot, W.R., Vo, L.T.K., Basak, C., VanPatter, M., Gratton, G., Fabiani, M., & Kramer, A.F. (2012). Videogame training strategy-induced change in brain function during a complex visuomotor task. *Behavioural Brain Research*, 232(2), 348-357.
- 44) **Prakash, R.S., DeLeon, A., Mourany, L., Lee, H., **Voss**, M.W., Boot, W.R., Basak, C., Fabiani, M., Gratton, G., & Kramer, A.F. (2012). Examining neural correlates of skill acquisition in a complex videogame training program. *Frontiers in Human Neuroscience*, 6, 115.
- 43) **Liu-Ambrose, T., Nagamatsu, L.S., **Voss**, M.W., Khan, K., & Handy, T.C. (2012). Resistance training and functional plasticity of the aging cortex. *Neurobiology of Aging*, 33(8), 1690-1698.
- 42) **Weinstein, A.M., **Voss**, M.W., Prakash, R.S., Chaddock, L., Szabo, A., White, S.M, Wojcicki, T.R., Mailey, E., McAuley, E., Kramer, A.F., Erickson, K.I. (2012). The association between aerobic fitness and executive function is mediated by prefrontal cortex volume. *Brain, Behavior and Immunity*, 26(5), 811-819.
- 41) ****Verstynen, T. D., Lynch, B., Miller, D. L., **Voss**, M. W., Prakash, R. S., Chaddock, L., Basak, C., Szabo, A., Olson, E.A., Wojcicki, T.R., Fanning, J., Gothe, N.P., McAuley, E., Kramer, A.F., & Erickson, K. I. (2012). Caudate Nucleus Volume Mediates the Link between Cardiorespiratory Fitness and Cognitive Flexibility in Older Adults. *Journal of Aging Research*.
- 40) **Prakash, R.S., Heo, S., **Voss**, M.W., Patterson, B., & Kramer, A.F. (2012). Age-related differences in cortical recruitment and suppression: Implications for cognitive performance. *Behavioral Brain Research*, 230(1), 192-200.
- 39) ****Lee, H., Boot, W.R., Basak, C., Erickson, K.I., Neider, M., Simons, D.J., Fabiani, M., Gratton, G., **Voss**, M.W., Prakash, R.S., Low, K.A., & Kramer, A.F. (2012). Effective training of complex tasks: Strategy, individual differences, retention, transfer of training, and predictors of individual differences in learning. *Acta Psychologica*, 139(1), 146-58.

- 38) **Erickson, K.I., Weinstein, A.M., Sutton, B.P., Prakash, R.S., **Voss**, M.W., Chaddock, L.C., Szabo, A., Mailey, E., White, S.M., Wójcicki, T.R., McAuley, E., & Kramer, A.F. (2012). Beyond vasularization: Effects of aerobic fitness on N-Acetylaspartate and memory. *Brain and Behavior*, 1, 32-41.
- 37) **Chaddock, L., Erickson, K.I., Prakash, R.S., **Voss**, M.W., VanPatter, M., Pontifex, M.B., Hillman, C.H., & Kramer, A.F. (2012). A functional MRI investigation of the association between childhood aerobic fitness and neurocognitive control. *Biological Psychology*, 89(1), 260-8.
- 36) ***Voss**, M.W., Prakash, R.S., Erickson, K.I., Boot, W.R., Basak, C., Neider, M.B., Simons, D.J., Fabiani, M., Gratton, G., & Kramer, A.F. (2012). Effects of training strategies implemented in a complex videogame on functional connectivity of attentional networks. *NeuroImage*, 59(1), 138-148.
- 35) **Chaddock, L., **Voss**, M.W., & Kramer, A.F. (2012). Physical activity and fitness effects on cognition and brain health in children and older adults. *Kinesiology Review*, 1, 37-45.
- 34) **Basak, C., **Voss**, M.W., Erickson, K.I., Boot, W.R., & Kramer, A.F. (2011). Regional differences in brain volume predict the acquisition of skill in a complex real-time strategy videogame. *Brain and Cognition*, 76(3), 407-14.
- 33) ****McAuley, E., Mullen, S.P., Szabo, A.N., White, S.M., Wojcicki, T.R., Mailey, E.L., Gothe, N., **Voss**, M.W., Erickson, K.I., Prakash, R.S., & Kramer, A.F. (2011). Self-Regulatory processes and exercise adherence in older adults: Executive function and self-efficacy effects. *American Journal of Preventive Medicine*, 41(3), 284-90.
- 32) ***Voss**, M.W., Nagamatsu, L.S., Liu-Ambrose, T., & Kramer, A.F. (2011). Exercise, Brain, and Cognition Across the Lifespan. *Journal of Applied Physiology*, 111(5), 1505-1513.
- 31) **Wan, X., **Voss**, M.W. & Lleras, A. (2011). Age-related effects in inter-trial inhibition of attention. *Aging, Neuropsychology and Cognition*, 18(5), 562-76.
- 30) **McAuley, E.M., Szabo, A.N., Mailey, E.L., Erickson, K.I., **Voss**, M.W., White, S.M., Wójcicki, T.R., Gothe, N., Olson, E.A., Mullen, S.P., & Kramer, A.F. (2011). Non-exercise estimated cardiorespiratory fitness: Associations with brain structure, cognition, and memory complaints in older adults. *Mental Health and Physical Activity*, 4(1), 5-11.
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- mobility decisions in seniors at risk for falls: A virtual reality experiment. *Psychology and Aging*, 26(2), 253-259.
- 26) ***Voss**, M.W., Chaddock, L., Kim, J.S., VanPatter, M., Pontifex, M.B., Raine, L.B., Cohen, N.J., Hillman, C.H., & Kramer, A.F. (2011). Aerobic fitness is associated with greater efficiency of the network underlying cognitive control in preadolescent children. *Neuroscience*, 199, 166-76.
 - 25) ****Pontifex, M.B., Raine, L.B., Johnson, C.R., Chaddock, L., **Voss**, M.W., Cohen, N.J., Kramer, A.F., & Hillman, C.H. (2011). Cardiorespiratory fitness and the flexible modulation of cognitive control in preadolescent children. *Journal of Cognitive Neuroscience*, 23, 1332-1345.
 - 24) ****Wu, C.-T., Pontifex, M. B., Raine, L. B., Chaddock, L., **Voss**, M. W., Kramer, A. F., & Hillman, C. H. (2011). Aerobic fitness and response variability in preadolescent children performing a cognitive control task. *Neuropsychology*, 25, 333-341.
 - 23) ***Erickson, K.I., **Voss**, M.W., Prakash, R.S., Basak, C., Szabo, A.N., Chaddock, L., White, S.M., Wojcicki, T.R., Mailey, E.L., McAuley, E.M., & Kramer, A.F. (2011). Reply to Coen et al.: Exercise, hippocampal volume, and memory. *Proceedings of the National Academy of Sciences: USA*, 108(18), E90.
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 - 21) **Vo, L.T.K., Walther, D.B., Kramer, A.F., Erickson, K.I., Boot, W.R., **Voss**, M.W., Prakash, R.S., Fabiani, M., Gratton, G., Simons, D.J., & Wang, Y.M. (2011). Predicting individuals' learning success from patterns of pre-learning MRI Activity. *PLoS ONE*, 6(1): e16093.
 - 20) **Prakash, R.S., **Voss**, M.W., Erickson, K.I., Lewis, J.M., Chaddock, L., Malkowski, E., Alves, H., Kim, J.S., Szabo, A., White, S.M., Wojcicki, T.R., Mailey, E.L., McAuley, E., & Kramer, A.F. (2011). Cardiorespiratory fitness and attentional control in the aging brain. *Frontiers in Human Neuroscience*, 4, 229.
 - 19) **Boot, W.R., Basak, C., Erickson, K.I., Neider, M., Simons, D.J., Fabiani, M., Gratton, G., **Voss**, M.W., Prakash, R.S., Lee, H., Low, K.A., & Kramer, A.F. (2010). Transfer of skill engendered by complex task training under conditions of variable priority. *Acta Psychologica*, 135, 349-357.
 - 18) **Chaddock, L.C., Erickson, K.I., Prakash, R.S., Kim, J.S., **Voss**, M.W., VanPatter, M., Pontifex, M.B., Raine, L.B., Konkel, A., Hillman, C.H., Cohen, N.J., & Kramer, A.F. (2010). A neuroimaging investigation of the association between aerobic fitness, hippocampal volume and memory performance in preadolescent children. *Brain Research*, 1358, 172-183.
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- 16) **Chaddock, L., Erickson, K.I., Prakash, R.S., VanPatter, M., **Voss**, M.W., Pontifex, M.B., Raine, L.B., Hillman, C.H., & Kramer, A.F. (2010). Basal ganglia volume is associated with aerobic fitness in preadolescent children. *Developmental Neuroscience*, 32, 249-256.
 - 15) **Erickson, K.I., Prakash, R.S., **Voss**, M.W., Chaddock, L., Heo, S., McLaren, M., Pence, B.D., Martin, S.A., Vieira, V.J., Woods, J.A., & Kramer, A.F. (2010). BDNF is associated with age-related decline in hippocampal volume. *Journal of Neuroscience*, 30, 5368-5375.
 - 14) **Erickson, K.I., Boot, W.R., Basak, C., Neider, M.B., Prakash, R.S., **Voss**, M.W., Graybiel, A.M., Simons, D.J., Fabiani, M., Gratton, G., & Kramer, A.F. (2010). Is bigger better? Striatum volume predicts the level of video game skill acquisition. *Cerebral Cortex*, 20, 2522-2530.
 - 13) ***Voss**, M.W., Erickson, K.I., Prakash, R.S., Chaddock, L., Malkowski, E., Alves, H., Kim, J.S., Morris, K.S., White, S.M., Wojcicki, T.R., Hu, L., Szabo, A., Klamm, E., McAuley, E., & Kramer, A.F. (2010). Functional connectivity: a source of variance in the association between cardiorespiratory fitness and cognition? *Neuropsychologia*, 48, 1394-1406.
 - 12) **Heo, S., Prakash, R.S., **Voss**, M., Erickson, K.I., Ouyang, C., Sutton, B.P., & Kramer, A.F. (2010). Resting hippocampal blood flow, spatial memory and aging. *Brain Research*, 1315, 119-127.
 - 11) **Erickson, K.I., **Voss**, M.W., Prakash, R.S., Chaddock, L., & Kramer, A.F. (2010). A cross-sectional study of hormone treatment and hippocampal volume in postmenopausal women: Evidence for a limited window of opportunity. *Neuropsychology*, 24, 68-76.
 - 10) ***Voss**, M.W., Kramer, A.F., Basak, C., Prakash, R.S., & Roberts, B. (2010). Are expert athletes "expert" in the cognitive laboratory? A meta-analytic review of basic attention and perception and sport expertise. *Applied Cognitive Psychology*, 24(6), 812-826.
 - 9) ****Prakash, R.S., Erickson, K.I., Colcombe, S.J., Kim, J.S., **Voss**, M.W., & Kramer, A.F. (2009). Age-related differences in the involvement of the prefrontal cortex in attentional control. *Brain and Cognition*, 71, 328-335.
 - 8) **Carlson, M.C., Erickson, K.I., **Voss**, M.W., Kramer, A.F., Bolea, N., Mielke, M., Rebok, G., McGill, S., & Fried, L.F. (2009). Evidence for neurocognitive plasticity in at-risk older adults: The Experience Corps Program. *The journals of gerontology. Series A, Biological sciences and medical sciences*, 64, 1275-1282.
 - 7) **Erickson, K.I., Prakash, R.S., **Voss**, M.W., Chaddock, L., Hu, L., Morris, K.S., White, S.M., Wojcicki, T.R., McAuley, E. & Kramer, A.F. (2009). Aerobic fitness is

- associated with hippocampal volume in elderly humans. *Hippocampus*, 19, 1030-1039.
- 6) **Kennedy, K.M., Erickson, K.I., Rodrigue, K.M., **Voss**, M.W., Colcombe, S.J., Kramer, A.F., Acker, J.D., & Raz, N. (2009). Age-related differences in regional brain volumes: A comparison of manual volumetry with optimized voxel-based morphometry. *Neurobiology of Aging*, 30, 1657-1676.
 - 5) ***Voss**, M.W., Erickson, K.I., Chaddock, L., Prakash, R.S., Colcombe, S.J., Morris, K.S., Doerksen, S., Hu, L., McAuley, E., & Kramer, A.F. (2008). Dedifferentiation in the visual cortex: an fMRI investigation of individual differences in older adults. *Brain Research*, 1244, 121-131.
 - 4) **Basak, C., Boot, W.R., **Voss**, M.W., & Kramer, A.F. (2008). Can training in a real-time strategy videogame attenuate cognitive decline in older adults? *Psychology & Aging*, 23(4), 765-777.
 - 3) **Erickson, K.I., Kim, J.S., Suever, B.L., **Voss**, M.W., Francis, B.M., & Kramer, A.F. (2008). Genetic contributions to age-related decline in executive function: a 10-year longitudinal study of COMT and BDNF polymorphisms. *Frontiers in Human Neuroscience*, 2, 11.
 - 2) ****Prakash, R.S., Snook, E.M., Erickson, K.I., Colcombe, S.J., **Voss**, M.W., Motl, R.W., & Kramer, A.F. (2008). Cardiorespiratory fitness: A predictor of cortical plasticity in multiple sclerosis. *NeuroImage*, 14(9), 1250-61.
 - 1) **Bogg, T., **Voss**, M.W., Wood, D., & Roberts, B.W. (2008). A hierarchical investigation of personality and behavior: Testing five-Factor and neo-Socioanalytic models of health-related outcomes. *Journal of Research in Personality*, 42, 183-207.

Book Chapters

- ***Voss**, M.W. (2018). The Benefits of Physical Activity on Brain Structure and Function in Healthy Aging and Age-Related Neurological Disease. *The Wiley Handbook on the Aging Mind and Brain* (2018): 649-661. Edited by Drs Matthew Rizzo and Steven Anderson.
- *†Clark, R., ††Wendel, C., & **Voss**, M. W. (2017). Physical Activity and Cognitive Training: Impact on Hippocampal Structure and Function. In *The Hippocampus from Cells to Systems* (pp. 209-243). Springer International Publishing. Chicago. Edited by Drs Debbie Hannula and Melissa Duff.
- ***Voss**, M.W. (2016). The chronic exercise-cognition interaction: fMRI research. Invited book chapter in *Exercise-Cognition Interaction: Neuroscience Perspectives*. Edited by Dr. Terry McMorris.

***Voss**, M.W. & Erickson, K.I. (2013). Exercise effects on brain and cognition in older adults. Chapter in, "Routledge Handbook of Physical Activity and Mental Health." Edited by Drs Jennifer L. Etnier and Panteleimon Ekkekakis.

****Roberts, B. W., Harms, P. D., Smith, J., Wood, D., & **Webb**, M. (2005). Methods in personality psychology. In Eid, M., & Diener, E. (Eds.). Handbook of Psychological Assessment: A Multimethod Perspective. Washington, D. C.: American Psychological Association.

Other published work

†Weng, TB & **Voss**, MW. (2015). Active Voice: Aerobic exercise targets specific brain systems. Invited highlighted commentary for the American College of Sports Medicine Bulletin.

Voss, M.W. (2015). [Why it should always be the season for exercise](#). Cognitive Neuroscience Society blog in the Huffington Post.

Voss, M.W. Brain. Encyclopedia of Sport and Exercise Psychology. (2014). Editors Drs Robert Charles Eklund and Gershon Tenenbaum. SAGE Publications.

Voss, M.W. (2010). [Understanding the mind of the elite athlete: Can sports sharpen the body and mind?](#) Scientific American Mind.

Selected Talks from Jan 2012-present

2021

Virtual Brain Health Symposium, hosted by the University of British Columbia, "Physical activity to improve cognition in older adults: why intensity matters"

Virtual symposium hosted Journal of Clinical Medicine, "The Effects of Exercise on Memory," organized by Paul Loprinzi and including Jennifer Etnier, Marc Roig, Phillip Tomporowski, and Michelle Voss). My talk was on Effects of Physical Activity and Cardiorespiratory Fitness on Episodic Memory Systems in Older Adults

Physical activity and fitness to slow brain and cognitive aging. Virtual presentation at UIHC Physical Therapy Grand Rounds

First-generation brain research workshop, Health, Brain, and Cognition: a virtuous cycle for healthy aging, Jan Wessel, Iowa City, Iowa, United States Presenters/Authors: Voss, Michelle W

Bridging acute and chronic effects of aerobic exercise on the aging brain. Virtual presentation to the San Diego State University Advancing Diversity in Aging Research (ADAR) Program, February 17.

2020

Exercise effects on the human brain and cognition across the lifespan. Symposium on "Exercise and the Brain" at the Keystone meeting on Biology of Exercise & Charting New Course for Heart Failure, March 4.

2019

Translational exercise neuroscience: a (mostly) human neuroscience approach to uncovering how physical activity protects the aging brain. Department of Kinesiology and Applied Physiology Fall seminar series at the University of Delaware, November 14-15

Incorporating the Experimental Medicine Approach in the Development of Primary Prevention Trials for Alzheimer's disease: A Workshop, Mechanistic targets and moderators for cognitive training and exercise: similarities, differences, potential for synergy, National Academies of Science, Engineering, and Medicine, Washington D.C, United States, Oct 11-12.

Getting the most out of your brain as you age. First-generation brain research workshop, hosted by Jan Wessel at the University of Iowa. August 23.

Can physical exercise protect our memory from aging? Summer Research Opportunities Program research seminar series, hosted by the Graduate College at the University of Iowa. June 21.

Bridging acute and chronic effects of aerobic exercise on memory systems. Aging Mind and Brain Initiative: Ten Years After symposium, April 18.

Effects of physical activity and fitness on hippocampal memory systems. Neuroscience and Psychology seminar series at the University of Wisconsin-Milwaukee, April 12.

Bridging acute and chronic effects of aerobic exercise on memory systems. Presented as part of symposium entitled, "Imaging the immediate and long-term effects of exercise in humans" at the Cognitive Neuroscience Society meeting, San Francisco, CA, March 24. Related press: <https://www.sciencedaily.com/releases/2019/03/190325080354.htm>

2018

Effects of physical activity and fitness on memory systems affected by aging. Seminar series at the Psychology Department at Northeastern University, Boston, MA. November 29.

Effects of physical activity and fitness on memory systems affected by aging. Iowa Neuroimaging Consortium (INC) meeting, hosted by the Psychiatry Department at the University of Iowa. November 6.

Benefits of physical activity and fitness on memory systems affected by aging. Seminar series at the Center for Vital Longevity in Dallas, TX. October 29.

Neurotrophic Factors and structural and functional neuroplasticity in exercise science. Presented as part of symposium entitled, "The Neurobiology of Exercise: What Neuroimaging tells us about the Molecular Mechanisms by which Exercise affects Brain Structure and Function" at the Organization of Human Brain Mapping, Singapore, June 20.

Exercise effects on the aging brain and cognition: theories, mechanisms, and endpoints. Obesity and Energetics seminar series, hosted by the Obesity Initiative at the University of Iowa. June 11.

2017

Exercise effects on the brain and cognition: A systems perspective. Presented at the Exercise and the Brain symposium at Duke University, December 1, 2017.

Physical exercise and fitness to improve hippocampal connectivity and learning in older adults. Presented at the Neuroimaging Informatics and Analysis Center (NIAC) seminar series at Washington University in St. Louis, November 17, 2017.

Physical exercise to improve hippocampal connectivity in older adults. Presented as part of symposia entitled "Protective effects of exercise in old age: Mechanisms explored" at the Psychoneuroimmunology Research Society in Galveston, TX, June 7-10.

Effect of physical activity and exercise on cognitive function. To be presented as part of symposium on brain and vascular health at the North American Artery Society in Chicago, IL, May 19.

Physical activity, cognition, and brain health: Moving for a healthier brain and mind. Presented at Experimental Biology in ACSM sponsored symposium on "A roadmap for the future of exercise science: key research directions" at Chicago, IL. April 23.

2016

Bridging acute and long-term effects of exercise on changes in functional connectivity and cognitive performance in aging adults. Presented as platform presentation at the 5th Bi-Annual Resting State Conference, Vienna, Austria. September 21st.

Physical exercise to improve hippocampal connectivity and learning in older adults. Neurology Grand Rounds at the University of Iowa, August 23rd.

Investigating the relationships between physical activity and fitness with brain health in older adults. Presented at International Conference on Promoting Healthy Brain Aging and Preventing Dementia: Research and Translation. Alberta, Canada. May 24-27.

Bridging acute and long-term effects of exercise on changes in functional connectivity and cognitive performance in aging adults. Presented at Experimental Biology, San Diego, CA. April 4th

Investigating the relationships between physical activity, exercise, and fitness with functional brain health in older adults. Presented at the International Neuropsychological Society Conference. Boston, MA, February 6th.

Investigating the relationships between physical activity and fitness with functional brain health in older adults. Presented at the Park City Winter Conference on the Neurobiology of Learning and Memory, January 7th.

2015

Sparking plasticity in the aging brain with physical activity and exercise, presented at the Bi-annual ABMI symposium, April 1st.

Sparking plasticity in the aging brain with physical activity and exercise, presented at the Neuroscience seminar series at the University of Arkansas. January 16th.

2014

Secondary Outcomes: Biomarkers (imaging, blood, electrophysiology, tissue). Invited collaborative talk with Dr. Marcos Bamman (UAB) at workshop on developing a multi-center exercise intervention for Parkinson's Disease, lead by Dr. Ergun Uc (University of Iowa). Chicago, IL, December 6th.

Secondary Outcomes: Cognitive, Behavioral, and Quality of Life. Invited collaborative talk with Dr. Lisa Shulman (University of Maryland) at workshop on developing a multi-center exercise intervention for Parkinson's Disease, lead by Dr. Ergun Uc (University of Iowa). Chicago, IL, December 6th.

Sparking plasticity in the aging brain with physical activity. Invited talk at the Cognitive and Motor Neuroscience seminar series, Michigan State University, November 14th.

Investigations of exercise-induced plasticity in the aging brain with resting state fMRI. Invited presentation at satellite workshop entitled [Interventions and Consciousness](#), Hosted by Michelle Hampson and Susan Whitfield-Gabrieli, Boston, MA, September 14th.

Sparking plasticity in the aging brain with physical activity. Invited talk for Division 40 Symposium at the American Psychological Association (APA) convention, Washington D.C., August 8th.

Sparking plasticity in the aging brain with physical activity and exercise. Invited talk at seminar series for the Clinical division of Psychology at The University of Iowa. April 23rd.

2013

Exercise effects on functional brain networks: from months to minutes. Presented at brownbag seminar series for Cognitive, Developmental, and BCN divisions of Psychology at The University of Iowa. November 6th.

Sparkling plasticity in the aging brain with physical exercise. Invited guest speaker at Neuroscience Research Day, The University of Iowa. October 24th.

Resting State part 2: ICA-Cleaning and Advanced Methodology. Invited guest lecture and tutorial at the 2013 Summer BRAINS workshop at the University of Iowa. August 2nd.

Effects of physical exercise on the brain and cognition in elderly humans. Invited speaker for symposium presentation given at the American Association for Geriatric Psychiatry Annual Scientific Meeting, in Los Angeles, LA, March 14-17.

2012

The Relationship of Aerobic Fitness to Brain Network Architecture in Healthy Older Adults. Invited speaker for symposium presentation at The Gerontological Society of America's 65th Annual Scientific Meeting, in San Diego, CA from November 14-18.

The Relationship of Physical Activity and Aerobic Fitness to Brain Health in Late Life. Presentation at the Aging Mind and Brain Monthly Seminar, October 18th.

Maximizing brain plasticity with physical exercise. Invited speaker for symposium presentation at The 7th international sport sciences symposium of "Active Life," in Tokyo on September 3rd.

Functional connectivity analysis of resting state fMRI data: Seed voxel approach. Invited guest lecture and tutorial at the 2012 Summer BRAINS workshop at the University of Iowa. August 9th.

Maximizing brain plasticity with physical exercise and implications for TBI intervention. Invited presentation at The Sustained Cognitive Performance in the Warfighter Workshop, West Point, New York on July 28th.

Neuropathology and cognitive and behavioral sequelae of traumatic brain injury. Invited presentation at The Sustained Cognitive Performance in the Warfighter Workshop, West Point, New York on July 27th.

Brain and cognitive aging: a network science perspective. Invited presentation at the bi-annual Cognitive Aging Conference in Atlanta, Georgia, April 20th.

Selected conference abstracts (from Jan 2012-present)

†Graduate student first author from HBC lab

††Undergraduate student first author from HBC lab

Ramirez-Cardenas, A., Kovach, C.K., Ramirez-Villegas, J.F., †Cole, R.C., Grossbach, A., Gander, P.E., Kawasaki, H., Greenlee, J.D., Howard, M.A., **Voss**, M.W. (2019). Exercise acutely increases the coupling between hippocampal and neocortical ripples in humans. Poster to be presented at Society for Neuroscience, Chicago, IL, October 22.

††Cummins, P.N., †Kent, J.D., †Weng, T.B., Magnotta, V.A., Pierce, G.L., **Voss**, M.W. (2019). Exercise acutely improves cognition in healthy older adults: The role of arousal. Poster presented at the Summer Undergraduate Research Conference, hosted by the University of Iowa Graduate College.

†Rivera-Dompenciel, A., Bruss, J.E., Tranel, D., **Voss**, M.W. (2019). Functional Connectivity Patterns of the Lesioned Default Mode Network. Poster presented at the Alzheimer's Association International Conference, Los Angeles, CA, July 17.

†Sodoma, M.J., †Cole, R.C., †Kent, J.D., Magnotta, V.A., **Voss**, M.W. (2019). T1rho in hippocampal-cortical systems predicts spatial navigation and associative learning in older adults. Poster presented at Cognitive Neuroscience Society, San Francisco, CA, March 25.

†Kent, J.D., Lee, H.K., ††Wendel, C., Wolinsky, F., Foster, E., Merzenich, M., **Voss**, M.W. (2019). Task related brain connectivity decreases after cognitive training. Poster presented at Cognitive Neuroscience Society, San Francisco, CA, March 25.

†Sodoma, M., Glickman, B., †Weng, T., †Clark, R., †Schmid, P., Sigurdsson, G., Magnotta, V., Pierce, G., & **Voss**, M. (2019). Effects of Aerobic Exercise on Working Memory Networks from a Single Session to 12-Week Intervention. Poster presentation at Dallas Aging and Cognition Conference, Dallas, Texas, January 28.

†Kent, J.D., **Voss**, M.W. (2018). NiBetaSeries: Software to measure task related correlation in fMRI. Poster presented at Neurohackademy in Seattle, WA, August 1.

†Kent, J.D., **Voss**, M.W. (2018). NiBetaSeries: Task related correlations in fMRI. Poster presented at Neuroscience Research Day in Iowa City, IA, October 29.

†Clark, R., †Sodoma, M., ††Wharff, C., ††Reist, L., **Voss**, M.W. (2018). Cardiorespiratory fitness in older adults predicts place learning, but not response learning in virtual

spatial navigation task. Poster presented at Cognitive Aging Conference in Atlanta, GA, May 5.

†Clark, R., †Sodoma, M., ††Wharff, C., ††Reist, L., **Voss**, M.W. (2018). Cardiorespiratory fitness in older adults predicts place learning, but not response learning in virtual spatial navigation task. Lightning talk presented at the International Conference on Learning and Memory, April 23.

†Clark, R., Hazeltine, E., †Weng, T.B., ††Wharff, C., ††Reist, L., Sigurdsson, G., Schmidt, P., Magnotta, V.M., Pierce, G.L., **Voss**, M.W. (2018). Cardiorespiratory fitness positively predicts episodic learning rate in older adults. Poster presented at the International Conference on Learning and Memory, April 22.

†Kent, J.D., Gorgolewski, K., Poldrack, R., **Voss**, M.W. (2018). Brain Imaging Data Structure (BIDS). Poster presented at Computational Psychiatry Symposium in Iowa City, IA, April 12.

†Clark, R., Hazeltine, E., Weng, T.B., Wharff, C., Sigurdsson, G., Schmid, P., Magnotta, V.A., Pierce, G.L., **Voss**, M.W. (2017). Episodic associative learning and cardiorespiratory fitness in older adults. Neuroscience Research Day, November 6.

†Kent, J.D., **Voss**, M.W. NiBetaseres: Measuring task evoked connectivity in fMRI. (2017). Neuroscience Research Day, November 6.

†Kent, J.D., **Voss**, M.W. Bringing Betaseres Back. (2017). Coding Sprint at the Stanford Center for Reproducible Neuroscience.

†Clark, R., Weng, T., Wharff, C., Reist, L., DuBose, L., Darling, W., Schmid, P., Sigurdsson, G., Magnotta, V.A., Pierce, G., **Voss**, M. W. (2017). Relationship of physical exercise and aerobic fitness with episodic associative learning and hippocampal volume in healthy older adults. Exercise and Brain Health Symposium at UC Irvine, presented on March 2nd.

†Clark, R., Freedberg, M., Hazeltine, E., **Voss**, M.W. (2016). Associative learning, recollection, and hippocampal volume in older adults. Poster presented at Cognitive Aging Conference in Atlanta, GA.

†Weng, T.B., Pierce, G.L., Darling, W.G., Falk, D., Magnotta, V.A., **Voss**, M.W. (2016). Toward a hedonic theory of exercise behaviors: acute exercise selectively increases the functional connectivity of reward and affective brain systems in older adults. Poster presented at annual Cognitive Neuroscience Society, New York, NY.

Sutterer, M.J., Bruss, J., **Voss**, M.W., Tranel, D., Howard, M. (2016). Increases in intrinsic network connectivity following anterior temporal lobe resection: A pre-to-postoperative longitudinal study. Poster presented at annual Cognitive Neuroscience Society, New York, NY.

†Clark, R., Tahan, A., Watson, P., Cohen, N., Severson, J., **Voss**, M.W. (2015). Spatial reconstruction and spatial pattern separation in young and older adults. Poster presentation at Society for Neuroscience, Chicago, IL.

††Sloan, M., Clark, R., **Voss**, M.W. (2015) Relationship between hippocampal volume, spatial memory, and cardiorespiratory fitness in older adults. Poster presentation at the Medical Student Research Day, Iowa City, IA, September 2015. Awarded "Outstanding Presentation in Clinical Neuroscience Research"

DuBose, L.E., **Voss**, M.W., Weng, T.B., Dubishar, K., Lane-Cordova, A., Swift, M., Sigurdsson, G., Schmid, P., Pierce, G.L. (2015). Lower carotid compliance and greater carotid β -stiffness index is associated with slower processing speed and reduced working memory performance in middle-aged/older healthy adults. Poster presentation at the North American Artery Conference in Chicago, IL.

†Weng, T.B., Guzmán-Vélez, E., Cooke, G.E., Herrel, S., Burzynska, A.Z., Wong, C.N., McAuley, E., Kramer, A.F., Tranel, D., **Voss**, M.W. (2015) Greater distribution of executive control networks supports cognitive reserve in bilingual older adults. Poster Presentation at the Society for Neuroscience Meeting in Chicago, IL.

†Clark, R., Tahan, A., Watson, P., Cohen, N., Severson, J., **Voss**, M.W. (2015) Spatial reconstruction and spatial pattern separation in young and older adults. Poster presentation at Society for Neuroscience, Chicago, IL, October 2015.

†Rigon, A., **Voss**, M.W., Turkstra, L., Mutlu, B., Duff, M.C. (2015) Do different brain systems support the ability to recognize positive and negative emotions following traumatic brain injury? Poster presented for the annual Society for Neuroscience meeting, Chicago, IL.

†Rigon, A., Gallagher, N.T., Swift, M.M., Duff, M.C., **Voss**, M.W. (2015) Distinct patterns of interactions between resting state networks are related to different facets of Theory of Mind. Poster presented for the annual Society for Neuroscience meeting, Chicago, IL.

†Clark, R., Tahan, A., Watson, P., Cohen, N., Severson, J., **Voss**, M.W. (2015) Spatial reconstruction and spatial pattern separation in young and older adults. Poster presentation at University of Iowa Neuroscience Research Day, October 2015.

†Rigon, A., Swift, M.M., **Voss**, M.W., Duff, M.C. (2015) On Hemingway and the brain: Combining literature and neuroimaging to uncover the neural correlates of mental state reasoning. Poster presented at the annual Examined Life Conference, Iowa City, IA.

††Gallagher, N.T, Rigon, A., Swift, M.M., **Voss**, M.W., Duff, M.C. (2015) Exploring the Neural Correlates of Theory of Mind. Poster presented at the Spring Undergraduate Research Festival of the University of Iowa, Iowa City, IA.

††Lietsch, L., Clark, R., **Voss**, M.W. (2015). Relationship between hippocampal volume and associative learning ability in older adults. Poster presentation at the Summer Undergraduate Research Festival, Iowa City, IA, July 2015.

††Al-Momani, SI, Weng, TB, **Voss**, MW. (2015). Acute effects of moderate intensity aerobic exercise on brain function during a working memory task. Poster Presentation at the Spring Undergraduate Research Festival in Iowa City, IA.

Sutterer, M.J., Warren, D.E., Bruss, J., Jones, A., Abel, T., Kawasaki, H., **Voss**, M. W., Howard, M.A., & Tranel, D. (2015) Functional connectivity of the surgically disconnected temporal pole. Poster session presented at the meeting of the Organization for Human Brain Mapping, Honolulu, HI.

†Rigon, A., **Voss**, M.W., Duff, M.C. (2015) Structural and Functional Neural Correlates of Communication Impairment in Chronic Traumatic Brain Injury. Poster presented at annual Cognitive Neuroscience Society, San Francisco, CA.

Sutterer, M.J., Slade, T., Bruss, J., **Voss**, M.W., Bechara, A., & Tranel, D. (2015). Functional connectivity of brain lesions helps explain individual differences in complex decision-making. Poster session presented at the meeting of the Cognitive Neuroscience Society in San Francisco, CA.

†Clark, R., Chaddock-Heyman, L, Hillman, C.H., Kramer, A., **Voss**, M.W. (2015). Differential relationships of fitness, executive function and brain function in male and female preadolescents. Poster presentation at the Cognitive Neuroscience Society annual meeting, San Francisco, CA, April 2015.

†Weng, T.B., Wong, C.N., Burzynska, A.Z., Chaddock-Heyman, L., Monti, J., McAuley, E., Kramer, AF, **Voss**, M.W. (2015). Age-related de-differentiation of functional brain networks at rest is associated with stability of executive functions. Poster Presentation at the Cognitive Neuroscience Society Meeting in San Francisco, CA.

††Teahan, A., Clark, R., **Voss**, M.W. (2014). Assessment of Test-Retest Reliability and Age Differences of A Spatial Pattern Separation Task in Young and Older Adults. Poster presentation at the Undergraduate Research Festival, Iowa City, IA, December 2014.

Sutterer, M.J., **Voss**, M.W., Bruss, J., Slade, T., Denberg, N.L., Bechara, A., Tranel, D. (2014) Changes in functional connectivity after ventromedial prefrontal cortex damage relate to emotion-based decision-making behavior. Society for Neuroscience, Washington, D.C., November, 2014.

†Rigon, A, Duff, MC, **Voss**, MW. (2014) Moment to moment BOLD signal variability in resting state networks correlates with cognitive performance in a traumatic brain injury sample. Society for Neuroscience, Washington, D.C., November, 2014

Wijeakumar, S., **Voss**, M.W., Magnotta, V.A., Buss, A.T., Hazeltine, R.E., Spencer, J.P. (2014) Parametric manipulations in Simon and Go/NoGo reveal specificity of neural mechanisms of response selection and inhibition. Society for Neuroscience, Washington, D.C., November, 2014.

†Rigon, A, Duff, MC, **Voss**, MW. (2014) Does traumatic brain injury lead to a functionally split brain? A study of resting state networks following traumatic brain injury. Fourth biennial Resting State Conference, Boston, MA, September, 2014

†Weng, T.B., Pierce, G.L., Darling, W., Falk, D., Magnotta, V., **Voss**, M.W. (2014) Acute increases in functional connectivity following physical exercise are associated with cerebrovascular reactivity. Poster Presentation at the Fourth Biennial Conference on Resting State/Brain Connectivity, Boston, MA, September, 2014.

DuBose, L.E., Weng, T.B., Dubishar, K., Mani, M., **Voss**, M.W., Pierce, G.L. (2014) Higher Aortic Stiffness and Carotid Pulse Pressure are Selectively Associated with Lower White Matter Integrity in the Frontal and Parietal Cortex in Older Healthy Adults. Poster presentation at the North American Artery Conference, Chicago, IL, September, 2014.

†Weng, T.B., Wong, C.N., Burzynska, A., Chaddock-Heyman, L., Cooke, G., Monti, J., McAuley, E., Kramer, A.F., **Voss**, M.W. (2014). Age-related differences in executive function are associated with the differentiation of functional brain networks at rest. Cognitive Aging Conference in Atlanta, GA.

†Clark, R., Freedberg, M., Hazeltine, E., **Voss**, M.W. (2014). Introducing novel tasks for comparing age differences in learning systems. Cognitive Aging Conference in Atlanta, GA.

Voss, M.W., Clark, R., Freedberg, M., Hazeltine, E. (2014). Age-related differences in learning systems: does the hippocampus compensate during skill learning in older adults? Cognitive Aging Conference in Atlanta, GA.

†Weng, T.B., Pierce, G.L., Darling, W., Magnotta, V.A., **Voss**, M.W. (2014). The acute effects of exercise on large-scale networks of the human aging brain: insights into the protective role of exercise. Cognitive Neuroscience Society Conference in Boston, MA.

Sutterer, M.J., **Voss**, M.W., Bruss, J., Tranel, D., Howard, M. (2014). Selective Increase in Saliency Network Connectivity Acutely Following Anterior Temporal Lobe Resection. Cognitive Neuroscience Society Conference in Boston, MA.

Moreno, G., Bruss, J., Halfmann, K., Sutterer, M., **Voss**, M., Denberg, N. (2014). Increased diurnal cortisol is related to decreased functional connectivity between the amygdala and the prefrontal cortex among healthy older adults. Cognitive Neuroscience Society Conference in Boston, MA.

Belfi, A.M., **Voss**, M.W., Mani, M., Wong, C.N., Cooke, G., Sutterer, M.J., Clark, R., Tranel, D., McAuley, E., Kramer, A.F. (2013). Age-related laterality and sub-system differences in the intrinsic functional connectivity of the default mode network. Cognitive Neuroscience Society conference in San Francisco, CA.

Sutterer, M.J., **Voss**, M.W., Mani, M., Wong, C.N., Cooke, G., Sutterer, M.J., Weng, T., Tranel, D., McAuley, E., Kramer, A.F. (2013). Age-related differences in anterior cingulate-insula connectivity are associated with the fronto-executive but not emotional saliency network. Cognitive Neuroscience Society conference in San Francisco, CA.

Software

†Kent, J.D., Rokem, A., VanderPlas, J., Holdgraf, C., DeStasio, K., Ludwig, R., Martin, R., Toro-Serey, C., Eschenburg, K., Erramuzpe, A., Herholz, P., Blue, B., Whitaker, K., **Voss**, M.W. (January 2019). HBClab/NiBetaSeries: v0.2.3. doi:10.5281/zenodo.2552303. <https://nibetaseres.readthedocs.io/en/latest/>

Research Support

Current

Move-ome: mapping 24-hour activity cycles in midlife to promote lifelong cognitive health and resilience.

Jumpstarting Tomorrow pilot project and community building grant

Principal Investigator: Michelle Voss

Co-Investigators: Lucas Carr, Kara Whitaker, Chooza Moon, Nathaniel Jenkins

Office of the Vice President for Research

Direct Costs: \$75,000

Exercise to improve hippocampal connectivity and learning in older adults

R01 Award, NIH/NIA

Principal Investigator: Michelle Voss

Co-Investigators: Gary Pierce, Vincent Magnotta, Eliot Hazeltine, Jeffrey Long
James Mills (all University of Iowa)

Grant Period: 08/01/2017 - 03/31/2022

Effort: 25%

Direct Costs: \$ 2,305,540.00

Indirect Costs: \$ 1,205,644.00

Cerebellar Metabolism, Neural Circuits, and Symptoms in Bipolar Disorder

R01 Award, NIH/NIMH

Principal Investigator: Vincent Magnotta

Co-Principal Investigator: John Wemmie

Co-Investigators: Michelle Voss, Jess Fiedorowicz, Jeffrey Long, Gary
Christensen Grant Period: 09/20/2017 - 06/30/2022

Effort: 10%

Direct Costs: \$ 2,212,254.00

Indirect Costs: \$ 1,140,959.00

Bridging Animal and Human Models in Exercise Neuroscience

Pilot Award, AMBI Principal Investigator: Michelle Voss

Grant Period: 01/01/2019 - 12/31/2022

Effort: 0%

Direct Costs: \$ 25,000.00

Completed

PACR-AD Phase II: Plasticity-based Adaptive Cognitive Remediation for Alzheimer's Disease

SBIR Phase II Award (multi-site), NIH/NIA

Site Principal Investigator: Michelle Voss

Co-Principal Investigator: Kyu Lee (Posit Science) Grant Period: 09/01/2017 - 04/31/2021

Effort: 10%

Direct Costs: \$ 96,660.00

Indirect Costs: \$ 48,358.00

Strategic training to optimize neurocognitive functions in older adults

R56 Award, NIH/NIA

Principal Investigator: Chandramallika Basak (University of Texas at Dallas)

Co-Investigators: Denise Park, Paul Fishwick (University of Texas at Dallas)

Role: Consultant

Grant Period: 09/30/2018 - 08/31/2021

Bridging acute and long-term exercise effects on brain function in older adults

R21 Award, NIH/NIA

Principal Investigator: Michelle Voss

Co-Investigators: Gary Pierce, Vincent Magnotta, Warren Darling

Grant Period: 06/15/2015 - 02/28/2018

Effort: 16.7%

Direct Costs: \$ 275,000.00

Indirect Costs: \$ 141,657.00

Exercise Intervention for Slowing HD Progression

R21 Award, NIH/NINDS

Principal Investigator: Vincent Magnotta

Co-Investigators: Michelle Voss, John Wemmie, Jane Paulsen, Jeffrey Long

Grant Period: 09/30/2015 - 08/31/2018

Effort: 10%

Direct Costs: \$ 275,000.00

Indirect Costs: \$ 142,500.00

Influence of Fitness and Cognitive Training on Brain and Cognition

Sub-contract Award: University of Illinois at Urbana-Champaign

Site Principal Investigator: Michelle Voss

Grant Period: 07/01/2016 - 05/31/2017
Effort: 4.17%
Direct Costs: \$ 60,317.00
Indirect Costs: \$ 31,666.00

Plasticity-based Adaptive Cognitive Remediation for Alzheimer's Disease

SBIR Phase I Award (multi-site), NIH/NIA
Site Principal Investigator: Michelle Voss
Site Co-Investigator: Fredric Wolinsky (University of Iowa)
Co-Principal Investigator: Kyu Lee (Posit Science)
Grant Period: 09/30/2014 - 05/31/2017
Effort: 10%
Direct Costs: \$ 167,252.00
Indirect Costs: \$ 80,913.00

ALERT Trial: Attention Training for Learning Enhancement and Resilience

SBIR Phase II Award (multi-site), NIH/NIA
Site Principal Investigator: Michelle Voss
Site Co-Investigator: Fredric Wolinsky (University of Iowa)
Co-Principal Investigator: Tom Van Vleet (Posit Science)
Grant Period: 12/01/2014 - 05/31/2017
Effort: 20%
Direct Costs: \$ 223,126.00
Indirect Costs: \$ 96,711.00

Physical-activity Induced Transient Changes in Hemodynamics (PITCH)

R21 Award, NIH/NICHD Site Principal Investigator: Michelle Voss
Principal Investigator: Matthew Pontifex (Michigan State University)
Grant Period: 04/10/2014 - 03/31/2017
Effort: 9.09%
Direct Costs: \$ 45,919.00
Indirect Costs: \$ 21,352.00

Probing the molecular mechanisms of individual differences in cognitive aging and protective factors with novel quantitative MR imaging

Pilot Award, AMBI Principal Investigator: Michelle Voss
Co-Investigators: Vincent Magnotta, Matthews Jacob
Grant Period: 01/01/2016 - 12/31/2017
Effort: 0%
Direct Costs: \$ 25,000.00

Sparking the Plastic Brain: Effects of Aerobic Exercise on Brain Function Pilot Award,
 UI Office of the Vice Chancellor for Research Principal Investigator: Michelle Voss
 Co-Investigators: Vincent Magnotta, Warren Darling, Gary Pierce
 Grant Period: 06/01/2013 - 06/01/2014
 Effort: 0%
 Direct Costs: \$ 25,000.00

Teaching & Mentoring

Semester/Year	Advisees		Courses taught	
	#Undergrad	#Graduate	Course # and Title	# Students enrolled
Spring 2012	3	0	031:136 The Aging Mind and Brain	22
	ACE median ratings for select items (031:136, Disagree to agree scale = 1-6) 1) The course is well planned and organized. (5.80) 2) I learned a lot in this class. (5.63) 3) Overall, this instructor is an effective teacher. (5.33) 4) Effective in presenting materials in lecture (5.63) 5) Student questions are encouraged. (5.63) 6) Help is available outside class if I have questions. (5.80)			
Fall 2012	3	2	031:136 The Aging Mind and Brain	17
	ACE median ratings for select items (031:136, Disagree to agree scale = 1-6) 1) The course is well planned and organized. (5.96) 2) I learned a lot in this class. (5.92) 3) Overall, this instructor is an effective teacher. (5.96) 4) Effective in presenting materials in lecture (5.86) 5) Student questions are encouraged. (5.96) 6) Help is available outside class if I have questions. (5.92)			
Fall 2012	3	2	031:185:040 Research Practicum in Psychology	1

Spring 2013	5	2	031:010 Research Methods in Psychology	199
	<p>ACE median ratings for select items (031:010, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.42)</p> <p>2) I learned a lot in this class. (4.78)</p> <p>3) Overall, this instructor is an effective teacher. (4.66)</p> <p>4) Effective in presenting materials in lecture (4.32)</p> <p>5) Student questions are encouraged. (5.17)</p> <p>6) Help is available outside class if I have questions. (5.67)</p>			
Spring 2013	5	2	031:185:040 Research Practicum in Psychology	3
Spring 2013	5	2	650:380:009 Practicum in College Teaching	1
Fall 2013	5	3	031:190:001 Psychology Seminar	15
	<p>ACE median ratings for select items (031:190, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.80)</p> <p>2) I learned a lot in this class. (5.80)</p> <p>3) Overall, this instructor is an effective teacher. (5.80)</p> <p>4) Effective in presenting materials in lecture (5.72)</p> <p>5) Student questions are encouraged. (5.96)</p> <p>6) Help is available outside class if I have questions. (5.86)</p>			
Fall 2013	5	3	031:185:040 Research Practicum in Psychology	2
Spring 2014	8	3	031:010 Research Methods in Psychology	153
	<p>ACE median ratings for select items (031:010, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.74)</p> <p>2) I learned a lot in this class. (5.46)</p> <p>3) Overall, this instructor is an effective teacher. (5.61)</p> <p>4) Effective in presenting materials in lecture (5.57)</p> <p>5) Student questions are encouraged. (5.78)</p> <p>6) Help is available outside class if I have questions. (5.84)</p>			
Spring 2014	8	3	031:185:040 Research Practicum in Psychology	5

Fall 2014	10	4	031:231:001 Structural and Functional MRI Methods and Application	9
Fall 2014	10	4	031:185:040 Research Practicum in Psychology	10
Spring 2015	8	4	031:010 Research Methods in Psychology	157
	<p>ACE median ratings for select items (031:010, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.85)</p> <p>2) I learned a lot in this class. (5.69)</p> <p>3) Overall, this instructor is an effective teacher. (5.78)</p> <p>4) Effective in presenting materials in lecture (5.76)</p> <p>5) Student questions are encouraged. (5.84)</p> <p>6) Help is available outside class if I have questions. (5.86)</p>			
Spring 2015	8	4	031:185:040 Research Practicum in Psychology	4
Spring 2016	10	4	031:010 Research Methods in Psychology	141
	<p>ACE median ratings for select items (031:010, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.80)</p> <p>2) I learned a lot in this class. (5.60)</p> <p>3) Overall, this instructor is an effective teacher. (5.70)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.60)</p> <p>5) The instructor supports student learning in class (5.80)</p> <p>6) Help is available outside class if I have questions. (5.70)</p>			
Spring 2016	10	4	031:5212 Foundations in Behavioral and Cognitive Neuroscience (rotating instructor)	15

	<p>ACE median ratings for select items (031:5212, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.80)</p> <p>2) I learned a lot in this class. (5.00)</p> <p>3) Overall, this instructor is an effective teacher. (5.60)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.30)</p> <p>5) The instructor supports student learning in class (5.90)</p> <p>6) Help is available outside class if I have questions. (5.30)</p>			
Spring 2016	10	4	031:185:040 Research Practicum in Psychology	3
Fall 2016	5	4	031:185:040 Research Practicum in Psychology	3
Spring 2017	4	4	PSY: 2811 Research Methods and Data Analysis in Psychology I	181
	<p>ACE median ratings for select items (031:2811, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.70)</p> <p>2) I learned a lot in this class. (4.90)</p> <p>3) Overall, this instructor is an effective teacher. (5.60)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.60)</p> <p>5) The instructor supports student learning in class (5.60)</p> <p>6) Help is available outside class if I have questions. (5.70)</p>			
Spring 2017	4	4	031:185:040 Research Practicum in Psychology	4
Fall 2017	5	4	PSY: 2811 Research Methods and Data Analysis in Psychology I	188
	<p>ACE median ratings for select items (031:2811, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.70)</p> <p>2) I learned a lot in this class. (5.20)</p> <p>3) Overall, this instructor is an effective teacher. (5.60)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.20)</p> <p>5) The instructor supports student learning in class (5.70)</p> <p>6) Help is available outside class if I have questions. (5.70)</p>			

Fall 2017	5	4	031:185:040 Research Practicum in Psychology	4
Spring 2018	5	4	031:231:001 Structural and Functional MRI Methods and Application	13
	<p>ACE median ratings for select items (031:231:001, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.50)</p> <p>2) I learned a lot in this class. (5.50)</p> <p>3) Overall, this instructor is an effective teacher. (5.20)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.60)</p> <p>5) The instructor supports student learning in class (5.90)</p> <p>6) Help is available outside class if I have questions. (5.90)</p>			
Spring 2018	5	4	031:5212 Foundations in Behavioral and Cognitive Neuroscience (rotating instructor)	23
	<p>ACE median ratings for select items (031:5212, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.80)</p> <p>2) I learned a lot in this class. (5.80)</p> <p>3) Overall, this instructor is an effective teacher. (5.80)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.50)</p> <p>5) The instructor supports student learning in class (5.90)</p> <p>6) Help is available outside class if I have questions. (5.80)</p>			
Spring 2018	5	4	031:185:040 Research Practicum in Psychology	6
Fall 2018	6	3	Course buy-out + service	
	6	3	031:185:040 Research Practicum in Psychology	1

Spring 2019	6	3	031:188:300 Advanced Research Practicum in Psychology	1
	6	3	422:199:090 Undergraduate Research Projects	1
	6	3	PSY: 2811 Research Methods and Data Analysis in Psychology I	220
	<p>ACE median ratings for select items (031:2811, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.80)</p> <p>2) I learned a lot in this class. (5.50)</p> <p>3) Overall, this instructor is an effective teacher. (5.60)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.70)</p> <p>5) The instructor supports student learning in class (5.80)</p> <p>6) Help is available outside class if I have questions. (5.90)</p>			
Fall 2019	6	4	031:188:300 Advanced Research Practicum in Psychology	1
	6	4	031:185:040 Research Practicum in Psychology	4
	6	4	031:199:244 Honors Thesis Research	1
	6	4	4025:0001 Laboratory in Cognitive Neuroscience	15
	<p>ACE median ratings for select items (4025:0001, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.80)</p> <p>2) I learned a lot in this class. (5.90)</p> <p>3) Overall, this instructor is an effective teacher. (5.90)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.80)</p> <p>5) The instructor supports student learning in class (5.90)</p> <p>6) Help is available outside class if I have questions. (5.90)</p>			

Spring 2020	6	4	031:188:300 Advanced Research Practicum in Psychology	1
	6	4	BIOL:3999:8393 Independent Research in Neuroscience	1
	6	4	031:185:040 Research Practicum in Psychology	1
	6	4	PSY: 2811 Research Methods and Data Analysis in Psychology I	266
	<p>ACE median ratings for select items (031:2811, Disagree to agree scale = 1-6)</p> <p>1) The course is well planned and organized. (5.70)</p> <p>2) I learned a lot in this class. (5.50)</p> <p>3) Overall, this instructor is an effective teacher. (5.60)</p> <p>4) The work assigned by the instructor is worthwhile and helped me learn the material (5.50)</p> <p>5) The instructor supports student learning in class (5.80)</p> <p>6) Help is available outside class if I have questions. (5.90)</p>			
Fall 2020	6	4	031:185:040 Research Practicum in Psychology	2
	6	4	031:199:244 Honors Thesis Research	1
	6	4	4025:0001 Laboratory in Cognitive Neuroscience	15
	<p>ACE median ratings for select items (4025:0001, Disagree to agree scale = 1-6)</p> <p>1) Organization–The instructor used class time well (6.00)</p> <p>2) Clarity - The instructor communicated course material clearly (6.00)</p> <p>3) Learning Focused - The instructor’s teaching methods helped students learn (6.00)</p> <p>4) Learning Materials–The assignments, readings, and activities facilitated student learning (6.00)</p> <p>5) Assessment– Assessments (such as quizzes, papers, and exams aligned with course objectives (6.00)</p> <p>6) Support–Help was available for students (6.00)</p>			

	6	4	6280:0001 Structural Functional MRI Methods/Applic	14
	<p>ACE median ratings for select items (4025:0001, Disagree to agree scale = 1-6)</p> <p>1) Organization–The instructor used class time well (5.90)</p> <p>2) Clarity - The instructor communicated course material clearly (5.90)</p> <p>3) Learning Focused - The instructor’s teaching methods helped students learn (5.80)</p> <p>4) Learning Materials–The assignments, readings, and activities facilitated student learning (5.90)</p> <p>5) Assessment– Assessments (such as quizzes, papers, and exams aligned with course objectives (5.90)</p> <p>6) Support–Help was available for students (5.90)</p>			

Students Supervised

PhD Candidates (years, outcome when known)

- 1) Tim Weng (Behavioral & Cognitive Neuroscience), FA12-FA18, Post-doc in Craddock Lab, The University of Texas-Austin
- 2) Rachel Clark Cole (Neuroscience), FA12-SP18, Post-doc in Narayanan Lab, University of Iowa
- 3) Arianna Rigon (Neuroscience, co-mentored with Dr. Melissa Duff), FA13-SU17, Assistant Professor at Marshall University
- 4) James Kent (Neuroscience), FA14-SU20, Post-doc in Yarkoni Lab, The University of Texas-Austin
- 5) Matthew Sodoma (Behavioral & Cognitive Neuroscience)
- 6) Adriana Rivera-Dompenciel (Neuroscience)
- 7) Bryan Madero (Behavioral & Cognitive Neuroscience)
- 8) Marco Pipoly (Neuroscience, co-mentored with Dr. Eliot Hazeltine)

Rotating PhD Students (semester, matriculated lab)

- 1) Rachel Clark Cole (FA12), matriculated to Voss Lab
- 2) James Kent (FA14), matriculated to Voss Lab
- 3) Adriana Rivera-Dompenciel (FA17), matriculated to Voss Lab
- 4) Bess Glickman (FA18), matriculated to Lalumiere Lab
- 5) Amanda Bullert (FA19), matriculated to Lehmler Lab
- 6) Amy Barry (SP20), matriculated to Nopoulos Lab

Undergraduate Students (semesters, outcome when known)

- 1) Carolyn Kalscheur (ICRU fellowship), SU12 - SU13, Graduate school at the University of Minnesota
- 2) Meredith Hoyland Palm, SU12, Ph.D in Psychology at Baylor University, Asst Prof at Baylor University
- 3) Andrea Playle, FA12-SP13, Graduate school in College of Education, Ulowa
- 4) Matthew Theobald, SP13 -SU14
- 5) Rianna Rice, SU13 -SU14, Care coordinator at nursing home
- 6) Emily Weno, FA13 -SU15, Chicago Department of Public Health
- 7) Michael Caves, SP13 -SU15, Data Scientist
- 8) Erin Naffziger, SP14-SU15, Graduate school in Biopsychology at the University of Michigan
- 9) Alison Edwards, FA13 -SU15
- 10) Natani Gallagher, SU14-SU15
- 11) Asli Tahan (ICRU Fellowship, Honor's Thesis), SP14-SU16
- 12) Devon Dawson, SP15-SU16, UI Counseling Psychology
- 13) Allison Pastene, SU14-SU16
- 14) Caitlin Wolf, SU15-SU16, Neuropsychology Lab Technician at UIHC Benton Labs
- 15) Matthew Sloan, Matthew Sloan, Medical School at UIHC
- 16) Lani Lietsch, SU15 SURP
- 17) Seima Al-Momani, SP14- SP17, Graduate school in Clinical Psychology, University of Nebraska
- 18) Kelsey Shrier, SU14-SP17, Physician Assistant School, Trevecca Nazarene University
- 19) Christopher Wendel, SP15- SU17, Graduate school in Clinical Psychology at the University of Alabama
- 20) Dana Chargo, FA15- SU17, Graduate Student IO Psychology at Roosevelt University
- 21) Brianna Murray, FA16-SP17
- 22) Maria Mertzenich, FA16-FA17, Graduate school in Occupational Therapy, University of Wisconsin-Madison
- 23) Chase Hamilton, SP17-SP18, Project manager for EXTEND trial, Research Assistant at Wheaton University
- 24) Sarahi Lopez, SU17-SP18
- 25) Trevor Lee Cline, SU17-SP20 (Honor's Thesis), Research Assistant in Health, Brain, & Cognition Lab
- 26) Taylor Sloan, SU17-SP20 (Honor's Thesis)
- 27) Anna Thompson, SP18-SP19, Research Intern at the University of Miami
- 28) Lauren Bullard, SP18-SP20 (Honor's Thesis), Graduate school in Kinesiology / Health Behaviors & Cognition Lab at Michigan State University
- 29) Emily Johnson, SU18 SURP
- 30) Eleanor Henry, FA18-SP20, Physical Therapy graduate school at Mayo Clinic

- 31) Michelle Hafner, SU19-SP20
- 32) Jillian Kousins, SP19-present
- 33) Pearl Cummins, SU19 SROP
- 34) Jason Milligan, FA19-SP20
- 35) Keely Paus, FA19-present, Physical Therapy graduate school at University of Iowa
- 36) Phillip Spisak, SP20- (Honors, in-progress)
- 37) Ellen Slattery, SU20-
- 38) Danielle Luettel, SU20-
- 39) Jenna Springer, SU20-
- 40) Arshaq Saleem, FA20-

Other Mentoring Contributions

Research Advisory Committee

- 1) Timothy Weng (Voss). Fall 2012-Summer 2015
- 2) Heather Robinson (Tranel). Fall 2012-Fall 2014
- 3) Lourdes Delgado Reyes (Spencer). Fall 2013-Spring 2015
- 4) Mark Bowren (Tranel). Fall 2016-Fall 2018
- 5) Darcy Waller (Wessel). Fall 2016-Spring 19
- 6) Matthew Sodoma (Voss). Fall 2017- Fall 2020
- 7) Sara Diesel (Vander Weg/Lutgendorf). Fall 2019-Active
- 8) Emma Brandt (Tranel). Fall 2020- Active
- 9) Alexa Zimbelman (Lalumiere). Fall 2020- Active
- 10) Bryan Madero (Voss). Fall 2020- Active

Masters Committee

- 1) Liang Hsu (Liu-Ambrose, Rehabilitation Sciences, University of British Columbia).
October 2012
- 2) Xin Huang (Vecera, Psychology, University of Iowa), July 2013
- 3) Lyndsey Dubose (Pierce, Health and Human Physiology, University of Iowa), May
2015
- 4) Violetta Shatalova (Pierce, Health and Human Physiology, University of Iowa), Active

Comprehensive Examination Committee

- 1) Chelsea Wong (Kramer, Neuroscience, University of Illinois at U-C), July 2012
- 2) Daniel Vatterott (Vecera, Psychology, University of Iowa), August 2012
- 3) Seth Hurley (Johnson, Psychology, University of Iowa), September 2012
- 4) Edma Guzman-Velez (Tranel, Psychology, University of Iowa), May 2013
- 5) Babita Bisht (Darling, Health and Human Physiology, University of Iowa), May 2013
- 6) Aki Nikolaidas (Kramer, Neuroscience, University of Illinois at U-C), August 2013
- 7) Breein Rossi (Poremba, Psychology, University of Iowa), September 2013

- 8) Chu-Ling Yen (Shields, Physical Therapy, University of Iowa), December 2013
- 9) Sara Hussain (Cole, Health and Human Physiology, University of Iowa), February 2014
- 10) Liang Hsu (Liu-Ambrose, Rehabilitation Sciences, University of British Columbia), August 2014
- 11) Joseph Ambrose (Spencer, Math Department, University of Iowa), November 2014
- 12) Timothy Weng (Voss, Psychology, University of Iowa), July 2015
- 13) Joshua Gold (Vander Weg, Psychology, University of Iowa), July 2015
- 14) Keith Cole (Shields, Physical Therapy, University of Iowa), February 2016
- 15) Lyndsey Dubose (Pierce, Health and Human Physiology, University of Iowa), April 2017
- 16) Jonathan Schacherer (Hazeltine, Psychological and Brain Sciences, University of Iowa), June 2017
- 17) Carolina Deifelt Streese (Tranel, Neuroscience, University of Iowa), May 2018
- 18) Tobin Dykstra (Hazeltine, Psychological and Brain Sciences, University of Iowa), June 2018
- 19) Tien Tong (Vaidya, Neuroscience, University of Iowa), July 2018
- 20) Jessica Armer (Lutgendorf, Psychological and Brain Sciences, University of Iowa), March 2019
- 21) Mark Bowren (Tranel, Psychological and Brain Sciences, University of Iowa), April 2019
- 22) Darcy Waller (Wessel, Psychological and Brain Sciences, University of Iowa), May 2019
- 23) Sarah Aghjayan (Erickson, Clinical/Health, University of Pittsburgh), July 2020
- 24) Sydney Houlton (Strathearn, Neuroscience, University of Iowa), October 2020
- 25) Marco Pipoly (Hwang, Neuroscience, University of Iowa), September 2020
- 26) Micah Johnson (Hultman, Neuroscience, University of Iowa), Active

Dissertation Committees

- 1) Laura Chaddock (Kramer, Psychology, University of Illinois at U-C), November 2012
- 2) Jake Kurczek (Duff, Neuroscience, University of Iowa), May 2014
- 3) Babita Bisht (Darling, Health and Human Physiology, University of Iowa), May 2014
- 4) Amy Belfi (Tranel, Neuroscience, University of Iowa), May 2015
- 5) Kameko Halfmann (Denberg, Neuroscience, University of Iowa), May 2015
- 6) Edmarie Guzman-Velez (Tranel, Psychology, University of Iowa), August 2015
- 7) Zachary Roper (Vecera, Psychology, University of Iowa), December 2015
- 8) Matthew Sutterer (Tranel and Howard, Neuroscience, University of Iowa), December 2015
- 9) Jessica Lee (Nopolous, Neuroscience, University of Iowa), December 2015
- 10) Michael Freedberg (Hazeltine, Neuroscience, University of Iowa), May 2016
- 11) Sara Hussain (Cole, Health and Human Physiology, University of Iowa), May 2016
- 12) Alexandre Tiriatic (Blumberg, Psychology, University of Iowa), May 2016

- 13) Mary Huff (LaLumiere, Psychology, University of Iowa), December 2016
- 14) Joseph Ambrose (Spencer, Math Department, University of Iowa), August 2016
- 15) Amanda Ward Brunette (Tranel, Psychology, University of Iowa), April 2017
- 16) Arianna Rigon (Neuroscience, Psychology, University of Iowa), June 2017
- 17) Caitlin Cosme (LaLumiere, Psychology, University of Iowa), November 2017
- 18) Liang Hsu (Liu-Ambrose, Rehabilitation Sciences, University of British Columbia),
December 2017
- 19) Rachel Clark (Neuroscience, Psychology, University of Iowa), March 2018
- 20) Timothy Weng (Voss, Psychology, University of Iowa), September 2018
- 21) Kelsey Spalding (Tranel, Psychology, University of Iowa), April 2019
- 22) Michaela Cuneo (Lutgendorf, Psychology, University of Iowa), December 2019
- 23) James Kent (Voss, Neuroscience, University of Iowa), July 2020
- 24) Jonathan Schacherer (Hazeltine, Psychology, University of Iowa), Active
- 25) Carolina Deifelt Streese (Tranel, Neuroscience, University of Iowa), Active
- 26) Darcy Waller (Wessel, Psychology, University of Iowa), Active
- 27) Tien Tong (Vaidya, Neuroscience, University of Iowa), Active
- 28) Nicholas Ray (Basak, University of Texas-Dallas), Active

Laboratory Staff (years, outcome when known)

- 1) Kristin DeCorrevont, Lab project manager 2012-2013. Pursued Master's program in Industrial/Organizational Psychology
- 2) Meredith Hoyland Palm, Lab project manager 2012-2014. Completed Ph.D in Psychology at Baylor University. Now Assistant Professor at Baylor University
- 3) Maggie Swift, Lab project manager 2014-2015. Pursued medical school at University of Kirksville College of Osteopathic Medicine
- 4) Elaine Schultz, Lab project manager 2014-2015 for the PACR and ALERT clinical trials. Pursued graduate school for Neuropsychology at Rosalind Franklin University of Medicine and Science.
- 5) Anna Carano, Lab exercise specialist for the BIKE trial
- 6) Chris Wendel, Lab project manager 2015-2017 for the PACR and ALERT clinical trials. Now in graduate school in Clinical Psychology at the University of Alabama
- 7) Conner Wharff, Lab project manager 2015-2018 for the BIKE trial. Pursued graduate school for Radiology at the University of Iowa
- 8) Lauren Reist, Lab exercise specialist 2016-2018 for the BIKE trial. Pursued graduate school for Pharmacy at the University of Iowa
- 9) Chase Hamilton, Research Assistant, Lab project manager 2018-2021 for the EXTEND clinical trial. Current research assistant at Wheaton University.
- 10) Abby O'Deen, Lab exercise specialist 2018- Present for the EXTEND trial
- 11) Christopher Oehler, Lab project manager 2018-Present for the BETTER clinical trial and project manager for EXTEND trial

Post-doctoral scholars

- 1) Dr. Matthew Sutterer, 2016-2017, current Health Specialist at the NIH/NIA
- 2) Dr. Shivangi Jain, 2020-Present

Service**Departmental**

- 1) Chair of Cognitive Neuroscience curriculum committee, Fall 2012- Spring 2015
- 2) Faculty Advisory Committee, Fall 2013- Spring 2016
- 3) BBIP T32 Admissions Committee, Fall 2014-Spring 2017
- 4) Chair of BBIP T32 Curriculum and Seminar Committee, Fall 2014-Present
- 5) BBIP T32 Executive Committee, Fall 2015-Present
- 6) Search committee for Fall 2018/Spring 2019 Learning and Neuroplasticity
- 7) Faculty Advisory Committee, Fall 2019-Spring 2020
- 8) Diversity, Equity, Inclusion Committee, Summer 2020-Present

University

- 1) Aging Mind and Brain Initiative, Annual Symposium planning committee, Fall 2012/Spring 2013
- 2) Aging Mind and Brain Initiative, Executive committee, Fall 2012
- 3) MRI Research Advisory Committee, Fall 2012-Present. Meets bi-weekly at UIHC to discuss proposed neuroimaging projects run at MRRF
- 4) University of Iowa LEAP center courses: "Working Out Your Brain: Tips for Successful Aging by Staying Mentally Active" (July 2012); "Introduction to Brain Research, "Brain Mapping," and How it Relates to You!" (July 2013)
- 5) Chair of Interdisciplinary Neuroscience Graduate Program Seminar Committee, Fall 2014-Spring 2015
- 6) Tenure track faculty search committees:
 - (1) Cognitive Neuroscience faculty position, Department of Neurology and Aging Mind and Brain Initiative (AMBI), Status: Complete (Fall 2013/Spring 2014)
 - (2) Neuroplasticity, Rehabilitation, and Movement Control faculty position, Department of Physical Therapy (Fall 2013/Spring 2014)
 - (3) Joint Psychology/Neurology/AMBI faculty position (Fall 2014/Spring 2015)
- 7) Recreational Services Charter Committee Meeting, Fall 2016-Spring 2019
- 8) Elevator Talk Workshop, Graduate Women in Science (GWIS), September 28, 2016
- 9) Neuroscience Research Day Poster Judge, November 2017
- 10) Panelist, "Women in Science", Graduate Women in Science (GWIS), November, 2017

- 11) Panelist on teaching advice in "Neurobiology of Disease", September, 2018
- 12) Faculty Assembly, Fall 2017- Spring 2020
- 13) Panelist, "Life as a Faculty Member", Summer Research Opportunities Program (SROP), June 2019
- 14) Co-presenter and discussant, "Research Collaboration", Summer Research Opportunities Program (SROP), June 2019
- 15) Presidential Committee on Athletics (PCA), Fall 2019-Present. Advisory committee for the UI president and the director of athletics on policies governing the Department of Intercollegiate Athletics.
- 16) Liberal Arts & Sciences Research Advisory Board, September 2020-Present
- 17) Liberal Arts & Sciences Scholarship Committee, January 2021-Present

Profession

Journal editing

Guest editor for Research Topic in Frontiers in Human Neuroscience, entitled *Effects of game and game-like training on neurocognitive plasticity*. Co-editors: Band, G., Slagter, H., Basak, C.

Journal reviewing

Selected ad hoc reviewing, if more than one per year, indicated in parentheses:

Ageing Research Reviews (2017(2))
 British Journal of Sports Medicine (2018)
 Cerebral Cortex (2011, 2012, 2014,2021)
 Hippocampus (2014, 2015(2), 2016(2), 2017,2019, 2020(2))
 Human Brain Mapping (2014)
 International Journal of Psychophysiology (2019(2))
 Journal of Neuroscience (2013, 2014, 2015, 2021)
 Journal of Clinical and Experimental Neuropsychology (2012, 2013, 2014)
 Journal of Gerontology: Medical Sciences (2013)
 Medicine & Science in Sports and Exercise (2012(2), 2013, 2014, 2015, 2017,2019)
 Neurobiology of Aging (2009, 2012, 2014, 2016(3), 2017(2),2018(2),2019)
 Neurobiology of Learning and Memory (2014)
 Neurology (2018)
 NeuroImage (2009, 2013(3), 2014, 2015(3), 2016(3), 2017(2))
 Neuroscience & Biobehavioral Reviews (2012, 2013, 2020)
 Proceedings of the National Academy of Sciences (2018(2))
 Psychology and Aging (2020)
 Trends in Cognitive Sciences (2017,2018)
 Trends in Neurosciences (2017)

Grant reviewing

- 1) Invited review for NSF Cognitive Neuroscience Program, August 2012.
- 2) Invited review for Netherlands Organisation for Health Research and Development, TOP programme. September 2012.
- 3) Invited review for the Neurological Foundation of New Zealand, May 2013.
- 4) Invited review for the Alzheimer's Society Research Programme, July 2014
- 5) Invited review for the Innovational Research Incentives Scheme, Netherlands Organisation for Scientific Research, 2015
- 6) NIH Neuroscience of Aging Review, Council NIA-N, SRO Jeannette Johnson (2015-2018), SRO Greg Bissonette (2018-Present), (Feb/June/Oct 2015; Feb/June/Oct 2016; Feb/June/Oct 2017, Feb/June/Oct 2018 (started as standing member), Feb/June 2019).
- 7) NIH Special Emphasis Panel, PAR-16-212 and PAR-16-213, May 2017
- 8) NIH Special Emphasis Panel, RFA-AG-18-019, July 2018
- 9) NIH Special Emphasis Panel, ZRG1 BBBP-Z on Aging, Memory, and Emotion, December 2018
- 10) NIH Neuroscience Aging Review Committee, Standing member on Clinical and Translational Research on Aging (NIA-T) (June/Oct 2020, Jan 2021)
- 11) National Academies of Science Ford Foundation Fellowship Panelist, Fellowship program to increase diversity in academia, Jan 2021- Present

Community Outreach

- 1) Lemme Lego League aging primer, "Working Out Your Brain: Tips for Successful Aging by Staying Mentally Active" - October 2012. Advised on helpful tips for designing products to aid senior citizens.
- 2) Senior Center Brain Health Fair Keynote, "Maximizing brain and cognitive health", May 2018
- 3) Science Café community talk in Mt. Vernon, entitled "Keeping memory sharp: What does the science say?" November 15, 2018, <https://icts.uiowa.edu/event/11446>.