

Sarah Elizabeth Banducci, Ph.D.

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Santa Clara, CA

- HIGHLIGHTS**
- Cognitive neuroscientist with 10+ years of interdisciplinary research experience
 - Science communicator with 8+ years of experience in scientific and medical writing
 - Highly organized problem solver capable of managing multiple projects and diverse stakeholders
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EDUCATION University of Illinois at Urbana-Champaign | Champaign, IL

Ph.D. (2017) Psychology: Cognitive Neuroscience

M.A. (2015) Psychology

Dissertation: White matter hyperintensities and lower extremity physical function before and after an aerobic exercise intervention in healthy older adults

University of Pittsburgh | Pittsburgh, PA

B.S. (2010) Psychology, French Language and Literature Minor, *Magna Cum Laude*

Activities: William Pitt Debating Union, high school debate coach

- EXPERIENCE**
- Regulatory Project Manager, Clinical Evaluation—Structural Heart*** 2019-present
Abbott Vascular, Global Regulatory Operations Santa Clara, CA
- Lead Clinical Evaluation Plans and Reports per MEDDEV 4.0/EU MDR Class I and Class III structural heart medical devices
 - Liaise with internal and external cross-functional stakeholders in R&D, Quality Assurance, Product Performance, Clinical Science, Regulatory Affairs, and Marketing groups
 - Manage a team of external medical writers
- Scientific Medical Writer*** 2019
Verseon Corporation Fremont, CA
- Wrote press releases, annual report content, journal articles, contributed guest articles, and blog posts on pharmaceutical drug discovery/development, health concerns, and blockchain financial technology
 - Edited and managed content generated by contract writers
 - Designed company overview and investor presentations, brochures, and websites
- Senior Scientist*** 2017-2019
Scion NeuroStim, LLC Raleigh, NC
- Managed assessment and adherence data for 4 clinical trials in Parkinson's disease and episodic migraine patients using a neuromodulatory medical device
 - Prepared graphical data reports for investors, thought leaders, and FDA
 - Wrote grant applications, summarize literature for protocol development
 - Contributed to journal article under review reporting device efficacy in treating Parkinson's disease symptoms
- Freelance Science Writer/Editor*** 2015-2019
- Interviewed researchers and wrote over 25 technical and non-technical press releases, conference reports, and blog posts on diverse topics including geology, biomedical engineering, genetics, and veterinary sciences
 - Edited technical reports and dissertations

Consultant R65 Labs, Inc.	<ul style="list-style-type: none"> ▪ Wrote and edited short articles for mobile phone application content ▪ Provided statistical expertise for analyzing data from ~200 users to assess program success and provide users with program progress reports ▪ Developed measures and surveys to evaluate user experience and outcomes 	2017-2018 Durham, NC
Graduate Research Assistant , Lifelong Brain and Cognition Lab Arthur Kramer, Ph.D. University of Illinois at Urbana-Champaign	<ul style="list-style-type: none"> ▪ Oversaw longitudinal physical activity and active experiencing studies for more than 200 older adults resulting in 2 peer-reviewed publications ▪ Published 2 peer-reviewed journal articles on factors affecting pedestrian street crossing behaviors in older adults and college-age students using immersive virtual reality simulations ▪ Supervised 6 undergraduate researchers, including 2 honors theses 	2011-2017 Champaign, IL

WRITING A selection of writing samples are available at sarahbanducci.com and others can be provided upon request. Some clients include:

- R65 Labs, Inc.
- Duke University Neurology Department
- News Bureau at the University of Illinois at Urbana-Champaign
- North Carolina Museum of Natural Sciences
- The Allied Genetics Conference
- National Academy of Sciences

SKILLS **Website Management:** Wordpress ▪ Drupal ▪ Pelican
Data Management/Coding: Excel ▪ Python ▪ pandas ▪ SQL ▪ MATLAB ▪ bash
Statistical Analysis: SPSS ▪ Prism
Language: working knowledge of French and Italian
Miscellaneous: Microsoft Office ▪ Adobe InDesign and Illustrator ▪ LaTeX ▪ scientific experimentation and assessment ▪ clinical trials ▪ neuroimaging ▪ ethical review board and regulatory certification processes (ISO certifications)

SERVICE	American Red Cross, <i>Volunteer</i>	2019-present
	Bay Area Chapter of the Society for Neuroscience, <i>Chapter Representative/President</i>	2018-present
	NeuroBridge.org, <i>Co-founder</i>	2017-present
	Science Policy Committee, Triangle Chapter of the Society for Neuroscience, <i>Co-chair</i>	2016-2019
	North Carolina Biotech Center: Career Options for STEM PhDs event, <i>Speaker</i>	2018
	North Carolina State University Postdoctoral Research Symposium, <i>Poster Judge</i>	2017, 2018
	Wake County Public School System Students Discover Academy, <i>STEM Mentor</i>	2017-2018
	North Carolina Museum of Natural Sciences, <i>Volunteer Blogger</i>	2016-2017
	Wake County Board of Elections, <i>Precinct Judge</i>	2017
	Sigma Xi: Organizing an Effective Visit with a Policymaker, <i>Workshop Group Leader</i>	2017
	Campus Student Election Commission, University of Illinois, <i>Chair</i>	2015-2017
	US 2020 STEM Expo, Research Triangle Park, <i>Speed Mentor</i>	2017
	21 st Century Scientists Working Group, University of Illinois, <i>Member</i>	2015-2016

RESEARCH PUBLICATIONS AND BOOK CHAPTERS

IN PRINT

1. Beckelman B, Frost J, **Banducci S**, Bell R. (under review). Implementing Telemedicine to Address Psychiatric Healthcare in North Carolina. *Journal of Science Policy and Governance*.
2. Wilkinson D, Podlewska A, **Banducci SE**, Pellat-Higgins T, Slade M, Bodani M, Sakel M, Smith L, LeWitt P, Ade KK (2019). Caloric Vestibular Stimulation for the Management of Motor and Non-Motor Symptoms in Parkinson's Disease. *Parkinsonism & Related Disorders*.
3. Kranz MB, Voss MW, Cooke GE, **Banducci SE**, Burzynska AZ, Kramer AF. The Cortical Structure of Functional Networks Associated with Age-Related Cognitive Abilities in Older Adults (2018). *PLOS ONE*.
4. **Banducci SE**, Daugherty AM, Biggan JR, Cooke GE, Voss MW, Noice T, Noice H, Kramer AF. (2017). Active Experiencing Training Improves Episodic Memory Recall in Older Adults. *Frontiers in Aging Neuroscience*.
5. Ehlers DK, **Banducci SE**, Daugherty AM, Fanning J, Awick EA, Porter GC, Burzynska A, Shen S, Kramer AF, & McAuley E. (2017). Effects of gait self-efficacy and lower-extremity physical function on dual-task performance in older adults. *Biomedical Research International*.
6. Cooke GE, Wetter NC, **Banducci SE**, Mackenzie MJ, Zuniga KE, Awick EA, Roberts SA, Sutton BP, McAuley E, Kramer AF. (2016). Moderate physical activity mediates the association between white matter lesion volume and memory recall in breast cancer survivors. *PLOS ONE*.
7. **Banducci SE**, Ward N, Gaspar JG, Schab KR, Crowell JA, Kaczmarek H, Kramer AF. (2015). The effects of cell phone and text message conversations on simulated street crossing. *Human Factors*.
8. Erickson KI, **Banducci SE**, Weinstein AM, MacDonald AW 3rd, Ferrel RE, Halder I, Flory JD, Manuck SB. (2013). The brain-derived neurotrophic factor val66met polymorphism moderates an effect of physical activity on working memory performance. *Psychological Science*.
9. Erickson KI, Barr LL, Weinstein AM, **Banducci SE**, Akl SL, Santo NM, Leckie RL, Oakley M, Saxton J, Aizenstein HJ, Becker JT, Lopez OL. (2013). Measuring physical activity with accelerometry in a community sample with dementia. *Journal of the American Geriatric Society*.
10. Erickson KI, Miller DL, Weinstein AM, Akl SL, **Banducci SE**. (2012). Physical activity and brain plasticity in late adulthood: a conceptual and comprehensive review. *Ageing Research*.

BOOK CHAPTERS

11. Erickson KI, **Banducci SE**, Akl SL (2012). Relationship between exercise and cognitive processing studied by MRI in elderly people. Boecker, H, Hillman, C, Scheef, L, Struder, HK. Functional Neuroimaging in Exercise and Sport Sciences. Springer, NY.

CONFERENCE POSTERS

1. Bell RP, **Banducci SE**, Farris S, Rezvani A. North Carolina Triangle Chapter of SfN Science Policy Outreach. Presented at the Society for Neuroscience Science Advocacy Reception (November 2017), Washington, DC.
2. Ehlers D, **Banducci SE**, Fanning J, Awick E, Porter G, Kramer A, McAuley E. Effects of gait self-efficacy on complex task performance in older adults: The role of physical mobility. Presented at the Society of Behavioral Medicine (April 2016), Washington, DC.
3. Biggan JR, Wong CN, Cooke GE, **Banducci SE**, Hussey E, Ward N, McAuley E, Noice H, Noice T, Kramer AF. Proactive/Reactive control across older adulthood. Presented at the Gerontology Society of America (November 2015), Orlando, Florida.
4. **Banducci S**, Burzynska A, Crowell J, Kaczmarek H, McAuley E, Kramer A. Linking virtual street crossing performance to spatial working memory and cortical thickness in a healthy aging population. Presented at the Cognitive Neuroscience Society (March 2015), San Francisco, California.
5. Ehlers D, **Banducci S**, Kramer A, McAuley E. Can increased mobility predict complex task performance in older adults? Presented at the Society of Behavioral Medicine (April 2015), San Antonio, Texas.
6. Bullard T, **Banducci S**, Cohen J, Palac D, Erickson K, Bherer L, Kramer AF, McAuley E, Mullen S. Effects on cognitive functioning from 20 hours of training: Secondary outcomes from the CORTEX trial. Presented at the Society of Behavioral Medicine (April 2015), San Antonio, Texas.
7. **Banducci SE**, Burzynska AZ, Cooke GE, Voss MW, Knecht AM, McAuley E, Kramer AF. Age-Related White Matter Hyperintensities Relate to Speed in Virtual Street Crossing. Presented at the Organization for Human Brain Mapping (June 2014), Hamburg, Germany.
8. **Banducci SE**, Cooke G, Monti JM, Voss MW, Noice H, Noice T, Cohen NJ, Kramer AF. Effects of an Acting Intervention on Functional Activation During a Relational Memory Task in an Aging Population. Presented at the University of Illinois at Urbana-Champaign Postdoctoral Symposium (January 2013), Urbana, Illinois.
9. Weinstein AM, Milgrom R, Casey M, Miller DL, **Banducci S**, Akl S, Erickson KI. Investigating cue-related brain activity during task-switching. Presented at Cognitive Neuroscience Society (April 2011), San Francisco, California.