

Ezra E Smith, PhD

Clinical Neuropsychologist, Psychotherapist, and Neuroscientist
Tucson, AZ
Tel: 631-319-0151
Fax: 520-208-2174
Email: ezra@smithneuropsych.com
Website: www.smithneuropsych.com

Clinical activity

- 2023—Present Clinical Neuropsychologist, Southern Arizona VA, Tucson, AZ
Focus: Individual and group psychotherapy for depression, anxiety, personality disorders, and PTSD (50%). Objective neuropsychological assessment of adults with dementia, stroke, epilepsy, and brain injury (50%).
- 2023—Present Clinical Neuropsychologist, Sierra Tucson, Tucson, AZ
Focus: Group psychotherapy for insomnia (20%). Objective neuropsychological assessment of adults with dementia, stroke, epilepsy, and brain injury (80%).
- 2020—Present Clinical Neuropsychologist, Private practice, Tucson, AZ
Focus: Objective neuropsychological assessment of adults with dementia, stroke, epilepsy, and depression in a private practice setting
- 2018—2020 Postdoctoral Neuropsychologist, Private practice, Tucson, AZ
Focus: objective neuropsychological assessment of adults with neurocognitive and psychiatric disorders in a private practice setting
Postdoctoral supervisor: Shannah Biggan, PhD ABPP-CN
- 2017—2018 Intern psychologist, University of Arizona Department of Psychiatry
Focus: Evaluation and treatment of psychosis and SMI
Director of internship training: Marisa Menchola, PhD ABPP-CN
- 2016—2017 Trainee, Palo Santo Psychotherapy and Wellness, Tucson AZ
Focus: Individual and family psychotherapy with adolescent and adults in a private practice outpatient setting
Supervisor: Michelle Ellis, PhD
- 2015—2016 Trainee, Southern Arizona VA, Tucson AZ
Focus: Objective neuropsychological assessment of dementia, brain injury, and psychiatric disturbance in outpatient Veterans (50%). Individual, family, and group psychotherapy for Veteran outpatients in an integrative primary-care clinic (50 %).
Neuropsychology supervisor: John Tsanadis, PhD ABPP-CN
Psychotherapy supervisor: Michelle Dorsey, PhD
- 2014—2015 Trainee, La Frontera Arizona, Tucson AZ
Focus: individual, family, and group psychotherapy with residents at a substance abuse treatment facility
Supervisor: Patricia Penn, PhD
- 2012—2017 Trainee, Neuropsychology Ltd., Tucson, AZ
Focus: objective neuropsychological assessment of dementia, brain injury, and psychiatric disturbance in a private practice setting
Supervisor: Shannah Biggan, PhD ABPP-CN

Research activity

- 2017—Present Consulting scientist, University of Cologne, Department of Psychiatry
Focus: mapping brain circuits important for deep brain stimulation treatment success in patients with refractory OCD and Tourette's disorder
PI: Jens Kuhn, PhD
- 2018—2022 Consulting scientist, Nash Family Center for Advanced Circuit Therapeutics
Focus: mapping brain circuits important for deep brain stimulation treatment success in patients with refractory major depression
PI: Helen Mayberg, MD
- 2018—2020 Research scientist, New York State Psychiatric Institute
Focus: developing biomarkers of treatment response for major depression
PI: Jürgen Kayser, PhD
- 2011—2018 Junior research scientist, The University of Arizona
Focus: identifying novel biomarkers of neural and psychological health
PI: John J.B. Allen, PhD
- 2010—2011 Junior research scientist, State University of New York at Stony Brook
Focus: quantifying neural indices of emotional function in normal and depressed mood
PI: Greg Hajcak, PhD
- 2005—2007 Junior research scientist, The University of Oregon
Focus: quantifying neural correlates of the self and self-referential thinking
PI: Don Tucker, PhD

Scientific Publications

- Schüller, T., Huys, D., Kohl, S., Visser-Vandewalle, V., Dembek, T. A., Kuhn, J., ... & Smith, E. E. (2024). Thalamic deep brain stimulation for tourette syndrome increases cortical beta activity. *Brain Stimulation*.
- Smith, E.E., Choi, K.S., Veerakumar, A., Obatusin, M., Howell, B., Smith, A.H., ... & Waters, A. C. (2022) Time-frequency signatures evoked by single-pulse deep brain stimulation to the subcallosal cingulate. *Frontiers in Human Neuroscience*, 566.
- Smith, E.E., Bel-Bahar, T.S., & Kayser, J. (2022). A systematic data-driven approach to analyze sensor-level EEG connectivity: Identifying robust phase-synchronized network components using surface Laplacian with spectral-spatial PCA. *Psychophysiology*, e14080.
- Schüller, T., Gruendler, T. O., Smith, E.E., Baldermann, J.C., Kohl, S., Fischer, A.G., ... & Huys, D. (2021). Performance monitoring in obsessive-compulsive disorder: Insights from internal capsule/nucleus accumbens deep brain stimulation. *NeuroImage: Clinical*, 31, 102746.
- Smith, E.E., Schüller, T., Huys, D., Baldermann, J.C., Andrade, P., Allen, J.J., ... & Kuhn, J. (2020). A brief demonstration of frontostriatal connectivity in OCD patients with intracranial electrodes. *Neuroimage*, 220, 117138.
- Smith, E.E., Schüller, T., Huys, D., Balderman, J.C., Ullsperger, M., Allen, J.J.B. Veerle Visser-Vandewalle, Kuhn, J., & Gruendler, T.O.J. (2020). Prefrontal delta oscillations during deep brain stimulation predict treatment success in patients with Obsessive-Compulsive Disorder, *Brain stimulation*, 13(1), 259-261. DOI: [10.1016/j.brs.2019.09.008](https://doi.org/10.1016/j.brs.2019.09.008)
- Smith, E.E., Tenke, C.E., Deldin, P.J., Trivedi, M.H., Weissman, M.M., Auerbach, R.P., Bruder, G.E., Pizzagalli, D.A., Kayser J. (2020). Frontal theta and posterior alpha in resting EEG: A critical examination of convergent and discriminant validity, *Psychophysiology*, 57(2), DOI: [10.1111/psyp.13483](https://doi.org/10.1111/psyp.13483)

- Sanguinetti, J. L., Hameroff, S., Smith, E. E., Sato, T., Daft, C. M., Tyler, W. J., & Allen, J. J. (2020). Transcranial Focused Ultrasound to the Right Prefrontal Cortex Improves Mood and Alters Functional Connectivity in Humans. *Frontiers in Human Neuroscience*, 14, 52. DOI: [10.3389/fnhum.2020.00052](https://doi.org/10.3389/fnhum.2020.00052)
- Smith, E.E. and Allen, J.J.B. (2019). Theta-band functional connectivity and single-trial cognitive control in sports-related concussion: Demonstration of proof-of-concept for a potential biomarker of concussion. *Journal of the International Neuropsychological Society*, 25(3), 314-323. DOI: [10.1017/S135561771800108X](https://doi.org/10.1017/S135561771800108X)
- Vlisides, P.E., Bel-Bahar, T., Nelson, A., Chilton, K., Smith, E.E., Janke, E., Tarnal, V., Picton, P., Harris, R.E., Mashour, G.A., (2018). Subanaesthetic ketamine and altered states of consciousness in humans. *British journal of anaesthesia*, 121(1), 249-259. DOI: [10.1016/j.bja.2018.03.011](https://doi.org/10.1016/j.bja.2018.03.011)
- Smith, E.E., Cavanagh, J.F., & Allen, J.J.B., (2018). Intracranial source activity (eLORETA) related to scalp-level asymmetry scores and depression status. *Psychophysiology*, 55(1), DOI: [10.1111/psyp.13019](https://doi.org/10.1111/psyp.13019)
- Smith, E.E., Reznick, S.J., Stewart, J.L., & Allen, J.J.B., (2017). Assessing and conceptualizing frontal EEG asymmetry: An updated primer on recording, analyzing, and interpreting frontal alpha asymmetry. *International Journal of Psychophysiology*, 111, 98-114. DOI: [10.1016/j.ijpsycho.2016.11.005](https://doi.org/10.1016/j.ijpsycho.2016.11.005)
- Smith, E.E., Zambrano-Vazquez, L., & Allen, J.J.B. (2016). Patterns of alpha asymmetry in those with elevated worry, trait anxiety, and obsessive-compulsive symptoms: A test of the worry and avoidance models of alpha asymmetry. *Neuropsychologia*, 85, 118-126. DOI: [10.1016/j.neuropsychologia.2016.03.010](https://doi.org/10.1016/j.neuropsychologia.2016.03.010)
- Sanguinetti, J.L., Smith, E.E., Allen, J.J.B., & Hameroff, S. (2014). Human Brain Stimulation with Transcranial Ultrasound (TUS); Potential Applications for Mental Health. In P.J. Rosch & M.S. Markov (Eds.), *Bioelectromagnetic Medicine*. New York: Taylor and Francis. [link](#)
- Smith, E.E., Weinberg, A., Moran, T., & Hajcak, G. (2013). Electrocortical responses to NIMSTIM facial expressions of emotion. *International Journal of Psychophysiology*, 88, 17-25. DOI: [10.1016/j.ijpsycho.2012.12.004](https://doi.org/10.1016/j.ijpsycho.2012.12.004)
- Kujawa, A., Smith E.E., Luhmann C., & Hajcak, G. (2013). The Feedback Negativity Reflects Favorable Compared to Non-favorable Outcomes Based on Global, Not Local, Alternatives. *Psychophysiology*, 50, 134-138. DOI: [10.1111/psyp.12002](https://doi.org/10.1111/psyp.12002)
- Bress, J.N., Smith, E.E., Foti, D., Klein, D.N., & Hajcak, G. (2011). Neural response to reward and depressive symptoms in late childhood to early adolescence. *Biological Psychology*, 89, 156-162. DOI: [10.1016/j.biopsycho.2011.10.004](https://doi.org/10.1016/j.biopsycho.2011.10.004)

Education and Licensure

Licensed Psychologist in the State of Arizona (License PSY-005110)

University of Arizona, Doctor of Philosophy (PhD)

Clinical Psychology with specialization in neuropsychology and neuroscience

Dissertation committee: John JB Allen (chair), Dave Sbarra, Matthew Grilli, Lee Ryan

Stony Brook University, Master of Arts (MA), Psychology

University of Oregon, Bachelor of Science (BS), Psychology

Service and professional societies

Editorial board – *Biological Psychology*, *International Journal of Psychophysiology*

Ad Hoc Reviewer – *Psychophysiology*, *Biological Psychology*, *PLoS One*, *Brain and Behavior*, *Brain Imaging and Behavior*

Southern Arizona Psychological Association

Society for Psychophysiological Research

International Organization of Psychophysiology

International Neuropsychological Society
Association for Psychological Science
American Psychological Association (Divisions 3 and 40)

Clinical references

Shannah Biggan, PhD, ABPP-CN
Clinical Neuropsychologist
Neuropsychology Ltd.
(520) 352-9955
shannah@neuropsychltd.com

Marisa Menchola, PhD, ABPP-CN
Assistant Professor of Neurology
University of Arizona
(520) 874-2000
menchola@email.arizona.edu

Research references

John J.B. Allen, PhD
Distinguished Professor of Psychology and Neuroscience
University of Arizona
(520) 621-7448
john.jb.allen@arizona.edu

Jürgen Kayser, PhD
Professor of Clinical Neurobiology
Columbia University and New York State Psychiatric Institute
(646) 774-5207
kayser@columbia.edu