

Alexander S. Korb, Ph.D.

Postdoctoral Scholar

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EDUCATION

- 2005-2010 **University of California, Los Angeles**
Ph.D., Neuroscience. GPA: 3.85
Dissertation: *Investigating Rostral Anterior Cingulate Cortex in Major Depression: An EEG Source Localization Approach*
- 1998-2002 **Brown University**
B.S., Neuroscience. GPA: 3.8

RESEARCH EXPERIENCE

- 2011 – Present Postdoctoral Scholar
UCLA
PI: Dr. Alexander Bystritsky
-Developed navigation and safety monitoring system for low-intensity focused ultrasound pulsation (LIFUP) neuromodulation
- 2005-2010 Graduate student researcher, Neuroscience Interdepartmental Program,
UCLA
PI: Dr. Andrew Leuchter
-Conducted independent line of research in an EEG lab studying biomarkers in psychiatric disorders in human subjects
-Created numerous statistical models for predicting treatment response
- 2002-2005 Staff Research Associate, Brain Mapping Center, UCLA
PI: Dr. Mark Cohen
-Carried-out statistical analysis of fMRI data
-Programmed digital signal processing software for combined EEG/fMRI
-Implemented cluster computing for enhancing speed of data analysis
- 2001 Undergraduate Intern, Brown University
PI: Dr. Mary Carskadon
-Worked as part of a research team studying sleep and circadian rhythms in adolescents
-Administered EEGs and psychometric scales

FELLOWSHIPS

- 2011 – Present Friedman Diabetes Institute Fellowship, UCLA
2008-2010 NIH Institutional NRSA Fellowship, UCLA

- 2005-2007 NSF IGERT Fellowship in Neuroengineering, UCLA
- 2001 William C. Dement Fellowship in Sleep Research, Brown University

TEACHING EXPERIENCE

- Fall 2007 Teaching Assistant, *Functional Neuroanatomy*, UCLA Neuroscience
-Presented laboratory human brain demos, developed weekly review lectures, study guides, held office hours, and graded exams

EXTRACURRICULAR AND LEADERSHIP EXPERIENCE

- 2003-2010 Head Coach, UCLA Women's Ultimate Frisbee Team
-Started as head coach of newly formed team with few experienced players
-Instructed athletes on skills, strategy, fitness and sports psychology
-Within 3 years reached finals of national championships, and ranked top 5 nationally (of over 200 teams) for each of the past 5 years
-USA Ultimate Coach of the year 2010, 2011
- 2009-2010 Coaching Instructor, USA Ultimate
-Taught courses on coaching and leadership to aspiring coaches.

PUBLICATIONS

- Brody AL, Mandelkern MA, Olmstead RE, Jou J, Tiongson E, Allen V, Scheibal D, London ED, Monterosso JR, Tiffany ST, **Korb A**, Gan JJ, Cohen MS. Neural substrates of resisting craving during cigarette cue exposure. *Biol Psychiatry* 2007; 62:642-51.
- Bystritsky A, **Korb AS**, Douglas PK, Cohen MS, Melega WP, Mulgaonkar AP, Desalles A, Min BK, Yoo SS (2011) A review of low-intensity focused ultrasound pulsation. *Brain Stimul* 4:125-136.
- Cook IA, Hunter AM, **Korb AS**, Farahbod H, Leuchter AF (2009) EEG Signal in Psychiatry: Depression. In S. Tong and N. V. Thakor (eds), *Quantitative EEG Analysis: Methods and Applications*. Norwood, MA: Artech House Press.
- Korb AS**, Cook IA, Hunter AM, Leuchter AF. Brain electrical source differences between depressed subjects and healthy controls. *Brain Topogr* 2008; 21:138-46.
- Korb, A.S.**, Hunter, A.M., Cook, I.A., Leuchter, A.F., 2009. Rostral anterior cingulate cortex theta current density and response to antidepressants and placebo in major depression. *Clin Neurophysiol* 120, 1313-9.
- Korb AS**, Hunter AM, Cook IA, Leuchter AF (2011) Rostral anterior cingulate cortex activity and early symptom improvement during treatment for major depressive disorder. *Psychiatry Res* 192:188-194.
- Farahbod, H., Cook, I.A., **Korb, A.S.**, Hunter, A.M., Leuchter, A.F., 2010. Amygdala lateralization at rest and during viewing of neutral faces in major depressive disorder using low-resolution brain electromagnetic tomography. *Clin EEG Neurosci* 41, 19-23.

Leuchter, A.F., Cook, I.A., Hunter, A.M., **Korb, A.S.**, 2009. A new paradigm for the prediction of antidepressant treatment response. *Dialogues in Clinical Neuroscience* 11, 435-46.

Leuchter, A.F., Cook, I.A., Hunter, A., **Korb, A.**, 2009. Use of clinical neurophysiology for the selection of medication in the treatment of major depressive disorder: the state of the evidence. *Clin EEG Neurosci* 40, 78-83.

Wynn JK, Green MF, Engel S, **Korb A**, Lee J, Glahn D, Nuechterlein KH, Cohen MS. Increased extent of object-selective cortex in schizophrenia. *Psychiatry Res* 2008; 164:97-105.

CONFERENCE POSTERS

Bramen JE, Buonomano DV, **Korb AS**, Monterosso JR, Cohen MS. Time is of the Essence. presented at Organization for Human Brain Mapping, 10th Annual Meeting. 2004.

Bystritsky A, Melega W, **Korb AS**, Yoo SS. Low Intensity Focused Ultrasound Pulsation: A novel noninvasive intervention for diagnosing and treating brain disease. Presented at NCDEU, 51st Annual Meeting, Boca Raton, 2011.

Korb AS, Cook IA, Schairer D, Leuchter AF. Sex Differences in Regional Brain Current Density in MDD. Presented at West Coast College of Biological Psychiatry 2007.

Farahbod H, Cook IA, Schairer D, **Korb AS**, Leuchter AF. Modulatory Effects fo Comorbid Anxiety on Neutral Circuitry in Depression Using Current Source Coherence. Presented at Society for Neuroscience conference, Washington D.C. 2008.

Stern JM, Tripathi M, Akhtari M, **Korb AS**, Engel J, Cohen MS. Musicogenic Seizure Localization with Simultaneous EEG and Functional MRI. presented at American Academy of Neurology, 58th Annual Meeting 2006.