

Greg Kronberg

PhD Candidate, Biomedical Engineering, The City College of New York

Lab: 212-650-8876 Mobile: 917-880-1370 Email: gregkronberg@gmail.com

Website: parralab.org/people/GregKronberg

Education

PhD Biomedical Engineering, The City College of New York	Expected 2019
MS Biomedical Engineering, The City College of New York	2015
BS Physiology & Neurobiology, University of Maryland College Park	2010

Research

Graduate Student, The City College of New York, Neural Engineering Group	2013 – present
<ul style="list-style-type: none">Optimizing trans-cranial electrical stimulation to enhance synaptic plasticity and learning, using computational models, electrophysiology, and calcium imaging	

Work

Research Scientist I, Soterix Medical	2012 - 2013
<ul style="list-style-type: none">Optimized and patented electrode design for brain stimulation using FEM modeling	

Teaching

Teaching Assistant, The City College of New York	2015-Present
<ul style="list-style-type: none">Biomedical signal processing (graduate), 2016-PresentBiostatistics and research methods (undergraduate), 2015-2016	
MCAT Course Instructor, Kaplan Test Prep	2010 - 2013
<ul style="list-style-type: none">Taught classes of ~30 students covering undergraduate biology, chemistry, and physics	

Technical Skills

• Programming:	Python, Matlab
• Data analysis:	Biomedical signal processing, machine learning
• Computational Neuroscience:	Multi -compartment biophysical neurons (NEURON), networks (Brian)
• Experimental Neuroscience:	In vitro electrophysiology
• Medical device design:	Finite element modeling (COMSOL)

Publications

• Bikson M, Kronberg G , et al. "Synaptic transmission modulates while non-synaptic processes govern the transition from pre-ictal to seizure activity in vitro." bioRxiv	2018
• Kronberg G et al. "Direct current stimulation modulates LTP and LTD: activity dependence and dendritic effects" Brain Stimulation	2017
• Jackson M, Kronberg G et al. "Animal models of transcranial direct current stimulation: methods and mechanisms" Clinical Neurophysiology	2016
• Bikson M, Kronberg G et al. "Safety of transcranial direct current stimulation: evidence based update 2016" Brain Stimulation	2016
• Kronberg G , Bikson M. "Electrode assembly design for transcranial Direct Current Stimulation: A FEM modeling study," IEEE Engineering in Medicine and Biology	2012

Patents

-
- Electrode Assembly, RF CUNY, US Patent Number: 9956395

Presentations

-
- **North American Neuromodulation Society, *invited talk*:** "tDCS boosts Hebb: Explaining the sensitivity and selectivity of tDCS." New York NY. 2018
 - **Society for Neuroscience, *poster*:** "Direct current stimulation and synaptic plasticity." Washington D.C. 2017
 - **CCNY Works in Progress Seminar, *invited talk*:** "Modulating synaptic plasticity with tDCS." New York NY. 2017
 - **NYC Neuromodulation, *poster*:** "Direct current stimulation modulates LTP and LTD: activity dependence and dendritic effects." New York NY. 2017
 - **Society for Neuroscience, *talk (nanosymposium)*:** "Direct current stimulation modulates LTP and LTD: activity dependence and dendritic effects." San Diego CA. 2016
 - **CCNY Biomedical Engineering Seminar Series, *invited talk*:** "Modulating synaptic plasticity with tDCS." New York NY. 2016
 - **Society for Neuroscience, *poster*:** "Direct current stimulation modulates bidirectional synaptic plasticity." Chicago IL. 2015
 - **NYC Neuromodulation, *invited talk*:** "Electric fields boost LTP in vitro." New York NY. 2015
 - **Society for Neuroscience, *poster*:** "Electric fields boost LTP in vitro." Washington D.C. 2014
 - **IEEE Engineering in Medicine and Biology, *poster*:** "Electrode assembly design for transcranial Direct Current Stimulation: A FEM modeling study" San Diego CA. 2012

Fellowships & Awards

-
- Wallace H. Coulter Award for Graduate Research Performance, City College of New York 2017
 - NIH Graduate research fellowship: R01 NS095123 2015-17
 - Harold Shames Award for Graduate Academic Excellence, City College of New York 2015
 - NYC Neuromodulation Student Research Award 2015
 - NIH graduate research fellowship: R01 MH092926 2015
 - Neural Engineering Award, City College of New York Biomedical Engineering 2013
 - Wallace H. Coulter foundation graduate research fellowship 2013

Activities & Memberships

-
- Abstract Review Committee, North American Neuromodulation Society Summer Series 2018
 - Okinawa Computational Neuroscience Course, Okinawa Institute of Science and Tech. 2017
 - Neural Engineering Seminar Organizer, City College of New York 2016-18
 - Ad-hoc reviewer: Brain Stimulation, Brain Research, Transactions on Biomedical Engineering, PLoS Computational Biology 2015-18
 - Society for Neuroscience Member 2014-18
 - Biomedical Engineering Society Member 2012-18