



CENTER FOR SENSORIMOTOR NEURAL ENGINEERING

Improving lives by connecting brains and technology

April, 2017

Honors and Awards

- Congratulations to Hannah Werbel (2014 CSNE YSP student) for receiving the UW the President's Medalist award:
<http://www.washington.edu/uaa/2017/02/24/2015-2016-presidents-medalists-announced/>
- The UW College of Engineering Immersion Story featuring CSNE researchers won a gold (Totem) award at the Public Relations Society of America, Puget Sound Chapter's Totem Awards. Watch the video:
<http://www.washington.edu/boundless/inclusive-engineering/>
- Congratulations to CSNE member Dr. Emily Fox who received the 2017 Seattle Association of Women in Science Award for Scientific Advancement in STEM:
<http://seattleawis.org/award/seattle-awis-awards/>

Upcoming Seminars, Lectures, Courses, Conferences

- "Learning to See Again: A New Era of Sight Restoration," Wednesday, April 5, 2017, 7:30 pm, Kane Hall 130, Geoffrey Boynton, PhD, University of Washington, with special guest Michael May, sight recovery patient.
- "Environmental Experience and Brain Development," Wednesday, April 12, 2017, 7:30 pm, Kane Hall 130, Katie McLaughlin, PhD, University of Washington and Charles Nelson, PhD, Boston Children's Hospital.
- "Improving Society Through Brain Science," 12th Annual Allen L. Edwards Psychology Lectures:
<http://events.uw.edu/events/allen-l-edwards-public-lecture-series/event-summary-df8104460ee84d3eb509c60d6565a056.aspx>
- Neurohackweek: a 5-day hands-on workshop in neuroimaging and data science, held at the University of Washington eScience Institute. Participants will learn about technologies used to analyze human neuroscience data, and to make analysis and results shareable and reproducible.
<http://neurohackweek.github.io/>
- "Mechanosensation by Deformable Biological Structures and Its Role in Behavior," a University of Washington Institute for Neuroengineering (UWIN) seminar on Wednesday, April 12, 2017, 3:30 pm, Husky Union Building (HUB) 337, by Dr. Melina Hale (Professor, Department of Organismal Biology and Anatomy, University of Chicago).



New CSNE Publications

- **Jazayeri, M.** and Afraz, A., Navigating the neural space in search of the neural code, *Neuron*. 2017 Mar 8;93(5):1003-1014. doi: 10.1016/j.neuron.2017.02.019.
- **Casimo, K., Weaver, K.E., Wander, J. and Ojemann, J.E.**, BCI use and its relation to adaptation in cortical networks, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, DOI 10.1109/TNSRE.2017.2681963, 2017.
- Hennessy, A. and **Alimohammad, A.**, Design and implementation of a digital secure code-shifted reference UWB transmitter and receiver, *IEEE Transactions on Circuits and Systems I: Regular papers*, March 2017, pp. 1-10.
- **Hirabayashi, M., Huynh, N.U., Witsell, S., Perez Jr., A., Sandoval, L., Yamada, N. and Kassegne, S.**, In-Vitro Real-Time Coupled Electrophysiological and Electrochemical Signals Detection with Glassy Carbon Microelectrodes. *J. Electrochem Soc.* 164 (5) B3113-B3121 (2017) B3113.

CSNE in the News

- **Eric Chudler leads 2017 UW Brain Awareness Week Open House outreach event**
<http://bioe.uw.edu/2017-uw-brain-awareness-week-open-house/>
- **Big improvements made in brain-computer interface technology**
<http://villagenews.com/health/big-improvements-made-brain-computer-interface-technology/>
- **CSNE members on “New Day Northwest”**
<http://www.king5.com/entertainment/television/programs/new-day-northwest/brain-bytes-quirky-questions-about-the-brain-/423183321>
- **UW Radio Researchers Break World Record with Full Duplex Communication**
<http://www.ee.washington.edu/spotlight/uw-radio-researchers-break-world-record-with-full-duplex-communication/>

New CSNE Blog Posts

- Brain Awareness Week Open House
<http://csne-erc.org/engage-enable/post/brain-awareness-week-open-house-0>
- Neural Engineering Tech Studio
<http://www.csne-erc.org/engage-enable/post/neural-engineering-tech-studio>
- Using Brain Stimulation to Restore Tactile Sensation
<http://csne-erc.org/engage-enable/post/using-brain-stimulation-restore-tactile-sensation>



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- Using Mathematics to Help Heal the Brain
<http://csne-erc.org/engage-enable/post/using-mathematics-help-heal-brain>

Recent Papers of Interest to the CSNE Community

- Iseri, E. and Kuzum, D., Implantable optoelectronic probes for *in vivo* optogenetics, Special issue on Optical Neural Control: Monitoring and Manipulating Neural Activity using Light, *J. Neural Eng.*, 14:3, 2017.
- Clites, T.R., Carty, M.J., Srinivasan, S. Anthony N Zorzos and Hugh M Herr, A murine model of a novel surgical architecture for proprioceptive muscle feedback and its potential application to control of advanced limb prostheses, *J. Neural Eng.*, 14:3, 2017.
- Gooch, C. L., Pracht, E. and Borenstein, A. R. (2017), The Burden of Neurological Disease in the United States: A Summary Report and Call to Action. *Ann Neurol.*, doi:10.1002/ana.24897

Grant Opportunities

- The Microsoft Research Dissertation Grant (up to \$20,000) for PhD students at U.S. and Canadian universities who are members of groups under-represented in computing. Grant application deadline is April 7, 2017:
<https://www.microsoft.com/en-us/research/academic-program/dissertation-grant/>
- NIH Stimulating Peripheral Activity to Relieve Conditions Program (SPARC):
<https://commonfund.nih.gov/sparc/index>

Please send additional news and events items for inclusion in this newsletter to Dr. Eric Chudler (CSNE, Executive Director) at chudler@uw.edu.