

CENTER FOR SENSORIMOTOR NEURAL ENGINEERING

Improving lives by connecting brains and technology

February, 2017

Honors and Awards

- Congratulations to the CSNE's Computational Neuroscience Thrust co-leader Dr. Emily Fox who has been awarded a Presidential Early Career Award (PECASE).
<https://news.cs.washington.edu/2017/01/10/white-house-recognizes-uws-emily-fox-with-presidential-early-career-award/>
<http://www.washington.edu/news/2017/01/10/two-uw-professors-win-presidential-early-career-award-for-scientists-and-engineers/>
- Congratulations to the CSNE's industry affiliate, Advanced Brain Monitoring, which was named Global Health & Pharma's Most Innovative Medical Device Company" for GHP's 2016 Healthcare and Pharmaceutical awards!

Upcoming Seminars, Lectures, Courses, Conferences

- The CSNE and BrainLinks-BrainTools Cluster of Excellence (Freiburg, Germany) are now accepting applications for their 2017 summer student/post-doctoral fellow exchange program. Undergraduate and graduate students and postdoctoral fellows associated with UW, MIT, and SDSU laboratories are encouraged to apply. Please contact Dr. Eric H. Chudler (chudler@uw.edu) for an application form and any questions about this exchange program. The deadline to receive completed applications is March 1, 2017.
- The UW Institute for Neuroengineering presents "An Industry Panel on Starting Companies" featuring Eli Shlizerman (UW Electrical Engineering and Applied Mathematics Assistant Professor and co-founder and CTO of Dreambit), Carlos Guestrin (UW Amazon Professor of Machine Learning in Computer Science & Engineering and Director of Machine Learning at Apple), and Chris Own (founder of Voxa and Ack! Industries). Panelists will talk about their career paths and experiences with startup companies and take your questions. The panel is on Wednesday, February 15, 2017, at 3:30 pm in the Husky Union Building (HUB), Room 340.

New CSNE Publications

- **D'Asaro, M.E.**, Otten, M.S., Chen, S. and **Lang, J.H.**, Multi-dimensional characterization of piezoresistive carbon black silicon rubber composites. Applied Polymer Science, January 6, 2017, DOI: 10.1002/app.44773
- **Vomero, M.**, Castagnola, E., Ciarpella, F., Maggiolini, E., Goshi, N., Zucchini, E., Carli, S., Fadiga, L., **Kassegne, S.**, Ricci, D., Highly stable glassy carbon interfaces for long-term neural stimulation and low-noise recording of brain activity, Scientific Reports, 7:40332. <http://dx.doi.org/10.1038/srep40332>
- **Seeman, S.C.**, **Mogen, B.J.**, **Fetz, E.E.** and **Perlmutter, S.I.**, Paired stimulation for spike-timing dependent plasticity in primate sensorimotor cortex, J. Neurosci., 16 January 2017, 2046-16; DOI: <https://doi.org/10.1523/JNEUROSCI.2046-16.2017>



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CSNE in the News

- Cipher War. After a century of failing to crack an ancient script, linguists turn to machines:
<http://www.theverge.com/2017/1/25/14371450/indus-valley-civilization-ancient-seals-symbols-language-algorithms-ai>

New CSNE Blog Posts

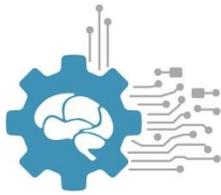
- The CSNE partners with five new industry affiliates:
<http://www.csne-erc.org/engage-enable/post/csne-partners-five-new-industry-affiliates>
- Practitioner and end-user roundtable gives engineers direct insight about the needs of people with disabilities:
<http://www.csne-erc.org/engage-enable/post/practitioner-and-end-user-roundtable-gives-engineers-direct-insight-about-needs>
- Rextravaganza:
<http://csne-erc.org/engage-enable/post/rextravaganza>

Recent Papers of Interest to the CSNE Community

- Brocker, D.T., Swan, B.D., So, R.Q., Turner, D.A., Gross, R.E. and Grill, W.M., Optimized temporal pattern of brain stimulation designed by computational evolution, *Science Translational Medicine* 04 Jan 2017, Vol. 9, Issue 371, DOI: 10.1126/scitranslmed.aah3532
- Pettigrew, R.I., Heetderks, W.J., Kelley, C.A., Peng, G.C.Y., Krosnick, S.H., Jakeman, L.B., Egan, K.D. and Marge, M., Epidural spinal stimulation to improve bladder, bowel, and sexual function in individuals With spinal cord injuries: A Framework for Clinical Research, *IEEE Trans. Biomed. Eng.*, 64:253-262, 2017.

Grant Opportunities

- Science and PINS Prize for Neuromodulation:
<http://www.sciencemag.org/prizes/pins>
- BRAIN Initiative: Team-Research BRAIN Circuit Programs - TeamBCP (U19):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-17-018.html>
- BRAIN Initiative: Targeted BRAIN Circuits Projects - TargetedBCP (R01):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-17-014.html>
- BRAIN Initiative: Exploratory Targeted BRAIN Circuits Projects - eTargetedBCP (R21):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-17-015.html>



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- BRAIN Initiative Fellows: Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (F32):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-17-250.html>

Join the CSNE Facebook site at:

<https://www.facebook.com/groups/134997836537779/>

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