## William Liberti

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INFORMATION Berkeley, CA 94708

RESEARCH Systems

Systems Neuroscience, Reinforcement Learning, Neural Engineering, Neurophotonics.

EDUCATION Boston University Graduate Medical School, Boston, MA 2012–2017

Ph.D., Neuroscience, Advisor: Timothy Gardner, Ph.D.

EXPERIENCE Morphosis Neurotech 2022—present

Founder and CEO

Company Summary: Building human-technology interfaces that are personalized, secure and intuitive.

University of California, Berkeley 2017–2022

Postdoctoral Fellow, Department of Electrical Engineering & Computer Science (EECS)

Research Summary: Led various scientific and engineering teams to develop wireless optical neural recording technologies and perform large-scale neural recordings in freely behaving animals.

Boston University 2013–2017

Graduate Researcher & Neurophotonics Fellow, Graduate Program in Neuroscience (GPN) Research Summary: Designed and implemented minimally invasive neruotechnology to study motor learning and neural network stability.

SELECTED
PUBLICATIONS &
PROCEEDINGS

- Liberti W\*, Schmid T\*, Forli A, Snyder M, Yartsev M "A Stable Hippocampal Code Underlies Aerial Navigation" Nature 604 p98-103 (2022)
- 2. Alvarado JS, Goffinet J, Michael V, **Liberti W**, Hatfield J, Gardner TJ, Pearson J, Mooney R. "Neural dynamics underlying birdsong practice and performance" *Nature* 599, p635-639 (2021)
- 3. Liberti D, Kremp M, **Liberti W**, Penkala I, Li S, Zhou S, Morrisey EE "Alveolar epithelial cell fate is maintained in a spatially restricted manner to promote lung regeneration after acute injury" *Cell Reports 35.6* (2021): 109092.
- 4. Yanny K\*, Antipa N\*, **Liberti W**, Dehaeck S, Monakhova K, Liu FL, Shen K, Ng R, Waller L "Randoscope: Computational Single-shot Miniature 3D Fluorescence Microscopy" *Light: Science & Applications* 171 (2020)
- 5. Yanny K\*, Antipa N\*, **Liberti W**, Dehaeck S, Monakhova K, Liu FL, Shen K, Ng R, Waller L "Compressed Sensing 3D Fluorescence Microscopy Using Optimized Phase Mask." *Computational Optical Sensing and Imaging* (2020)
- 6. Cohen Y, Shen J, Semu D, Leman DP, **Liberti W**, Perkins LN, Gardner TJ "Hidden neural states underlie canary song syntax." *Nature* 582, p539-544 (2020)
- 7. **Liberti W**, Gong XL, Rosebery TR, Carmena JM, "Local network coordination supports neuroprosthetic control." *IEEE Transactions on Neural Systems and Rehabilitation Engineering* (2019)
- 8. **Liberti W**, Perkins LN, Leman DP, Gardner TJ "An open source, wireless capable miniature microscope system" *Journal of Neural Engineering* 14.4 (2017): 045001.
- 9. **Liberti W**\*, Markowitz JE\*, Perkins LN, Leman DP, Liberti DC, Guitchounts G, Velho T, Lois C, Kotton DN, Gardner TJ "Unstable neurons underlie a stable learned behavior" *Nature Neuroscience* 19.12 (2016): 1665-1671.
- 10. Markowitz JE\*, **Liberti W**\*, Guitchounts G, Velho T, Lois C, Gardner, TJ "Mesoscopic patterns of neural activity support songbird cortical sequences" *PLoS Biology*, 13.6 (2015): e1002158.
- 11. Guitchounts G\*, Markowitz JE,\*, **Liberti W**\*, Gardner TJ "A carbon-fiber electrode array for long-term neural recording." *Journal of Neural Engineering*, 10, 046016 (2013).

  \* indicates co-authorship

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PATENTS Minimally invasive splaying microfiber electrode array and methods of fabricating and implanting the same. U.S. Patent Application 14/902,734, 2014

Tissue spectrophotometry for human-computer and human-machine interfacing. U.S. Patent Application 63/343,9, 2022

SERVICE CELEST Electronics & Experimental Design Course 2013–2017

Resident Assistant 2011–2017
Ad Hoc Referee: *PLoS ONE, IEEE/EBMC, eLife*(Reviewing Editor), 2016–present