

Research Publications

- Microstimulation of human somatosensory cortex evokes task-dependent, spatially patterned responses in motor cortex** 2023
Nature Communications, DOI: [10.1038/s41467-023-43140-2](https://doi.org/10.1038/s41467-023-43140-2)
N.D. Shelchkova, J.E. Downey, **C.M. Greenspon**, E.V. Okorokova, A.R. Sobinov, C. Verbaarschot, Q. He, C. Sponheim, A.F. Tortolani, D.D. Moore, M.T. Kaufman, R.C. Lee, D. Satzer, J. Gonzalez-Martinez, P.C. Warnke, L.E. Miller, M.L. Boninger, R.A. Gaunt, J.L. Collinger, N.G. Hatsopoulos, S.J. Bensmaia
- Sensory computations in the cuneate nucleus of macaques** 2021
Proceedings of the National Academy of Sciences, DOI: [10.1073/pnas.2115772118](https://doi.org/10.1073/pnas.2115772118)
A.K. Suresh, **C.M. Greenspon**, Q. He, J.M. Rosenow, L.E. Miller, S.J. Bensmaia
- Chronic Use of a Sensitized Bionic Hand Does Not Remap the Sense of Touch** 2020
Cell Reports, DOI: [10.1016/j.celrep.2020.108539](https://doi.org/10.1016/j.celrep.2020.108539)
M. Ortiz-Catalan, E. Mastinu, **C.M. Greenspon**, S.J. Bensmaia
- Effect of scanning speed on texture-elicited vibrations** 2020
Journal of The Royal Society Interface, DOI: [10.1098/rsif.2019.0892](https://doi.org/10.1098/rsif.2019.0892)
C.M. Greenspon, K.R. McLellan, J.D. Lieber, S.J. Bensmaia
- Lamina-specific population encoding of cutaneous signals in the spinal dorsal horn using multi-electrode arrays** 2019
The Journal of Physiology, DOI: [10.1113/jp277036](https://doi.org/10.1113/jp277036)
C.M. Greenspon, E.E. Battell, I.M. Devonshire, L.F. Donaldson, V. Chapman, G.J. Hathway
- Cancer Chemotherapy in Early Life Significantly Alters the Maturation of Pain Processing** 2018
Neuroscience, DOI: [10.1016/j.neuroscience.2017.11.032](https://doi.org/10.1016/j.neuroscience.2017.11.032)
G.J. Hathway, E. Murphy, J. Lloyd, **C. Greenspon**, R.P. Hulse
- Age-dependent plasticity in endocannabinoid modulation of pain processing through postnatal development** 2017
Pain, DOI: [10.1097/j.pain.0000000000001027](https://doi.org/10.1097/j.pain.0000000000001027)
C.H. Kwok, I.M. Devonshire, A. Imraish, **C.M. Greenspon**, S. Lockwood, C. Fielden, A. Cooper, S. Woodhams, S. Sarmad, C.A. Ortori, D.A. Barrett, D. Kendall, A.J. Bennett, V. Chapman, G.J. Hathway
- Manganese-enhanced magnetic resonance imaging depicts brain activity in models of acute and chronic pain: A new window to study experimental spontaneous pain?** 2017
NeuroImage, DOI: [10.1016/j.neuroimage.2017.06.034](https://doi.org/10.1016/j.neuroimage.2017.06.034)
I.M. Devonshire, J.J. Burston, L. Xu, A. Lillywhite, M.J. Prior, D.J.G. Watson, **C.M. Greenspon**, S.J. Iwabuchi, D.P. Auer, V. Chapman
- Developmental alterations in noxious-evoked EEG activity recorded from rat primary somatosensory cortex** 2015
Neuroscience, DOI: [10.1016/j.neuroscience.2015.08.004](https://doi.org/10.1016/j.neuroscience.2015.08.004)
I.M. Devonshire, **C.M. Greenspon**, G.J. Hathway

Talks

Humans are just monkeys with different problems

2023

Society for Neuroscience - Animals in Research
C.M. Greenspon, S. Imbrie

Preprints

The integration of tactile and proprioceptive signals to achieve haptic object perception

2023

bioRxiv, DOI: [10.1101/2023.11.27.568836](https://doi.org/10.1101/2023.11.27.568836)

R.E. Dogruoz, N.S. Shelchkova, D.E. Sheets, **C.M. Greenspon**, S.J. Bensmaia

Tessellation of artificial touch via microstimulation of human somatosensory cortex

2023

bioRxiv, DOI: [10.1101/2023.06.23.545425](https://doi.org/10.1101/2023.06.23.545425)

C.M. Greenspon, N.D. Shelchkova, G. Valle, T.G. Hobbs, E.I. Berger-Wolf, B.C. Hutchison, E. Dogruoz, C. Verbaarschott, T. Callier, A.R. Sobinov, E.V. Okorokova, P.M. Jordan, D. Prasad, Q. He, F. Liu, R.F. Kirsch, J.P. Miller, R.C. Lee, D. Satzer, J. Gonzalez-Martinez, P.C. Warnke, L.E. Miller, M.L. Boninger, A.B. Ajiboye, E.L. Graczyk, J.E. Downey, J.L. Collinger, N.G. Hatsopoulos, R.A. Gaunt, S.J. Bensmaia

Biomimetic multi-channel microstimulation of somatosensory cortex conveys high resolution force feedback for bionic hands

2023

bioRxiv, DOI: [10.1101/2023.02.18.528972](https://doi.org/10.1101/2023.02.18.528972)

C.M. Greenspon, G. Valle, T.G. Hobbs, C. Verbaarschot, T. Callier, E.V. Okorokova, N.D. Shelchkova, A.R. Sobinov, P.M. Jordan, J.M. Weiss, E.E. Fitzgerald, D. Prasad, A.v. Driesche, R.C. Lee, D. Satzer, J. Gonzalez-Martinez, P.C. Warnke, L.E. Miller, M.L. Boninger, J.L. Collinger, R.A. Gaunt, J.E. Downey, N.G. Hatsopoulos, S.J. Bensmaia

The coarse mental map of the breast is anchored on the nipple

2022

bioRxiv, DOI: [10.1101/2022.09.14.507974](https://doi.org/10.1101/2022.09.14.507974)

K.H. Long, E.E. Fitzgerald, E.I. Berger-Wolf, A. Fawaz, **C.M. Greenspon**, S.T. Lindau, S.J. Bensmaia

Texture coding in higher order somatosensory cortices of primates

2022

bioRxiv, DOI: [10.1101/2022.08.19.504511](https://doi.org/10.1101/2022.08.19.504511)

K.H. Long, **C.M. Greenspon**, A.v. Driesche, J.D. Lieber, S.J. Bensmaia