

Zhongzheng (Brooks) Fu, Ph.D.

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Professional Appointments

- 2020 – on **Postdoctoral Scholar**
Department of Neurosurgery
Cedars-Sinai Medical Center
Los Angeles, CA, USA
- 2019 – 2020 **Visiting Postdoctoral Scholar**
Division of the Humanities and Social Sciences
California Institute of Technology
Pasadena, CA, USA

Education

- 2012 – 2018 **Ph.D. in Control and Dynamical Systems**, California Institute of Technology, Pasadena, CA, USA
- 2010 **Academic Exchange**, University of California at Berkeley, Berkeley, CA, USA
- 2008 – 2011 **B.Sc. in Physics**, University of Hong Kong, Hong Kong, China

Publications

Peer-reviewed Papers

- 2022 **Z. Fu**, A. Sajad, S. P. Errington, J. D. Schall, U. Rutishauser. Neurophysiological mechanisms of performance monitoring in human and nonhuman primates. *Nature Reviews Neuroscience*. In press.
- 2022 **Z. Fu**, D. Beam, J. M. Chung, C. M. Reed, A. N. Mamelak, R. Adolphs, U. Rutishauser. The geometry of domain-general performance monitoring in the human medial frontal cortex. *Science*. 376, eabm9922 doi:[10.1126/science.abm9922](https://doi.org/10.1126/science.abm9922).
- 2019 Ⓓ **Z. Fu**, D. A. J. Wu, I. Ross, J. M. Chung, A. N. Mamelak, R. Adolphs, U. Rutishauser. Single-neuron correlates of error monitoring and post-error adjustments in human medial frontal cortex. *Neuron*. 101, 165-177.e5 doi:[10.1016/j.neuron.2018.11.016](https://doi.org/10.1016/j.neuron.2018.11.016).
- 2017 **Z. Fu**, U. Rutishauser. Single-neuron correlates of awareness during attentional blinks. *Trends in Cognitive Sciences*. 22(1), 5-7 doi:[10.1016/j.tics.2017.10.005](https://doi.org/10.1016/j.tics.2017.10.005).
- S. Sun, S. Zhen, **Z. Fu**, D. A. J. Wu, S. Shimojo, R. Adolphs, R. Yu, S. Wang. Decision ambiguity is mediated by a late positive potential originating from cingulate cortex. *Neuroimage*. 157, 400-414. doi:[10.1016/j.neuroimage.2017.06.003](https://doi.org/10.1016/j.neuroimage.2017.06.003).

- 2013 @ F. Klein, R. Diskin, J. F. Scheid, C. Gaebler, H. Mouquet, I. S. Georgiev, M. Pancera, T. Zhou, R. Incesu, **Z. Fu**, P. NP. Gnanapragasam, T. Y. Oliveira, M. S. Seaman, P. D. Kwong, P. J. Bjorkman, M. C. Nussenzweig. Somatic mutations of the immunoglobulin framework are generally required for broad and potent HIV-1 neutralization. *Cell*. 153, 126-138. doi:[10.1016/j.cell.2013.03.018](https://doi.org/10.1016/j.cell.2013.03.018).

Awards & Honors

- 2022 Trainee Highlight Award, The BRAIN Initiative Meeting
- 2022 CNSM Prize for an Exceptional Publication, Center for Neural Science and Medicine, Cedars-Sinai Medical Center
- 2019 Spot Research Award for Outstanding Publication, Department of Neurosurgery, Cedars-Sinai Medical Center
- 2010 Rising Stars of Research Award, University of British Columbia
- 2009 Overseas Research Fellowship, University of Hong Kong
- 2009 International Genetically Engineered Machine Competition (iGEM), Gold Awards
- 2009 Summer Research Award, University of Hong Kong

Academic Service

Reviewer

- Nature Communications
- Cell Reports
- Journal of Neural Engineering
- Cognitive, Affective, & Behavioral Neuroscience
- Molecular Autism
- Neuroimage
- Frontiers in Neuroscience
- Journal of Neuroscience Methods
- British Journal of Psychology
- Scientific Reports
- Agence Nationale de la Recherche

Mentoring Experience

Undergraduate

- 2020 – 2021 Danielle Beam
Project: Hierarchical Bayesian modeling of flexible cognitive control
Cedars-Sinai Medical Center

- 2020 Elise. Y. Liu, California Institute of Technology
Project: Domain generality of conflict adaptation effects
Caltech SURF program
- Elizabeth (Rae) Moar
Project: Perceptual straightening in autism using hierarchical Bayesian modelling
Caltech SURF program

Conferences, Workshops & Presentations

Invited Workshops

- 2018 Sloan-NOMIS Summer School on Cognitive Foundations of Economic Behaviors, University of Zurich
- 2018 Junior Scientist Workshop on Mechanistic Cognitive Neuroscience, Janelia Farm Research Campus, Howard Hughes Medical Institute
- 2016 Berkeley Summer Course in Mining and Modeling Neuroscience Data, University of California at Berkeley

Conferences

- 2022 Annual Meeting of the Cognitive Neuroscience Society
- 2017 American Association of Neurological Surgeons Annual Scientific Meeting
- 2014 – 2021 Annual Meetings of the Society for Neuroscience

Talks

- 2017 Talk title: Single-neuron correlates of error monitoring in the human medial frontal cortex
American Association of Neurological Surgeons Annual Scientific Meeting

Professional Membership

- 2021 – on Cognitive Neuroscience Society
- 2013 – on Society for Neuroscience