

Zhongzheng (Brooks) Fu, Ph.D.

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United States

Professional Appointments

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

- 2023 **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*. doi:[10.1038/s41583-022-00670-w](https://doi.org/10.1038/s41583-022-00670-w).
- 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

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| 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 |

Mentoring Experience

Undergraduate

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| 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

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| 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

Invited Talks

2022 8th Annual BRAIN Initiative Meeting

2022 TCCI Neurochat

2017 American Association of Neurological Surgeons Annual Scientific Meeting

Professional Membership

2021 – on Cognitive Neuroscience Society

2013 – on Society for Neuroscience