

# Yannan Chen

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## EDUCATION

2024-present	<b>Postdoc in Neuroscience</b> Princeton University, Princeton, NJ
2019-2024	<b>Ph.D. in Biomedical Engineering</b> Columbia University, New York, NY
2017-2018	<b>M.S. in Biomedical Engineering</b> Columbia University, New York, NY
2013-2017	<b>B.Eng. in Biomedical Engineering</b> Zhejiang University, Hangzhou, China

## RESEARCH TRAINING

2024-present	<b>Postdoctoral Research Associate</b> Princeton University, Princeton Neuroscience Institute Advisor: H. Sebastian Seung, PhD
2019-2024	<b>Graduate Research Assistant</b> Columbia University, Department of Biomedical Engineering Advisor: Raju Tomer, PhD
2017-2018	<b>Graduate Research Assistant</b> Columbia University, Department of Biomedical Engineering Advisor: Elizabeth M. C. Hillman, PhD
2015-2017	<b>Undergraduate Research Assistant</b> Zhejiang University, Department of Biomedical Engineering Advisor: Gangmin Ning, PhD

## AWARDS AND RECOGNITION

2024	BME Blaze Spotlight for Feb. 2024, Columbia University
2022	AlleyCorp Math meets Bio Award, Columbia University
2019	CBS & EGSC Columbia Hackathon 2019, Top Prize, Columbia University
2018	EGSC Professional Development Scholarship, Columbia University

2016	COMAP's Mathematical Contest in Modeling (MCM), Meritorious Winner
2016	First-Class Scholarship for Outstanding Merits, Zhejiang University
2015	Third-Class Scholarship for Outstanding Merits, Zhejiang University
2014	Third-Class Scholarship for Outstanding Merits, Zhejiang University
2014	Third-Class Prize of the National College Students' Social Practice, China

## PUBLICATIONS

- 1. Whole-Brain Mapping Reveals the Divergent Impact of Ketamine on the Dopamine System.**  
M.S. Datta\*, **Y. Chen\***, S. Chauhan, J. Zhang, E.D. De La Cruz, C. Gong, R. Tomer.  
*Cell Reports* 42, 113491; <https://doi.org/10.1016/j.celrep.2023.113491>. (2023)
- 2. Scalable Projected Light Sheet Microscopy for High-resolution Imaging of Living and Cleared Samples.**  
**Y. Chen**, S. Chauhan, C. Gong, H. Dayton, C. Xu, E.D. De La Cruz, M.S. Datta, K.W. Leong, L.E.P. Dietrich, R. Tomer.  
*bioRxiv* <https://doi.org/10.1101/2023.05.31.543173>. (2023)
- 3. A Microfluidic Dual-Aptamer Sandwich Assay for Rapid and Cost-Effective Detection of Recombinant Proteins.**  
K. Wen, **Y. Chen**, X. Meng, S. Botros, W. Dai, M.N. Stojanovic, R. Tomer, Q. Lin.  
*Microchemical Journal* 188 (May): 108454. <https://doi.org/10.1016/j.microc.2023.108454>. (2023)
- 4. Aberrant Pace of Cortical Neuron Development in Brain Organoids from Patients with 22q11.2 Deletion Syndrome and Schizophrenia.**  
S.B. Rao, F. Brundu, **Y. Chen**, Y. Sun, H. Zhu, R.J. Shprintzen, R. Tomer, R. Rabadan, K.W. Leong, S. Markx, B. Xu, J.A. Gogos.  
*bioRxiv* <https://doi.org/10.1101/2023.10.04.557612>. (2023)
- 5. An in Vitro Model of Neuronal Ensembles.**  
M.A. Rabadan, E.D. De La Cruz, S.B. Rao, **Y. Chen**, C. Gong, G. Crabtree, B. Xu, S. Markx, J.A. Gogos, R. Yuste, R. Tomer.  
*Nature Communications* 13 (1): 3340. <https://doi.org/10.1038/s41467-022-31073-1>. (2022)
- 6. Capillary connections between sensory circumventricular organs and adjacent parenchyma enable local volume transmission.**  
Y. Yao, **Y. Chen**, R. Tomer, R. Silver.  
*bioRxiv* <https://doi.org/10.1101/2024.07.30.605849>. (2024)

## POSTER PRESENTATIONS

1. **Scalable, open-source projected Light Sheet Microscopy for high-resolution imaging of living and cleared samples.**  
Y. Chen, S. Chauhan, C. Gong, H. Dayton, C. Xu, E.D. De La Cruz, Y.Y. Tsai, M.S. Datta, G.B. Rosoklija, A.J. Dwork, J. J. Mann, M. Boldrini, K.W. Leong, L.E.P. Dietrich, R. Tomer.  
*Janelia Microscopy Technology Dissemination Conference* (2024)
2. **Scalable Projected Light Sheet Microscopy for High-Resolution Imaging of Large Samples.**  
Y. Chen, S. Chauhan, C. Gong, H. Dayton, C. Xu, E.D. De La Cruz, M.S. Datta, K.W. Leong, L.E.P. Dietrich, R. Tomer.  
*SfN* (2023)
3. **Analysis of Real-Time 3D Vascular Network Dynamics in the Cortex During Whisker Stimulus using SCAPE Microscopy.**  
Y. Chen, M. Shaik, K. Patel, C. Kim, S. Benezra, V. Voleti, and E.M.C. Hillman.  
*SfN* (2018)

## ORAL PRESENTATIONS

1. **Tools for Uniform Labeling, High-Throughput Imaging, and Comparative Analysis of Large Brain Samples.**  
Y. Chen.  
*Biological Sciences Departmental Retreat* Columbia University (Oct-21-2023)
2. **Whole-Brain Mapping Reveals Divergent Impact of Chronic Ketamine Exposure on the Dopamine System.**  
M.S. Datta\*, Y. Chen\*.  
*Neurolunch* Columbia University (Nov-17-2022)

## TEACHING EXPERIENCE

Fall 2023	Teaching Assistant for Biological Image Computing.
Spring 2023	Guest Lecturer for Biological Microscopy.
Fall 2022	Teaching Assistant for Biological Image Computing.
Spring 2021	Teaching Assistant for Comp. Model of Physiological Systems.
Spring 2020	Teaching Assistant for Biophotonics.