

Curriculum Vitae

Name: Xiaowei Gu

A. Education

Institute of Neuroscience and Key Laboratory of Primate Neurobiology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, China

PHD Degree, Functional Neural Circuit

The involvement and coordination of mice cortico-basal ganglia-thalamic loop in olfactory memory task

June of 2018

Fudan University, Shanghai, China

Bachelor Degree, Mathematics

June of 2011

B. Research/Employment History

2019 April-current

Research scientist, Laboratory for Neural Circuitry of Memory, RIKEN, Wako, Saitama, Japan

Advisor: Dr. Joshua Johansen

-Studying to train rats doing cognitive and emotional task.

-Studying to use calcium imaging to detect neural activities of rats.

2018 June-2019 April

Postdoctoral research associate, Laboratory of Functional Neural Circuitry, Institute of Neuroscience, Chinese Academy of Science, Shanghai, China

Advisor: Dr. Chengyu Li

-Doing data analysis

2011 Sept-2018 June

PhD student, Laboratory of Functional Neural Circuitry, Institute of Neuroscience, Chinese Academy of Science, Shanghai, China

Advisor: Dr. Chengyu Li

-Studied to train mice doing cognitive task.

-Studied the usage of optogenetics and transgenic mice.

- Studied making electrodes and doing extracellular recording on behaving mice.
- Designed and conducted experiments using electrophysiology, immunohistochemistry, anatomical tracing and optogenetics.

2010 Sept-2011 June

Intern Student, Si Wu s Lab, Institute of Neuroscience, Chinese Academy of Science, Shanghai, China

Advisor: Dr. Si Wu

- Studied to use computation algorithm to analyze complicated neural data.
- Studied to construct artificial neural networks to simulate real neural activities.
- Studied to building computational model to explain the mechanism underlying recorded neural activities.

2009 Sept-2010 June

Intern Student, Daru Lu s Lab, Fudan University, Shanghai, China

Advisor: Dr. Daru Lu

- Studied to collect DNA samples and clinical records from patients with lung cancer.
- Studied to use genetic tool to detect the gene related with lung cancer.

C. Fellowships / Awards

2017 May

First rank of DiAo Scholarship, Institute of Neuroscience, Chinese academy of science

2016 June

Second rank of Prexy Scholarship, Institute of Neuroscience, Chinese academy of science

2015 November

Second rank of Henyuanxiang Elite Scholarship, Institute of Neuroscience, Chinese academy of science

D. Publications

1. Guan S*, Wang J*, **Gu X***, Zhao Y, Hou R, Fan H, Zou L, Gao L, Du M, Li C, Fang Y, Elastocapillary Self-Assembled Neurotassels for Stable Neural Activity Recordings, *Science Advance*, (2019)
2. Wang M, **Gu X**, Ji B, Wang L, Guo Z, Yang B, Wang X, Li C, Liu J, Three-dimensional drivable optrode array for high-resolution neural stimulations and recordings in multiple brain regions, *Biosensors and Bioelectronics*, (2019) 131

3. Wang M, Ji B, **Gu X**, Guo Z, Wang X, Yang B, Li C, Liu J. A novel assembly method for 3-dimensional microelectrode array with micro-drive. *Sensors and Actuators, B: Chemical* (2018) 264
4. Wang M, Ji B, **Gu X**, Tian H, Kang X, Yang B, Wang X, Chen X, Li C, Liu J. Direct electrodeposition of Graphene enhanced conductive polymer on microelectrode for biosensing application. *Biosensors and Bioelectronics* (2018) 99
5. Ji B, Wang M, Kang X, **Gu X**, Li C, Yang B, Wang X, Liu J. Flexible optoelectric neural interface integrated wire-bonding μ LEDs and microelectrocorticography for optogenetics. *IEEE Transactions on Electron Devices* (2017) 64 (5)
6. Shi G, Liu Z, Wang X, Li C, **Gu X**. Object-dependent sparse representation for extracellular spike detection. *Neurocomputing* (2017) 266
7. Liu D*, **Gu X***, Zhu J*, Zhang X, Han Z, Tan W, Cheng Q, Hao J, Fan H, Hou R, Chen Z, Chen Y, Li C. Medial prefrontal activity during delay period contributes to learning of a working memory task. *Science* (2014) 346(6208) 458-463

*: co-first author.