Chenjie Pan Ph.D.

BASIC INFORMATION

Citizenship: CHINA

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EDUCATION

2011.08-2018.06 Ph.D. Dr. Xiaodong Wang's Lab,
National Institute of Biological Sciences, Beijing.
(Peking, Tsinghua, and NIBS-Biological and Biomedical Program)

2007-2011 B.S. School of Life Science and Technology,
Tongji University, Shanghai.

RESEARCH EXPERIENCES

2019.09-now Postdoctoral Scholar, Department of Biology, Stanford University
Advisor: Dr. Marc Tessier-Lavigne
(Member of the National Academy of Sciences, USA
President of Stanford University)

Project: Using cell surface proteomics to identify the regulators of axon guidance and axon plasticity

-Found the secretion mechanism of axon guidance molecule Netrin-1

2019.03-2019.09 Research Fellow, Department of Immunology, Harvard Medical School
Advisor: Dr. Isaac Chiu

Project: Investigating the Role of Microbiome in ALS and Pain

- Investigated the role of microbiome in ALS disease onset and progression
- Investigated the role of microbiome in neuropathic pain

2018.06-2019.03 Postdoctoral Fellow, Dr. Xiaodong Wang's Lab,
National Institute of Biological Sciences, Beijing (NIBS)
Tsinghua Institute of Multidisciplinary Biomedical Research (TIMBR)

Project: Investigating the Mechanism of Myelin Breakdown in Central Nervous System

- Found MLKL mediated demyelination is required for axon regeneration both in CNS and PNS
- Found the induction mechanism of MLKL after nerve injury

2012.06-2018.06 Graduate Student. National Institute of Biological Sciences
Advisor: Dr. Xiaodong Wang
(Member of the National Academy of Sciences, USA
Director, National Institute of Biological Sciences, Beijing)

Project: Investigating the Role of Necroptosis Pathway in Injury induced Nerve Demyelination

- Found mixed lineage kinase domain-like protein (MLKL) is required for myelin break down
- Identified a new site of phosphorylation by IP-MS of injured nerve in MLKL-Flag knockin mice
- Demonstrated the activation of MLKL in demyelination is through this novel phosphorylation

2010.10-2011.05 Undergraduate Researcher. School of Life Sciences, Peking University.
Advisor: Dr. Yi Rao
(Professor and Director, PKU-IDG/McGovern Institute for Brain Research
Chair Professor and Dean, Division of Sciences, Peking University
Director, Chinese Institute for Brain Research, Beijing, China)

Project: Genetic Screen to Identify Subset of *fruitless* (Fru) Neurons Involved in Male Courtship Behavior of *Drosophila Melanogaster*

- Set up a P element transposon system to randomly activate some subsets of Fru neurons
- Carried out a high-throughput behavior screen to find subsets of neurons involved in male courtship behavior

ACADEMIC CONFERENCES

Sept. 2020	CSHL Virtual Meeting: Molecular Mechanisms of Neuronal Connectivity.
Nov. 2018	Annual Meeting, Society for Neuroscience. San Diego, CA, USA.
Oct. 2017	Two-photon Functional Imaging in the Living Brain: Theory and Practice. Chongqing, China
Nov. 2015	CSHL Asia: Targeting Cell Death Mechanisms for the Treatment of Human Diseases. Suzhou, China
July 2015	Cell Symposia: Multifaceted Mitochondria. Chicago, IL, USA.
Apr. 2013	CSHL Asia: Mechanisms and Functions of Non-Apoptotic Cell Death. Suzhou, China

PUBLIC SEMINARS

Sept. 2018	Decipher the Code of Myelin Breakdown: a Pseudokinase and its Activation. University of Science and Technology of China **(Invited Speaker)**
Sept. 2018	Decipher the Code of Myelin Breakdown: a Pseudokinase and its Activation. Institute of Neuroscience, Chinese Academy of Sciences **(Invited Speaker)**
Aug. 2018	Decipher the Code of Myelin Breakdown: a Pseudokinase and its Activation. NIBS Retreat, 2018
June 2018	Biochemical Investigation of the Mechanism of Myelin Breakdown. Ph.D. Thesis Defense, Tsinghua University

AWARDS AND HONORS

Aug. 2018	Outstanding Graduate Student, NIBS
Nov. 2017	Social Service Scholarship, Tsinghua University
July 2016	Outstanding Graduate Student, NIBS
Oct. 2012	Guanghua Scholarship, Tsinghua University

Dec. 2010	National Motivational Scholarship
Dec. 2010	Outstanding Student, Tongji university
Dec. 2009	Outstanding Student, Tongji university
Dec. 2008	Winning Prize, 1st Chemical Knowledge Competition, Tongji University

VOLUNTEER

Aug. 2021 -now	Co-Chair, Stanford Chinese Postdoctoral Association
Sept. 2020	Stanford Biology PhD Preview Program
July. 2015	PTN PhD Program Interview
Aug. 2010	FITA World Cup: FITA Results Crew
Aug. 2009	FITA World Cup: Court Management

MEMBERSHIP

Society for Neuroscience
Stanford Chinese Postdoctoral Association

PUBLICATIONS

1. Jiang, X., Li, L., Ying, Z., Pan, C., Huang, S., Li, L., Dai, M., Yan, B., Li, M., Jiang, H. and Chen, S., 2016. A small molecule that protects the integrity of the electron transfer chain blocks the mitochondrial apoptotic pathway. *Molecular cell*, *63*(2), pp.229-239.

2. Li, L., Jiang, X., Huang, S., Ying, Z., Zhang, Z., Pan, C., Li, S., Wang, X. and Zhang, Z., 2017. Discovery of highly potent 2-sulfonyl-pyrimidinyl derivatives for apoptosis inhibition and ischemia treatment. *ACS medicinal chemistry letters*, *8*(4), pp.407-412.

3. Ying, Z.*, Pan, C.*, Shao, T., Liu, L., Li, L., Guo, D., Zhang, S., Yuan, T., Cao, R., Jiang, Z. and Chen, S., 2018. Mixed lineage kinase domain-like protein MLKL breaks down myelin following nerve injury. *Molecular cell*, *72*(3), pp.457-468. (Co-First Author)
Recommended by Faculty Opinions (Exceptional)

4. Zhang, S., Su, Y., Ying, Z., Guo, D., Pan, C., Guo, J., Zou, Z., Wang, L., Zhang, Z., Jiang, Z. and Zhang, Z., 2019. RIP1 kinase inhibitor halts the progression of an immune-induced demyelination disease at the stage of monocyte elevation. *Proceedings of the National Academy of Sciences*, *116*(12), pp.5675-5680.

5. Fan, W., Guo, J., Gao, B., Zhang, W., Ling, L., Xu, T., Pan, C., Li, L., Chen, S., Wang, H. and Zhang, J., 2019. Flotillin-mediated endocytosis and ALIX–syntenin-1–mediated exocytosis protect the cell membrane from damage caused by necroptosis. *Science signaling*, *12*(583), p.eaaw3423.

6. Guo, J., Guo, Z., Huang, Y., Ma, S., Yan, B., Pan, C., Jiang, Z., Wang, F., Zhang, Z., Da, Y. and Wang, X., 2022. Blockage of MLKL prevents myelin damage in experimental diabetic neuropathy. *Proceedings of the National Academy of Sciences*, *119*(14), p.e2121552119.