Jingcheng Shi

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Education

Shanghai Jiao Tong University (SJTU), Shanghai, China 2018 – Present

Undergraduate student in Bioinformatics, School of Life Sciences and Biotechnology

GPA: 3.6/4.0 (Genetics and evolution: 98, Organic chemistry: 98, Physics: 94, Biochemistry: 93, Molecular biology: 92)

Research Experience

Function analysis of LHPP, A candidate gene for schizophrenia, on Phosphorylation signaling pathway Shanghai, China Sept.2019 – Nov.2020

Intern Manager: Weidong Li

Our work:

- Construct *Lhpp* brain-specific knockout mice based on Cre/loxP recombinase system
- Verify the ideality of the animal depression model by behavioral experiments such as sugar water preference and forced swimming
- Study related signal pathways in disease models with phosphorylation broad-spectrum screening antibody chip technology
- Find out the change of phosphorylation level of signal molecules in the PI3K/AKT signaling pathway according to results of Western Blot

The characteristic of PPN neuronal activity in MPTP-induced PD mouse model Shanghai, China Oct. 2020 – Present

Leader Individual project, instructed by Fujun Chen

Our work:

- Establish a Parkinson's disease mouse model by MPTP injection
- Collect behavioral data of PD mouse models in open field test and pole test and records of nerve activities of PPN under anesthesia
- Study the effects of electrical stimulation of PPN and ethanol extract from Gastrodia elata to relieve symptoms of PD mouse models induced by MPTP

Study of neuropeptide classification model based on artificial intelligence algorithm Shanghai, China Dec.2020 – Present

Intern Manager: Yi Xiong

Ourwork:

- Master different coding methods of peptide sequences based on word embedding algorithm Word2Vec in natural language processing
- Construct a novel neuropeptide prediction model according to neural network algorithm GRU in deep learning
- Compare the accuracy, specificity, AUC and other evaluation indicators of our model with previous models such as PredNeuroP and NeuroPIpred and get better performance

Skills

- Programming Languages: C/C++, Python, R, MATLAB, Java
- Development: Web (Django), Android
- Languages: English - Fluent (TOEFL: 101), Japanese - Fluent (N1)