

ACADEMIC ACTIVITIES

Publication(s) of the week

1. Jiang, Y. Z., Peng, T. M., Gaur, U., Silva, M., Little, P., Chen, Z., Qiu, W., Zhang, Y. D., and **Zheng, W. H.** (2019) Role of Corticotropin Releasing Factor in the Neuroimmune Mechanisms of Depression: Examination of Current Pharmaceutical and Herbal Therapies. *Front Cell Neurosci* **13**, 290 [IF=4.917]
2. Zheng, W., Cai, D. B., Sim, K., Ungvari, G. S., Peng, X. J., Ning, Y. P., Wang, G., and **Xiang, Y. T.** (2019) Brexanolone for Postpartum Depression: A Meta-Analysis of Randomized Controlled Studies. *Psychiatry Res* **279**, 83-89 [IF=2.67]

Seminar Series

High Frequency Ultrasound for Multimodal Function Imaging and Stimulation Applications - Prof. Qifa ZHOU

Prof. Qifa ZHOU, Professor of Ophthalmology, Biomedical Engineering and Radiology, University of Southern California, presented "High Frequency Ultrasound for Multimodal Function Imaging and Stimulation Applications" on 26 July.

Prof. ZHOU introduced that high-frequency ultrasound has attracted considerable applications on the intravascular and ocular imaging due to the improved spatial resolution. Multi-modalities imaging methods that combined high-frequency ultrasound with optics are considered to be the next frontier in biomedical imaging recently. Prof. ZHOU also presented the development and usage of integrated piezoelectric ultrasound transducer and optical coherence tomography (IVUS-OCT) for intravascular application, acoustic radiation force optical coherence elastography (ARF-OCE) for retinal elastography, and photoacoustic tomography/microscopic PAT/PAM) for endoscopy and brain imaging. Then he presented his research focusing on the ultrasound stimulation on the retina and optic nerve in the seminar.



PhD ORAL DEFENSE

PhD Oral Defenses by Ting ZHANG of Prof. Gang LI's group



Ms. Ting ZHANG supervised by Prof. Gang LI completed her PhD Oral Defense on 24 July with a thesis title of “Phosphorylation of TET2 by AMPK is Indispensable in Myogenic Differentiation”.

Ms. ZHANG firstly introduced that TET-mediated oxidation of 5-mC participates in both passive and active DNA demethylation and exerts a significant influence on diverse biological processes. Multiple phosphorylation sites of TET2 have been identified by mass spectrometry. However, the functions of these phosphosites and their corresponding kinases are mostly unknown.

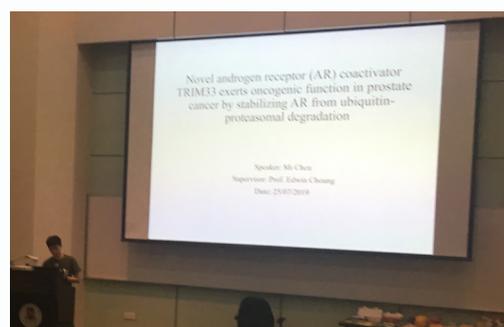
Ms. ZHANG reported that AMP-activated protein kinase (AMPK) phosphorylated murine TET2 at the serine residue 97 (S97), and enhanced the TET2 stability through promoting its binding to 14-3-3 β . AMPK ablation resulted in decreased global 5-hmC levels at the myotube stages, severe differentiation defect of C2C12 cells, total loss of expression of Pax7 significantly. Genome-wide analyses revealed that DNA methylation increased at genic and enhancer regions of AMPK-null myoblasts and myotubes. Moreover, Ms. ZHANG reported that she has found a novel enhancer, which is hypermethylated in AMPK-null cells regulated Pax7 expression using CRISPR/Cas9 technology. The phosphomimicking mutant, TET2-S97E, could partly rescue the differentiation defect in AMPK ablated C2C12 cells. Finally, Ms. ZHANG concluded that AMPK is a critical regulator of myogenesis, partly through phosphorylating TET2.

STUDENT ACTIVITIES

FHS Postdoc Student Seminar - Presented by Prof. Edwin CHEUNG's group and Prof. Leo LEE's group

On 25 July, Ms. Mi CHEN of Prof. Edwin CHEUNG's group presented “Novel AR Coactivator TRIM33 Exerts Oncogenic Function in Prostate Cancer by Stabilizing AR from Ubiquitin-Proteasomal Degradation” and Ms. Yunfang XIONG of Prof. Leo LEE's group presented “Using Small RNA-Dendrimer to Suppress Ovarian Cancer Development and Metastasis”.

The next seminar will be held on 8 August and presented by the group members of Prof. Sanming WANG and Prof. Lijun DI.



JULY / AUGUST				
Mon	Tues	Wed	Thurs	Fri
July 29 Qualify Examination Mr. Wei WANG Supervisor : Prof. Terence POON Time: 11:00 Venue: E12-1015	Qualify Examination Mr. Mohd FARHAN Supervisor : Prof. Wenhua ZHENG Time: 10:00 Venue: E12-1018 Qualify Examination Mr. Yizhou JIANG Supervisor : Prof. Wenhua ZHENG Time: 14:00 Venue: E12-1018 Qualify Examination Mr. Zhengqiang MIAO Supervisor : Prof. Chris WONG Time: 16:00 Venue: E12-1017	Qualify Examination Mr. Wei CAO Supervisor : Prof. Edwin CHEUNG Time: 10:00 Venue: N22-3042 Oral Defense Mr. Baoyuan ZHANG Supervisor : Prof. Joong Sup SHIM Time: 10:30 Venue:N6-2022 Oral Defense Ms. Yifan LIU Supervisor : Prof. Joong Sup SHIM Time: 15:00 Venue:N6-2022	August 1 Seminar Series Correlates of Protection Against Emerging Virus Infections and Diseases Speaker: Prof. Xiao-Ning XU Host: Prof. Chuxia DENG Time: 16:00-17:00 Venue: N22-G002	2
5	6	7	FHS Postdoc/ Student Seminar Host: Prof. Sanming WANG and Prof. Lijun DI Time: 17:00-18:00 Venue: N22-G002	8
12	13	14	15	16
Seminar Series RNAs on Fire Speaker: Prof. Vinay TERGAONKAR Host: Prof. Chuxia DENG Time: 10:30 - 11:30 Venue: E12-G004				