

NEWSLETTER ISSUE 14 8 - 12 APRIL 2019

ACADEMIC ACTIVITIES B-CAT Meeting - Prof. Gang LI

At the B-CAT meeting on 10 Apr, Prof. Gang LI presented the latest research findings from his lab. His lab demonstrated that AMPK acted on the epigenome (DNA methylation) and played a key role in myogenesis partly through phosphorylating TET2 at S97. Their data revealed a role for an AMPK-TET2-PAX7 axis in myogenic differentiation and characterized a novel enhancer of Pax7. Muscle atrophy could be caused by aging, obesity and a variety of diseases including diabetes and cancers. This study suggests the needs of an in-depth understanding of the mechanism of action of AMPK in myogenesis and the potential value of AMPK modulators as therapeutic agents in treating muscle atrophy. He also reported a reciprocal regulation of EGR1 and EZH2 in breast cancer, demonstrated EZH2 might promote tumorigenesis through repressing EGR1.

PhD ORAL DEFENSE PhD Oral Defense by Pengwei ZHANG of Prof. Terence POON's group



Mr. Pengwei ZHANG, supervised by Prof. Terence POON, completed his PhD Oral Defense on 9 April. The title of his thesis was "Reliability of High Resolution Mass Spectrometry in Metabolite Identification and Untargeted Metabolomics Studies".

Mr. ZHANG pointed out two uncertainties in high resolution mass spectrometry (HRMS) based metabolomics that systematical investigation is needed. Therefore, he started his research on this topic. He investigated the reliability of accurate mass and high resolution tandem mass spectrometry (HRMS/

MS) in metabolite identification. His results supported that database search using accurate mass values obtained by HRMS allowed metabolite annotation with high confidence. Moreover, he found out that HRMS/MS can improve the interpretation of metabolite fragmentation patterns compared to the typical MS/MS. Furthermore, he carried out a mimicking metabolomics study with use of plasma samples spiked with metabolite standards. The results revealed the high susceptibility to false discovery in biomarker research undertaking the untargeted metabolomics approach.

Mr. ZHANG finally concluded that the common metabolic changes examined for ensuring his findings could be applied in a real metabolomics study, were consistent with the proteomics analysis results. This supported that the untargeted metabolomics approaches developed in his project are suitable for biomedical research.

1



NEWSLETTER ISSUE 14 8 - 12 APRIL 2019

GUEST VISIT

Delegation Visit - China Ministry of Science and Technology

A delegation of China Ministry of Science and Technology visited the University on 8 April. Prof. Chuxia DENG with FHS Professors received them in that afternoon in N22 Research Building. They visited animal facilities, fish room and core facilities of FHS, and Prof. DENG explained the operation of FHS to the guests. Prof. DENG presented the current research projects and the research prospects to the guests too.





NEWSLETTER ISSUE 14 8 - 12 APRIL 2019

ACTIVITY

HKU-FHS Joint Symposium on Biomedical Sciences

On 12 April, Joint Symposium on Biomedical Sciences was successfully organized by the School of Biomedical Sciences of The University of Hong Kong and FHS. Prof. Danny CHAN, Acting Director of School of Biomedical Sciences, The University of Hong Kong and Prof. Chuxia DENG gave the opening speeches for the symposium.

Ten speakers from both universities gave their talks in the symposium. The symposium provided a great platform for the participants to share and discuss with their research works and ideas. More discussion and collaborations are expected.











UPCOMING

APRIL					
	Mon	Tues	Wed	Thurs	Fri
	15	16	17	18	19 Good Friday (Easter holiday)
Th	22 ne first working day after the Day before Easter (Easter holiday)	23	24 B-CAT Meeting #08 Speaker: Prof. Garry WONG Time: 17:00 Venue: E12-G004	25	26
Pro and Pot Tett in C Leu Spe Kar Hos Tim	29 minar Series ognostic Relevance d Therapeutic tential of the traspanin CD9 Childhood Acute ukemia eaker: Prof. mtong LEUNG st: Prof. Qi ZHAO ne: 14:30-15:30 nue: E12-G004	30	1 Labour Day Holiday	2	3

For more information or submission of articles to be featured, please contact Ms. Mathilde CHEANG at mathildec@um.edu.mo or 8822 4909.