

ACADEMIC ACTIVITIES

Publication(s) of the week

1. Chen, P., Wang, Q., Xie, J., and Kwok, H. F. (2019) Signaling Networks and the Feasibility of Computational Analysis in Gastroenteropancreatic Neuroendocrine Tumors. *Semin Cancer Biol* [IF=10.502]
2. Wang, Y. Y., Xu, D. D., Feng, Y., Chow, I. H. I., Ng, C. H., Ungvari, G. S., Wang, G., and Xiang, Y. T. (2019) Short Versions of the 32-Item Hypomania Checklist: A Systematic Review. *Perspect Psychiatr Care* [IF=1.036]

Academic Promotion 2018 / 2019

FHS is pleased to announce that the application of the academic promotion of Prof. Joong Sup SHIM has been successfully approved. With effect from 16 August, he is going to be Associate Professor of FHS. Congratulations!

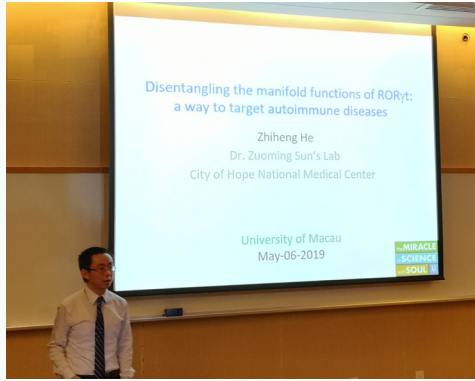
B-CAT Meeting

Generating Transgenic Sensor Zebrafish for *In Vivo* Detection of Apoptosis and Aging Research - Prof. Kathy Qian LUO

At the B-CAT meeting on 8 May, Prof. Kathy LUO presented the latest research findings of her lab on detecting apoptosis from single cells in live zebrafish. The main function of apoptosis is to remove damaged cells from human body, thus malfunction of apoptosis will lead to the development of major diseases including cancer and neurodegenerative diseases. Prof. LUO has invented a fluorescence-based caspase sensor for non-invasive detection of apoptosis in live cells, and used them to study cancer metastasis and discover new anticancer drugs. In the current study, Prof. LUO's group has generated transgenic zebrafish that can express this sensor in different parts of the fish including the skin, body cells and nerve system. With these new sensor fish lines, they were able to detect apoptosis in real-time and at single-cell level in live fish. They observed that caspase-3 can be activated in 5 minutes and apoptosis can be completed in 30 minutes during normal fish development. They also found a new role of apoptosis in removing extra skin cells when the size of yolk sac was reduced during early development. Prof. LUO also shared their research findings from neuron-specific sensor fish, and discussed their future applications in aging research and drug discovery.

Seminar Series

Disentangling the Manifold Functions of ROR γ t: A Way to Target Autoimmune Diseases - Dr. Zhiheng HE



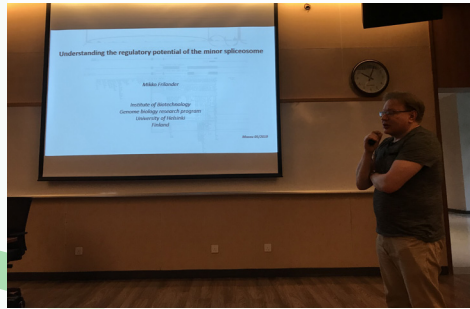
Dr. Zhiheng HE, Post-doctoral Fellow and Staff Scientist of Beckman Research Institute, City of Hope National Medical Center, presented a talk on “Disentangling the Manifold Functions of ROR γ t: A Way to Target Autoimmune Diseases” on 6 May.

Dr. HE introduced the function and the importance of the transcription factor ROR γ t and its relationship toward the T helper 17 (T_H17) cells, which are critical for defensive immunity against extracellular bacterial and fungal infection. Dr. HE also showed how he identified several functional motifs from ROR γ t by using alanine scanning, *in vitro* differentiation and *in vivo* “knockin” mutagenesis.

Dr. HE finally concluded that his studies successfully demonstrated the possibility and importance of genetic dissection of protein functions in order to manipulate transcription factors to specifically control gene expression and cell differentiation. He also discovered the way of generating drugs precisely for targeting ROR γ t-mediated autoimmune diseases.

Seminar Series

Understanding the Regulatory Potential of Minor Spliceosome - Prof. Mikko FRILANDER



Prof. Mikko FRILANDER, Research Director of Helsinki University, presented a talk on “Understanding the Regulatory Potential of Minor Spliceosome” on 7 May.

Prof. FRILANDER introduced that humans contain approximately 700 genes that harbour typically a single minor intron. He claimed that the splicing of minor introns is less efficient than standard introns and therefore the splicing of minor introns creates a rate-limiting bottleneck for mRNA maturation. Then he started his work on investigating minor spliceosome, which is an essential nuclear machinery that is required for co-transcriptional removal of highly conserved intron sequences.

Prof. FRILANDER presented his team’s research on investigating the mechanism and regulation of the minor spliceosome activity and their understanding on the mechanistic details and gene expression consequences of human diseases caused by the dysfunction of minor spliceosome.

Seminar Series

Role of VCP/p97, an AAA-ATPase, in Cell Cycle Control - Prof. Jianbo YUE



Prof. Jianbo YUE, Associate Professor of Department of Biomedical Sciences, City University of Hong Kong, presented a talk on “Role of VCP/p97, an AAA-ATPase, in Cell Cycle Control” on 10 May.

Prof. YUE claimed that the cell cycle is a tightly regulated sequential process, and the progression of cell cycle is controlled by a cascade of protein phosphorylation and proteolysis events. Errors in these processes can lead to uncontrolled cell proliferation or chromosomal instability, which are the hallmarks of many diseases, including cancer. Therefore, he started his research on dissecting the role and molecular mechanisms of VCP mediated cell cycle regulation.

Prof. YUE shared his effort and studying on how VCP/p97 targeted the nuclear export and degradation of p27Kip1 during G1 to S phase transition in human breast cancer cells. He also studied the polo like kinase 1 (Plk1) on how it phosphorylated VCP/p97 to regulate centrosome maturation during M phase. Prof. YUE finally concluded his study that VCP is a potential therapeutic or diagnostic target for cancer.

CALL FOR APPLICATION

6th Macau Symposium on Biomedical Sciences 2019

A colorful banner for the 6th Macau Symposium on Biomedical Sciences 2019. The text "6th Macau Symposium on Biomedical Sciences 2019" is prominently displayed in a stylized font. Below it, the dates "12-13 JUNE 2019" are shown. The banner features logos for the University of Macau and the Faculty of Health Sciences, along with decorative elements like gears and a circuit board.

FHS is going to have the 6th Macau Symposium on Biomedical Sciences 2019 on 12 and 13 June, 2019, and we are now calling for posters. The theme of this year's symposium is INNOVATION.

If you are interested in presenting a poster, please follow the link or QR code for the registration and abstract submission: https://umac.au1.qualtrics.com/jfe/form/SV_0UIfC9QmVM4fsyh



Deadline for proposal submission: 15 May 2019 (Wednesday)

MAY				
Mon	Tues	Wed	Thurs	Fri
13 The first workig day after the Buddha's Birthday	14 <u>Oral Defense</u> Ms. Jingjing LI Supervisor : Prof. Lijun DI Time: 15:00 Venue: N6-G010	15 <u>Oral Defense</u> Ms. Yang YANG Supervisor : Prof. Guokai CHEN Time: 15:00 Venue: N6-2022	16 <u>Oral Defense</u> Mr. Peipei LI Supervisor : Prof. Lijun DI Time: 16:00 Venue: E12-G003 <u>FHS Postdoc/ Student Seminar</u> Host: Prof. Kin TAM and Prof. Yunlu DAI Time: 17:00-18:00 Venue: N22-G002	17
20	21 <u>Seminar Series</u> Cell Polarity and its Interplay with Aging Speaker: Dr. Wakam CHANG Time: 10:30-11:30 Venue: E12-G004	22 <u>Oral Defense</u> Ms. Chengcheng SONG Supervisor : Prof. Guokai CHEN Time: 16:00 Venue: N6-G010 <u>B-CAT Meeting #10</u> Speaker: Prof. Joong Sup SHIM Time: 17:00 Venue: E12-G004	23	24
27	28	29	30 <u>FHS Postdoc/ Student Seminar</u> Host: Prof. Ren-He XU and Prof. Joong Sup SHIM Time: 17:00-18:00 Venue: N22-G002	31