

ACADEMIC ACTIVITIES

Publication(s) of the week

1. Xu, G., Bian, C., Nie, Z., Li, J., Wang, Y., Xu, D., You, X., Liu, H., Gao, J., Li, H., Liu, K., Yang, J., Li, Q., Shao, N., Zhuang, Y., Fang, D., Jiang, T., Lv, Y., Huang, Y., Gu, R., Xu, J., **Ge, W.**, Shi, Q., and Xu, P. (2020) Genome and Population Sequencing of a Chromosome-Level Genome Assembly of the Chinese Tapertail Anchovy (*Coilia Nasus*) Provides Novel Insights into Migratory Adaptation. *Gigascience* **9** [5yr IF=7.441]
2. Hou, W., Chen, Q., Wang, H., Qiu, P., Lyu, X., Chen, W., Chua, M. L. K., Chinn, Y. E., **Deng, C. X.**, and Wang, R. (2020) The Metabolic Footprint During Adipocyte Commitment Highlights Ceramide Modulation as an Adequate Approach for Obesity Treatment. *EBioMedicine* **51**, 102605 [5yr IF=6.486]
3. Ma, R., Wong, S. W., Ge, L., Shaw, C., Siu, S. W. I., and **Kwok, H. F.** (2020) In Vitro and MD Simulation Study to Explore Physicochemical Parameters for Antibacterial Peptide to Become Potent Anticancer Peptide. *Mol Ther Oncolytics* **16**, 7-19 [5yr IF=4.906]
4. Ma, B., Luo, M., Yang, H., Li, T., Liu, W., Xu, F., Shu, C., **Chen, G.**, and Zhou, Z. (2019) Generation of a Human Induced Pluripotent Stem Cell Line (NCCDFWi001-A) from a Marfan Syndrome Patient Carrying Two FBN1 Variants (C.2613a > C and C.684_736 + 4del). *Stem Cell Res* **42**, 101690 [5yr IF=4.176]
5. Jiang, Y., Yan, F., Feng, Z., Lazarovici, P., and **Zheng, W.** (2019) Signaling Network of Forkhead Family of Transcription Factors (FOXO) in Dietary Restriction. *Cells* **9** [2018 IF=5.656]

BCAT – Prof. Jun ZHENG

Prof. Jun ZHENG reported his research about “On the Way to Battle with Antibiotic Resistance” in the BCAT meeting on 8 January. Antimicrobial resistance has become a global crisis due to its rapid emergence and spread as well as the shrinking of antibiotic pipeline. To overcome the threat by drug resistant bacterial infection, Prof. ZHENG’s lab has tried to revive the old group of aminoglycosides for treatment of infection caused by antibiotic resistance bacteria. Using genetic screening and non-targeted metabolomics profiling, his lab has discovered two mechanisms that can potentiate the killing capacity of aminoglycosides. He has also presented the detailed mechanism and proposed the potential approach to revive the clinical use of aminoglycosides in the meeting.

FHS Postdoc Student Seminar

Presented by Prof. Kathy LUO’s group and Prof. Tzu-Ming LIU’s group

On 9 January, Mr. Renfei WU of Prof. Kathy LUO’s group presented “Targeting Metastasis through Nerve Growth Factor Receptor in Triple Negative Breast Cancer Cells” and Ms. Soichan LEI of Prof. Tzu-Ming LIU’s group presented “Image Processing on Organelle Features through Fourier- and Entropy-based Analysis Methods”.

The next seminar will be held on 6 February and presented by the group members of Prof. Wenhua ZHENG and Prof. Hongjie ZHANG.



SEMINAR SERIES

Stable Isotope Tracing Reveals Metabolic Reprogramming in Cancer Cells – Prof. Shuhai LIN

Prof. Shuhai LIN, Professor of School of Life Sciences, Xiamen University, presented “Stable Isotope Tracing Reveals Metabolic Reprogramming in Cancer Cells” on 7 January.

Prof. LIN claimed that the stable isotopes of carbon (^{13}C), nitrogen (^{15}N), hydrogen (^2H) and oxygen (^{18}O) in the metabolite molecules, e.g. the specific tracers, can indicate the biochemical reactions. By using the state-of-the-art mass spectrometry and nuclear magnetic resonance spectroscopy, the stable isotope tracing reveals metabolic reprogramming in the cells. He then shared the basic principle of stable isotope tracing and metabolic heterogeneity of receptor tyrosine kinases (RTKs)-driven cancer. He also reported how his team found oncogenic RTKs activation caused distinct metabolic preference by integrating stable isotope tracing and transcriptomics. He explained that EGFR activation branched glycolysis to the serine synthesis for biosynthesis and redox homeostasis whereas FGFR addition recycled lactate to fuel oxidative phosphorylation for energy generation. Genetic alterations of EGFR and FGFR stratified the responsive tumour subsets to pharmacological inhibitors shutting down serine and lactate fluxes, respectively.

Prof. LIN concluded that his study provided the molecular link between cancer genotypes and metabolic dependency for patient stratification in metabolism-targeted therapies.



UM Open Day

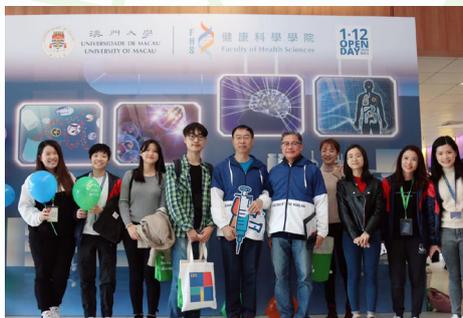
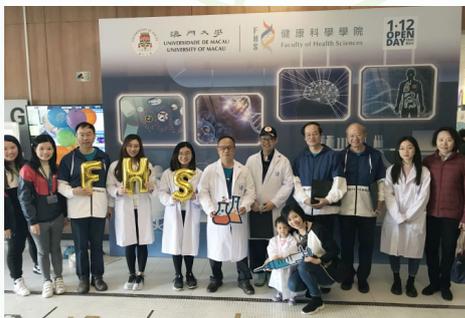
FHS welcomes around 1000 visits on UM Open Day

UM held the UM Open Day 2020 on Sunday 12 January. FHS welcomed around 1,000 visits on that day. Through the event, students and their parents, Macao residents, and residents of the Guangdong-Hong Kong-Macao Greater Bay Area learned more about the FHS by meeting our current students, checking out our facilities and approaching our staff for admission enquiries.

FHS organized a series of varied and enriched activities at E12 lobby on that day, including themed talk entitled “Insights of Biomedical Sciences”, IGEN research showcase booth, 4 game booths (Kill Harmful Bacteria, Search for Organs, Twinkle Twinkle Little Cells, Decode Gene and Observe Biological Samples), and 3 sessions of lab tours at N22. The activities offer visitors a glimpse of the various programmes and students’ research achievements.

During the themed talk, Prof. Terence Chuen Wai POON introduced the history of the faculty, the academic development, the research achievement, the curriculum structure of the programmes, etc. to the audiences.

The well-attended event offered prospective students and their families an opportunity to explore FHS’s teaching facilities and learn more about its programmes.



January 2020				
Mon	Tues	Wed	Thurs	Fri
13	14	15	16	17
		<p>Chinese New Year Gathering Time: 7:00 p.m. Venue: 氹仔漁村 TAM CHAI YU CHUN</p>	<p>Seminar Series Investigating the Induced Pluripotent Stem Cells (iPSCs) Quality and Tracing the Transcriptome Landscapes of the Human Fetal Stem Cells Speaker: Prof. Shuai GAO Host: Dr. Kai MIAO Time: 14:00-15:00 Venue: N22-G002</p> <p>Seminar Series Regulatory Mechanisms of Intestinal Homeostasis Speaker: Dr. Lei CHEN Host: Prof. Chuxia DENG Time: 15:15-16:15 Venue: N22-G002</p>	<p>Seminar Series Next-generation 3D Pathology for Precision Medicine Applications Speaker: Dr. Yen-Yin LIN Host: Prof. Tzu-Ming LIU Time: 14:30-15:30 Venue: E12-G003</p>
20	21	22	23	24
	<p>Oral Defence Zhe HU Supervisor : Prof. Wei GE Time: 10:00 Venue: N6-G010</p>	<p>B-CAT Meeting #24 Speaker: Prof. Xiaoling XU Time: 17:00 Venue: E12-G004</p>		
27	28	29	30	31
<p>Holiday The third day of the Lunar New Year</p>	<p>Holiday Compensatory rest day for Lunar New Year's Day</p>	<p>Holiday Compensatory rest day for Lunar New Year's Day</p>		