

ACADEMIC ACTIVITIES

Publications of the week

1. Huang, C. Y., Yang, S. Y., Mojtabai, R., Lin, S. K., He, Y. L., Chong, M. Y., Ungvari, G., Tan, C. H., Xiang, Y. T., Sartorius, N., Shinfuku, N., and Chen, L. Y. (2018) Trends of Polypharmacy and Prescription Patterns of Antidepressants in Asia. *J Clin Psychopharmacol*
2. Wu, X., Kosaraju, J., and Tam, K. Y. (2018) Anti-neuroinflammatory effects of SLOH in Abeta-induced BV-2 microglial cells and 3xTg-AD mice involve the inhibition of GSK-3beta. *Neurosci Lett*
3. Korkut, A., Zaidi, S., Kanchi, R. S., Rao, S., Gough, N. R., Schultz, A., Li, X., Lorenzi, P. L., Berger, A. C., Robertson, G., Kwong, L. N., Datto, M., Roszik, J., Ling, S., Ravikumar, V., Manyam, G., Rao, A., Shelley, S., Liu, Y., Ju, Z., Hansel, D., de Velasco, G., Pennathur, A., Andersen, J. B., O'Rourke, C. J., Ohshiro, K., Jogunoori, W., Nguyen, B. N., Li, S., Osmanbeyoglu, H. U., Ajani, J. A., Mani, S. A., Houseman, A., Wiznerowicz, M., Chen, J., Gu, S., Ma, W., Zhang, J., Tong, P., Cherniack, A. D., Deng, C., Resar, L., Cancer Genome Atlas Research, N., Weinstein, J. N., Mishra, L., and Akbani, R. (2018) A Pan-Cancer Analysis Reveals High-Frequency Genetic Alterations in Mediators of Signaling by the TGF-beta Superfamily. *Cell Syst*
4. Lyu, P., Ge, L., Ma, R., Wei, R., McCrudden, C. M., Chen, T., Shaw, C., and Kwok, H. F. (2018) Identification and pharmaceutical evaluation of novel frog skin-derived serine proteinase inhibitor peptide-PE-BBI (Pelophylax esculentus Bowman-Birk inhibitor) for the potential treatment of cancer. *Sci Rep* **8**, 14502
5. Wei, R., Guo, L., Wang, Q., Kwok, H. F., and Lin, Y. (2018) Targeting PD-L1 protein: translation, modification and transport. *Curr Protein Pept Sci*
6. Xue, M., Wang, D., Zhang, Z., Cao, Z., Luo, Z., Zheng, Y., Lu, J., Zhao, Q., and Zhang, X. D. (2018) Demonstrating the Potential of Using Transcutaneous Oxygen and Carbon Dioxide Tensions to Assess the Risk of Pressure Injuries. *Int J Biol Sci* **14**, 1466-1471
7. Zhang, Q. E., Ling, S., Li, P., Zhang, S., Ng, C. H., Ungvari, G. S., Wang, L. J., Lee, S. Y., Wang, G., and Xiang, Y. T. (2018) The association between urinary Alzheimer-associated neuronal thread protein and cognitive impairment in late-life depression: a controlled pilot study. *Int J Biol Sci* **14**, 1497-1502
8. Zhang, Q. E., Wang, F., Qin, G., Zheng, W., Ng, C. H., Ungvari, G. S., Yuan, Z., Mei, S., Wang, G., and Xiang, Y. T. (2018) Depressive symptoms in patients with irritable bowel syndrome: a meta-analysis of comparative studies. *Int J Biol Sci* **14**, 1504-1512
9. Zhang, S. L., Yang, Z., Hu, X., and Tam, K. Y. (2018) Dichloroacetophenones targeting at pyruvate dehydrogenase kinase 1 with improved selectivity and antiproliferative activity: Synthesis and structure-activity relationships. *Bioorg Med Chem Lett*
10. Zhang, Z., Wang, Y., Zhang, Q., Zhao, W., Chen, X., Zhai, J., Chen, M., Du, B., Deng, X., Ji, F., Wang, C., Xiang, Y., Li, D., Wu, H., Dong, Q., Chen, C., and Li, J. (2018) The effects of CACNA1C gene polymorphism on prefrontal cortex in both schizophrenia patients and healthy controls. *Schizophr Res*
11. Zou, J., Zhang, W., Zhang, H., Zhang, X. D., Peng, B., and Zheng, J. (2018) Studies on Aminoglycoside Susceptibility Identify a Novel Function of KsgA To Secure Translational Fidelity during Antibiotic Stress. *Antimicrob Agents Chemother* **62**

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B-CAT Meeting:

The role of Angiotensin receptor and G protein-coupled receptor kinases in ovarian cancer

At the B-CAT meeting on 3 October, Prof. Leo LEE presented the recent research from his lab about the role of G protein-coupled receptor on ovarian cancer. In the first part of the presentation, Prof. LEE discussed the role of angiotensin II (ANGII) and its receptor (AGTR1) in ovarian cancer metastasis. The data from his study demonstrated that ANGII promotes the multicellular spheroid formation and peritoneal metastasis of ovarian cancer cells. The activation of AGTR1 increases lipid desaturation by upregulation of stearoyl-CoA desaturase-1 (SCD1), which ultimately reduces endoplasmic reticulum stress. This mechanism explains the association between high levels of AGTR1 and poor clinical outcomes in ovarian cancer patients.

In the second part, Prof. LEE discussed the potential role of G protein-coupled receptor kinases (GRKs) in ovarian cancer. Among all GRKs, the clinical data suggested a potential association between GRK2 and GRK6 in ovarian cancer. The low expression of GRK2 is associated with poor clinical outcomes, while GRK6 appears to have the opposite effect. The recent data from his lab also suggested that the relationship between the GRKs and the cell migration, cell adhesion and spheroid formation in ovarian cancer cell lines and xenograft model. Regarding cell signaling, GRK2 and GRK6 have opposite effects on the β -arrestin recruitment. Therefore, the difference between GRK2 and GRK6 in β -arrestin signaling may lead to different effects on

Seminar Series

The ecology and evolution of cancer: The ultra-microevolutionary process - Prof. Chung-I WU



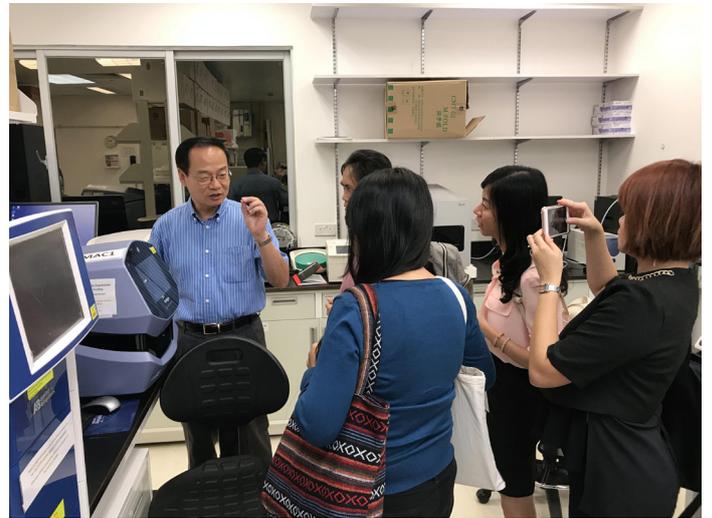
Prof. Chung-I WU, Professor and Former Chair of University of Chicago, visited FHS on 5 October and shared his interesting view on using evolution theories in cancer research in a talk titled “The ecology and evolution of cancer: The ultra-microevolutionary process”.

Species formation and natural selection are the main research directions of Prof. WU. His studies included molecular evolution, population genetics, evolutionary genomics, and cancer genomics. He has made outstanding contributions to the formation of genes, the genetic basis of natural selection, and the theory of cancer evolutionary selection. He brought the study of the origin of species to the DNA level to observe the role of natural selection, and brought the study of natural selection to the genome-wide level, affirming the widespread existence of natural selection.

FHS News

Students from Tsun Jin High School, Malaysia visited FHS lab

On 3 October, Prof. Wei GE led a laboratory visit for the students from Tsun Jin High School, Malaysia. During the visit, Prof. GE introduced FHS history, research, equipment and facilities. It was an excellent opportunity for the prospective students to learn more about FHS and the University of Macau.



OCTOBER / NOVEMBER

Mon	Tues	Wed	Thurs	Fri
8	9	10 Seminar Series New Type of Quinones as a Bioreductive Antitumor Drug Prof. Lev WEINER Time: 15:00-16:00 Venue: E12-G004	11	12
15 Seminar Series Visualizing diseases and drugs in action for optimized treatment: Applications of molecular imaging in the era of precision medicine Prof. Yiyun HUANG Time: 11:00-12:00 Venue: E12-G004	16	17 Chong Yeung Festival	18 FHS Postdoc/ Student Seminar Series Host: Edwin CHEUNG, Leo LEE Time: 17:00 Venue: TBC	19
22	23	24	25	26
The 8 th National Conference on Bioinformatics and Systems Biology of China and the 1 st (Macao) International Bioinformatics Symposium				
		Seminar Series Development of Red/ NIR emissive optical nanoprobes for bioimaging and disease theranostics Prof. Pengfei ZHANG Time: 10:00-11:00 Venue: E12-G004		
		B-CAT Meeting #28 Prof. Li WANG Time: 17:00 Venue: E12-G004		
29	30	31	1	2 All Soul's Day