

ACADEMIC ACTIVITIES

Seminars #6

On 26 Feb, Prof. Valter SERGO from Materials Science and Chemistry at the University of Trieste (Italy) delivered a seminar titled “Vibrational spectroscopy in life sciences: from cells to tissues”.

Prof. SERGO introduced the foundations of the technique of Raman Spectroscopy and Surface-Enhanced Raman Spectroscopy (SERS) for life science applications and the method of Raman imaging. He also presented several cases of the advantageous uses of the Raman effect in life science issues, such as possibility of cancer screening through Raman/SERS spectroscopy.



Seminars #7

On 27 Feb, Dr. Yunlu DAI from National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health of USA delivered a seminar titled “Upconversion and metal phenolic nanoparticles for cancer theranostics”.

Dr. DAI introduced they have developed various theranostic nanoplatforms based on the upconversion nanoparticles and metal-polyphenol networks (MPNs): (I) the platinum prodrug activity can be controlled by the near-infrared light with the help of upconversion nanoparticles; (II) the reactive oxygen species (ROS) enhanced theranostic platform has been designed via a biocompatible MPNs self-assembly process; (III) myeloperoxidase (MPO) was encapsulated in the MPNs with platinum prodrugs polyphenols for hypochlorite promoted chemotherapy. Their results demonstrated that both the upconversion nanoparticles and MPNs are promising candidates for cancer theranostics.



Seminars #8

On 28 Feb, Prof. Yutao XIANG of our Faculty delivered a seminar titled “Depression, not far away from us”.

Depression is common in the general population, particularly in university students. It may result in a health decline, like poor concentration, sadness, loss of interest or pleasure, disturbed sleep or appetite, feelings of tiredness, feelings of guilt or low self-worth, cognitive impairment, poor work performance and even increase risk of certain medical conditions, such as heart disease and cancer. Identifying depression and receiving treatment at early stage may help to improve the prognosis of this disorder. Prof. XIANG introduced the epidemiology and common clinical features of depression as well as pharmacotherapy and psychosocial interventions.



B-CAT Meeting #12

On 28 Feb, Dr. Kaeling TAN gave a presentation at the B-CAT meeting on "Mining Treasures from Fungi."

Kaeling presented works by Zhiqiang DONG and Niranjan SHIRGAONKAR on "Identification and characterization of non-essential kinases in *Aspergillus nidulans*". She explained the use of a cost-effective and systematic transcriptional profiling approach to analyze and characterize the kinase deletion mutants and how this work may reveal the functions of putative kinase and additional functions for known ones. Also, works by Shuhui GUO on "Discovery of new Secondary metabolites in *Aspergillus nidulans*" are presented. The study of secondary metabolites has been challenging. Genetics and transcriptional profiling approaches are used to overcome this problem in hope to discover new and useful secondary metabolites.

Publications of the week

1. Yang, Z., and Tam, K. Y. (2018) Combination Strategies Using EGFR-TKi in NSCLC Therapy: Learning from the Gap between Pre-Clinical Results and Clinical Outcomes. *Int J Biol Sci* 14, 204-216
2. Yu, S., Sun, L. T., Jiao, Y. F., and Lee, L. T. O. (2018) The Role of G Protein-coupled Receptor Kinases in Cancer. *Int J Biol Sci* 14, 189-203
3. Zheng, W., Zhang, Q. E., Cai, D. B., Yang, X. H., Ungvari, G., Ng, C., Wu, R. R., and Xiang, Y. T. (2018) Combination of Metformin and Lifestyle Intervention for Antipsychotic-Related Weight Gain: A Meta-Analysis of Randomized Controlled Trials. *Pharmacopsychiatry*
4. Zhao, M., Mishra, L., and Deng, C. X. (2018) The role of TGF-beta/SMAD4 signaling in cancer. *Int J Biol Sci* 14, 111-123

STUDENT ACTIVITIES

Lunch Meeting with Rector

Ten FHS students were invited to have a lunch meeting with our Rector on 1 Mar. At the meeting, students shared their opinions and thoughts about the University life and learning. They also understood the plans of the University through talking with Rector. They said this is a good experience for them.

SEMINARS #9 and #10

Title: Novel telomerase inhibitors

Speaker: Vinay TERGAONKAR

Institute of Molecular and Cell Biology,
Singapore

Date: 5 Mar 2018 (Mon)

Time: 10:00 - 11:00 am

Venue: E12 - G004

Title: Reserve stem cell and drug-resistant cancer stem cells

Speaker: Linheng LI

Stowers Institute for Medical Research

University of Kansas Medical Center, USA

Date: 5 Mar 2018 (Mon)

Time: 4:00 - 5:00 pm

Venue: E12 - G004

B-CAT MEETING #13

Prof. LI is going to deliver his talk at the upcoming B-CAT meeting on **7 Mar (Wed)**.