The Hong Kong University of Science and Technology
Division of Life Science
LIFS 5710
Cellular Regulation
(2020/21 Fall Semester)

Course Description

This course will cover advanced topics on cellular regulation that include transcriptional regulation, miRNA biogenesis and regulation, and protein trafficking.

Learning Outcomes

By the end of this course, you will be able to:
1. Understand the latest concepts in selected cellular processes and the basic mechanisms underlying these processes.
2. Have a general appreciation of how new discoveries can impact detection and treatment of diseases.
3. Acquire the ability to apply the knowledge learnt in this course to problem solving in your own research.

Date/Time: 12:00 PM-14:50 PM (Thursday)
Instructors:

Prof. Hyokeun Park (HKP) (Ext. 7322, E-mail: hkpark@ust.hk) **(Course Coordinator)**
Prof. Toyotaka Ishibashi (TI) (Ext. 2238, E-mail: toyotaka@ust.hk)
Prof. Yusong Guo (YSG) (Ext. 2492, E-mail: guoyusong@ust.hk)
Prof. Zhenguo Wu (ZW) (Ext. 8704, E-mail: bczgwu@ust.hk)

Date	Lecture	Instructor
Sept 10	Exocytosis and Endocytosis – I	HKP
Sept 17	Exocytosis and Endocytosis – II	HKP
Sept 24	Mechanisms of transcriptional regulation – I	TI
Oct 8	Mechanisms of transcriptional regulation – II	TI
Oct 15	Muscle stem cells, muscle differentiation and muscle regeneration - I	ZW
Oct 22	Muscle stem cells, muscle differentiation and muscle regeneration - II	ZW
Oct 29	Vesicle trafficking at the Golgi apparatus - I	YSG
Nov 5	Vesicle trafficking at the Golgi apparatus - II	YSG
Nov 12	Student presentations	HKP
Nov 19	Student presentations	TI
Nov 26	Student presentations	YSG
Dec 3	Student presentations	ZW
TBD	Written Examination	

***Grading method**:*
The oral presentation will account for 60% of the final score. Each student will be assigned a paper as the presenter and a paper as the reader. Readers will prepare at least 2 critical questions for the presenter. Students who volunteer questions will get bonus points of up to

5%. Students are also required to give an evaluation score for each presentation. 10% of the final score will be based on student evaluations.

In addition, a written examination, which will account for the remaining 40% of the final score, will be given at the end of the semester. One Q&A type question will be given by each instructor for the written exam.