

**The Hong Kong University of Science and Technology**  
**Division of Life Science**  
**LIFS 5710**  
**Cellular Regulation**  
*(2021/22 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)

**Venue:** G003, CYT Building

**Instructors:**

Prof. Zhenguo Wu (ZW) (Ext. 8704, E-mail: [bczgwu@ust.hk](mailto:bczgwu@ust.hk))

**(Course Coordinator)**

Prof. Hookeun Park (HKP) (Ext. 7322, E-mail: [hkpark@ust.hk](mailto:hkpark@ust.hk))

Prof. Yukinori Hirano (YH) (Ext. 8031, E-mail: [yukinori@ust.hk](mailto:yukinori@ust.hk))

Prof. Yusong Guo (YSG) (Ext. 2492, E-mail: [guoyusong@ust.hk](mailto:guoyusong@ust.hk))

<b>Date</b>	<b>Lecture</b>	<b>Instructor</b>
Sept 2	Exocytosis and Endocytosis – I	HKP
Sept 9	Exocytosis and Endocytosis – II	HKP
Sept 16	Transcriptional regulation - I	YH
Sept 23	Transcriptional regulation - II	YH
Sept 30	Muscle stem cells, muscle differentiation and muscle regeneration - I	ZW
Oct 7	Muscle stem cells, muscle differentiation and muscle regeneration - II	ZW
Oct 14	Vesicle trafficking at the Golgi apparatus - I	YSG
Oct 21	Vesicle trafficking at the Golgi apparatus - II	YSG
Oct 28	Preparation for student presentations	
Nov 4	Student presentations	HKP
Nov 11	Student presentations	YH
Nov 18	Student presentations	YSG
Nov 25	Student presentations	ZW
TBD	Written Examination	

***Grading method:***

*The oral presentation (20 min presentation and 10 min Q&A) 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 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.*