

**The Hong Kong University of Science and Technology**  
**Division of Life Science**  
**LIFS 5710**  
**Cellular Regulation**  
*(2023/24 Fall Semester)*

**Course Description**

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

**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:** 15:00 PM-17:50 PM (Thursday)

**Venue:** Room G003, CYT Bldg

**Instructors:**

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

**(Course Coordinator)**

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

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

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

Prof. Yi Liao (Ext. 7922, E-mail: [liaoy@ust.hk](mailto:liaoy@ust.hk))

A=15:00 PM-16:20PM, B=16:30 PM-17:50 PM

Date	Lecture	Instructor
Sept 7 A,B	Vesicle trafficking at the Golgi apparatus - I	YSG
Sept 14 A	Vesicle trafficking at the Golgi apparatus - II	YSG
Sept 14 B	Transcriptional regulation – I	YH
Sept 21 A,B	Transcriptional regulation – II	YH
Sept 28 A,B	Muscle stem cells, muscle differentiation and muscle regeneration – I	ZW
Oct 5 A	Muscle stem cells, muscle differentiation and muscle regeneration - II	ZW
Oct 5 B	Exocytosis and Endocytosis – I	HKP
Oct 12 A,B	Exocytosis and Endocytosis – II	HKP
Oct 19 A, B	Dynamic properties of biological networks	YL
Oct 26 A	Dynamic properties of biological networks	YL
Nov 2	Student presentations	YH
Nov 9	Student presentations	YSG
Nov 16	Student presentations	ZW
Nov 23	Student presentations	HKP
Nov 30	Student presentations	YL

TBD	Written Examination	
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***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.*