2026/7/17 version 1

115Advanced Cell-1 Advanced Cell Biology-1 高等細胞生物學

Class Time: 1:10 ~ 4:00 PM, Wednesdays

Language: Mandarin
Classroom: Rm 602 at NCKU Medical College
Coordinator: 吳梨華老師 (Ext. 3618)

Goals: Familiarize students with the fundamentals of cell biology and the application of this knowledge in addressing both basic and clinical research questions. To this end, students would know the basics of fundamental cell biology and how to apply what they learn in addressing cell biology-related questions arising in the research field of their interest, including cancer biology, immunology, neurobiology, microbial pathology, and developmental biology.

Format: Divided into two parts: 1st on the fundamentals of cell biology and contemporary cell biology technology, and 2nd on the applied knowledge in cell differentiation, organogenesis, embryonic development, immunity, pathogen-host interaction, neurosciences, and cancer. Each lecture will be delivered by the instructors with their expertise in the field. Problem-based assignments may be given before or after the lecture via **Moodle.**

Materials: Molecular Biology of the Cell by Alberts B et al (recent editions) and the relevant published materials given by each lecturer

Attention: No leaves should be requested during the mid-term and final exams.

Grading Criteria:

方法	百分比(%)	閱讀、理解與運用專業知識	彙整新知與良好的溝通能力	解決研究問題的能力
準時出席與參與課程 Q/A 討論	20	V	V	V
PBL assignment and panel discussion	20	V	V	V
期中考 Midterm Exam	30	V	V	V
期末考 Term exam	30	V	V	V

課程進度 Course Progress Outline

日期	週次 Week	進度說明 Progress Description	Lecturer
9/9	1	Course overview	吳梨華/Wu, Li-Wha
9/16	2	Cell biology-related tools	吳梨華/Wu, Li-Wha
9/23	3	Plasma membrane	蔣輯武/Chiang, Chi-Wu
9/30	4	Cytoskeleton and cell movement	蔣輯武/Chiang, Chi-Wu
10/7	5	Endomembrane systems and organelles	蔣輯武/Chiang, Chi-Wu
10/14	6	Cell cycle and its control system	陳韻雯/Chen, Yun-Wen
10/21	7	Cell death	吳梨華/Wu, Li-Wha
10/28	8	Cell adhesion and extracellular matrix	陳粲然/Chen, Tsan-Jan
11/4	9	Mid-term exam	吳梨華/Wu, Li-Wha
11/11	10	School holiday	
11/18	11	Cell-cell communication	陳威宇/Chen, Wei-Yu
11/25	12	Germ cells and fertilization	王竹安/ Wang, Chu-An
12/2	13	Development and organogenesis	黃湘琦/ Huang, Hsiang-Chi
12/9	14	Immunity	王憲威/Wang, Shainn-Wei
12/16	15	Nervous system	朱俊憲/Chu, Chun-Hsien
12/23	16	Pathogen and host interaction	鄧景浩/Teng, Ching-Hao
12/30	17	Cancer	吳梨華/Wu, Li-Wha
1/6/2027	18	Final exam	吳梨華/Wu, Li-Wha