

Molecular Medicine Program – 2022 Molecular Medicine Syllabus

Molecular Medicine is a required course for students in Molecular Medicine Program. The lecture course integrates genetics, genomics, and molecular biology approaches to elucidate the pathogenesis of human diseases, and is intended to encourage students to unravel novel disease mechanism for improving management of human diseases.

Credits: 3 (Required; lectured in English)

Time: Tuesday 1:30 – 4:20 pm, Sep. 13 ~ Dec. 20, 2022

Classroom: 8F, TIGP classroom, IBMS, Academia Sinica

Coordinator: Dr. Woan-Yuh Tarn, IBMS

Evaluation: Both the midterm exam and final exam are take-home exams (50% each). 3-4 question sets have to be answered in the exam, question sets will be picked by students.

Category	Class	Date	Topic	Lecturer		Contact
From Gene to Disease	1	2022/9/13	Bioinformatics and Epidemiology	Dr. Ueng-Cheng Yang	楊永正	uyang@nycu.edu.tw
	1			Dr. Chien-Hsiun Chen	陳建勳	chchen@ibms.sinica.edu.tw
	2	2022/9/20	Structural Biology: From Basis to Disease	Dr. Jie-Rong Huang	黃介巒	jierongh@nycu.edu.tw
	3	2022/9/27	Mouse Development and Diseases	Dr. Yu-Ting Yan	顏裕庭	yyan@ibms.sinica.edu.tw
	4	2022/10/4	Non-mammalian Vertebrates as Disease Models	Dr. Shih-Lei Lai	賴時磊	ben.s.lai@ibms.sinica.edu.tw
Cancer	5	2022/10/11	Cancer Biology	Dr. Shu-Ping Wang	王書品	spwang@ibms.sinica.edu.tw
				Dr. Yu-Ru Lee	李育儒	yrlee@ibms.sinica.edu.tw
	6	2022/10/18	Cancer Genomics	Dr. Ling-Hui Li	李玲慧	lli@ibms.sinica.edu.tw
Infectious Diseases and Immunology	7	2022/10/25	The Immune System	Dr. Ivan Dzhagalov	葛一樊	ivan.dzhagalov@nycu.edu.tw
	8	2022/11/1	The Mucosal System	Dr. Ya-Jen Chang	張雅貞	yajchang@ibms.sinica.edu.tw
	8			Dr. Jr-Wen Shui	徐志文	jshui@ibms.sinica.edu.tw
	9	2022/11/8	Infectious Diseases: Bacteria and Virus	Dr. Shir-Ly Huang	黃雪莉	sl.huang@nycu.edu.tw
	9			Dr. Kevin Tsai (pre-recorded video release on 10/11 and open for Q&A on 10/18 at 16:20)	蔡松智	kevtasai@ibms.sinica.edu.tw
Midterm Exam (11/8-11/15 take home exam)						
Neurological Diseases	10	2022/11/15	Neurological Diseases	Dr. Chih-Cheng Chen	陳志成	chih@ibms.sinica.edu.tw
	10			Dr. Tang K. Tang	唐堂	tktang@ibms.sinica.edu.tw
Therapeutics	11	2022/11/22	Therapeutic Nanoparticles	Dr. Che-Ming Hu	胡哲銘	chu@ibms.sinica.edu.tw
Cardiovascular Diseases	12	2022/11/29	Cardiovascular Diseases	Dr. Kai-Chien Yang	楊鑑鍵	kcyang@ntu.edu.tw
	12			Dr. Song-Kun Shyue	徐松鋐	skshyue@ibms.sinica.edu.tw
Neurological Diseases	13	2022/12/6	Ion Channel Diseases: Channelopathies	Dr. Shi-Bing Yang	楊世斌	sbyang@ibms.sinica.edu.tw
	13			Dr. Wan-Chen Lin	林宛蓁	wchlin@ibms.sinica.edu.tw
Therapeutics	14	2022/12/13	Cancer Immunotherapy	Dr. Shih-Yu Chen	陳世湧	sychen@ibms.sinica.edu.tw
	14			Dr. Chia-Wei Li	李家偉	cwli@ibms.sinica.edu.tw
	15	2022/12/20	Stem Cell Biology and Therapy	Dr. Hung-Chih Kuo	郭毓志	kuohuch@gate.sinica.edu.tw
Final Exam (12/20-12/27 take home exam)						