

**The University of Hong Kong
Department of Pathology**

**Master of Molecular and Diagnostic Pathology
Molecular Pathology, Course 1**

MMDP7001 Principles and Techniques of Molecular Pathology

Course Coordinators: Prof. US Khoo & Prof. Judy Yam

7-8 October 2023

Venue: Room 035, 6/F, Block T, Queen Mary Hospital

Saturday, 7 October, 2023		Venue: T06-035
Time	Topics	Lecturers
9.00 am - 9.30 am	Opening remarks	Prof. US Khoo
9.30 am - 11.00 am	Techniques of molecular pathology- RNA, DNA and protein analysis	Prof. Judy Yam
11.00 am - 12.15 pm	Introduction to diagnostic molecular pathology tests	Prof. Annie Cheung
Lunch break (45-mins)		
1.00 pm - 2.45 pm	Basic concepts in conventional cytogenetics and molecular cytogenetics	Prof. Thomas Wan
2.45 pm - 4.15 pm	In-situ hybridization techniques- ISH, FISH, CISH and SISH	Prof. Thomas Wan & Mr. Stephen Lo
Tea break (15-mins)		
4.30 pm - 5.30 pm	Human identity by DNA typing	Dr. Philip Beh

Sunday, 8 October, 2023		Venue: T06-035
Time	Topics	Lecturers
9.00 am - 10.00 am	Laboratory management and ethical issues in molecular testing- Laboratory organization	Prof. Annie Cheung
10.00 am - 11.30 am	Principles and applications of flow cytometry	Dr. Ricky Ip
Tea break (15-mins)		
11.45 am - 12.30 pm	Emerging technologies- Gene expression profiling and next generation sequencing	Dr. Kelvin Chan
12.30 pm - 1.15 pm	Laboratory management issues in molecular testing - Laboratory safety	Prof. Judy Yam
Lunch break (45-mins)		
2.00 pm - 3.30 pm	Principles and applications of Quantitative-PCR	Dr. Chris Chan
3.30 pm - 5.00 pm	Principles of automated DNA sequencing and various methods of genotyping and mutation analysis	Dr. Chris Chan
Practical Session (To be scheduled in February 2024)		

Saturday, 4 November, 2023	
(Deadline)	Self Assessment Exercises
10:00 am - 10:00 pm	MCQ Quiz (online)