

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

**Master of Molecular and Diagnostic Pathology
Molecular Pathology Practical Session**

Date: February 24, 2024 (Saturday)

Time: 9:00 am - 5:00 pm

Venue: Teaching Laboratory, Room 02-019, Block T, Queen Mary Hospital

Teacher in charge: Prof Judy Yam, Dr Kelvin Chan

Technician in charge: Ms Aki Tse

Research postgraduate student helper: Samuel, Shiyun, Tiffany, Charlotte, Claudia

Group 1	Group 2	Group 3
Dr. Chiew Seow Fan	Dr. But Ho Yin Leo	Dr. Chew Man Fong
Dr. Cheng Tung	Dr. Dy Arnel Christian King	Dr. Danguilan Maria Cecilia Medalla
Dr. Latoy Michelle Anne	Dr. Manaois Herbert Zulueta	Dr. Noh Jinalyn Tuyor
Dr. Santiago Rex Michael Cortes	Dr. Tee Yee Sze	Dr. Wong Wing Fung
Mr. Au-Yeung Derek Jones	Miss Chan Ying Wai	Mr. Chan Kwan Ho Ambrose
Ms. Lau Sin Yu	Mr. Lo Chun Leung	Mr. Mok Ka Ho
Group 4	Group 5	
Dr. Arevalo Alejandro Esquieres	Dr. Go Carl Chester Floyd	
Dr. Ho Chiak Vun	Dr. Koa Warren Welby	
Dr. Ocampo Lynette Marie Casingal	Dr. Ong David Jerome Palmero	
Miss Chiu Wing Ki	Ms. Kuoc Alice Ka In	
Mr. Ng Wai Tak	Mr. Yau Siu Kei	
Mr. Yuen Ka Yiu		

Prof Khoo: Welcome and brief introduction to the week

AM:	Briefing	
	Extraction of RNA / DNA and set up of RT and PCR reaction	
	<p>RNA extraction</p> <p>1. Extract RNA from cell culture using QIAamp RNA Blood Mini Kit (Protocol A)</p> <p>Set RT and PCR</p> <p>2. Set RT reaction with RNA provided [BCR-ABL] (Protocol D)</p> <p>3. Set PCR reaction with RT reaction product [BCR-ABL] (Protocol E)</p>	<p>DNA extraction</p> <p>4. Extract DNA from cell culture using QIAamp DNA Blood Kit (Protocol B)</p> <p>Set PCR</p> <p>5. <u>Set PCR reaction with DNA provided</u> [G6PC] (Protocol E)</p>
PM:	Briefing on agarose gel electrophoresis	
	To check integrity of extracted RNA / DNA	To analyze PCR products size and quality
	<p>6. Load RNA / DNA extracted from whole blood onto agarose gel (Protocol C)</p> <p>7. Visualize gel image and examine result</p>	<p>8. Load PCR products onto agarose gel (Protocol C)</p> <p>9. Visualize gel image and examine result</p>

**The University of Hong Kong
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**Master of Molecular and Diagnostic Pathology
Molecular Pathology Practical Session**

Date: February 25, 2024 (Sunday)

Time: 9:00 am - 5:00 pm

Venue: Teaching Laboratory, Room 02-019, Block T, Queen Mary Hospital

Teacher in charge: Prof Jack Wong

Technician in charge: Ms Joyce Lee

Research postgraduate student helper: Mengna, Yujie, Hao, Yue, Chanping

Group 1	Group 2	Group 3
Dr. Chiew Seow Fan	Dr. But Ho Yin Leo	Dr. Chew Man Fong
Dr. Cheng Tung	Dr. Dy Arnel Christian King	Dr. Danguilan Maria Cecilia Medalla
Dr. Latoy Michelle Anne	Dr. Manaois Herbert Zulueta	Dr. Noh Jinalyn Tuyor
Dr. Santiago Rex Michael Cortes	Dr. Tee Yee Sze	Dr. Wong Wing Fung
Mr. Au-Yeung Derek Jones	Miss Chan Ying Wai	Mr. Chan Kwan Ho Ambrose
Ms. Lau Sin Yu	Mr. Lo Chun Leung	Mr. Mok Ka Ho
Group 4	Group 5	
Dr. Arevalo Alejandro Esquieres	Dr. Go Carl Chester Floyd	
Dr. Ho Chiak Vun	Dr. Koa Warren Welby	
Dr. Ocampo Lynette Marie Casingal	Dr. Ong David Jerome Palmero	
Miss Chiu Wing Ki	Ms. Kuoc Alice Ka In	
Mr. Ng Wai Tak	Mr. Yau Siu Kei	
Mr. Yuen Ka Yiu		

AM:	Briefing
	Formalin-fixed paraffin embedded tissue (FFPE) micro-dissection, DNA sequencing, qPCR
	<ol style="list-style-type: none"> 1. Set sequencing reaction [G6PC] (Protocol G) 2. Demonstrate micro-dissection of FFPE by Annie Chan 3. Explain procedure of DNA extraction from FFPE (Protocol F) 4. Set qPCR reaction [DLC1] (Protocol H)
PM:	Briefing
	FFPE micro-dissection, analysis of qPCR and DNA sequencing results
	<ol style="list-style-type: none"> 5. Resolve DNA extracted from FFPE (sample to be provided) using agarose gel electrophoresis 6. Practice micro-dissection of FFPE 7. Visualize gel image and examine the integrity of the extracted DNA 8. Analyze qPCR result and sequencing results 9. Demonstrate DNA sequencing result analysis

**The University of Hong Kong
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**Master of Molecular and Diagnostic Pathology
Molecular Pathology Practical Session**

Date: February 26, 2024 (Monday)

Time: 9.30 am – 5.00 pm

Venue: Room 035, 6/F, Block T, QMH

Part I: Sequencing interpretation for different molecular tests with individual teachers (ALL students)			
9.30 – 9.40 am	Briefing Session		Prof Judy Yam
9.40 - 10.30 am	BCR-ABL1 kinase domain mutation detection		Prof Albert Sin
<i>Break</i>			
10.50 - 11.40 am	Analysis and interpretation of new tests in lung cancer management		Dr Lo Kong Chan
11.40 - 12.30 pm	Genetic testing for a rare disease		Prof CW Lam
<i>Lunch</i>			
Part II: Lab visit (Rotate 2 groups of 14-15 students per group, to the following 3 activities) (lead by Wai/Andrew)			
	#Group A	#Group B	Gathering Venue
2.00 - 3.00 pm	HBV Q PCR (T06-035 -> T06-041)	Flow cytometry (T06-035 -> T14-004)	Room 035, 6/F, Block T, QMH
3.00 - 4.00 pm	Flow cytometry (T06-041-> T14-004)	HER2 FISH and HPV (T14-004 -> T10-034)	
4.00 - 5.00 pm	HER2 FISH and HPV (T14-004 -> T10-034)	HBV Q PCR (T10-034 ->T06-035-> T06->041)	
HBV Q PCR (T06-041) by Dr Danny Wong Flow cytometry (T14-004) by Dr Ricky Ip HER2 FISH and HPV testing (T10-034) by Ms Obe Tsun			

Group List for Part II

Group A (15 students)	
Dr.	Chiew Seow Fan
Dr.	Cheng Tung
Dr.	Latoy Michelle Anne
Dr.	Santiago Rex Michael Cortes
Ms.	Lau Sin Yu
Dr.	But Ho Yin Leo
Dr.	Tee Yee Sze
Dr.	Manaois Herbert Zulueta
Miss	Chan Ying Wai
Mr.	Lo Chun Leung
Dr.	Go Carl Chester Floyd
Dr.	Koa Warren Welby
Dr.	Ong David Jerome Palmero
Ms.	Kuoc Alice Ka In
Mr.	Yau Siu Kei

Group B (14 students)	
Dr.	Chew Man Fong
Dr.	Danguilan Maria Cecilia Medalla
Dr.	Noh Jinalyn Tuyor
Dr.	Wong Wing Fung
Mr.	Chan Kwan Ho Ambrose
Mr.	Mok Ka Ho
Dr.	Arevalo Alejandro Esquieres
Miss	Chiu Wing Ki
Mr.	Yuen Ka Yiu
Dr.	Ho Chiak Vun
Dr.	Ocampo Lynette Marie Casingal
Mr.	Au-Yeung Derek Jones
Dr.	Dy Arnel Christian King
Mr.	Ng Wai Tak