

# 1<sup>st</sup> UM-CUHK Certificate Course in Clinical Genetics and Genomics

'Integrating clinical (prenatal and postnatal) and laboratory genetics and genomics'

## Co-organizers:

Department of Pediatrics, Faculty of Medicine, University of Malaya & Department of Obstetrics and Gynecology, The Chinese University of Hong Kong

**11<sup>th</sup> – 13<sup>th</sup> July 2017**  
**(Tuesday-Thursday)**  
**0830 - 1800**  
**CUBE, Faculty of Medicine,**  
**University of Malaya,**  
**Kuala Lumpur, Malaysia**

## Who should attend?

Geneticists, Paediatricians, Obstetricians, Gynaecologists, Researchers, Clinical Specialists, Medical Officers, Nurses and Trainees

## International instructors

**Prof. Dr. Leung Tak Yeung**  
The Chinese University of Hong Kong



**Prof. Dr. Richard Choy Kwong Wai**  
The Chinese University of Hong Kong



**Prof. Dr. Carlos A. Bacino**  
Baylor College of Medicine, USA



## TOPICS

- Basic genetics to genomes
- Disorders in sex development & urogenital tract
- Pathogenesis and inheritance of diseases
- Neurogenetic diseases & Inborn Error of Metabolism
- Cardiac diseases
- Genetic and genomic technology
- Growth disorders and Facial dysmorphism
- Clinical skills and population genetics
- Cancer genetics & hematological diseases
- Musculo-Skeletal disorders
- Legal and ethical issues

Registration will close once the 50 places are allocated

A certificate of completion of course by UM-CUHK will be awarded to every participant

## Registration Fee

	Early birds (Before 15 <sup>th</sup> June 2017)	Normal rate
Clinical specialists / Consultants /	RM 800	RM1000
Nurses / Trainees / Students / Para-medical / Others	RM700	RM800

Please register via Google Forms, by the link below:

<https://goo.gl/forms/FltLuCxQb77YsTZD3>

Payable in Ringgit Malaysia (RM) to by :

1) Bank transfer to;

**Bank Account name** : Universiti Malaya  
**Bank Account number** : 80-0127999-8  
**Bank** : CIMB Bank  
**Recipient ref.** : umgenetic2017

2) Payment by PO Or Money Order to **BENDAHARI UNIVERSITI MALAYA**

**Kindly email the payment receipt to** [umgeneticcourse2017@gmail.com](mailto:umgeneticcourse2017@gmail.com)

3) Cash: Payment by cash before 19<sup>th</sup> June 2017

## Enquiry

Email : [umgeneticcourse2017@gmail.com](mailto:umgeneticcourse2017@gmail.com)  
Tel/WA : 019 2440838 (Ms.Rifhan)  
Fax : 03 7949 4704

**For more information, visit our FB page: UM Genetic Course**

## Day 1 (11-Jul)

*Session 1: Revisit the basic structures: from chromosome to genomes*

*Session 2: Clinical genetics: Disorders in sex development & urogenital tract*

*Session 3: Patho-genesis and inheritance of diseases*

*Session 4: Clinical genetics: Skeletal disorders*

Session 1 Revisit the basic structures: from chromosome to genomes			
08:30	5	Introduction	TY Leung
08:35	25	From chromosome to genome: basic structure	C Bacino
09:00	30	Copy Number Variants (CNV) and its clinical significance	R Choy
09:30	30	Non-coding regions and its clinical significance	Chan KG
10:00	30	Single Nucleotides Polymorphism (SNP) and its clinical significance	R Choy
10:30	30	Gene Mutation and repair mechanism	Chan KG
11:00	20	Tea break	
Session 2 Clinical genetics: Disorders in urogenital tract			
11:20	30	Understanding the X and Y chromosomes	C Bacino
11:50	30	Prenatal diagnosis of ambiguous genitalia	TY Leung
12:20	30	Genetic syndromes of renal malformation and diseases	C Bacino
12:50	30	Prenatal diagnosis of renal malformation and diseases	TY Leung
13:20	60	Lunch	
Session 3 Patho-genesis and inheritance of diseases			
14:20	40	Chromosomal numeric disorders, deletion and duplication (including micro)	C Bacino
15:00	30	Chromosomal structural rearrangement (translocation, ring, etc)	R Choy
15:30	30	Mendelian inheritance (AS, AR, sex-linked, penetrance and expression)	TBC
16:00	30	Non-Mendelian inheritance (UPD, etc)	R Choy
16:20	20	Tea break	
Session 4 Clinical genetics: Skeletal disorders			
16:20	30	Postnatal diagnosis of genetic dwarfism	C Bacino
16:50	30	Prenatal diagnosis of genetic dwarfism	TY Leung
17:20	30	Arthrogryposis	Thong MK
17:50	30	Prenatal diagnosis of Craniosynostosis	TY Leung
18:20		The End of the 1 <sup>st</sup> day	

## Day 2 (12-Jul)

*Session 5: Clinical genetics: Cardiac diseases*

*Session 6: Genetic and genomic technology: from basic to advanced 1*

*Session 7: Clinical genetics: Growth disorders & Facial dysmorphism*

*Session 8: Clinical skill and population genetics*

Session 5 Clinical genetics: Cardiac diseases			
08:30	30	Genetics in congenital cardiac structural abnormalities	C Bacino
09:00	30	Prenatal USG and Genetic diagnosis of cardiac abnormalities	TY Leung
09:30	30	Cardiocutaneous syndromes	C Bacino
10:00	30	Hereditary Cardiomyopathy and Conductions Defects	Thong MK
10:30	30	Marfan and aortopathy syndromes	C Bacino
11:00	20	Tea break	
Session 6 Genetic and genomic technology: from basic to advanced 1			
11:20	30	Cytogenetics: karyotyping and FISH	TBC
11:50	30	Molecular genetics: PCR	R Choy

12:20	30	Molecular genetics: Microarray and sequencing	Veera
12:50	30	Molecular genetics: BoBs	R Choy
13:20	60	Lunch	
Session 7 Clinical genetics: Growth disorders & Facial Dysmorphism			
14:20	40	Genetics in Growth restriction & Overgrowth syndromes	C Bacino
15:00	40	Prenatal USG and genetic diagnosis in fetal growth restriction & overgrowth syndromes	TY Leung
15:40	25	Postnatal assessment of facial Dysmorphism	C Bacino
16:05	25	Prenatal assessment of facial Dysmorphism	TY Leung
16:30	20	Tea break	
Session 8 Clinical skill and population genetics			
16:50	20	Carrier screening	C Bacino
17:10	30	Pedigree construction, analysis and risk assessment	Yoon SY/ Thong MK
17:40	40	Genetic Counseling and resources	C Bacino
18:10		The End of the 2 <sup>nd</sup> day	

## Day 3 (13-Jul)

*Session 9: Clinical genetics: Cancer genetics & hematological diseases*

*Session 10: Genetic and genomic technology: from basic to advanced 2*

*Session 11: Clinical genetics: Neuromuscular diseases*

*Session 12: Inborn error of metabolism, Legal and ethical issues*

Session 9 Genetic and genomic technology: from basic to advanced 2			
08:30	30	Genetic tests for cancer screening and monitoring	R Choy
09:00	40	Fetal Cell-free DNA and NIPT	TY Leung
09:40	30	PGS & PGD	R Choy
10:10	30	NGS in genetic diagnosis	R Choy
10:40	20	Tea break	
Session 10 Cancer genetics & hematological diseases			
11:00	30	Oncogenes and genetic mechanism	TBC
11:30	30	Hereditary and familial cancers	Yoon SY/ Thong MK
12:00	30	Neurofibromatosis & Tuberous Sclerosis	TBC
12:30	30	BRCA gene and breast cancers	Aishah T
13:00	60	Lunch	
Session 11 Clinical genetics: Neuromuscular diseases & inborn error of metabolism			
14:00	30	Overview of Neurogenetic diseases	C Bacino
14:30	30	Genetic muscular disorders (Neurometabolic Disorder)	Wong KT
15:00	40	Prenatal diagnosis of neuromuscular genetic disorders	TY Leung
15:40	30	Genetic contribution to autism and autistic spectrum disorders	C Bacino
16:10	20	Tea break	
Session 12 Inborn error of metabolism, Legal and ethical issues			
16:30	30	IEM: implication on maternal and fetal health	Ngu LH
17:00	30	Newborn screening & acute management of IEM	TBC
17:30	30	Issues on human reproduction technology in Malayisa	Imelda
18:00		The End of the 3 <sup>rd</sup> day	