香港中文大學
The Chinese University of Hong Kong

2018/19

Professional Training Course in
Clinical Cytogenetics

(Course CNGT5004 in Master of Science in Medical Genetics)

On Campus: 31 Aug, 1-3 Sep 2018
Online class: 10 and 30 Oct 2018
Venue: Prince of Wales Hospital, Shatin

Background

With the advances in the molecular genomic and genetic technology, we now have a much better understanding of the etiology of many diseases, which has widened the scope of clinical genetics from traditional paediatic syndromal disorders to fetal diseases, as well as to adult-onset diseases such as neurogenetic and oncological disorders. A wide range of laboratorial technologies also provides not only an accurate genetic diagnosis but also prenatal assessment and carrier screening.

Objectives

- ✓ To provide basic knowledge on genetics and common genetic diseases for clinicians, nurses and laboratory professionals who need to counsel, investigate and manage patients and families at risk of genetic disorders in their daily practice.
- ✓ To update the health care professional on the advances in the genomic and genetic technology in assisting clinical diagnosis and management.
- ✓ To serve as a preparation course for health care professional who want to further pursue a higher education in the field of clinical genetics.

Organizer

Department of Obstetrics and Gynaecology,
The Chinese University of Hong Kong

Entry Requirement

Applicants should possess a degree or equivalent and currently working in the relevant field.

Target Participants

- ✓ Clinical professionals (such as obstetricians, paediatricians, physicians, nurses and midwives), who are managing patients and families with genetic diseases in their daily practice.
- ✓ Laboratorial professionals who are working with genetic and genomic testing
- ✓ Clinical and laboratorial professionals who plan for a master's degree education in the field of clinical genetics

Course Description

The course covers the understanding of DNA and its architecture, cell division and the use of various techniques to examine these structures, including chromosome banding, FISH and array CGH. It also covers the application of these techniques for the detection of chromosomal abnormalities, developing pre-analytic and post-analytic skills in test results interpretation, report writing and communication of result to clinicians.

Course Design

The course comprises of lectures and e-learning platform. The course is delivered through lectures and interactive case discussion with total 26 hours (2 units). Overseas renowned professors, local professionals and academic staff of the Department of Obstetrics and Gynaecology, CUHK are invited to be our teaching faculty.

Our Overseas Teaching Panel

Prof. Cheung Sau Wai

Molecular and Human Genetics

Baylor College of Medicine

Houston, TX, US

Teaching Schedule (Total 26 hours)

Course Mode	Date		Time	Hours	Venue
On Campus	31-Aug 2018	Fri	0900-1800	8	SR3
	1-Sept 2018	Sat	0900-1800	8	ACS
	2-Sept 2018	Sun	0900-1100	2	
	3-Sept 2018	Mon	1600-1800	2	SR3
Online/ Presentation	10-Oct 2018	Wed	1830-2130	3	-
	30-Oct 2018	Tue	1830-2130	3	

ACS: Allan Chang Seminar Room, 1/F, Blk E, Prince of Wales Hospital
SR3: Seminar Room 3, 1/F, The Jockey Club School of Public Health and Primary Care, Prince of Wales Hospital

Assessment

Written examination / assignment

Language

English

Accreditation

Pending **CME** points accredited by HKCOG
Pending **PEM** points accredited by Dept of O&G, CUHK

Tuition fee

HK$10,000 (cheque payable to "The Chinese University of Hong Kong")

Graduation Requirement

Students must fulfill all of the following criteria to be granted a:

Certificate of Completion

- An overall attendance rate of 80%
- Pass the assessment

Certificate of Attendance

- An overall attendance rate of 80% but failed the assessment

Course program

Topic
Basic concept in fluorescent microscopy & FISH
Chromosomal microarray analysis
Chromosome and cancer II - Solid tumor
Chromosome and cancer I – Hematological disorders
Database utility and interpretation of acgh CNV
Developmental and evolutionary genetics
From genome to chromosome
History and simple nomenclature
Introduction to genomic disorders
Karyotyping: Tissue culture and banding
Meiosis and mitosis
Mosaicism (germline and somatic)
Mosaicism: what clinicians must know
Patho-mechanism and laboratory diagnosis of chromosomal structural abnormalities
Patho-mechanism and laboratory diagnosis of chromosomal instability syndromes
Patho-mechanism and laboratory diagnosis of uniparental disomy/imprinting diseases
Patho-mechanism of genomic disorders
Recent advances in technology for cancer diagnosis
The significances of non-coding regions
Transcription and translation of genes
Use of nomenclature
X chromosome
Y chromosome
E-learning

Online Registration

https://cloud.itsc.cuhk.edu.hk/webform/view.php?id=5638986

Registration and Enquiry

Miss Jessica Sit
Tel: 852-3505 1527
Fax: 852-2636 0008