

2017/18

# Professional Training Course in

# Frontiers in Genomic Medicine and Laboratory Technology

(which is the course CNGT6005 in Master of Science in Medical Genetics)

Date: 2-3 September and 5 November 2017

Room 301 and 303, 3/F, Li Ka Shing Institute of Health Science, Prince of Wales Hospital, Shatin

٩nd

Allan Chang Seminar Room, Block E, 1/F, 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.

#### Organiser

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.

#### Course Design

The course comprises of lectures and elearning platform. The course is delivered through lectures and interactive case discussion with total 13 hours (1 unit). Overseas renowned professors, local professionals and academic staff of the Department of Obstetrics and Gynaecology, CUHK are invited to be our teaching faculty.

#### **Course Description**

The course introduces the latest concepts, methods and tools used in genomic medicine with the aim to provide an in-depth knowledge on how to answer biological questions. Special emphasis will be put on the application and interpretation of microarray and next-generation sequencing data.

#### Assessment

Written assignment

#### Language

English

## **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 degree education in the field of clinical genetics

#### Overseas speaker



# Prof. Shashikant Kulkarni Molecular and Human Genetics Baylor College of Medicine Houston, TX, US

#### Sep course schedule (Total 12 hours)

| Date                              |     | Time        | Hours | Venue  |
|-----------------------------------|-----|-------------|-------|--------|
| Date                              |     | Tille       | nouis | venue  |
| 2-Sep 2017                        | Sat | 12:00-19:00 | 6     | LKS301 |
| 3-Sep 2017                        | Sun | 14:00-19:00 | 5     | LKS303 |
| e-learning (video for self-study) |     |             | 1     | -      |

LKS301: Room 301, 3/F, Li Ka Shing Institute of Health Science, PWH LKS303: Room 303, 3/F, Li Ka Shing Institute of Health Science, PWH

#### Nov course schedule (Total 1 hour)

| Date                                             |     | Time        | Hours | Venue |  |
|--------------------------------------------------|-----|-------------|-------|-------|--|
| 5-Nov 2017                                       | Sun | 09:00-10:00 | 1     | ACS   |  |
| ACS: Allan Chang Seminar Room, Block E, 1/F, PWH |     |             |       |       |  |

#### Accreditation

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

#### Tuition fee

Total **\$5,000** (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% (11 out of 13 hours)
- > Pass the assessment

## **Certificate of Attendance**

An overall attendance rate of 80% but fails assessment

Course program

| _Course program |                                                                    |  |  |
|-----------------|--------------------------------------------------------------------|--|--|
| CNGT6005        | Diagnostic utility of Exome sequencing                             |  |  |
| CNGT6005        | Evidenced-based medicine: critically read and interpret scientific |  |  |
|                 | publications and award of policy implications                      |  |  |
| CNGT6005        | Health services (information access) (video)                       |  |  |
| CNGT6005        | Laboratories technology in Biochemical Genetics                    |  |  |
| CNGT6005        | Laboratories technology: case study                                |  |  |
| CNGT6005        | NGS for Epigenetic study(Methyl C-seq)                             |  |  |
| CNGT6005        | NGS in transcriptional regulation study (ChIP-seq)                 |  |  |
| CNGT6005        | NGS in transcriptomics study (RNA-seq)                             |  |  |
| CNGT6005        | Non-coding region                                                  |  |  |
| CNGT6005        | Non-invasive sequencing                                            |  |  |
| CNGT6005        | Patient care and Service coordination                              |  |  |
| CNGT6005        | Single cell sequencing                                             |  |  |
| CNGT6005        | Whole genome sequencing                                            |  |  |

#### Registration and Enquiry

Miss Jessica Sit

Tel: 852-3505 1527 Fax: 852-2636 0008 Email: <u>jessicascw@cuhk.edu.hk</u>