

## ***Executive Workshop on Molecular Diagnosis in Clinical Laboratory***

***Programme Code: LMLS9016***

***Application Code: 2280-2814NW***

***General Enquiries:***

***2975-5697***

***Programme Director: Dr. Tian Zhipeng***

### **INTRODUCTION**

Molecular diagnostics have wide and rapidly growing applications in almost all disciplines of Medical Laboratory Science.

This workshop is a comprehensive course covering fundamental and recent advances in molecular techniques and their applications in clinical laboratories. It is intended for Associate Medical Laboratory Technologists, Medical Technologists or health care professionals to gain a strong foundation on this rapidly developing science.

### **OBJECTIVES**

1. To introduce students to the fundamental and recent advances in molecular diagnostics techniques;
2. To familiarize students with the molecular applications in local clinical laboratories;
3. To allow students to appreciate the importance of accurate diagnosis of diseases through clinical case studies.

### **COURSE STRUCTURE**

The course consists of 15 meetings and 1 practical session and the total number of hours is 33.

### **BRIEF DESCRIPTION OF COVERED AREAS**

A refresher on DNA and mutations, DNA extraction, different types of PCR, Sanger sequencing, quality assurance, next generation sequencing, multiplex ligation-dependent probe amplification (MLPA), variant interpretations and plasma nucleic acid analyses.

Molecular diagnosis of mitochondrial diseases, trinucleotide repeat disorders, inborn errors of metabolism, hematological cancer, cancer markers, precision oncology, prenatal and preimplantation genetic diagnosis, and a visit to prenatal diagnostic laboratory and preimplantation laboratory.

**MEDIUM OF INSTRUCTION:** English

**DATE AND TIME**

Lecture: **28 April – 23 June 2025** (Mondays & Wednesdays) from 6:30 to 8:30 pm with one of the lectures from 6:30 to 9:30 pm (**tentative**)

Laboratory visit: **23 June 2025** (Saturday) from 10:30 am to 12:30 pm (**tentative**)

**VENUE:** HKU SPACE Learning Centre (**to be confirmed**)

**NO. OF STUDENTS:** 25 students

**COURSE FEE:** HK\$7000

**ATTENDANCE:**

A Statement of Attendance will be issued to students with overall attendance of 70%.

**ADMISSION REQUIREMENT:**

Target students are those working in the medical laboratories and have an interest in acquiring knowledge of molecular diagnostic techniques. Admission is on a first-come, first-served basis.

**CLOSING DATE FOR APPLICATION:** **01 Apr 2025**

**APPLICATION PROCEDURE:**

Please send in the completed application form (SF26) which can be downloaded from our School's Website together with the appropriate course fee to HKU SPACE, 13/F, Fortress Tower, 250 King's Road, North Point, Hong Kong (Attention: Ms. Winnie Choi). The cheque should be made payable to "HKU SPACE".

Alternatively, applicants can pay the course fee by VISA or MasterCard at any HKU SPACE Enrolment Centre with the completed application form or use the 24-hour Online Enrolment Service via our School's website <http://hkuspace.hku.hk>. Further enquiry, please contact Ms. Choi at 2975 5697 or by email [winnie.sww.choi@hkuspace.hku.hk](mailto:winnie.sww.choi@hkuspace.hku.hk).