

NEWS

from the Hong Kong Baptist Hospital for

Doc+ors



Hong Kong Baptist Hospital



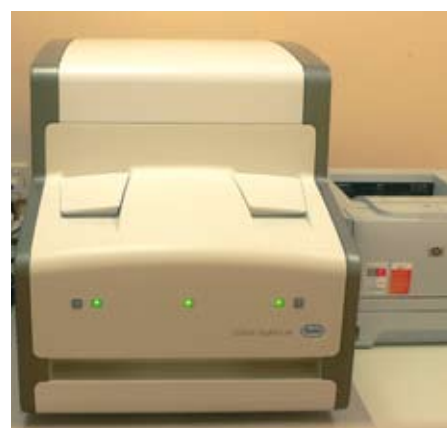
June 2010

Molecular Pathology – Essential and Fruitful

Molecular pathology is an emerging scientific discipline in the medical field. It mainly focuses on the diagnosis of disease through the examination of molecules within organs, tissues or body fluid. It encompasses the development of molecular and genetic techniques in the diagnosis of genetic diseases, determining tumour classification and pathology, predicting disease prognosis, detecting biomarkers for therapeutic response and disease progression, genetic susceptibility of individuals, and factors involved in tumourigenesis, etc. The list goes on and on.

Polymerase chain reaction (PCR) is a technique to amplify the DNA target to generate thousands to millions of copies of the DNA sequence. Based on this principle, it can be performed on a scant amount of sample to detect mutation, deletion, amplification, loss of heterozygosity, hypermethylation, translocation and chromosome ploidy. Detection of HER2 amplification in breast cancers, EGFR mutation in non-small cell lung carcinomas, KRAS mutation in colorectal carcinomas, and c-KIT mutation in gastrointestinal stromal tumours are just a few examples that have come onto the scene recently in the field of anatomical pathology. It can also be employed to detect fastidious infectious organisms, such as *Chlamydia* and mycobacteria, and allow their early diagnosis. Furthermore, molecular techniques can also help in identifying and diagnosing new diseases and emerging pathogens. The characterisation of H1N1 Human Swine Flu virus is a good and timely example. Viral load monitoring, genotypic assays and antiviral drug resistance testing by gene sequencing have greatly improved the management of patients suffering from HIV, hepatitis B virus (HBV) and hepatitis C virus, as well as cytomegalovirus infections. Molecular pathology is an integral part in the field of haematopathology, the details of which are beyond the scope of this article. Needless to say, various molecular techniques are also employed in the fields of chemical pathology, immunopathology and forensic pathology.

In HKBH, a new Molecular Pathology Service was established in the Department of Pathology in September 2009. We installed the latest real-time PCR system, COBAS TaqMan 48, from Roche Diagnostics, in the first phase of our development. Currently, we are performing HBV DNA assays, human papilloma virus (HPV) genotyping and *Mycobacterium tuberculosis* (MTB) detection. The other tests in the pipeline include detection of *Chlamydia trachomatis* (CT), methicillin-resistant *Staphylococcus aureus* (MRSA), respiratory viruses including H1N1, etc.



One of the major advances in molecular pathology is miniaturisation of the equipment. Most equipment is bench-top size now.



The laboratory has a negative pressure facility and every procedure is performed inside a Class II safety cabinet. Contamination is a major threat to these procedures.



From the Desk of the DMS: Credentialing



Dr Hoi Che LEE

In the Australian Council on Healthcare Standards (ACHS) EQuIP 4 Guide., 3.1.3 is a mandatory criterion requiring the hospital to have a good process for credentialing and defining the scope of clinicians' clinical practice to support safe and quality health care.

With the rapid advances in new technology employed in health care, the time-honoured ethical principle "Do No Harm" has never been as pertinent as today. This principle is explicitly spelt out in the Hippocratic Oath: "I will keep them from harm and injustice. I will neither give a deadly drug to anybody if asked for it, nor will I make a suggestion to this effect. Similarly, I will not give to a woman an abortive remedy. In purity and holiness I will guard my life and my art"

It is difficult to imagine a doctor harming a patient intentionally through clinical incompetence in the course of care delivery as such reckless behaviour is deterred and safe-guarded by law and professional code of conduct. However, for every procedure, clinicians must go through a learning curve to become competent, and credentialing serves as a means for objective evaluation.

Credentialing is defined as the process of assessing and conferring approval on a doctor's suitability to provide a defined type of health care in a hospital. It is a formal process employed to verify the qualifications, experience, and professional standing of all healthcare practitioners in order to form a view about their competency, performance and professional suitability to provide safe, high-quality healthcare services within specific organisational environments. As in all other standards of the EQuIP 4, it is required that granted privileges be reviewed periodically and re-granted to ensure that the level of competence is maintained and that the scope of work is adjusted, if and when necessary.

Often, it is not the competence of the physician that is in question. The issue is the availability of an adequate environment and support for the safe delivery of the care. The latter includes mainly the availability of equipment and the relevant expertise of supporting staff. In other words, the complementary competency and capability of the hospital should also be put in context for this particular purpose. Within the framework of Clinical Governance, the hospital is accountable for continually improving the quality of its services and safe-guarding high standards of care by creating an environment in which excellence in clinical care can flourish (adapted from Sally and Donaldson). The hospital therefore is accountable and has the responsibility to establish a good system for credentialing and defining the scope of clinical practice for doctors.

It must be noted that the concept and practice of credentialing and defining the scope of work are not exclusive to doctors. They are equally applicable to other professional staff.

Dr Hoi Che LEE
Director
Medical Services

■ Surgeons

Minimally Invasive Liver Surgery
 Director of Programme: Dr Leung Tung YUNG
 Chairman: Dr Hing Fai CHENG
 Speaker: Dr Kwok Chai NG
 Date: July 2, 2010
 Time: 8:00 – 9:30 am
 Venue: The Chapel, D9, HKBH
 Enquiries: 2339 8872 (Ms Connie LOK)
 Coming Meetings: August 6, 2010
 September 3, 2010
 October 8, 2010

■ Physicians

Session A: Rheumatoid Arthritis:
 Therapeutic Strategy and Choice of Agents
 Session B: Advancing Anaemia Management
 Director of Programme: Dr Peter CYWONG
 Chairman: Dr Peter CYWONG
 Speakers: Dr Tak Hin CHAN (Session A)
 Dr Calvin Yuk WONG (Session B)
 Date: July 5, 2010
 Time: 8:00 – 10:00 pm
 Venue: The Chapel, D9, HKBH
 Enquiries: 2339 8873 (Ms Polly TAM)
 Coming Meetings: August 2, 2010
 September 6, 2010
 October 4, 2010

■ Obstetricians & Gynaecologists

Screening for Foetal Anomaly in First Trimester
 Speaker: Dr Steven LO
 Date: July 13, 2010
 Time: 7:30 – 8:30 pm
 Venue: The Chapel, D9, HKBH
 Enquiries: 2339 8873 (Ms Polly TAM)
 Coming Meetings: August 10, 2010
 September 14, 2010
 October 12, 2010

■ Surgical Pathology

Joint Surgical Pathology Meeting
 Date: July 16, 2010
 Time: 8:00 – 9:00 am
 Venue: The Chapel, D9, HKBH
 Enquiries: 2339 8872 (Ms Connie LOK)
 Coming Meetings: August 20, 2010
 September 17, 2010
 October 15, 2010

Who's NEW



Dr Sze Chung CHENG
 Resident Consultant in Orthopaedics
 & Traumatology



Dr Lilian Hiu Lei WONG
 Resident Consultant in Paediatrics



Dr Sham SO
 Resident Consultant in Obstetrics &
 Gynaecology



Dr Ka Keung LAM
 Resident Consultant in Emergency
 Medicine

Editorial Enquiry

We would like to hear from you! Any questions, comments or suggestions are always welcome. Please email us at pr@hkbh.org.hk