Description

This workshop is designed to provide an in-depth training of medical practitioners, pathologists, pathology residents, laboratory managers', medical students and clinical laboratory staff and whoever wants to understand or embark into the practice of molecular diagnostics, on all of the aspects and practices needed to succeed in this medical field. This training will provide a comprehensive review of the major basic and technical concepts namely:

- Medical Genetics
- Laboratory Methods in Molecular Diagnostics
- Laboratory and Clinical Cytogenetic
- Molecular diagnostic Laboratory setting & Quality Assurance

Registration Form

Medical Genetics, Cytogenetic & Molecular Diagnostics
19-21 April, 2014

Name: ..........................................................

Academic Qualification: ........................................

Present Employment: ........................................

Address: ..........................................................

Country: ..........................................................

Telephone: ............ Fax: ..........................

Email: ..........................................................

For more information:
Email: cteec@agu.edu.bh
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        +973 (17239 462)
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+973 (17239 694) or +973 (33197 533)
As new paradigms are gaining momentums in the medical practice, major changes in medical education and training are taking place. Central to these ongoing changes is the emphasis on molecular pathology of diseases and the development of molecular diagnosis. Indeed there is a consensus that the introduction of powerful molecular testing tools into the clinical laboratories practice has led to a substantial improvement in quality of the information’ the health care providers are getting from the molecular pathology labs. A novel framework known as the "Molecular Pathology/Molecular Diagnostic Toolkit is developing at a high paste to cover a large spectrum of pathologies. Use of molecular techniques to explore and diagnose disease is now becoming a must do. Therefore capacity building in the field of molecular pathology is of paramount importance across all the profiles of health care providers ranging from the clinical laboratory staff to the general practitioner [also medical resident) and involving even the health care management professionals.

INTRODUCTION TO MOLECULAR GENETIC BASICS
Covers the areas that participants need absolutely need to know such as:
- DNA and Gene Structure
- Restriction and modification Enzymes
- DNA variation [polymorphism]
- Allele & genotype frequency, Hardy Weinberg equilibrium, Odd ratio, Relative Risk, Linkage disequilibrium.
- Gene expression
- Mutations

MEDICAL GENETICS
Genetic Phenomena participants must Become Familiar With
- Mendelian Inheritance
- Microsatellite Instability
- Trinucleotide Repeat Disorders
- Mitochondrial Inheritance
- Multifactorial Inheritance
- Imprinting
- Epigenetic

LABORATORY METHODS IN MOLECULAR DIAGNOSTICS
Must absolutely know molecular technologies to practice molecular diagnostics
- Genomic DNA extraction
- Southern Blot Analysis
- Polymerase Chain Reaction
- Reverse Transcription PCR
- Real-Time PCR
- DNA Sequencing
- Clonality Analysis in Lymphomas

LABORATORY AND CLINICAL CYTOGENETICS
Areas participants will get to know:
- Chromosome Structure
- Karyotype/G-banding
- FISH
- Multicolor Karyotyping
- Comparative Genomic Hybridization (CGH)
- Array-based Comparative Genomic Hybridization (Array CGH)

QUALITY ASSURANCE FOR A MOLECULAR DIAGNOSTIC SERVICE LABORATORY
Areas covered
- Quality concept
- The quality assurance life cycle
- Staff qualification & training
- Equipment, calibration, validation, surveillance
- Accreditation
- Molecular Diagnostic laboratory set up

VISIT TO A MOLECULAR PATHOLOGY LABORATORY & LIVE DEMOS
- DNA testing Laboratory
- Cytogenetic Laboratory
- Automated platform

Participants type:
- Ministries of Health
- Medical Schools
- Hospital Laboratories
- Pathology Departments

Fees: 400 BD per participant
Method of pay fees
1. Check/to Arabian Gulf University-Bahrain Islamic Bank (BisB)
2. Bank transfer, Account no:
A/C 1000 0000 4834
IBAN: BH95BIBB00 1000 0000 4834- Islamic Bank (BisB)