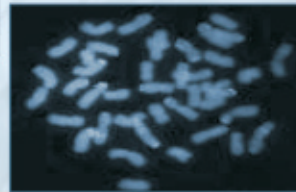


# Application of Fluorescence In-Situ Hybridization (FISH)





## ***Introduction***

The Center of Excellence in Genomic Medicine Research (CEGMR) at King Abdul Aziz University is pleased to announce the international workshop on 'Application of Fluorescence In Situ Hybridization (FISH)'.

This workshop is organized by the continuous education and outreach program at CEGMR as part of its mission in education, research and service to the community.

CEGMR is an established platform that provides cutting edge research and professional education. CEGMR strives to provide training courses, workshops, and conferences of scientific importance to provide an opportunity to scientists interested in the field.

## ***Objectives:***

- Participants will be exposed to a new avenue of genetic diagnosis called fluorescence in situ hybridization.
- They will learn about the fundamentals of the technique, its importance and use in the modern medical practice
- They will be provided with an in-depth knowledge about its applications in prenatal, postnatal and cancer diagnosis.
- They will have an opportunity of "hand on" experience of the technique and the use of a fluorescence microscope.

## ***Dates, Location & Duration***

The course will be held in the laboratories of CEGMR, King Fahd Medical Research Center based at King Abdul Aziz University. Lectures and practical sessions will be held daily from 8:00 a.m. to 4:00 p.m, from Saturday until Wednesday.

## ***Documents and Certificates***

Participants who successfully complete the theoretical and practical sections will be awarded a certificate of completion.

The workshop is accredited by the Saudi Council for Health Specialities and is awarded CME hours.

## ***Fees and Registration***

3000 SR will be charged. Fees will include break refreshments, lunch, all workshop materials and documentation. Registration is on the basis of first come first served, therefore early registration is highly recommended.

## Program schedule

### 1<sup>st</sup> Day

Time	Topic
08:00 am-9:00 am	Registration
09:00 am-10:00 am	Introduction to the workshop
10:00 am-10:20 am	Coffee break
10:20 am-11:20 am	Overview of cytogenetics in medical diagnosis
11:20 am-12:20 pm	Principle of fluorescence in situ hybridization technique
12:20 pm-01:00 pm	Lunch time
01:00 pm - 04:00 pm	<b>Lab work:</b> Preparation of metaphase slide for FISH experiment

### 2<sup>nd</sup> Day

Time	Topic
08:00 am-09:00 am	Clinical application of fluorescence in situ hybridization in medical practice
09:00 am-10:00 am	Types of probes used
10:00 am-10:20 am	Coffee break
10:20 am-11:20 am	Probe labelling
11:20 am-12:20 pm	<b>Lab work:</b> Hybridization of labeled DNA probe to cytogenetic prepared slide
12:20 pm-01:00 pm	Lunch time
01:00 pm-04:00 pm	Discussion on post hybridization processing and detection methods

### 3<sup>rd</sup> Day

Time	Topic
08:00 am-10:00 am	<b>Lab work:</b> Post hybridization and processing of directly labeled DNA probes
10:00 am-10:20 am	Coffee break
10:20 am-12:20 pm	Overview of computerized image analysis
12:20 pm-01:00 pm	Lunch time
01:00 pm-04:00 pm	<b>Lab work:</b> Application of fluorescence microscope in FISH signal analysis using image analysis software



#### 4<sup>th</sup> Day

Time	Topic
08:00 am-09:00 am	Prenatal FISH application
09:00 am-10:00 am	Postnatal FISH application
10:00 am-10:20 am	Coffee break
10:20 am-11:20 am	Oncology FISH application
11:20 am-12:20 pm	Microdeletions syndromes FISH application
12:20 pm-01:00 pm	Lunch time
01:00 pm-04:00 pm	<b>Lab work:</b> FISH image analysis and interpretation using image analysis software

#### 5<sup>th</sup> Day

Time	Topic
08:00 am-09:00 am	Her2/neu FISH application in breast cancer
09:00 am-10:00 am	Nomenclature (ISCN) of FISH result
10:00 am-10:20 am	Coffee break
10:20 am-12:20 pm	<b>Lab work</b> :Analysis and interpretation of cancer cells using gene amplification probes
12:20 pm-01:00 pm	Lunch time
01:00 pm-04:00 pm	Result interpretation and reporting using different types of FISH probes