





## **ICRM2022**

## Th INTERNATIONAL CONFERENCE ON RADIATION MEDICINE

Virtual Event, Hosted by King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia

CLINICAL APPLICATIONS AND INNOVATIVE APPROACHES

WS Code: Radiobiology and Biodosimetry
(with introduction to quantitative statistical analysis methods)
Scientific Track: Radiobiology and Emergency Response
Chair: Dr. Ghazi Alsbeih, Dr. Elizabeth Ainsbury

Date & Time: Thursday 17 February 2022 - 13:00 - 15:30,

Venue: Virtual

Coordinator: Ms. Najla Al-Harbi

Workshop Faculty: Dr. Ghazi Alsbeih, Dr. Elizabeth Ainsbury, Dr. Khaled Al-Hadyan, Ms. Sara Bin

Judia, Ms. Maha Alghamdi

**Target Audience**: Radiobiologists, biodosimetrists, medical and health physicists, radiation safety, civil defense and radiation workers who need practical knowledge in radiobiology, biodosimetry.

Prerequisites: Radiation Protection, Radiobiology and Emergency Response Track

**Workshop Description:** Virtual demonstrations of hands-on demos of methods and procedures to study biological effects of ionizing radiation and its application in biodosimetry to estimate radiation doses received in accidental radiation exposures.

## **Learning Objectives:**

- Blood samples collection, lymphocytes stimulation and irradiation
- XRAD-320 biological irradiator
- Cytogenetic biodosimetry assay: chromosomal aberrations, including dicentrics
- Slides preparation
- Results visualization, aberrations scoring and data acquisition
- Construction of the dose-response calibration curve
- Estimating accidental radiation doses received
- General introduction to quantitative statistical analysis methods in biodosimetry (presented by Dr. Elizabeth A. Ainsbury).