

PROGRAMME

DAY 1

1st October



**Mohammed VI University of
Sciences and Health - RABAT**

Paediatric Cancers

- 08:15 – 09:00 | Welcome & Registration
- 09:00 – 09:20 | Opening Remarks
- 09:20 – 09:40 | Opening Presentation
- 09:40 – 10:00 | Official Opening of the Paediatric Cancer Day
- 10:00 – 11:00 | Session 1 – Clinical Perspectives
- 11:00 – 11:20 | Coffee Break
- 11:20 – 12:10 | Session 2 – Anatomopathology
- 12:10 – 13:00 | Session 3 – Research & Innovation
- 13:00 – 14:30 | Lunch
- 14:30 – 15:30 | Session 4 – Translational Integration
- 15:30 – 16:15 | Round Table
- 16:15 – 17:00 | Poster Session

PROGRAMME

DAY 2

2nd October



**Mohammed VI University of
Sciences and Health - RABAT**

Adult Cancers

- 08:30 – 09:00 | Welcome Coffee
- 09:00 – 09:10 | Introduction
- 09:10 – 10:10 | Session 1 – Clinical Perspectives
- 10:10 – 10:30 | Coffee Break
- 10:30 – 11:20 | Session 2 – Anatomopathology
- 11:20 – 12:10 | Session 3 – Innovations
- 12:10 – 13:30 | Lunch
- 13:30 – 14:30 | Session 4 – Translational Panel
- 14:30 – 15:15 | Round Table
- 15:15 – 16:00 | Poster Session
- 16:00 – 16:30 | Awards Ceremony
- 17:00 – 20:00 | Rabat Visit
- 20:00 – 20:30 | Gala Dinner

PROGRAMME

DAY 3

3rd October



**Mohammed VI Centre for Research
and Innovation - RABAT**

Practical Workshop 1: Circulating miRNA profiling using RT-qPCR

- 09:00 – 09:30 | **Introduction to circulating miRNAs** – Biological relevance and clinical applications
- 09:30 – 10:15 | **Pre-analytical considerations** – Good laboratory practices (GLP) for sample collection, processing, storage, and miRNA handling
- 10:20 – 12:00 | **MiRNA extraction and QC** – Hands-on demonstration of plasma/serum miRNA isolation
- 12:00 – 13:30 | **MiRNA profiling** - RT-qPCR workflow for miRNA quantification: principles and best practices
- 13:30 – 14:30 | Lunch Break
- 14:30 – 15:30 | **Data analysis** – Hands on session: Normalisation, differential expression, bioinformatics tools
- 15:30 – 15:45 | Coffee Break
- 15:45 – 16:45 | **Clinical interpretation and case study in circulating miRNA biomarkers** – Statistical analysis
- 16:45 – 17:45 | **Q&A, troubleshooting, and wrap-up**

* A dedicated biostatistics workshop will be organised at a later stage for participants of workshops 1 and 2, focusing on the advanced statistical analysis of circulating miRNA profiling data generated by RT-qPCR and NGS

PROGRAMME

DAY 3

3rd October



**Mohammed VI Centre for Research
and Innovation - RABAT**

Practical Workshop 2: NGS-Based Analysis of Cell-Free DNA in Liquid Biopsy for cancer Biomarker Discovery

- 09:00 – 09:30 | **Introduction to circulating tumor DNA and its applications in precision oncology.**
- 09:30 – 10:00 | **Illumina technology for biomarker detection**
– Gene panel offering, Sequencing platforms...
- 10:15 – 13:30 | **Library preparation for cfDNA sequencing**
– Hands-on demonstration or guided walkthrough in a video capsule format
- 13:30 – 14:30 | Lunch Break
- 14:30 – 15:30 | **Sequencing workflow and run setup**
– Platform overview (Illumina MiSeq i100), library loading, run setup, and quality metrics
- 15:30 – 15:45 | Coffee Break
- 15:45 – 16:45 | **Bioinformatics pipeline for cfDNA NGS data**
– Data processing: FASTQ generation, QC, adapter trimming, alignment and variant calling.
- 16:45 – 17:30 | **Clinical interpretation and case study in cfDNA biomarkers** – – Statistical analysis, identification of candidate miRNA biomarkers, visualisation (heatmaps, Principal Component Analysis, volcano plots) *
- 17:30 – 18:30 | **Q&A, troubleshooting, and Wrap-up** - Discussion, feedback, and key take-home messages.

* A dedicated biostatistics workshop will be organised at a later stage for participants of workshops 1 and 2, focusing on the advanced statistical analysis of circulating miRNA profiling data generated by RT-qPCR and NGS

PROGRAMME

DAY 3

3rd October



**Mohammed VI Centre for Research
and Innovation - RABAT**

Practical Workshop 3: Machine Learning Approaches for Survival and Prognostic Modelling in Cancer (Department of clinical epidemiology – CM6RI)

08:30 – 9:00 | Coffee Break

09:00 – 10:15 | **Fundamentals of Survival Analysis**

Time-to-event data, censoring, Kaplan-Meier,
log-rank test, Cox proportional hazards model

10:15 – 10:30 | Coffee Break

10:30 – 12:00 | **Beyond Cox: Survival Machine Learning**

Lasso-Cox, Random Survival Forests, Gradient Boosting,
Neural networks

13:30 – 14:30 | Lunch Break

13:00 – 14:30 | **Building a Predictive Survival Model (Practical)**

End-to-end in R: data prep → model fitting → predictions
Using a real cancer dataset

14:30 – 15:30 | **AI-Based Analysis of miRNA/mRNA Data (Practical)**

High-dimensional omics, feature selection,
integrating omics with survival models

15:30 – 15:45 | Coffee Break

15:45 – 16:30 | **Model evaluation, validation, and clinical interpretation**

16:30 – 17:00 | **Q&A and Wrap-up**