

Next Generation Sequencing (NGS): Research and Medical Diagnosis Applications

May 10-11, 2024; Palais Royal Hotel - Sfax - TUNISIA

PROGRAM

1st Day : Friday May 10, 2024

13:30-14:30

Welcoming Guests, Networking Registration,

POSTER DISPLAY AND VIEWING

14:30-15:00

Inaugural Conference : The Next Generation Sequencing Technologies :
A Short Overview. *Assoc. Pr Hassen HADJ KACEM (University of Sharjah, UAE)*

Session 1 : NGS APPLICATIONS IN RESEARCH

Moderators : Pr Hammadi AYADI and Pr Raja GARGOURI

15:00-17:30

CONFERENCES AND DISCUSSION

15:00-15:30

Qatar Genome Odyssey: Navigating from Research to Precision Healthcare Realization.
Dr Hamdi MBAREK (QATAR Genome Project, Qatar)

15:30-16:00

Tunisian Human Genome Project. *Dr Yosr HAMDI (Pasteur Institute, Tunis, Tunisia)*

16:00-16:30

COFFEE BREAK AND POSTER SESSION

16:30-17:00

Metagenomic Analysis of the Human Microbiota in Tunisian Individuals.
Pr Leïla KESKES (MICAfrica Project, Faculty of Medicine of Sfax, Tunisia)

17:00-17:30

From Next Generation Sequencing Microorganisms Towards Eco Friendly Biotech Based
Products. *Pr Slim TOUNSI (NGS-4ECOPROD Project, Center of Biotechnology of Sfax, Tunisia)*

17:30-18:00

ORAL COMMUNICATIONS AND DISCUSSION

17:30-17:45

Communication 1 : Genomic characterization of clinical Salmonella Typhimurium DT104 isolates.
Sonia KTARI (Faculty of Medicine of Sfax, Tunisia)

17:45-18: 00

Communication 2 : Exploring the Taxonomic Diversity of Bacterial Communities in Sidi Ayed Hot
Spring, West Algeria, Through Metagenomic Investigation and Non-Culturomics Methods.
Marwa AIRECHE (Higher School of Biological Sciences of Oran, Algeria)

18:00-18:30

GENERAL DISCUSSION AND FIRST DAY CLOSING

2nd Day : Saturday May 11, 2024

Session 2 : NGS APPLICATIONS IN DIAGNOSIS : PUBLIC SECTOR

Moderators : Pr Mouna TURKI and Pr Hassen KAMOUN

09:00-11:30

CONFERENCES AND DISCUSSION

09:00-09:30

Evolution of Medical Genetics at Charles Nicolle Hospital : Challenges, Implementation, and the
Impact of Next-Generation Sequencing on Patient Care.

Pr Ridha M'RAD (Charles NICOLLE Hospital, Tunis, Tunisia)

09:30-10:00

From Tackling Gaps in the Implementation of NGS to the First on-site Experiments.

Pr Dorra H'MIDA (Farhat HACHED Hospital, Sousse, Tunisia)

10:00-10:30

Mutations Causing Mitochondrial Diseases in Tunisian Patients identified by NGS : Molecular and
Structural Investigations. *Pr Faiza FAKHFAKH (Faculty of Sciences of Sfax, Tunisia)*

10:30-11:00

Advancing Health Through African Genomics: on The Way to the 3 Millions Genomes Dream.
Pr Ahmed REBAI (Center of Biotechnology of Sfax, TUNISIA)

11:00-11:30 Feedback and Challenges of Next Generation Sequencing in Neuro-Developmental Disorders.
Assoc. Pr Ikhlas BEN AYED (Hedi CHAKER Hospital, Sfax, TUNISIA)

11:30-12:30 **ORAL COMMUNICATIONS AND DISCUSSION**

11:30-11:45 **Communication 1** : Development of a custom high-throughput sequencing panel for the diagnosis of Developmental and Epileptic Encephalopathies in the Tunisian population.
Mariam BEN SAID (Center of Biotechnology of Sfax, Tunisia)

11:45-12:00 **Communication 2** : Etiological diagnostic contribution of Exome sequencing in neurodevelopmental disorders in a cohort of 100 Tunisian Patients.
Sana KAROUI (Mongi SLIM Hospital, La Marsa, Tunisia)

12:00-12:15 **Communication 3** : Prognostic significance of *IKZF1* gene alterations in Tunisian patients with acute lymphoblastic leukemia. *Ameni BEDOUI (Center of Biotechnology of Sfax, Tunisia)*

12:15-12:30 **Communication 4** : Involvement of the intestinal microbiota in hypercholesterolemia and therapeutic challenge via probiotics. *Oumayma CHRIAA (Faculty of Sciences of Sfax, Tunisia)*

Session 3 : ONCO-HEMATOLOGY SYMPOSIUM AND BRUNCH

Moderators : **Pr Moez ELLOUMI** and **Pr Mouna MNIF**

12:30-14:00 **BRUNCH, NETWORKING AND POSTER SESSION**

12:30-13:00 **Symposium**

NGS Onco-Hematology : Practical Interest

Assoc. Pr Imen FRIKHA and *Pr Moez MDHAFFAR (Hedi CHAKER Hospital, Sfax, Tunisia)*

13:00-14:00 **Brunch**

Session 4 : NGS APPLICATIONS IN DIAGNOSIS: PRIVATE SECTOR

New Sequencing Technologies in Genetic Diagnosis : Feedback from Collaboration in the Private Sector

Moderators : **Pr Souad ROUIS** and **Pr Tahya BOUDAWARA**

14:00-14:15 *Sponsor Communication : HTDS*

14:15-14:30 *Sponsor Communication : ADVANCED*

14:30-16:00 **CONFERENCES AND DISCUSSION**

14:30-15:00 Sequencing Technologies and Data Analysis :
Dr Ahmed Sahbi CHAKROUN (RAN BioLinks Company, Tunis, Tunisia)

15:00-15:30 Application of WES in Rare Genetic Diseases Diagnosis :
Dr Mohamed Ali KSENTINI (Private laboratory of Cytogenetics, Sfax, Tunisia)

15:30-16:00 NGS and Oncology :
Dr Mounira MEDDEB (Private laboratory of Cytogenetics, Tunis, Tunisia)

16:00-17:00 **AWARDS AND CLOSING**

