



ICGEB Workshop on "Next Generation Diagnostics"

22/03/2018-24/03/2018

Macedonian Academy of Sciences and Arts (MASA)

Skopje, Republic of Macedonia



Venue: *Macedonian Academy of Sciences and Arts*
Bul. Krste Misirkov 2, Skopje, Republic of Macedonia

PROGRAM

22 March 2018

15:00 – 15:30

Welcome address and opening remarks

Momir Polenakovic, Macedonian Academy of Sciences and Arts, Skopje

Taki Fiti, President, Macedonian Academy of Sciences and Arts, Skopje

15:30 – 17:45

NGS diagnostics: State of the art and beyond

(moderators: Richard Rosenquist and Dimitar Efremov)

Clare Turnbull, Cambridge (Genomics England Initiative)

Richard Rosenquist, Stockholm (Transferring NGS to clinical diagnostics)

Ulf Landegren, Uppsala (New technologies for biomarker discovery)

17:45 – 18:00

Coffee break

18:00 – 19:15

NGS diagnostics in inherited diseases

(moderators: Richard Rosenquist and Dimitar Efremov)

Marcel Nelen, Nijmegen (Using NGS in a clinical diagnostic laboratory)

Anna Wedell, Stockholm (Whole-genome sequencing in inherited diseases)

19:15 - 20:00

Welcome reception

23 March 2018

09:15 – 10:30

NGS diagnostics in infectious diseases

(moderators: Clare Turnbull and Dijana Plaseska-Karanfilska)

Lars Engstrand, Stockholm (WGS for microbial subtyping/outbreaks)

Kristian Vlahovicek, Zagreb (Next generation sequencing of the gut microbiome)

10:30 – 11:00

Coffee break

11:00 – 12:45

NGS diagnostics in solid tumors

(moderators: Kostas Stamatopoulos and Aleksandar Dimovski)

Johan Lindberg (NGS-based diagnostics in prostate cancer)

Dijana Plaseska-Karanfilska, Skopje (NGS-based diagnostics in breast cancer)

Simon Joosse, Hamburg (Liquid biopsies in the management of cancer: Current status and future perspectives)

12:45 – 14:15

Lunch

- 14:15 – 16:00** **NGS diagnostics in hematological malignancies**
(moderators: Dimitar Efremov and Irina Panovska-Stavridis)
Torsten Haferlach, Munich (*NGS-based diagnostics of myeloid neoplasms*)
Davide Rossi, Bellinzona (*NGS-based diagnostics of lymphoid neoplasms*)
Kostas Stamatopoulos, Thessaloniki (*Immunogenetics in the era of NGS*)
- 16:00 – 16:30** **Coffee break**
- 16:30 – 18:15** **Predictive biomarkers and personalized treatment strategies**
(moderators: Richard Rosenquist and Momir Polenakovic)
Katerina Davalieva, Skopje (*Proteomics of prostate cancer*)
Päivi Östling, Stockholm (*Precision medicine approaches in solid tumors*)
Dimitar Efremov, Trieste (*Targeting the kinome in B-cell malignancies*)
- 18:15** **Poster session**

24 March 2018

- Bioinformatics analysis of NGS data**
(moderators: Fotis Psomopoulos and Valtteri Wirta)
- 09:15 – 09:45** *Welcome and Introductions:*
- *Outline of the general concept and particular content of the session.*
- *Description of the informatics infrastructure and setup required for the tools and pipelines)*
- 09:45 – 10:15** **Valtteri Wirta**, Stockholm (*Targeted Deep Sequencing: Implementing targeted sequencing for patient selection for clinical trials and for diagnostic purposes*)
- 10:15 - 10:45** **Fotis Psomopoulos**, Thessaloniki (*Targeted Deep Sequencing: End-to-end computational workflows towards the analysis of RNA-Seq data*)
- 10:45 – 11:15** **Henrik Stranneheim**, Stockholm (*Whole Exome / Whole Genome Sequencing: Informatics strategy for whole-genome sequencing based rare disease diagnostics*)
- 11:15 - 11:45** **Andreas Agathaggelidis**, Thessaloniki (*Whole Exome / Whole Genome Sequencing: Employing WGS approaches towards identifying key variants in CLL ontogenesis.*
- 11:45 – 12:00** *Discussion / Wrap-up:*
- *General comments*
- *Highlight key concepts that need to be taken into consideration for the computational aspects*
- *Discussion / Interaction with the participants*