



Satellite Workshop: *In vitro* and *in vivo* models for development of novel diagnostic and therapeutic approaches

Tuesday, 03. 05. 2016 9.00 – 12.30

PROGRAMME

Chairpersons: Antonio Cuadrado, Tamara Lah Turnšek

- 8.30 – 9.00 Registration
- **9.00 – 9.30 Delilah F.G. Hendriks**, Karolinska Institute, Sweden – Novel *in vivo* like *in vitro* spheroid systems for prediction of drug response, long term adverse reactions and for studies of liver disease
- **9.30 – 10.00 Metka Filipič**, National Institute of Biology, Slovenia – HepG2CDKN1A–DsRed biosensor system for rapid and simple detection of genotoxic agents
- **10.00 – 10.30 Tamara Lah Turnšek**, National Institute of Biology, Slovenia – Experimental oncology from *in vitro* to *in vivo*: Zebra fish model
- 10.30 – 11.00 Coffee break
- **11.00 – 11.30 Sergej Pirkmajer**, Faculty of Medicine, University of Ljubljana, Slovenia – Skeletal muscle cells as a model for identification of novel targets for insulin resistance/type 2 diabetes treatment: to starve or not to starve?
- **11.30 – 12.00 Antonio Cuadrado**, Autonomous University of Madrid, Spain – Models of neurodegenerative diseases
- **12.00 – 12.30** Discussion
- 12.30 – 14.00 Lunch break, Registration

SUMMER SCHOOL PROGRAMME

Tuesday, 03. 05. 2016 14.00 – 18.30

Opening address

Opening plenary lecture

- **14.30 – 15.30 Ron van Schaik**, Erasmus MC, Rotterdam, The Netherlands – Do you have your DNA passport?
- 15.30 – 16.00 Coffee break

NGS in genomic medicine and rare diseases

Chairpersons: Maja Stojiljkovic, Sonja Pavlovic

- **16.00 – 16.30 Maja Stojiljkovic**, Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Belgrade, Serbia – Diagnosis of rare diseases – an NGS approach
- **16.30 – 17.00 Jernej Kovač**, Center for Medical Genetics, University Children's Hospital, University Medical Centre Ljubljana, Slovenia – Introduction of NGS technology in a routine genetic diagnostics setup: Experience from Slovenian paediatric population
- **17.00 – 17.30 Natasa Tosic**, Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Belgrade, Serbia – Genetic profiling of haematological malignancies
- **17.30 – 18.00 Borut Peterlin, Ales Maver**, Clinical Institute of Medical Genetics, University Medical Center Ljubljana, Slovenia – NGS in Slovene health system improves diagnosis of rare diseases

- **18.00 – 18.30 Emilio J. A. Roldan-Prinsich**, Scientific Direction, Gador SA, Buenos Aires, Argentina – NGS expediting Orphan Drug Developments: The need of fast global drug availability, accessibility and equity

19.30 Welcome reception

Wednesday, 04. 05. 2016 8.30 – 12.30

- **8.30 – 9.00** Meet the speakers
 - **Vita Dolžan**, Samo Ribarič, Faculty of Medicine, University of Ljubljana, Slovenia – Presentation of ARTEMIDA project

Pharmacogenomics and pharmacoeepigenomics

Chairpersons: Kristel Van Steen, Vita Dolžan

- **9.00 – 9.45 Kristel Van Steen**, Université de Liège, Belgium – Reductionism and complexity in the omics era
- **9.45– 10.30 Tanja Kunej**, Biotechnical Faculty, University of Ljubljana, Slovenia – Potential of microRNAs for biomarker development
- **10.30 – 11.00** Coffee break
- **11.00 – 11.30 Marianna Lucafò**, University of Trieste, Italy – Role of non-coding RNAs in glucocorticoid response
- **11.30 – 12.00 Nadja Kern Prezelj**, VWR International gmbH – QuantaBio Innovative qRT-PCR, qPCR and miRNA technologies (sponsor lecture)
- **12.00 – 12.30 Fabian Kuck**, Biotek – Cytation™ Cell Imaging Multi-Mode Reader: An Advanced Tool for Smarter Target-Based and Phenotypic Screening (Kemomed sponsor lecture)
- **12.30 – 14.00** Lunch break

Wednesday, 04. 05. 2016 14.00 – 18.30

- **14.00 – 14.40** Poster session

Pharmacogenetics and personalized medicine

Chairpersons: Ron van Schaik, Nada Božina

- **14.40 – 15.20 Ron van Schaik**, Erasmus MC, Rotterdam, The Netherlands – Pharmacogenetics in Transplantation: what can we use?
- **15.20 – 16.00 Giuliana Decorti**, University of Trieste, Italy – Therapy personalization of IBD
- **16.00 – 16.30** Coffee break
- **16.30 – 17.00 Nada Božina**, Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine, Croatia – Pharmacogenetic testing in psychiatry
- **17.00 – 17.30 Vita Dolžan**, Faculty of Medicine, University of Ljubljana, Slovenia – Pharmacogenetics of Type 2 diabetes treatment
- **17.30 – 17.50 Lana Ganoci**, University of Zagreb School of Medicine, Croatia – Clinical implementation of pharmacogenetics in Croatia
- **17.50 – 18.10 Ernest Tambo**, Universite des Montagnes, Cameroon – Developing and promoting genetics and genomic medicine integration and uptake strategies in Africa
- **18.10 – 18.30 Nikola Kotur**, , Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Belgrade, Serbia – Maintenance therapy of childhood ALL patients induces TPMT gene expression in VNTR dependent manner

19.30 Dinner

Thursday, 05. 05. 2016 8.30 – 12.30

- **8.30 – 9.00** Meet the speakers
 - **Nada Božina**, Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine, Croatia – Integrating Pharmacogenomics with Pharmacovigilance - Croatian Experience

Oxidative stress and disease, Gene-environment interactions

Chairpersons: Antonio Cuadrado, Irina Milisav

- **9.00 – 9.45** **Antonio Cuadrado**, Autonomous University of Madrid, Spain – Redox Biology in Translational Medicine
- **9.45– 10.30** **María Monsalve**, Instituto de Investigaciones Biomédicas Alberto Sols, Spain – Oxidative stress induces loss of pericyte coverage and vascular instability in PGC-1alpha deficient mice
- **10.30 – 11.00** Coffee break
- **11.00– 11.40** **Kristel Van Steen**, Université de Liège, Belgium – Living in a world of interactions
- **11.40– 12.10** **Irina Milisav**, Faculty of Medicine, University of Ljubljana, Slovenia – Oxidative protein modifications in diabetes and neurodegenerative diseases
- **12.10– 12.30** **Alenka Franko**, Clinical Institute of Occupational Medicine, University Medical Centre, Ljubljana, Slovenia – Gene environment interactions: the case of asbestosis
- **12.30 – 14.00** Lunch break

Thursday, 05. 05. 2016 14.00 – 18.30

- **14.00 – 16.00** **The needs and directions for research and development services in pharmacy and biomedicine: round table discussion**
- **Chairpersons: Tamara Lah Turnšek, Metka Filipič**
- **16.00 – 16.30** Coffee break
- **16.30** Excursion to Piran
- **19.30** Dinner in Piran

Friday, 06. 05. 2016 8.30 – 12.30

- **8.30 – 9.00** Meet the speakers
 - **Damjana Rozman**, Faculty of Medicine, University of Ljubljana – CASyM and Systems Approaches to Tackle Multifactorial Pathologies

Bioinformatics and biostatistics for translational research**Chairpersons: Noël Malod-Dognin, Matthias Samwald**

- **9.00 – 9.45** **Magnus Ingelman-Sundberg**, Karolinska Institute, Sweden – Rare genetic variants do play a major role for interindividual variation in drug response
- **9.45 – 10.30** **Noël Malod-Dognin**, Imperial College London, UK – Network Data Integration Enables Precision Medicine
- **10.30 – 11.00** Coffee break

Emerging technologies in pharmacogenomics

- **10.00 – 10.30** **Janez Mavri**, Institute of Chemistry, Slovenia – Introduction to Multiscale Simulation of Enzyme Catalysis: Application to Monoamine Oxidase Catalyzed Decomposition of Biogenic Amines
- **11.30 – 12.00** **Matthias Samwald**, Medical University of Vienna, Austria – One man's *1 is another man's *13? Trouble with current nomenclatures in personalized medicine
- **12.00 – 12.30** **Peter Jacobs**, Thermo Fisher Scientific – Emerging technologies in pharmacogenomics (sponsor lecture)
- **12.30 – 14.00** Lunch break

Friday, 06. 05. 2016 14.00 – 18.30

- **14.00 – 14.40** Poster session

Cancer genomics**Chairpersons: Erika Cecchin, Núria Malats**

- **14.40 – 15.20** **Erika Cecchin**, CRO Aviano, Italy – Clinical implementation of host pharmacogenomics: focus on colorectal cancer
- **15.20 – 16.00** **Núria Malats**, CNIO, Madrid, Spain – Molecular epidemiology of pancreatic cancer
- **16.00 – 16.20** Coffee break

New approaches to personalized cancer treatment

- **16.20 – 16.50 Gregor Serša**, Institute of Oncology Ljubljana, Slovenia – Electroporation based treatments, electrochemotherapy and electrogene therapy for treatment of cancer
- **16.50 – 17.20 Maja Čemažar**, Institute of Oncology Ljubljana, Slovenia – Immunogene therapy for canine cancer: a translational model for human oncology
- **17.20 – 17.50 Chris Allen**, Thermo Fisher Scientific – A comprehensive view of Liquid Biopsy from ThermoFisher Scientific (sponsor lecture)
- **17.50 – 18.10 Sara Gagno**, CRO Aviano, Italy – Role of pharmacogenetics in metastatic breast cancer (MBC) patients treated with exemestane as first-line hormone therapy. An Italian multicentre study
- **18.10 – 18.30 Katja Goričar**, Faculty of Medicine, University of Ljubljana – Clinical-pharmacogenetic model predicting treatment outcome in malignant mesothelioma

19.30 Gala dinner

Saturday, 07. 05. 2016 8.30 – 12.30

- 8.30 – 9.00 Meet the speakers
 - **Antonio Cuadrado**, Autonomous University of Madrid, Spain

Translation to clinical practice

Chairpersons: Ron van Schaik, Vita Dolžan

- **9.00 – 9.30 Magnus Ingelman-Sundberg**, Karolinska Institute, Sweden – Pharmacogenomic and epigenomic biomarkers for prediction of drug response
- **9.30 – 10.00 Núria Malats**, CNIO, Madrid, Spain – EUPancreas - An integrated European platform for pancreas cancer research: from basic science to clinical and public health interventions
- **10.00 – 10.30 Nada Božina**, Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine – Genotype-based dosing of oral anticoagulants in clinical practice
- 10.30 – 11.00 Coffee break
- **11.00 – 11.30 Vita Dolžan**, Faculty of Medicine, University of Ljubljana, Slovenia – Preemptive testing in pharmacogenomics
- **11.30 – 12.00 Matthias Samwald**, Medical University of Vienna, Austria – Bridging theory and practice: Clinical decision support systems for personalized medicine

Closing plenary lecture

- **12.00 – 13.00 Professor Sir Munir Pirmohamed**, MRC Centre for Drug Safety Science and Wolfson Centre for Personalised Medicine and Institute of Translational Medicine, University of Liverpool, UK – Genomics and Therapeutics: The Opportunities

13.00 Closing ceremony



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