





# SUMMER SCHOOL GENOMIC MEDICINE – Bridging research and the clinic

03. 05. 2016 – 07. 05. 2016 Hotel Histrion, Portorož, Slovenia

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

Tuesdav. 03. 05. 2016 9.00 – 12.30

#### PRELIMINARY PROGRAMME

- Magnus Ingelman-Sundberg, 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
- **Metka Filipič**, National Institute of Biology, Slovenia HepG2CDKN1A–DsRed biosensor system for rapid and simple detection of genotoxic agents
- **Tamara Lah Turnšek**, National Institute of Biology, Slovenia Experimental oncology from in vitro to in vivo: Zebra fish model
- **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
- Antonio Cuadrado, Autonomous University of Madrid, Spain Models of neurodegenerative diseases

# SUMMER SCHOOL PRELIMINARY PROGRAMME

Tuesday, 03. 05. 2016 14.00 - 18.30

# Opening address

# Opening plenary lecture

• **Magnus Ingelman-Sundberg**, Karolinska Institute, Sweden – Pharmacogenomic and epigenomic biomarkers for prediction of drug response

# NGS in genomic medicine and rare diseases

- **Maja Stojiljkovic**, Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Belgrade, Serbia Diagnosis of rare diseases an NGS approach
- 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
- **Natasa Tosic**, Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Belgrade, Serbia Genetic profiling of haematological malignancies
- Borut Peterlin, Ales Maver, Clinical Institute of Medical Genetics, University Medical Center Ljubljana, Slovenia – Implementation of NGS in Slovene health system improves diagnosis of rare diseases
- 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

## Wednesday, 04. 05. 2016 8.30 – 12.30

- Meet the speakers
- Presentation of ARTEMIDA project

# Pharmacogenomics and pharmacoepigenomics

- **Magnus Ingelman-Sundberg**, Karolinska Institute, Sweden Rare genetic variants do play a major role for interindividual variation in drug response
- Marianna Lucafò, University of Trieste, Italy Non-coding RNAs in glucocorticoid response
- Tanja Kunej, Biotechnical Faculty, University of Ljubljana, Slovenia TBC
- Short talks

# Wednesday, 04. 05. 2016 14.00 - 18.30

Poster session

# Pharmacogenetics and personalized medicine

- **Ron van Schaik**, Erasmus MC, Rotterdam, The Netherlands Pharmacogenetics in Transplantation: what can we use?
- Giuliana Decorti, University of Trieste, Italy Therapy personalization of IBD
- Nada Božina, Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine, Croatia – Pharmacogenetic testing in psychiatry
- **Vita Dolžan**, Faculty of Medicine, University of Ljubljana, Slovenia Pharmacogenetics of Type 2 diabetes treatment
- Short talks

# Thursday, 05. 05. 2016 8.30 - 12.30

- Meet the speakers
- Presentation of EU-PGx

# Oxidative stress and disease, Gene-environment interactions

- Antonio Cuadrado, Autonomous University of Madrid, Spain Redox Biology in Translational Medicine
- María Monsalve, Instituto de Investigaciones Biomédicas Alberto Sols, Spain –
   Metabolic control of antioxidant systems, mechanisms and pathological implications
- Kristel Van Steen, Université de Liège, Belgium Gene-environment interactions
- **Irina Milisav**, Faculty of Medicine, University of Ljubljana, Slovenia Oxidative protein modifications in diabetes and neurodegenerative diseases
- Short talks

#### Thursday, 05. 05. 2016 14.00 – 18.30

#### Improving skills for research and career in Genomic medicine – workshop

- **Matthias Samwald**, Medical University of Vienna, Austria One man's \*1 is another man's \*13? Trouble with current nomenclatures in personalized medicine
- Nada Božina, Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine, Croatia – Integrating Pharmacogenomics with Pharmacovigilance -Croatian Experience
- TBA

#### 16.00 Excursion to Piran

## Friday, 06. 05. 2016 8.30 - 12.30

- Meet the speakers
- Presentation of EU-ROS

# Bioinformatics and biostatistics for translational research

- Nataša Pržulj, Imperial College London, UK Network Data Integration Enables Precision Medicine
- Kristel Van Steen, Université de Liège, Belgium Integromics
- Short talks

# Emerging technologies in pharmacogenomics

• **Peter Jacobs**, Thermo Fisher Scientific – Emerging technologies in pharmacogenomics (sponsor lecture)

# Friday, 06. 05. 2016 14.00 - 18.30

Poster session

# Cancer genomics and molecular epidemiology

- **Erika Cecchin**, CRO Aviano, Italy Clinical implementation of host pharmacogenomics: focus on colorectal cancer
- Núria Malats, CNIO, Madrid, Spain Molecular epidemiology of pancreatic cancer

# New approaches to personalized cancer treatment

- **Gregor Serša**, Institute of Oncology Ljubljana, Slovenia Electroporation based treatments, electrochemotherapy and electrogene therapy for treatment of cancer
- **Maja Čemažar**, Institute of Oncology Ljubljana, Slovenia Immunogene therapy for canine cancer: a translational model for human oncology
- Short talks

## Saturday, 07. 05. 2016 8.30 – 12.30

- Meet the speakers
- Presentation of CASyM

# Translation to clinical practice

- **Núria Malats**, CNIO, Madrid, Spain EUPancreas An integrated European platform for pancreas cancer research: from basic science to clinical and public health interventions
- **Matthias Samwald**, Medical University of Vienna, Austria Bridging theory and practice: Clinical decision support systems for personalized medicine
- **Borut Peterlin**, Clinical Institute of Medical Genetics, University Medical Center Ljubljana, Slovenia Ethical challenges in genomic medicine and next-generation sequencing
- Vita Dolžan, Faculty of Medicine, University of Ljubljana, Slovenia Preemptive testing in pharmacogenomics
- Nada Božina, Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine, Croatia – Genotype-based dosing of oral anticoagulants in clinical practice
- **Ron van Schaik**, Erasmus MC, Rotterdam, The Netherlands Clinical implementation: do you have your DNA passport?

# Closing plenary lecture

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

# Closing ceremony

















