



ESPT

European Society of Pharmacogenomics and Personalised Therapy
A Scientific Society for Individualised Medicine



4th ESPT SUMMER SCHOOL

SUPPORTED BY SPHN

PRECISION MEDICINE AND PERSONALISED HEALTH

September 24-27, 2018
Geneva, Switzerland



Dear Colleagues and Friends,

It is a great pleasure and honour to invite you to the 4th ESPT Summer School that will be held for the first time in Geneva, Switzerland, from September 24th to September 27th 2018. Following the success of the previous 3 ESPT Summer Schools in Belgrade (2016), Ljubljana (2012) and Rome (2014), the Education and Courses Division of ESPT has designed a comprehensive educational program in the multidisciplinary field of pharmacogenomics and personalised therapy together with the Swiss Personalised Health Network (SPHN).

This program includes both the fundamentals of pharmacogenomics as well as the latest knowledge on established and novel concepts in the field of precision medicine, as well its advanced clinical applications in personalised health. The title this year for the summer school will be: Precision Medicine and Personalised Health

Participants in the school will include:

- physicians, pharmacists, and other clinical and biomedical scientists at all stages of their career that want to learn about this evolving clinical and research field,
- graduate and postgraduate students interested in pharmacogenomics and related fields,
- regulators, government employees, insurance scientists, bioinformaticians, bioethicists and other professionals

The summer school will consist of lectures, held by distinguished international faculty that will cover key topics in novel concepts and clinical applications in precision medicine. Sessions will be interactive and workshops with the participants will be organised.

It is arranged as an intensive teaching and learning event that will raise the education levels in pharmacogenomics and personalised therapy several steps higher. Innovative and original programming will enable to present, share, debate and conclude on the opportunity to translate genetic laboratory test results into actionable prescribing decisions, emphasising the importance of teamwork in the use of personalised medicine for improving patient care in the clinical setting.

We hope that the 4th ESPT Summer School will meet your expectations, provide you some unforgettable personal and professional memories, and trust that you will enjoy your visit to the very beautiful and cosmopolitan city of Geneva.

We look forward to welcoming you in Geneva.

Sincerely yours,

Prof. Marc Ansari
ESPT board member / Chair Summerschool
Head of Onco-Hematology Pediatric, Geneva University Hospital

Prof. Peter Meier-Abt
Co-Chair Summerschool
Chair of the SPHN National Steering Board

Prof. Ron van Schaik
ESPT President
Head IFCC Expert-center Pharmacogenetics, Erasmus MC Rotterdam

SCIENTIFIC PROGRAMME

► Monday, September 24, 2018

- 09:00-09:15 Welcome - *M. Ansari*
SPHN - *P. Meier-Abt*
- 09:15-10:30 Introductory lecture: Concepts & Definitions of Precision Medicine and Personalised Health
U.A. Meyer
Pharmacogenomics: incl. Consequences on PK/PD - *R. van Schaik*
- 10:30-10:45 Coffee break
- 10:45-12:00 **"Omics" Overview I**
Genomics: Medicine & Health - *S. Antonarakis*
Epigenomics: Medicine & Health - *I. Cascorbi*
Transcriptomics - *M. Dermitzakis*
- 12:00-13:30 Lunch & Poster Viewing
- "Omics" Overview II The Integrome**
- 13:30-14:15 Proteomics - *R. Aebersold*
14:15-15:30 Metabolomics - *M. Simmaco*
- 15:30-15:45 Coffee break
- 15:45-16:45 Microbiome - *J. Schrenzel*
16:45-17:45 Nutrigenomics - TBC
- Welcome drink at Campus Biotech

► Tuesday, September 25, 2018

- Clinical Phenotype**
C. Lovis / A. Geissbuehler
- 09:00-09:45 What is the phenotype, the landscape
09:45-10:30 Challenge of data representation / data interpretation / data interoperability -
- 10:30-10:45 Coffee break
- 10:45-11:30 Prediction of metabolic phenotype from genotype - *A. Llerena Ruiz*
- Clinical examples**
- 11:30-11:50 Radiology image processing in new precision medicine - new technologies (radio-omics)
X. Montet
11:50-12:10 Pathology - TBC
12:10-12:30 Pharmaco-phenotype - *C. Samer*

- 12:30-14:00 Lunch & Poster Viewing
- 14:00-14:45 **Biomarkers: discovery & applications** - *D. Hochstrasser*
- 14:45-16:15 **Clinical Bioinformatics**
 Clinical perspective of bioinformatics - *O. Delaneau*
 Clinical Bioinformatics Pipelines - *V. Barbié*
 Clinical perspective - TBC
- 16:15-16:30 Coffee break
- 16:30-17:00 Artificial Intelligence (ETH) - TBC
- 17:00-18:00 Visit of the genome center - *E. Dermitzakis*

► Wednesday, September 26, 2018

Statistics / Experimental design

Associations : correlation -> causality - 2 takes on what constitutes evidence

- 09:00-09:45 Digital Epidemiology and big data - *M. Salathé*
 09:45-10:30 Evidence in personalised medicine - TBC

- 10:30-10:45 Coffee break

- 10:45-11:30 Example: what you can do with statistics on same dataset - TBC
 11:30-12:15 Experimental design including Metabolomics - Preanalytics - *U. Amstutz*

- 12:15-13:45 Lunch & Poster Viewing

13:45-17:45 Group work

Personalised aging: How to personalise osteoporosis prevention, diagnostics and treatment
J. Marc

Connecting genes and diseases – from gene to diseases and back. (Computer aided seminar)
C. Sipeky

How to implement pharmacogenetic testing into clinical practice - The cases of Dpyd and UGT1A1 - *M. Pazzagli*

Pre-emptive Pharmacogenomic testing: Case study of a workflow from sample to result
P. Jacobs

In silico analyses of DNA-protein, DNA-drug and DNA-DNA interactions – an approach to aid experimental design - *C. R. Uppugunduri Satyanarayana*

PGx-phenotype association: Antiplatelets Therapy in acute coronary syndrome - *S. Stanković*

Good practices of gene testing in personalised medicine of breast cancer patients - *M. Miozzo*

Personalised medicine in diagnostics and monitoring of leukemia - *H. Podgornik*

- 16:30-16:45 Coffee break

Student work prepare presentation

School Party at Golf Club de Genève

► Thursday, September 27, 2018

	Biobanking
09:00-10:00	Potential and challenges of Biobanks - <i>V. Mooser</i>
10:00-10:15	Coffee break
10:15-11:00	Ethical implications related to Biobanking & big data - <i>E. Vayena</i>
11:00-11:45	Health economics of Personalised Health - <i>T. Szucs</i>
11:45-13:30	Lunch & Poster Viewing
	Pharmacogenomics
13:30-14:30	Cardiovascular Pharmacogenomics - <i>V. Manolopoulos</i>
	Presentations of Group work - <i>J. Marc</i>
14:30-16:30	Topics continued from Day 3
16:30-17:00	Coffee break
17:00-18:00	Closing unifying lecture - <i>M.A. Rubin</i>

► Friday, September 28, 2018

FEAM conference on Precision Medicine and Personalised Health 2018



ORGANISING SECRETARIAT



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