



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





CANSEARCH
fondation de recherche
contre le cancer de l'enfant

with the auspices of



Schweizerische Pädiatrische Onkologie Gruppe
Groupe d'Oncologie Pédiatrique Suisse
Gruppo d'Oncologia Pediatrica Svizzera
Swiss Paediatric Oncology Group



SPT THE SWISS GROUP OF
PHARMACOGENOMICS AND
PERSONALISED THERAPY



**UNIVERSITÉ
DE GENÈVE**

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

CHAIRS OF THE ESPT SUMMER SCHOOL

Marc Ansari and Peter Meier-Abt

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Laurence Legros, FEAM
Liselotte Selter, SPHN
Margaret Sheridan Ostan, SPT
Myriam Tapernoux, SAMS
Marina Festinese, MZ Congressi

SPEAKERS

Aebersold Rudolph, Switzerland
Amstutz Ursula, Switzerland
Ansari Marc, Switzerland
Antonarakis Stylianos, Switzerland

Barbié Valérie, Switzerland
Beerenwinkel Niko, Switzerland
Blasimme Alessandro, Switzerland

Cascorbi Ingolf, Germany
Currat Christine, Switzerland

Delaneau Olivier, Switzerland
Dermitzakis Emmanouil, Switzerland

Geissbuhler Antoine, Switzerland

Hemkens Lars, Switzerland
Hochstrasser Denis, Switzerland

Jacobs Peter, Belgium

Llerena Adrian, Spain
Lovis Christian, Switzerland

Manolopoulos Vangelis, Greece
Marc Janja, Slovenia
Mckee Thomas, Switzerland
Meier-Abt Peter, Switzerland
Meyer Urs A., Switzerland
Miozzo Monica, Italy
Montet Xavier, Switzerland
Mooser Vincent, Switzerland

Pazzagli Mario, Italy
Podgornik Helena, Slovenia

Rubin Mark A., Switzerland

Salathé Marcel, Switzerland
Samer Caroline, Switzerland
Schrenzel Jacques, Switzerland
Simmaco Maurizio, Italy
Sipeky Csilla, Finland
Stankovic Sanja, Serbia
Szucs Thomas, Switzerland

Tsantoulis Petros, Switzerland

Uppugunduri Satyanarayana C.R., Switzerland

Van Schaik Ron, The Netherlands

Wahli Walter, Singapore

Zwahlen Marcel, Switzerland

SCIENTIFIC PROGRAMME

► Monday, September 24, 2018

- 09:00-09:25 Welcome - *M. Ansari*
ESPT - *Ron van Schaik*
SPHN - *P. Meier-Abt*
- 09:25-10:10 Precision Medicine and Personalised Health : Concepts, opportunities and challenges
U.A. Meyer
- 10:10-10:30 Pharmacogenetics in clinical practice: do you have your DNA passport? - *R. van Schaik*
- 10:30-10:45 Coffee break
- Chairs: M. Ansari - P. Meier-Abt
"Omics" Overview I
- 10:45-11:20 Genomics: Medicine & Health - *S. Antonarakis*
- 11:20-11:55 Epigenomics: Medicine & Health - *I. Cascorbi*
- 11:55-12:30 Transcriptomics - *E. Dermitzakis*
- 12:30-14:00 Lunch & Poster Viewing
- Chairs: M. Simmaco - R. van Schaik
"Omics" Overview II The Integrome
- 14:00-15:00 Proteomics - *R. Aebersold*
- 15:00-16:00 Metabolomics - *M. Simmaco*
- 16:00-16:15 Coffee break
- 16:15-17:00 Microbiome - *J. Schrenzel*
- 17:00-17:45 Nutrigenomics - *W. Wahli*

Welcome drink at Campus Biotech

► Tuesday, September 25, 2018

- Chairs: C. Lovis - A. Geissbuhler
Clinical Phenotype
C. Lovis / A. Geissbuhler
- 09:00-09:15 Introduction - A. Geissbuhler
- 09:15-10:15 a) What is the phenotype, the landscape
b) Challenge of data representation / data interpretation / data interoperability
- 10:15-10:30 Q/A - A. Geissbuhler
- 10:30-10:45 Coffee break
- 10:45-11:30 Prediction of metabolic phenotype from genotype - *A. Llerena*

SCIENTIFIC PROGRAMME

Chairs: I. Cascorbi - C. Samer

Clinical examples

11:30-11:50

Radiology image processing in new precision medicine - new technologies (radio-omics)
X. Montet

11:50-12:10

Pathology - *T. McKee*

12:10-12:30

The Geneva cocktail for cytochrome P450 phenotyping - *C. Samer*

12:30-14:00

Lunch & Poster Viewing

Chairs: M. Dermizakis - P. Tsantoulis

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 - *P. Tsantoulis*

16:15-16:30

Coffee break

Chairs: M. Ansari - U. A. Meyer

16:30-17:00

Artificial Intelligence (ETH) - *N. Beerenwinkel*

17:00-18:00

Visit of the genome center - *E. Dermizakis*

► Wednesday, September 26, 2018

Chairs: U. A. Meyer - S. Stankovic

Statistics / Experimental design

09:00-09:45

Digital Epidemiology and big data - *M. Salathé*

09:45-10:30

Evidence in personalised medicine: has correlation made experimental design obsolete?
M. Zwahlen

10:30-10:45

Coffee break

10:45-11:30

Randomized Real world Evidence - *L. Hemkens*

11:30-12:15

Experimental design for "omics" studies - *U. Amstutz*

12:15-13:45

Lunch & Poster Viewing

Chairs: J. Marc - V. Manolopoulos

13:45-17:45

Group work

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

Precision medicine bioinformatics - connecting diseases, drugs and genes

(computer aided seminar) - *C. Sipeky*

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

SCIENTIFIC PROGRAMME

13:45-17:45

Group work

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*

Coffee break during Group Work (16:30 - 16:45)

Gala Dinner at Golf Club de Genève

► Thursday, September 27, 2018

Chairs: U. Amstutz - R. van Schaik

Biobanking

09:00-10:00

Potential and challenges of Biobanks - *V. Mooser, C. Currat*

10:00-10:15

Coffee break

10:15-11:00

Ethical implications related to Biobanking & big data - *A. Blasimme*

11:00-11:45

Health economics of Personalised Health - *T. Szucs*

11:45-13:30

Lunch & Poster Viewing

Chairs: J. Marc - V. Manolopoulos

Pharmacogenomics

13:30-14:30

Cardiovascular Pharmacogenomics - *V. Manolopoulos*

Presentations of Group work - *J. Marc*

14:30-16:30

Topics continued from Day 3

"GERARD SIEST" AWARD to the best presentation

16:30-17:00

Coffee break

17:00-18:00

Closing unifying lecture - *M.A. Rubin*

► Friday, September 28, 2018

FEAM conference on Precision Medicine and Personalised Health 2018

Posters viewing will be available for the entire week

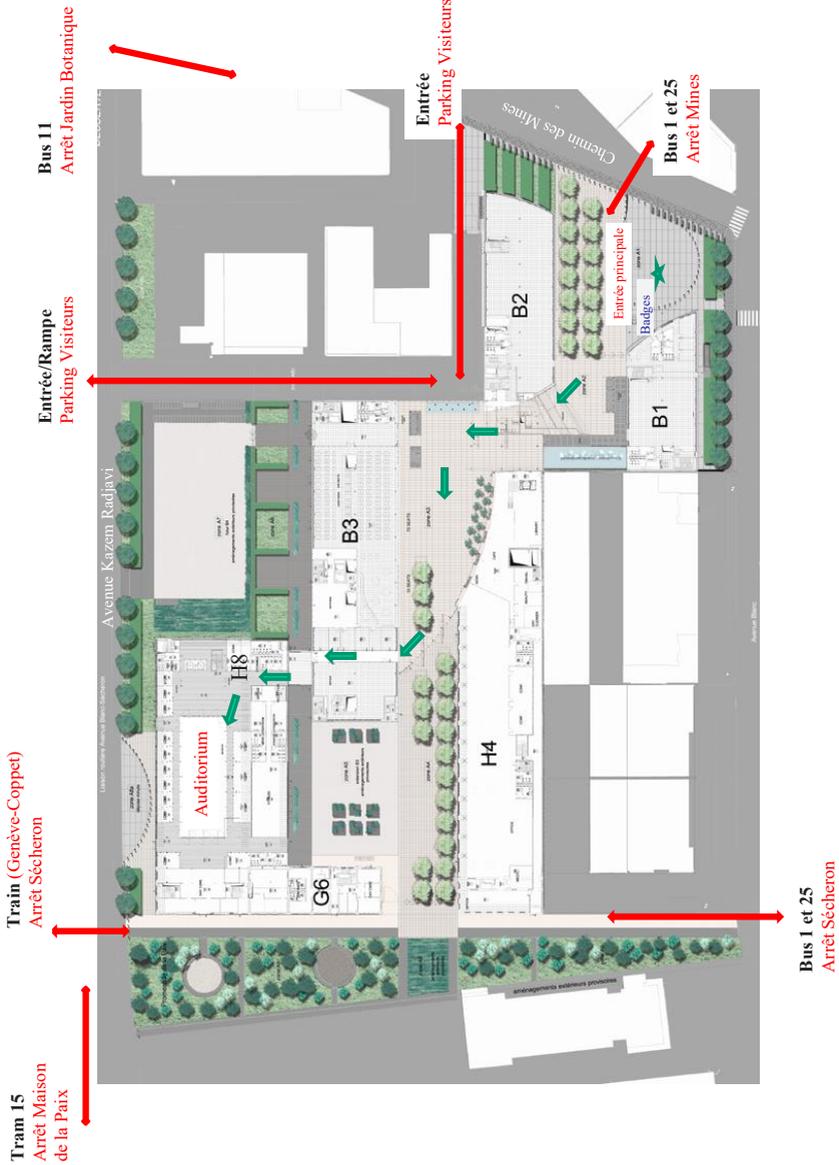
GENERAL INFORMATION

COURSE VENUE

CAMPUS BIOTECH
9, Chemin des Mines
CH - 1202 Geneva

WI-FI AT CAMPUS

Network: Campus_Visitors
Password: welcomecampus



GENERAL INFORMATION

TRANSPORTS TO THE COURSE VENUE

- Bus 1 and 25, stop Mines
- Bus 11, stop Jardin Botanique
- Tram 15, stop Mines
- Train CFF, stop Sécheron
- Mouette 4, stop De-Chateaubriand

Free public transport!

When you stay in a hotel, a youth hostel or a campsite in the canton, you will receive a "Geneva Transport Card" free of charge. With this card, public transport in Geneva is free for the full duration of your stay. This personal and non-transferable card will be given to you when you arrive at your accommodation. It permits unlimited travel on Geneva's public transport network (UNIRESO: bus (TPG), train (CFF) and boat (Mouettes Genevoises) for the full duration of your stay.

GALA DINNER LOCATION

Golf Club de Geneve
Route de la Capite 70
1223 Cologny

Please note that busses going to the dinner location will leave **directly** from Campus Biotech at **18.30**, just after the closure of the afternoon session.

Dress code: informal, but no shorts allowed.

Poster prize giving ceremony will be held during gala dinner.



ORGANISING SECRETARIAT



MZ CONGRESSI s.r.l.

Via C. Farini, 81 - 20159 Milano, Italy

Phone: +39 02 66802323

Fax: +39 02 6686699

Email: info@esptsummerschool.eu

CONGRESS VENUE

Campus Biotech Geneva

9, Chemin des Mines

CH-1202 Geneva

