



Diogeno in marmo di Carrara - F. Ferrandini

Scientific Direction: Paolo Marchetti - Maurizio Simmaco

Con il patrocinio del
Consiglio Regionale del Lazio



Con il patrocinio di:



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A straight shift of health policies from curative towards preventive and predictive actions is needed to afford the economic and socio-demographic challenges of the next future. Compared to the treatment-derived healthcare costs and lost productivity, which burden the economy, families and businesses, effective prevention and prediction of toxicity and efficacy often are cost-effective, reduce healthcare costs and save productivity, in addition to improving the length and quality of people's lives.

Precision Medicine is a rapidly expanding, multidisciplinary field, which is expected to realize the shift of medicine towards a more preventing and predictive discipline, re-designing the general approach to healthcare by:

- *more effective prevention: identification and monitoring of risks, early intervention;*
- *personalization of preventive intervention;*
- *selection of optimal therapy: increase of therapy efficacy;*
- *reduction of trial-and-error prescribing and exclusion of unnecessary drugs;*
- *reduction of adverse drug reactions;*
- *increasing patient compliance with therapy;*
- *reducing the overall cost of healthcare.*

The Precision Medicine concept stepped up by the Human Genome Project knowledge, which allowed to recognize the importance of the genomic inter-individual variants as determinants of patho-physiology and drug response. That is, the peculiar genomic profile of each person affects the susceptibility to the onset of specific diseases as well as the clinical response to drugs and treatments. Genomic Medicine employs genotype characterization as a stratifying tool for patient populations, to make individualized risk predictions and treatment decisions, while Pharmacogenomics identifies genomic determinants of drug's efficacy and toxicity.

The attempt to translate genomics and pharmacogenomics into clinical practice revealed that the personal genome is crucial but not enough to reach the best precision in the single-patient-sized medical approach. Nowadays, a composite panel of molecular analyses is available to characterize the actual patient phenotype and make precise medical decision. Such analyses include transcriptomics, epigenetics, metabolomics and therapeutic drug monitoring. Development of bioinformatics tools to integrate and interpret molecular, clinical and demographic data are essential to make Precision Medicine actionable.



Program

Day 1 – November 28th

9.00-10.00 Registration and accommodation

10.00-11.00 Welcome Ceremony
Paolo Marchetti, Authorities welcome

11.00-12.00 The HORIZON2020 U-Pgx project.
Henk-Jan Guchelaar

14.30-14.45 Introduction to the SIMEP School: general concepts, aims, perspectives.
Maurizio Simmaco

14.45-15.30 Bioethics and Precision Medicine.
Alberto Garcia

15.30-16.00 Coffee break

16.00-16.45 Precision Medicine: legal aspects.
Vittorio Fineschi

17.00-17.30 Sustainability of Precision Medicine: from lawyers to payers.
Davide Integlia

Day 2 - November 29th

9.00-9.45 Pharmacogenomics and Clinical Pharmacology: the ADME system.
Vangelis Manolopoulos

10.00-10.45 Clinical implementation programme.
Adrian Llerena

11.00-11.30 Coffee break

11.30-12.15 Pharmacogenomics of transporters and statins.
Mikko Niemi

12.30-13.15 The Pharmacogenetics of immunodepressants.
Ron van Shaik

13.15-14.30 Lunch

14.30-15.15 Precision Medicine: the Danish experience.
Ivan Brandslund

15.30-16.15 Genomic England Initiative: 100,000 genome.
Tim Hubbard

16.30-17.00 Coffee break

17.00-17.45 Implementation of PGX in Austria.
Marcus Paulmichl

18.00-18.30 TDM in psychiatry
Andreas Conca

Day 3 - November 30th

9.00-9.45 Genetic drift and genetic selection as the bases for current human cytochrome P450 polymorphisms. Magnus
Ingelman-Sundberg

10.00-10.45 Pharmacogenomics and pharmacoepigenomics

in oncology.
Ingolf Cascorbi

11.00-11.30 Coffee break

11.30-12.15 Genomics of complex diseases.
Jania Marc

12.30-13.15 Translation of genomic data: bioinformatic tools.
Robert Preissner

13.15-14.30 Lunch

14.30-15.15 The VEGF: a system medicine paradigm.
Sophie Visvikis-Siest

15.15-16.00 Liquid Biopsy – Circulating cell free DNA.
Giovanni Blandino

16.00-16.45 Foundation medicine: harnessing the power of molecular information.
Vasanti Natarajan

16.45-17.30 Coffee break

17.30 – 18.15 Practical considerations in genomic decision support.
Erwin Böttinger

Day 4 – December 1st

9.00-9.45 Molecular oncology.
Giandomenico Russo

10.00.10.45 Personalized Medicine in Oncology.
Federica Mazzuca

11.00-11.30 Coffee break

11.00-11.30 Epigenetics: basic concepts, research and diagnostics.
Monica Miozzo

11.30-12.15 Liquid Biopsy - Circulating Tumor Cells.
Paola Gazzaniga

12.30-13.15 Precision Medicine: the Italian experience.
Maurizio Simmaco

13.15-14.30 Lunch

14.30-15.15 Advanced Technologies for genomics implementation.
Giovanna Gentile

15.30-16.15 Metabolomics: clinical application.
Luana Lionetto

Day 5 – December 2nd

9.00-9.45 Targeting the Immune system.
Marianna Nuti

10.00-10.45 Microbiome and human health.
Lorenza Putignani

11.00-11.30 Coffee break

11.30-12.15 Personalized Medicine and gender.
Valter Malorni

12.30-13.00 Conclusion and Perspectives.
Paolo Marchetti
Maurizio Simmaco

General information

Registration:

Participation is free. A limited number of participants is allowed. Please register early at: www.simep.it

Congress venue:

Opening ceremony
Cavalieri Hall - IDI-IRCCS
Via Monti di Creta, 104 - Rome
Courses: Oratorio Santa Caterina
Via Monserrato, 111 - Rome

CME Procedures:

CME ref. n. 4795-173295

CME credits: 26

This congress is open to 50 medical doctors.

Learning:

Biology, Oncology, Radiotherapy, General surgery, Clinical pathology, Anatomy, Biochemistry

At the end of the congress, will be given a Certificate of participation.

The conference was made possible by an unconditional contribution:



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Provider



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