The Transformation of Medicine
First International Conference on Network Medicine and Big Data

VENUE:
Sapienza University of Rome
Dipartimento di Scienze odontostomatologiche e maxillo-facciali
via Caserta 6, 00161 Roma

SCIENTIFIC COMMITTEE:
Sapienza University of Rome
Brigham and Women’s Hospital
Boston, MA (USA)

September 24-26, 2018
Via Caserta 6, Rome - Italy
Programme

Day 1. Genomics, Phenomics, Big Data and Machine Learning Essential for Network Medicine

8.15 am Welcome Joseph Loscalzo, MD, PhD and Rector Eugenio Gaudio, MD.

8.30 am Networks in Biology Albert-Laszlo Barabasi, PhD

9.30 am Network Medicine: Diagnosis and Therapy of Disease Joseph Loscalzo, MD, PhD

10.30 am Break

10.50 am Synchronization in Adaptive Networks Guido Caldarelli, MD

11.10 am Graph-based Methods for Disease Gene Prediction Eng. Paola Velardi

11.30 am Multiscaling in Network Medicine Jan Baumbach, PhD

11.50 am Epigenetics in Network Medicine Claudio Napoli, MD, PhD

12.10 pm Space Technologies and Global Health Antoine Geissbuhler, MD

12.30 pm Key Nodes in Co-expression Networks: from Grapevine to Cancer Lorenzo Farina, PhD

12.50 Lunch

1.40 pm Diet and Network Medicine in Atherogenesis Professor Linda Badimon Maestro

2.00 pm Transitions in Regulatory Networks John Quackenbush, PhD

2.20 pm Articulation Points and Bridges in Complex Networks Yang-Yu Liu, PhD

2.40 pm Complex Antithrombotic Regimens and Precision Medicine Giovanni Di Minno, MD

3.00-4.00 pm Poster Session

4.00-6.00 pm Discussion and Planning Groups
- Methods
- Molecular Networks

Day 2. Analytical Approaches to and Applications of Network Medicine to Pathobiology and Clinical Medicine

8.30 am From Protein-Protein to Human-Machine Interactions Jörg Menche, PhD

9.30 am Data Science, Networks and Infectious Diseases: More Than Forecast Alessandro Vespignani, PhD

10.30 am Break

10.50 am Machine Learning in Emergency Medicine Ziad Obermeyer, MD

11.10 am Deep Learning and Imaging George Washko, Jr., MD, MS

11.30 am Network Medicine and Disease Endophenotypes Bradley A. Maron, MD

11.50 am Disease Cluster-based Drug Repurposing Harald H.H.W. Schmidt, MD, PhD, PharmD, FESC

12.10 pm Big Data and Pregnancy Outcomes Elisabetta Poluzzi, PharmD, PhD

12.30 pm AI in Radiology: from Qualitative to Quantitative Data Carlo Catalano, MD

12.50 pm Genomics and Networks in COPD Edwin K. Silverman, MD, PhD

1.10 pm Lunch

2.10 pm Personality Traits, Mental Health and Use of Mobile Technology: a Learning Approach Julinda Stefa, PhD

2.30 pm Plasticity Interactome. The Necessary Network for the Development of a Predictive and Personalized Medicine for Neurodegenerative Diseases Michele Papa, MD

2.50-4.00 pm Poster Session

4.00-6.00 pm Discussion and Planning Groups
- Machine Learning in Clinical Medicine
- Phenotypic Networks

Day 3. Future Planning

8.15 am Format

8.30 am Topic One Report of Discussion and Planning Groups

9.30 am Topic Two Report of Discussion and Planning Groups

10.30 am General Discussion and Next Steps