

# Computation as a driver of translational medicine

## 5th Edition of the International School of Functional Genomics

September 28<sup>th</sup>-30<sup>th</sup>, 2015

SHERATON

Via Antonello da Messina 45  
Acicastello (CT)

## Speakers

Opening remarks  
Charles DeLisi Ph.D.

Mutations and immunotherapy  
Gyan Bhanot, Ph.D.

Computational assessment of antimicrobial resistance from pathogen genome sequences for managing infectious complications  
Minoru Kanehisa, Ph.D.

Comprehensive analysis of tumor immunity  
Xiaole Shirley Liu, Ph.D.

Computational biology in the identification and modification of T cell epitopes and antigens for cancer immunotherapy  
Jay A. Berzofsky, M.D., Ph.D.

Computational ncRNA analysis with applications to cancer and microbiology  
Alfredo Ferro, Ph.D.

Gabriela Alexe, Ph.D.

From fundamental science and mathematics to precision medicine  
Charles Cantor, Ph.D.

Local sequence assembly reveals a high-resolution profile of somatic structural variations in 97 cancer genomes  
Zhiping Weng, Ph.D.

WebMeV-a cloud based platform for genomic analysis  
YaoYu Wang Ph.D.

Computational approaches to repositioning drugs for cancer therapy  
Zhenjun Hu Ph.D.

Using networks to probe biological systems  
John Quackenbush, Ph.D.

Challenges and lessons learned in the computational dissection of brain disorders via transcriptomics  
Shelley Russek, Ph.D.

Computational synthetic biology: designing and optimizing complex molecular circuits  
Giuseppe Nicosia Ph.D.

Probing the neural network with cognitive enhancers: searching for clues to spatial memory  
David H. Farb, Ph.D.

Next-generation neuropsychiatric pharmacogenomics and the 4D nucleome  
Brian D. Athey, Ph.D.

System biology of wellness  
Simon Kasif, Ph.D.

Systems biology of neuronal degeneration and survival  
Sebastiano Cavallaro, M.D., Ph.D.

From biomedical needs to computational models and back again: a general approach  
Santo Motta, Ph.D.



Institute of Neurological Science



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[www.isn.cnr.it](http://www.isn.cnr.it) - [info@functional-genomics.it](mailto:info@functional-genomics.it)