

Alp Nano bio International School 3 - PROGRAM

January 23-27, 2012, Sterzing (Bozen, Italy)

Next generation technology systems and life sciences interface research:
an integrative approach.

MONDAY 23 January - NGS: biological challenge

Chairman: C. Furlanello (FBK-Trento, Italy)

13.00 - 14.30 **Registration**

14.30 - 14.45 **Opening**

M. Anderle, DIUR-PAT, Trento (Italy)

14.45 - 15.00 **NGS: an introduction**

V. De Sanctis, University of Trento - CIBIO (Italy)

15.00 - 16.30 **Beyond plant genomes: which perspectives**

R. Velasco, FEM S. Michele, Trento (Italy)

16.30 - 17.00 *coffee break*

17.00 - 18.30 **Challenges in employing NGS technology to address scientific questions**

C. Daub, Omics Sciences Center RIKEN, Yokohama (Japan)

TUESDAY 24 January - NGS: technology

Chairman: P. Gasparini (University of Trieste, Italy)

8.30 - 10.00 **Implementation of next generation sequencing in molecular diagnostics – strategic considerations**

H. Scheffer, Nijmegen Medical Centre (Netherlands)

10.00 - 10.30 *coffee break*

10.30 - 12.00 **Next Generation Sequencing: new possibilities in genetic diagnostics**

M. Nelen, UMC Nijmegen, Dept. of Human Genetics (Netherlands)

12.00 - 12.30 **Technical Specialist - "Next Generation Sequencing: now it's for anybody!"** illumina®
L. Beretta

12.30 - 15.30 SNOW/FREE-TIME

Chairwoman: V. De Sanctis (University of Trento-CIBIO, Italy)

15.30 - 16.00 **Technical Specialist - To be defined** life technologies™
R. Tanzi

16.00 - 16.30 **Technical Specialist - Exome sequencing in Mendelian disorders – An overview on KAPA Biosystems innovative solutions for Library preparation and quantification.**

D. Vozzi



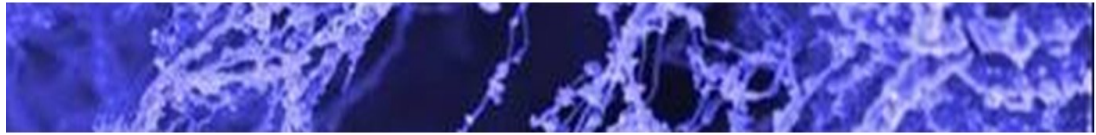
16.30 - 17.00 *coffee break*

17.00 - 18.00 **Next Generation Sequencing based approaches to study evolution and variation in microbial populations**

D. Cavalieri, FEM S. Michele, Trento (Italy)

18.00 - 18.30 **Technical Specialist - "Droplet Digital PCR: Molecular Biology in High Resolution"**

M. Bianchi 



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WEDNESDAY 25 January - NGS: data analysis

Chairman: M. Chierici (FBK-Trento, Italy)

8.30 - 10.00 **Computational tools for next generation sequencing: from nucleotides to functional genomics - 1**

C. Furlanello and M. Chierici, FBK - Trento, Italy

10.00 - 10.30 *coffee break*

10.30 - 13.30 **Computational tools for next generation sequencing: from nucleotides to functional genomics -2**

C. Furlanello and M. Chierici, FBK, - Trento, Italy

13.30 - 16.30 SNOW/FREE-TIME

16.30 - 17.00 *coffee break*

Chairwoman: V. De Sanctis (University of Trento-CIBIO, Italy)

17.00 - 17.30 **Technical Specialist - Downstream of next generation sequencing: high-confidence biomarker validation**

M. Menghi 

17.30 - 18.00 **Technical Specialist - Needs and Solutions for Automation in NGS Sample Preparation**

H. Arnold and D. Tait 

18.00 - 19.00 **Poster session**

THURSDAY 26 January - Micro nano approach

Chairwoman: C. Pederzoli (FBK-Trento, Italy)

8.30 - 10.00 **Integration of Biomaterials in Micro/Nano Systems for Biological and Chemical Sensing**

R. Ghodssi, University of Maryland (USA)

10.00 - 10.30 *coffee break*

10.30 - 12.00 **Genomic and RNA sample preparation for second-generation sequencing**

P. Zajac, Karolinska Institute Stockholm (Sweden)

12.00 - 12.30 **Technical Specialist - Focus to key Genomic regions – Agilent's SureSelect Platform**

V. Maran 

12.30 - 15.30 SNOW/FREE-TIME

15.30 - 17.00 **Nanopore biosensors: basics to advanced applications**

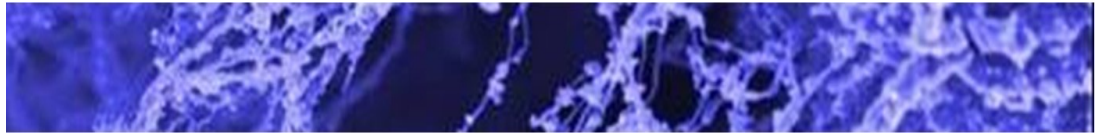
V. Mussi, University of Genova, NanoMed Lab. (Italy)

17.00 - 17.30 *coffee break*

17.30 - 19.00 **Nanobiotechnologies meet Systems Biology**

A. Esposito, University of Cambridge (United Kingdom)

20.00 **Social dinner**



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FRIDAY 27 January - NGS: biological output

Chairwoman: C. Potrich (FBK-Trento, Italy)

- 8.30 - 9.15 **Characterization and discovery of novel miRNAs and moRNAs in chronic myeloproliferative neoplasms**
S. Bortoluzzi, University of Padova (Italy)
- 9.15 - 10.00 **Global quantification of mammalian gene expression control**
W. Chen, Max Delbruck Center, Berlin (Germany)
- 10.00 - 10.30 *coffee break*
- 10.30 - 12.00 **Assembling the diversity: reconstruction and characterization of ecotypes' proprietary set of genes by RNA-Seq**
M. Delledonne, University of Verona (Italy)
- 12.00 - 13.30 **Next Generation sequencing to study inherited diseases**
School Closure
P. Gasparini, University of Trieste (Italy)
- 13.30 - 14.30 **Quick lunch**