



Training School 2018

Palermo, 6 - 9 February 2018

Day 1 - Tuesday, Febr 6th

10:00

Registration and Welcome Address

Antonino Valenza

University of Palermo, Aten Center- Director

11:00

Vincenzo Cavalieri

University of Palermo, Dept. of Biological, Chemical and Pharmaceutical Sciences and Technologies & ATeN Center/CHAB

Mapping of molecular interactions at a space-time scale in the zebrafish model

12:00

Valeria Vetri

University of Palermo, Dept. of Physics and Chemistry & ATeN Center/CHAB

Fluorescence Microscopy methods to study molecular interactions in live cells.

13:00

Lunch with teachers

15:00-17:00

Practical Session: Zebrafish Lab.

17:00-19:00

Practical Sessions*: Pulsed EPR, Confocal Microscopy, Ultrafast Spectroscopy, Atomic Force Microscopy, Raman Microscopy, Nanotechnologies and Molecular Devices

Day 2 - Wednesday, Febr 7th

9:30

Kleitos Sokratous

Cyprus Institute of Neurology & Genetics Dean, The Cyprus School of Molecular Medicine.

Mass spectrometry based proteomics to study protein-protein interactions

10:30

Alberto Boffi

Center for Life Nano Science, University La Sapienza, IIT, Rome, Italy

Engineered proteins for drug delivery

11:30

Philipp Buckle

Pall FortéBio, Portsmouth, United Kingdom

Innovative approaches to accelerate kinetic characterization and optimization in biologics development and drug discovery

12:00

Giuseppe De Vito

National Institute of Optics-National Research Council, Florence, Italy.

Polarisation-resolved CARS imaging: from molecular orientation to anatomical structure

12:30

Katherina Orellana

Leica Microsystems

DLS -The vertical turn for zebrafish research

13:00

Lunch with teachers

15:00-17:00

Practical Session: Zebrafish Lab.

17:00-19:00

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Day 3- Thursday, Febr 8th

9:30	<p><u>Fabio Librizzi</u> National Research Council, CNR, Palermo, Italy Biophysics of amyloid formation.</p>
10:30	<p><u>Giuseppe Sancataldo</u> European Laboratory for Non-Linear Spectroscopy (LENS), Florence, Italy. 3D single particle tracking: from methods to biophysical applications</p>
11:30	<p><u>Ludovico Silvestri</u> European Laboratory for Non-Linear Spectroscopy (LENS), Florence, Italy. Advanced light sheet microscopy to investigate brain structure and function.</p>
12:30	<p><u>Giuseppe Domenico Arrabito</u> University of Palermo, Dept. of Physics and Chemistry & ATeN Center/CHAB Lab-on-a-chip: miniaturized systems for biotechnologies</p>
13:00	Lunch with teachers
15:00-17:00	Practical Session: Zebrafish Lab.
17:00-19:00	Practical Sessions*: Pulsed EPR, Confocal Microscopy, Ultrafast Spectroscopy, Atomic Force Microscopy, Raman Microscopy, Nanotechnologies and Molecular Devices

Day 4- Friday, Febr 9th

9:30	<p><u>Claudio Canale</u> Nanoscopy, IIT & University of Genoa, Genoa, Italy Cellular level nanomanipulation using atomic force microscope aided with super-resolution imaging.</p>
10:15	<p><u>Giorgio Schirò</u> Institut de Biologie Structurale, IBS, Univ. Grenoble Alpes CNRS, Grenoble, France Ultrafast structural dynamics of proteins by X-FEL</p>
11:00	<p><u>Fabrizio Messina</u> University of Palermo, Dept. of Physics and Chemistry & ATeN Center/CHAB Probing electronic molecular dynamics with femtosecond optical spectroscopies.</p>
11:45	<p><u>Francesco Argenton</u> Department of Biology, University of Padua, Italy Zebrafish Signaling Reporters: production and analysis</p>
12:45	<p>Closing remarks <u>Maurizio Leone:</u> University of Palermo, Dept. of Physics and Chemistry</p>

*Students divided in small groups will perform experiment trials.