

**The International School of Advanced
Molecular, Genome and Complex Systems
BioMedicine**

**Advanced Molecular Systems
BioMedicine And Complex
Pathological Phenotypes**

Catania, Italy, june 18-20, 2014



Wassily Kandinsky: In the Blue - 1925

Characterisation of the molecular bases of wild-type and pathological phenotypes is one of the most important topics in contemporary Molecular BioMedicine. It will allow to understand complex biological processes, including the molecular determinants of cells and organisms identity. The **seventh** course of the School of Advanced Molecular, Genome and Complex Systems BioMedicine will again focus on neoplastic and degenerative diseases: these pathological phenotypes will be exploited as experimental models to demonstrate how much Genome Projects have impacted on contemporary scientific research in BioMedicine and BioTechnology and have profoundly modified our vision of Nature.

Director of the School

Michele Purrello

Directors of 2014 Course

F Basile, C Di Pietro, F Purrello, M Purrello, M Ragusa

Scientific Committee

A Agodi, D Barbagallo, A Biondi, R Caltabiano, D Condorelli, M Di Vita, M Fichera, A Fiumara, L Malatino, T Mattina, P Musumeci, M Panella, S Piro, R Polosa, MA Rabuazzo, R Rizzo, S Saccone, M Santagati, M Scalia, F Sinatra, G Sorge, S Stefani, E Vasquez

Local Organising Committee

R Battaglia, C Barbagallo, M Barchitta, PV Calì, A Condorelli, S Di Mauro, MG Granata, MA Gulisano, M Maugeri, L Tamburello, F Urbano

Faculty and Lectures

Miriam Cnop, MD, PhD

Laboratory of Experimental Medicine and ULB Center for Diabetes Research, Medical Faculty, Universite Libre de Bruxelles (ULB), B-1070 Brussels, Belgium, EU

Molecular mechanisms of lipotoxicity and beta cell apoptosis in type 2 diabetes

Decio Eizirik, MD, PhD

Laboratory of Experimental Medicine and ULB Center for Diabetes Research, Medical Faculty, Universite Libre de Bruxelles (ULB), B-1070 Brussels, Belgium, EU

Molecular pathways of insulinitis and beta-cell apoptosis in type 1 diabetes

Joerg Hoheisel, PhD

Unit of Functional Genome Analysis and Scientific Council Deutsches Krebsforschungszentrum, Im Neuenheimer Feld 580, 69120 Heidelberg, Germany, EU

Functional Genomics and Proteomics in Cancer Research

Personalised proteomics by means of individualised protein microarrays

Massimo Romani, MD

Unit of Tumor Genetics and Epigenetics, Istituto Nazionale per la Ricerca sul Cancro, Genova, Italy, EU

Epigenetic mechanisms of drug resistance-1

Epigenetic mechanisms of drug resistance-2

Hadi Valadi, PhD

The Sahlgrenska Academy, Institute of Medicine, Göteborg University, Dept. of Rheumatology and Inflammation Research, Sweden, EU

Cell-to-cell communication via exosomes

Genetic communication between cells via exosomes. The use of human exosomes for delivery of therapeutic nucleic acids to cells

Academic Aegis

Università degli Studi di Catania, Catania, Italy, EU - Scuola Superiore di Catania, Catania, Italy, EU – Scuola Facoltà di Medicina, Università degli Studi di Catania - Dottorato di Ricerca in BioMedicina Traslazionale, Università degli Studi di Catania - Dottorato di Ricerca in Biologia Evoluzionistica e Botanica, Università degli Studi di Catania - CdLM di Medicina e Chirurgia, Università degli Studi di Catania - CdLM di Biologia Molecolare e Cellulare, Università degli Studi di Catania - CdLM di Biologia Sanitaria, Università degli Studi di Catania - Associazione Italiana di Biologia Generale, Cellulare e di Genetica Molecolare (AIBG) – Scuola di Specializzazione in Genetica Medica - Società Italiana di Genetica Umana e Medica (SIGU) - Accademia Gioenia di Catania

Venue of the School

On June 18th and June 19th the lectures will be held at the Aula Magna of the Scuola Superiore di Catania, Catania. On June 20th lectures will be held at the Aula *Pero* of Policlinico, Catania.

Participating Audience

Up to 100 Students from the PhD, Specialty, Advanced and First level Courses from the University of Catania will be admitted to the 2014 School, which will assign 2 CFU to Participants. The electronic application form for registration to the School is available at www.bgbunict.it/Html/Application.htm

Web Site of the School

<http://www.bgbunict.it>

Web Masters and Secretariat of the School

D Barbagallo and M Ragusa

Credits

After the final examination, the School will assign 2 CFU for participation to the Course.