ORGANIZING COMMITTEE

Anna Patrizia Gena, Ph.D. is a physiologist at the University of Bari with major



expertise in biophysical approaches to assess functionally water and solute permeabilities in artificial and reconstituted membrane vesicles. In 2006, she completed her PhD program in Cellular and Molecular Technologies in Physiology at the University of Bari. Her research is mainly focused on the study of regulation and pathophysiological relevance of Aquaporins in metabolic homeostasis and energy balance. At Johns Hopkins University (USA) she followed a project aimed to study the functional role of renal chloride channels in protein endocytosis. From 2008, she is back to

University of Bari where she acquired more technical expertise in the preparative scale production and functional reconstitution of recombinant Aquaporins using an innovative cell free expression system. Overall, during her scientific career Dr. Gena gained technical skills in molecular and cellular biology as well as in biophysics and fluorescence imaging techniques.

Andrea Gerbino, Ph.D. is an electrophysiologist at the University of Bari with



additional expertise in imaging applications. In 2004 he completed his PhD program in Cellular and Molecular Technologies in Physiology at the University of Bari. Dr. Gerbino used Ca²⁺-selective microelectrodes to quantify localized Ca²⁺ changes, a new form of intercellular communication, in the microenvironment immediately adjacent to the exterior of gastric cells. Then, he moved to Harvard Medical School where he followed two projects aimed at unveiling

how Ca²⁺ can regulate cytosolic (Ca²⁺-cAMP interplay) and compartmentalized (pH in gastric tubulovesicles) molecular mechanisms. From 2006 he is back at the University of Bari where his main scientific goal is to understand how diverse Ca²⁺-mediated signal transduction pathways.

Maria Grazia Mola, Ph.D. is a physiologist at the University of Bari with major



expertise in methodological approaches to measure water and solute permeabilities in living cells and sealed membranes vesicles. Her research is mainly focused on the pathophysiological role of aquaporin-4 expressed in CNS astrocytes. At the Dept. of Neuroscience of New York and at the Central Research Lab of the Jilin University (China) she optimized a functional cell-based throughput screening for potential modulators of AQPs activity

useful for the treatment of water balance disorders. Of considerable interest are her studies on the molecular interplay between AQP4-mediated astrocyte swelling and proteins involved in calcium signalling and cell volume regulation. She is recently focusing on using astrocytes in an *in vivo* like condition using biocompatible nanointerfaces. During her scientific career, Dr. Mola gained technical competences on a panel of molecular, biochemical, biophysical and fluorescence imaging techniques.

Francesco Pisani, Ph.D. is a molecular physiologist at the University of Bari with



major expertise in the field of regulation of Aquaporins expression in physiological and patho-physiological conditions. Dr. Pisani researches are focused on the functional regulation of AQP4 in CNS and its role in the pathogenesis of the AQP4-IgG autoantibody-dependent Neuromyelitis Optica (NMO). He is expert of recombinant expression system for AQP4 supra-molecular (OAPs) expression and purification and for the developing of NMO-specific molecular diagnosis systems. At the Central Research Lab of the Jilin University

(China) he optimized the mapping of AQP4-IgG binding sites on AQP4-OAPs. Recently, he is focusing on the use of super-resolution microscopy and live-cell fluorescence-microscopy systems for the study of cell-to-cell communication networks. Dr. Pisani acquired technical competences on a panel of molecular, biochemical, biophysical and fluorescence imaging techniques.

Marianna Ranieri, Ph.D. is a physiologist at the University of Bari with expertise



in imaging applications. In 2007, she completed her PhD program in Cellular and Molecular Technologies in Physiology at the University of Bari. Dr. Ranieri research is focused on the study of calcium as first, second and third messenger. Her work is moreover centered on the study of signal transduction of the Calcium Sensing Receptor (CaSR) and its pathophysiological role hypertension and kidney disorders. Of particular interest are her studies on pathophysiology of extracellular Calcium Sensing Receptor (CaSR) and its functional interaction with renal aquaporins and pathological role in

hypertension. During her scientific career, Dr. Ranieri acquired experience on primary and stabilized cell cultures, on a panel of molecular, biochemical, biophysical and fluorescence imaging tools, intracellular calcium and cAMP measurements using video-imaging techniques.