

OrBIItaly 2019 - Scientific Program

Monday, October 21st, 2019

8:15 – 8:50	Registration
8:50 – 9:00	Opening
9:00 – 10:00	Keynote Lecture <i>Nanoscale Electrodes for Intracellular Electrophysiological Recording</i> Bianxiao Cui , Stanford University, USA
10:00 – 10:25	<i>Carbon Nanotube Porins as Versatile Biomimetic Membrane “Connectors” for Biosensing and Bioelectronic Applications</i> Aleksandr Noy , Lawrence Livermore National Laboratory and University of California Merced, USA
10:25 – 10:50	<i>Organic Field-Effect Transistor Structures as a Truly Multifunctional Platform: from Light-Emission to Cell Interfacing</i> Michele Muccini , CNR-ISMN, Italy
10:50 – 11:15	Coffee Break
11:15 – 11:40	<i>Ultimately Sensitive Bioelectronic Sensor by Materials and Device Structures Design</i> Luisa Torsi , University of Bari, Italy
11:40 – 12:05	<i>Charge Transport Processes in Organic Electronic Photocapacitors for Neuronal Stimulation</i> Tobias Cramer , University of Bologna, Italy
12:05 – 12:30	<i>Biosensing with Electrolyte Gated Organic Transistors</i> Carlo Augusto Bortolotti , University of Modena and Reggio Emilia, Italy
12:30 – 12:55	<i>PEDOT:PSS Organic Transistor Arrays for Bioelectronic Applications</i> Xuan Thang Vu , RWTH Aachen University, Germany
13:00 – 14:30	Lunch & Poster Session

15:00 – 15:25 *Integrated and Body-Coupled Organic Bioelectronics*

Magnus Berggren, Linköping University, Sweden

15:25 – 15:50 *Electrical Monitoring of Cell Cultures Through Highly Stable and Printable Electrolyte-Gated Carbon Nanotubes Transistors*

Mario Caironi, Istituto Italiano di Tecnologia, Italy

15:50 – 16:15 *Sensing and Memristive Devices: an Organic Bioelectronic Perspective for Neuromorphic and Biocompatible Systems*

Salvatore Iannotta, CNR-IMEM and Camlin Italy, Italy

16:15 – 16:45

Coffee Break

16:45 – 17:10 *Using Interdigitated Organic Electrochemical Transistors as Electrophysiological and Biochemical Sensors*

Dirk Mayer, Forschungszentrum Jülich, Germany

17:10 – 17:35 *Organic Electronic Materials for Neuromorphic Computing and Adaptive Biointerfaces*

Yoen van de Burgt, Eindhoven University of Technology, The Netherlands

17:45 – 19:00

Welcome Aperitivo, Complesso dei SS. Marcellino e Festo

Tuesday, October 22nd, 2019

9:00 – 10:00	Keynote Lecture <i>Interfacing with the Brain Using Organic Electronics</i> George Malliaras , University of Cambridge, UK
10:00 – 10:25	<i>Intra Membrane Light Actuators for Cell Photostimulation</i> Guglielmo Lanzani , Istituto Italiano di Tecnologia and Politecnico di Milano, Italy
10:25 – 10:50	<i>Polymeric and Biopolymeric Matrices for Ion-to-Electron Transduction in Bioelectronic Logic</i> Paul Meredith , Swansea University, UK
10:50 – 11:15	Coffee Break
11:15 – 11:40	<i>Sensing Human Senses with a Bioelectronic Device: an in Vivo Investigation of the Gustatory Perception</i> Annalisa Bonfiglio , University of Cagliari, Italy
11:40 – 12:05	<i>Light-Sensitive Conjugated Polymers Optically Control the Fate of Endothelial Progenitor Cells</i> Maria Rosa Antognazza , Istituto Italiano di Tecnologia, Italy
12:05 – 12:30	<i>Interaction of Femtosecond Laser-Induced Free Electrons with Biomolecules in Live Cells</i> Alfred Vogel , University of Lübeck, Germany
12:30 – 12:55	<i>Designing mixed conductors for bioelectronic applications</i> Jonathan Rivnay , Northwestern University, USA
13:00 – 15:00	Lunch & Poster Session
15:00 – 15:25	<i>Flexible Organic Radiation Detectors for Medical Applications</i> Laura Basiricò , University of Bologna, Italy
15:25 – 15:50	<i>More than Wearable: Flexible Electronics for on Body Measurements</i> Piero Cosseddu , University of Cagliari, Italy
15:50 – 16:15	<i>Engineering of Keratin Functionality for the Realization of All-Biopolymeric Wearable Active System for Point-of-Care Treatment</i> Stefano Toffanin , CNR-ISMN, Italy
16:15 – 16:45	

Coffee Break

16:45 – 17:10 *Organic Based Devices to Record Bioelectrical Signals Generated by Chemical Waves in Non-Excitable Cells*

Henrique Leonel Gomes, Instituto de Telecomunicações and University of the Algarve, Portugal

17:10 – 17:35 *Soft Electronic and Robotic Systems from Resilient yet Biocompatible and Degradable Materials*

Martin Kaltenbrunner, Johannes Kepler University of Linz, Austria

20:00

Social Dinner, “La Bersagliera” Restaurant

Wednesday, October 23rd, 2019

9:00 – 10:00	Keynote Lecture <i>Merging Surface Plasmon Optical with Electronic Sensing</i> Wolfgang Knoll , Austrian Institute of Technology and Center for Electrochemical and Surface Technologies, Austria
10:00 – 10:25	<i>Organic Optoelectronic Biointerfaces – Photocapacitive and Photofaradaic Effects</i> Eric Daniel Glowacki , Linköping University, Sweden, and Warsaw University of Technology, Poland
10:25 – 10:40	<i>Functional interaction between light-sensitive conjugated polymer and Cytochrome C for active control of intracellular signaling</i> Ilaria Abdel Aziz , IIT Milano, Italy
10:40 – 10:55	<i>Strain-engineered PEDOT:PSS Microfiber-based Organic Electrochemical Transistors</i> Youngseok Kim , Gwangju Institute of Science and Technology, Korea
10:55 – 11:15	Coffee Break
11:15 – 11:40	<i>Far-Red / NIR Polymethyne Dyes as Versatile Active Moieties in Green Photonics and Bioelectronics</i> Claudia Barolo , University of Torino, Italy
11:40 – 12:05	<i>Organic Electronic Materials for Biosensing and Power Generation</i> Sahika Inal , KAUST, Saudi Arabia
12:05 – 12:30	<i>Use of NIR radiation for optoelectronics in Photosynthetic Microorganisms</i> Massimo Trotta , CNR - IPCF, Italy
12:30 – 12:55	<i>Neuromorphic Organic Devices: Fundamentals and Sensing</i> Fabio Biscarini , University of Modena and Reggio Emilia, Italy
12:55	Closing Remarks
15:30 – 18:00	<i>DEMO by Cicci Research</i> <i>sign-up my e-mail francesca.santoro@iit.it</i>