Nanobiosensors School,

Nanobalkan 2025, Hotel Tirana International.

02/10/2025

The Nanobiosensors School aims to provide a comprehensive overview of the latest advances in the field of nanobiosensors, emphasizing innovative technologies and practical applications. The school offers participants the opportunity to engage with leading researchers and gain hands-on experience in biosensing methodologies. Through a series of lectures, attendees will explore cutting-edge developments in nanomaterials, biosensor fabrication, and their applications in healthcare and diagnostics.

Objectives: The primary objectives of the Nanobiosensors School are to: 1. Equip participants with knowledge on current trends in biosensing, including electrochemical and optical sensors. 2. Foster collaboration between academia and industry to accelerate the development and commercialization of biosensing technologies. 3. Provide a platform for early-career researchers to network with established professionals and explore potential avenues for innovation in nanobioelectronics.

The Nanobiosensors School is organized by Prof. Arben Merkoçi, PhD: ICREA Research Professor and Group Leader at ICN2; Dr. Ruslán Alvarez, PhD: Senior Researcher at ICN2, Dr. Marianna Rossetti, PhD: Senior Post Doc researcher at ICN2, Dr. Daniel Quesada González, PhD: Senior Post Doc researcher at ICN2

Time	Talk / Speaker
09:00 – 09:10	**Prof. Arben Merkoçi**, (Catalan Institute of Nanoscience and Nanotechnology, ICN2, Spain) *Welcome & Opening Remarks*
09:10 – 09:40	**Dr. Andrea Bonini** (*Department of Chemistry "Ugo Schiff", University of Florence, Florence (FI), Italy*) *Sensing proteins at the single-molecule level using biological nanopores*
09:40 – 10:10	**Prof. Simona Ranallo,** (University of Rome Tor Vergata, Rome, Italy) *Ultrasensitive nucleic acid-based systems: from bench to ready-to-use R&D kit*
10:10 – 10:40	**Dr. Gabriel Ortega** (Precision Medicine and Metabolism Lab, CIC bioGUNE, 48160 Bilbao, Spain) *Engineering Nanobodies for Biotechnological Applications*
10:40 – 11:00	☕ Coffee Break
11:00 – 11:30	**Prof. Elisa Michelini,** (Department of Chemistry "Giacomo Ciamician", University of Bologna, Bologna, Italy) *Sustainable optical biosensing with bioinspired tools and nanomaterials*
11:30 – 12:00	**Dr. Madalena Calabretta** (Department of Chemistry "Giacomo Ciamician", University of Bologna, Bologna, Italy) *Bioluminescence-based bioanalytical tools*
12:00 – 12:30	**Prof. Alessandra Zanuth**, (*Department of Chemical Sciences (DiSC), University of Padova, Italy), Nanotechnology-based Strategies for Enhanced Electrochemiluminescence Biosensing*
12:30 – 13:00	**Prof. Vasa Radovnic (**Biosense Institute, Dr Zorana Djindjica 1, Novi Sad, Serbia)*, Affordable and Practical Technology for Fabrication of Electrochemical Biosensor Transducers – From Concept to Application*
13:00 – 14:30	🍽 Lunch Break

14:30 – 15:00	**Prof. Valentin Mirceski**, *(Department of* Inorganic and Analytical Chemistry, University of Lodz, Poland) *Advanced voltammetric techniques derived from square-wave voltammetry for mechanistic and kinetic study of electrode processes*
15:00 – 15:30	**Prof. Fetah I. Podvorica** (Chemistry Department, University of Prishtina, Republic of Kosovo) *Electrochemical grafting of material surfaces with organic molecules*
15:30 – 16:00	**Prof. Flamur Sopaj** (Department of Chemistry, Faculty of Natural and Mathematical Science, University of Prishtina, Kosovo. *Advanced oxidation degradation of organic pollutants in water media, coupled with electrochemical monitoring of the process.*
16:00 – 16:30	**Dr. Alejandro Criado** (CICA-Centro Interdisciplinar de Química e Bioloxía, Facultade de Ciencias, Universidade da Coruña, Campus de Elviña, A Coruña, Spain) *Unlocking the Biosensing Potential of Graphene FETs through Chemical Approaches*
16:30 – 17:00	 Coffee Break