

4th Workshop
STATE OF THE ART ON NANOTHERAPEUTICS AND NANODIAGNOSTICS
COOPERATION EVENT BETWEEN ALBANIA, ITALY AND SPAIN
Tirana, Albania (October 28, 2026)

During the NanoBalkan Conference one day will be dedicated to the 4th Workshop – Cooperation event between Albania, Italy and Spain on the topic "State of the art of Nanotherapeutics and Nanodiagnostics". This 4th Workshop aims to keep the collaboration between the three countries, Albania, Spain and Italy in the field of Nanoscience and Nanotechnologies and their applications in important areas such as life sciences. Scientists and representatives from institutions of the three countries will share ideas about collaboration opportunities and research support programs in the research and development including cooperation with industry in the field of nanotechnology.

The main objectives of the workshop are:

- Facilitate Collaboration: The primary goal of the workshop is to encourage collaboration among research groups from Albania, Italy, and Spain. By promoting open dialogue and networking opportunities, we aim to establish lasting partnerships that will pave the way for future joint research projects and collaborations.

- Exchange of Knowledge: The workshop will serve as a platform for experts and researchers to share their latest findings, cutting-edge technologies, and methodologies in nanotechnology and its applications in biomedicine. Participants will gain valuable insights into diverse research areas and foster mutual learning.

- Identify Common Research Interests: Participants will explore potential synergies in their research interests and identify areas where their expertise can complement each other. This will facilitate the development of joint projects, grant applications, and research initiatives that address shared challenges and opportunities.

VENUE: Tirana International Hotel & Conference Centre City Center, Scanderbeg Square, Tirana, Albania

DATE: October 28, 2026

ORGANISERS: Event organized by Phantoms Foundation (Spain) with the support from Spain of ICN2, CERCA, BIST, from Albania of NanoAlb and Academy of Sciences and from Italy of SITELF and the embassies of Spain and Italy in Albania.

ORGANISING COMMITTEE:

Antonio Correia (Phantoms Foundation, Spain)

Coordinator Arben Merkoçi (ICN2, Spain)

Co-Coordinator Nunzio Denora (University of Bari, Italy)

Marianna Rossetti (ICN2, Spain)

Majlinda Vasjari (NanoAlb, University of Tirana, Albania)

Kledi Xhaxhiu (NanoAlb, University of Tirana, Albania)

PROGRAM



9.15-9:30 Welcome, Organizers & Representatives from the Albanian Institutions, Academy of Sciences of Albania, Embassies of Italy and Spain in Tirana

Italy

09.30-09:45 Emanuela Fabiola Craparo (University of Palermo, Italy) “From Formulation to Precision Therapy: Nanomedicine Strategies for Inflammatory Lung Diseases”

09.45-10:00 Antonio Lopalco (University of Bari Aldo Moro, Italy) “Direct Powder Extrusion 3D Printing for Personalized Medicines: Tailoring Dosage Forms, Solid-State Properties and Drug Release”

10.00-10:15 Francesco Puoci (University of Calabria, Italy) “Beyond mRNA: Materials Design and Microfluidic Engineering of Non-Viral Nanocarriers for DNA Delivery”

10.15-10.30 Nella Rossini (RENASCO, Italy) “Plasma Surface Engineering of Materials for Bioanalytical and Cell Culture Applications”

10.30-11.00 Coffee break

Spain

11:00-11:15 Pr. Laura Lechuga (ICN2) **“**Nanophotonic Biosensors for Precision Nanomedicine and Decentralized Diagnostics”

11:15-11:30 Dr. Fernando Novio Vazquez (UAB) **"**Nanoscale coordination polymers: multifunctional nanoplatforms for biomedical applications"

11:30-11:45 Dr. Massimo Urban (ICN2) “From DIY to Market: Accessible Fabrication Strategies for Electrochemical Sensors”

11:45-12:00 Dr. Claudio Parolo (Interfibio Research Group, Department of Chemical Engineering, University Rovira i Virgili; Barcelona Institute for Global Health) “From Clinical Need to Point-of-Care Malaria Diagnostics: Translational Nanobiosensing for Diagnosis and Prognosis”

12:00-12:15 Pr. Alfredo Alfredo de la Escosura-Muñiz (University of Oviedo) " Novel biosensing strategies based on nanoparticles and nanochannels for point-of-care clinical applications"

Albania

12:15-12:30 Bianka Hoxha (Catholic University Our Lady of Good Counsel, Albania) "Microfluidics-Assisted Development of Nanocarrier Systems for Enhanced Oral Delivery of Therapeutic Peptides and Proteins"

12:30-12:45 Prof. Dr. Magdalena Cara (Agricultural University of Tirana, Albania) "Nano-Enabled Pesticides in Sustainable Agriculture: Environmental Feasibility, Regulatory Challenges, and Evidence from a Nano-Copper Vineyard Case Study"

12:45- 13:00 Prof. Assoc. Dr. Niko Hyka (University of Medicine, Albania) A New Era of Continuing Education through EdTech: Human in the Loop AI Agents for an Evidence to Credential Cycle in the Health Professions



13:00- 13:15 Dr. Bashkim Ziberi (University of Tetova, Albania) High-Flux Entangled Photon Generation via Clinical Megavoltage Radiotherapy Beams for Quantum Imaging and Theranostics

13:15-13:30 Wrap-up and Closing remarks