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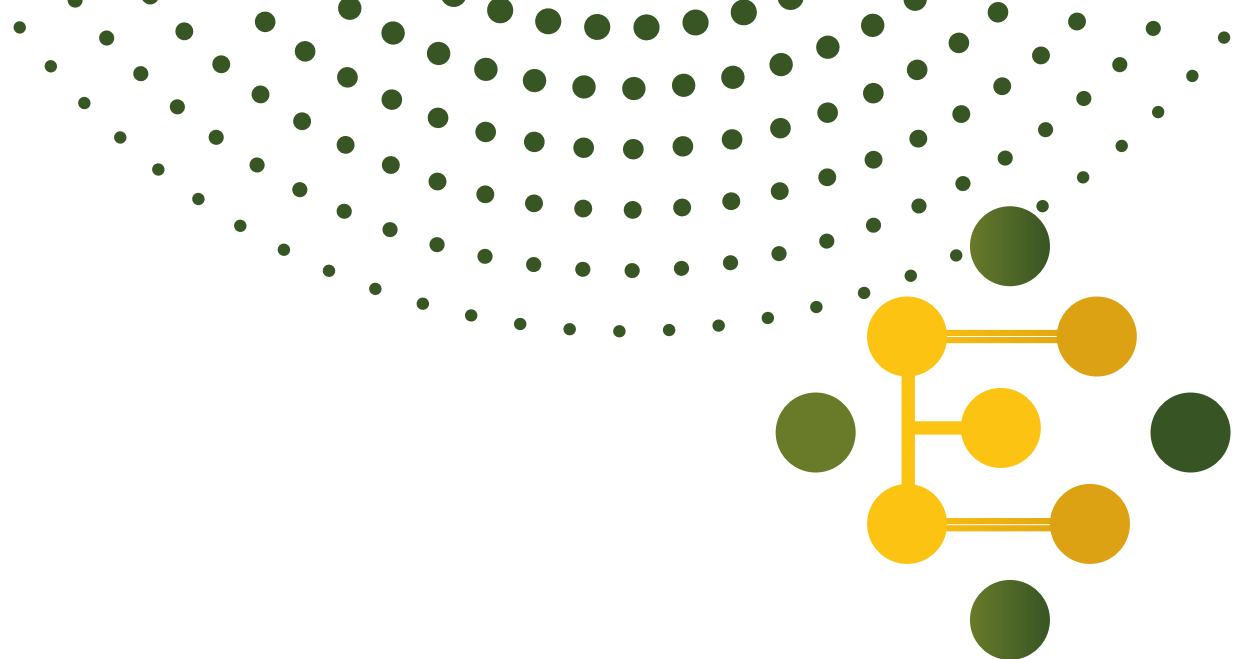
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3rd International Conference

Emerging and disruptive next-generation technologies: materials, microfluidics and sensing for biomedicine

LECCE 24 - 26 JUNE 2026



M6C2 – Investment line 2.1, “Enhancement and strengthening of biomedical research in the National Health Service”, under the PNRR funded by the European Union – NextGenerationEU – Project BIO-TEST “Circulating biomarkers and innovative device development for relapsed/refractory germ cell tumors”,



VERITÀ PER GIULIO REGENI

CONFERENCE PROGRAM

WEDNESDAY, 24th JUNE 2026

14:00 - 15:00

Registration

15:00 - 16:30

Introduction and welcome

HEALTH BEYOND EARTH: SPACE MEDICINE AND TECHNOLOGIES

Chair - **Elena Clabassi** - CNR NANOTEC

16:30 - 17:00

Prof. Carlo Saverio IORIO - Université libre de Bruxelles

Space Medicine: The Next Frontier of Human Health

17:00 - 17:30

Prof. Emiliano BIASINI - Zeprion space mission

Zeprion II: Automated Microgravity Crystallization for Structural Characterization of Non-Native Protein Targets

17:30 - 18:00

Dr. Leonardo SURDO - ICE Cubes service

The ICE Cubes Service: Advancing Space R&D through Modular Microgravity Access

18:00 - 18:30

Prof. Alessandro PACCAGNELLA - University of Padua

Semiconductors and space: two intertwined stories

18:30 - 20:00

Welcome Aperitif & CNR Choir Performance

THURSDAY, 25th JUNE 2026

NEXT-GEN DEVICES: INTEGRATING COMPLEX SYSTEMS

Chair - **Alessia Foscari** - CNR NANOTEC

09:30 - 10:00

Dr. Anton HOFMEISTER - ST Microelectronics
MEMS Sensors enhancing human perception in our daily lives

10:00 - 10:20

Prof. Stefano CINTI - University of Naples "Federico II"
Paper-based diagnostics: when frugal is smart

10:20 - 10:40

Dr. Oliver VANDERPOORTEN - Arctic University of Norway
NANOSPACER: A scalable fluidic platform for open-source NTA analysis at single molecule level

10:40 - 11:20

Coffee Break and Poster Session

Chair - **Chiara Boncristiani** - University of Salento

11:20 - 11:50

Dr. José Luis GARCIA CORDERO - Roche
Leveraging microtechnologies to automate and scale organoid culture

11:50 - 12:10

Dr. Rebeca MARTINEZ VAZQUEZ - CNR IFN
Femtosecond laser processing of a microfluidic device for 3D spheroids development

12:10 - 12:30

Prof. Sanne ABELN - Utrecht University
Learning to understand complex biosystems with AI

12:30 - 14:00

Lunch Break

ADVANCED SENSORS AND FUNCTIONALIZATION

Chair - **Giulia Siciliano** - CNR NANOTEC

14:00 - 14:30

Prof. Christophe CAUCHETEUR - University of Mons
Plasmonic Fiber Grating Biosensors: From Concept to Application

14:30 - 14:50

Dr. Silvia ROMANO - CNR ISASI
Bound States in the Continuum in Nanophotonic Metasurfaces for Advanced Biomedical Sensing and Light-Matter Control

14:50 - 15:10

Dr. Matteo AGOSTINI - INTA CEO & co-founder
SAW Microfluidics and Biosensing: From Academic Research to Translational Diagnostics

15:10 - 15:50

Coffee Break and Poster Session

Chair: **Marco Costa** - CNR NANOTEC

15:50 - 16:20

Prof. Sergey PILETSKY - University of Leicester
Abiotic diagnostics based on molecularly imprinted polymers

16:20 - 16:40

Prof. Alessandro PORCHETTA - University of Roma Tor Vergata
Engineering DNA-controlled CRISPR systems for Enzyme Activity Monitoring

16:40 - 17:00

Prof. Fabio DI NARDO - University of Turin
Recent strategies to improve the lateral flow assays: labels, molecular recognition elements, detection, and sequential experimental design

20:00

Social Dinner @Torre del Parco

FRIDAY, 26th JUNE 2026

SMART MATERIALS FOR BIOMEDICINE

Chair - **Alessia Rinaldi** - CNR NANOTEC

09:30 - 10:00

Prof. Silvia GIORDANI - University of Dublin
Carbon nano-onions: chemistry and biomedical applications

10:00 - 10:30

Prof. Silvia MARCHESAN - University of Trieste
Peptide chirality & self-assembly for biomedicine

10:30 - 11:10

Coffee Break and Poster Session

Chair - **Valeria Garzarelli** - CNR NANOTEC

11:10 - 11:40

Prof. Teresa PELLEGRINO - IIT
Magnetic Nanoparticles: From Nanomaterial Design to Cell Tracking and Cancer Therapy

11:40 - 12:00

Prof. Danijela GREGUREC - University of Erlangen
Remote Tools for Disruptive Neuromodulation Technologies

12:00 - 14:00

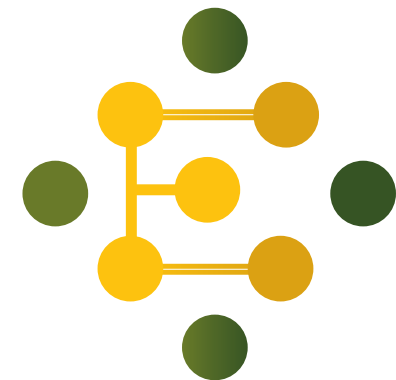
Lunch Break

14:00 - 15:00

AWARDS AND CLOSING REMARKS

15:00 - 16:30

CNR - NANOTEC laboratories Tour



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3rd edition

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