

CONFERENCE PROGRAM

Wednesday September 17

9.00 Registration

10.00 Opening Ceremony

Yechezkel Barenholz,
The Hebrew University, Jerusalem, Israel

Giovanna Mancini,
Institute of Chemical Methodologies, CNR, Rome

Agnese Molinari,
Department of Technology and Health, ISS, Rome

Invited Authorities

Alessandro Ruggieri,
Rector of Tuscia University

Luigi Nicolais,
President of CNR

Gualtiero Ricciardi,
Commissioner of Istituto Superiore di Sanità

Chairpersons: Yechezkel Barenholz, Dick Hoekstra

Invited lectures

10.20 **Salvatore Cannistraro**
Atomic force nanoscopy and spectroscopy applied to nanomedicine

10.50 **Stefaan De Smedt**
Advanced fluorescence microscopy to study nanomedicines

11.20 *Coffee break*

Selected lectures

11.40 **Clizia Guccione**
Poli(ethyl cyanoacrylate) nanoparticles for brain delivery of andrographolide

12.00 **Riccardo Marega**
Selective targeting, sorting and killing of cancer-like cells in-vitro with magnetic carbon nanotubes

12.20 **Greta Varchi**
In vivo sonodynamic activity of TPPS loaded polymeric nanoparticles

Industry Report

12.40 **Nicolás Cassianelli (nB nanoScale Biomagnetics SL)**
Monitoring the stability of a colloid for magnetic hyperthermia by specific power absorption measurements

13.00 *Lunch and poster session*

Chairpersons: Smadar Cohen, Stefaan De Smedt

Invited lecture

- 14.30 **Roberto Pini**
Novel strategies to actively target gold nanoparticles to malignant cells for cancer diagnostics and treatment

Selected lectures

- 15.00 **Irene Xochilt Cantarelli**
Lanthanide doped alkaline earth fluoride nanoparticles as biocompatible, multifunctional materials for biomedical imaging
- 15.20 **Francesco Porcaro**
New radiosensitizers agents from nanotechnology: a novel approach for the synthesis of gold nanoparticles
- 15.40 **Laura Polito**
Digestive ripening of pegylated Au nanoparticles in aqueous solution: their application as X-ray contrast agents
- 16.00 **Elisa Lubian**
Controlled photo-released nanoparticles in aqueous media for PDT applications
- 16.20 *Coffee break and poster session*

Thursday September 18

Chairpersons: Thomas Lars Andresen, Salvatore Cannistraro

Invited lecture

- 9.00 **Luisa De Cola**
Hybrid nanomaterials for imaging and therapy

Selected lectures

- 9.30 **Fabrizio Mancin**
NMR chemosensing: detection and identification of organic molecules and metabolites using nanoparticles as receptors
- 9.50 **Barbara Adinolfi**
Complex nanostructures based on a specific molecular beacon and PMMA nanoparticles for the detection and silencing of survivin mRNA in human cancer cells
- 10.10 **Giancarlo Morelli**
Diolen based nanostructures for theranostic applications
- 10.30 *Coffee break*

Invited lecture

- 10.50 **Smadar Cohen**
Bio-inspired nanocarriers for siRNA delivery

Selected lectures

- 11.20 **Roberto Fiammengo**
Sensitive microRNA quantification using DNA-gold nanoparticles probes
- 11.40 **Nemany A. Hanafy**
Curcumin bio/nano-template for building layer by layer capsules
- 12.00 **Stefania Porto**
Liposomes encapsulating doxorubicin and conjugated with cell penetrating peptides overcome drug resistance in human cancer
- 12.20 **Ilaria Armentano**
Multifunctional biomaterials based on nanostructured poly(lactic acid): a way to drive stem cell responses

Industry Report

- 12.40 **Elodie Ly-Morin (HORIBA)**
Nanoparticle-based approaches to push the limits of Surface Plasmon Resonance imaging for the detection of diagnostic biomarkers
- 13.00 *Lunch and poster session*

Chairpersons: Nadia Benkirane-Jessel, Luisa De Cola

Invited lectures

- 14.30 **Salvatore Sortino**
Photoreponsive nanocarriers with a multifunctional cargo
- 15.00 **Gerardo Goya**
Magnetic hyperthermia and cell death: the impact of physiological media on the heating efficiency and cell uptake

Industry Report

- 15.30 **Marziale Milani, Francesco Tatti (FEI)**
Electron microscopy broadens the horizons of toxicology: the role of nanoparticles vehiculated by bacteria

Selected lectures

- 15.50 **Sergio Madrigal-Carballo**
Chitosan-tannin hybrid nanoparticles as potential nanomedicine to prevent urinary tract infections
- 16.10 **Maria Condello**
Liposome-encapsulated plant alkaloid voacamine improves the efficacy of chemotherapy on osteosarcoma resistant cells
- 16.30 *Coffee break and poster session*
Social Dinner (poster prize)

Friday September 19

Chairpersons: Gerardo Goya, Salvatore Sortino

Invited lecture

- 9.00 **Nadia Benkirane-Jessel**
Smart implants equipped with active nanoreservoirs for regenerative nanomedicine

Selected lectures

- 9.30 **Lucia Giampetruzzi**
Collagen-based scaffolds loaded with nanoparticles
- 9.50 **Federica Valentini**
New nano-carriers based on graphene oxide (GO) derivatives

Industry Report

- 10.10 **Roberto Santoliquido (ALFATEST)**
Assessment of the efficiency of encapsulation of a fluorescent drug using nanoparticle tracking analysis
- 10.30 *Coffee break*

Invited lectures

- 11.00 **Thomas Lars Andresen**
Enzyme sensitive nanomedicines for delivery of platinum based therapeutics
- 11.30 **Gerben Koning**
Thermoresponsive liposomal nanomedicine and hyperthermia for the treatment of tumors

Selected lectures

- 12.00 **Emanuele Papini**
Functional dissection of the role of *hard* and *soft* corona proteins in the interaction of SiO₂-NPs with cells in human plasma
- 12.20 **Silvia Zappavigna**
Transferrin-conjugated self-assembled nanoparticles incorporating ZOL as a tool for the targeting of glioblastoma
- 12.40 **Amalia Luce**
Zoledronic acid encapsulated in self-assembly pegylated nanoparticles in combination with radiotherapy on glioblastoma cell lines
- 13.00 *Closing remarks and lunch*