

## CONFERENCE PROGRAM

### Monday October 1

8.40 Registration

9.40 Opening Ceremony

**Enrico Garaci,**

President Istituto Superiore di Sanità, Rome

**Giancarlo Angelini,**

Director Institute of Chemical Methodologies, CNR, Rome

**Velio Macellari,**

Director Department of Technology and Health, ISS, Rome

**Agnese Molinari,**

Department of Technology and Health, ISS, Rome

**Giovanna Mancini,**

Institute of Chemical Methodologies, CNR, Rome

### NANOPARTICLES FOR DIAGNOSIS

**Chairpersons: Nicolas Beziere, Davide Proserpi**

#### *Invited lectures*

10.10 **Yourii K. Gun'ko**

"Nanoparticles for biomedical applications"

10.50 **Alberto Diaspro**

"How optical nanoscopy and super resolution microscopy can fit to nanomedicine?"

11.30 Coffee break

#### *Selected lectures*

11.50 **Antonio Toppino**

"Synthesis and biological evaluation of new dual agents for MRI/BNCT applications"

12.10 **Chiara Brioschi**

"Paramagnetic and fluorescent solid lipid nanoparticles targeting atherosclerotic plaques"

12.30 **Francesca Costantini**

"Glucose level determination with enzymatic glass chip"

#### *Industry Report*

12.50 **Massimo Placidi**

"Multiplexed label-free bio-affinity analysis and MALDI-MS characterisation of bound analyte"

13.10 *Lunch and poster session*

**Chairpersons: Yourii K.Gun'ko, Jean-Christophe Leroux**

*Invited lecture*

- 14.30 **Nicolas Beziere**  
"Opto-acoustic imaging methods and applications; a powerful new approach to nano-particle imaging"

*Selected lectures*

- 15.10 **Rouhollah Khodadust**  
"Synthesis of dendrimeric magnetic nanoparticles and imaging studies using IgG-FITC"
- 15.30 **Miriam Colombo**  
"Site-specific conjugation of scfv antibodies to nanoparticles by bioorthogonal strain-promoted alkyne–nitrene cycloaddition"
- 15.50 *Coffee break*

*Invited lectures*

- 16.10 **Davide Prosperi**  
"Nanodiagnostics: controlling the surface functionalization of nanoparticles to optimize the detection of cancer cells"

*Selected lectures*

- 16.50 **Carlotta Marianecchi**  
"MNPs in non ionic surfactant vesicles as smart delivery system for theranostic applications"
- 17.10 **Lucia Pasquato**  
"Toward a new generation of nanoparticles for therapy and diagnosis"

## **Tuesday October 2**

### **TISSUE ENGINEERING**

**Chairpersons: Pieter Cullis, Mauro Grigioni**

*Invited lectures*

- 9.00 **Beat H. Walpoth**  
"Nanostructured Materials for Vascular Tissue Engineering"

*Selected lectures*

- 9.40 **Gianni Ciofani**  
"Myoblast behaviour on human recombinant elastin-like coatings"

10.00 **Alessia Cedola**  
“Early stage mineralization in tissue engineering mapped by high resolution X-ray microdiffraction and tomography”

10.20 **Vittoria Raffa**  
“Magnetic nanoparticles and magnetic fields direct neurite outgrowth: implication in nerve regeneration”

10.40 *Coffee break*

*Invited lecture*

11.00 **Ruth Duncan**  
"Polymer therapeutics as nanomedicines: from anticancer agents to tissue repair"

*Selected lectures*

11.40 **Valentina Corvaglia**  
“Peptidic nucleic acid (PNA) assisted cellular migration along engineered surfaces”

12.00 **Giada Graziana Genchi**  
“Enhancement of neurite outgrowth and alignment in PC12 neuron-like cells on nanofibrous poly(3-hydroxybutyrate) substrates”

*Invited lecture*

12.20 **Maurizio Prato**  
“Nanomedicine with functionalized carbon nanotubes”

13.00 *Lunch and poster session*

**Chairpersons: Maurizio Prato, Velio Macellari**

*Selected lectures*

14.50 **Mauro Grigioni**  
"From technological innovations to medical device"

15.10 **Antonio Amodeo**  
"Cardiac cell therapy: a strategy for treatment of heart diseases"

*Invited lecture*

15.30 **Gino Gerosa**  
“Engineering of biomaterial properties at molecular level: the 3D nanoscale systems of self-assembling peptides in self-seeding heart valve design”

16.10 *Coffee break and poster session*

17.30 *Guided Tour at Palazzo Massimo*

20.00 *Social Dinner*

## Wednesday October 3

### **NANOPARTICLES FOR THERAPY**

**Chairpersons: Giovanna Mancini, Alberto Abraham Gabizon**

#### *Invited lecture*

- 9.00 **Jean-Christophe Leroux**  
"Nanopharmaceutics as sequestering agents"

#### *Selected lectures*

- 9.40 **Paolo Scrimin**  
"Immune response elicited by saccharide-functionalized Gold nanoparticles"
- 10.00 **Katayoun Derakhshandeh**  
"The surface modified nanocarrier: anticancer efficacy, tissue distribution and blood pharmacokinetics of loaded anticancer drug"
- 10.20 **Francesco Sansone**  
"Guanidinium and arginine clustering on calixarene macrocyclic scaffolds as a novel strategy for improved cell transfection"
- 10.40 *Coffee break*

#### *Invited lecture*

- 11.00 **Pieter Cullis**  
"Lipid nanoparticle systems for In vivo delivery of siRNA: from basic science to clinical applications"

#### *Selected lectures*

- 11.40 **Stefano Bellucci**  
"Cytotoxic effects on human breast adenocarcinoma MCF-7 cell line induced by multi-walled carbon nanotubes"
- 12.00 **Giancarlo Morelli**  
"Bombesin labelled liposomes as target selective delivery system for Doxorubicin: in vitro and in vivo studies."
- 12.20 **Claudia Conte**  
"Biomimetic nanoparticles with sustained release: from conventional chemotherapy to combined strategies in treating cancer"
- 12.40 **Giancarlo Masci**  
"Polysaccharide nanogels by template chemical cross-linking in polyion complex micelle nanoreactors"
- 13.00 *Lunch and poster session*

**Chairpersons: Agnese Molinari, Ruth Duncan**

*Invited lecture*

14.30 **Livio Pagano**

The clinical use of nanoparticles in patients with hematological malignancies”

15.10 **Michele Caraglia**

“New nanotechnological tools for the delivery of zoledronic acids in human tumours: let’s cross the brain!”

*Selected lecture*

15.50 **Enzo Agostinelli**

“Endocannabinoids alone and in association with catalytically active bovine serum amine oxidase bound to magnetically drivable nanoparticles as a new anticancer therapy”

16.10 *Coffee break*

*Selected lecture*

16.30 **Elena Simona Bacaita**

“Multiscale type behaviours of drug loaded polymeric micro/nanoparticles in the in-vitro release process.”

*Key note lecture*

16.50 **Alberto Abraham Gabizon,**

"Liposomes as nanomedicine platform in cancer therapy"

17.30 *Closing remarks*