



"Therapeutic nanoproducts: from biology to innovative technology"

19–20 giugno 2019

co-organizzato da

ISTITUTO SUPERIORE DI SANITÀ

Centro Nazionale per la Ricerca e la Valutazione preclinica e clinica dei Farmaci

e

ASSOCIAZIONE ITALIANA DI COLTURE CELLULARI (AICC)

AIM and OBJECTIVES

The conference will deepen the mechanisms of interaction between new chemical-biological formulations and biophysical systems to improve the transport of drugs in normal and tumor cells. The enhancement of the therapeutic efficiency of a system of nanometric dimensions requires the development of new skills, within a strategic planning that leads to the expansion and sharing of knowledge in a multidisciplinary environment.

The purpose of this event is to improve knowledge and encourage the optimization of production methods and to deepen the regulatory aspects.

Key words: nanoproduct, cell interactions, therapeutic vesicles, innovative technologies.

SCIENTIFIC PROGRAMME

Wednesday, June 19th

12.30 Registration

13.30 Opening Ceremony and Welcome addresses:
Stefania Meschini, Scientific Coordinator
ISS President
Patrizia Popoli, CNRVF Director
Michele Caraglia, AICC President

SESSION I - CELL INTERACTIONS OF THERAPEUTIC VESICLES

Chairs: Alessandra Carè and Agnese Molinari

13.45 **Microvesicles and exosomes in metabolic diseases: their role in inflammation**
Luciana Dini

14.10 **Insight into surfactant-based “soft” nanocarriers**
Maria Carafa

14.35 **Mesenchymal stromal freeze-dried extracellular vesicles for nanomedicine: from GMP-compliant production to next generation drug delivery system**
Sara Perteghella

15.00 **Nanomedicine in cancer: toward overcoming chemoresistance**
Giuseppe De Rosa

- 15.25 **Hacking pancreatic cancer drug resistance with novel NO-gemcitabine prodrugs encapsulated in liposomes**
Massimo Donadelli
- 15.50 **Liposomal carriers as possible therapeutic vesicles: morpho-functional investigation**
Michela Battistelli
- 16.15 **Immunotoxicity aspects in the development and regulatory evaluation of nanodrugs**
Gabriella Di Felice
- 16.40 **Recent innovations in high resolution microscopy**
Giorgio Modesti
- 17.05 Closing Remarks

Thursday, June 20th

SESSION II - ADVANCED BIOMEDICAL TECHNOLOGY

Chairs: Monica Boirivant and Annarica Calcabrini

- 09.00 **Nanostructured materials and devices**
Mauro Grigioni
- 09.25 **Polymeric nanoparticles as versatile drug delivery systems**
Donato Cosco
- 09.50 **Mesoporous silica-based nanosystems as a vehicle for targeted delivery of the antineoplastic drug Bortezomib**
Antonella Leggio
- 10.15 **Mesenchymal stem cells as a vehicle for multimodal nanoparticles**
Elisa Martella
- 10.40 Coffee break
- 11.00 **Vitvo: mimicking in vivo complexity by the innovative 3D model**
Olivia Candini
- 11.25 **Exosomes and Microvesicles under the lens of the Super Resolution Microscopy**
Giulia Anselmi
- 11.50 **VitroGel: tunable hydrogel for 3D cell culture and beyond**
Caterina Sorteni
- 12.15 **SEC meets TRPS: Automated isolation and high-precision analysis of EVs**
Camille Roesch
- 12.40 **Nanotech 5.0: from reality to virtual reality, fast forward**
Matteo Mariani
- 13.05 Lunch

SESSION III - NANOSIZED INNOVATIVE APPROACHES

Chairs: Flavia Barone and Annarita Stringaro

- 14.00 **Nanocellulose and its composites in biomedical devices**
Marina Scarpa
- 14.25 **Integrated microdevices for in-vitro cell assays: an overview**
Leandro Lorenzelli
- 14.50 **Nanocarriers for neuromuscular diseases**
Manuela Malatesta
- 15.15 **Hyperthermic nanoparticles to trigger adipolysis**
Laura Calderan
- 15.40 **Bioderived Porous Silica Hybrid Nanovector for Theranostic Applications**
Luca De Stefano
- 16.05 **Physico-chemical characterization of drug nanocarriers: a crucial step or a waste of time?**
Simona Sennato
- 16.30 **Nanomaterials in the framework of REACH & CLP regulations**
Maria Alessandrelli
- 16.55 **Fast, gentle and sensitive Super-Resolution for the imaging of dynamic biological processes**
Alessandro Cometta
- 17.20 Closing Remarks

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GENERAL INFORMATION

DATES

Rome, Wednesday 19th - Thursday 20th June 2019

Istituto Superiore di Sanità, Aula Pocchiarri

Viale Regina Elena, 299, 00161 Roma, Italy

www.iss.it

The meeting is open to:

Biologist, Medical Doctors, Engineers, Researchers, Chemicals.

Max participant 220

REGISTRATION FEE

Annual membership fee: €50,00

The registration fee includes:

- Participation in the Scientific Sessions
- Attendance Certificate
- Conference kit, coffee break, lunch



How to register

The application for participation, available at the page www.iss.it, section conventions, and on page <http://www.aicc.website>, must be completed, printed, signed and sent by e-mail to the organizing Secretariat (evelin.pellegrini@guest.iss.it) by 12 June 2019.

Applications for participation will be accepted until the maximum capacity of the conference room is reached. Participation is free for ISS employees. For outsiders it is mandatory to pay the registration fee of 50 euros, payable to the Italian Association of Cellular Cultures, by bank transfer to the current account IBAN: IT97B0538703612000003002045. The payment of the registration fee must be made after having received notice of the acceptance of the application for participation. Once the payment has been made, a copy of the transfer receipt must be sent to the organizing secretariat at the e-mail address evelin.pellegrini@guest.iss.it.

Registration deadline 12th June

Abstract deadline 31th May

Abstracts (max 250 words) sent to: maria.condello@iss.it.

The abstract will be published on the AICC website: <http://www.aicc.website>.

LANGUAGE

The official language of the Conference is English.

Simultaneous translation will not be provided.

ATTENDANCE CERTIFICATE

A certificate will be sent to all participants at the end of the meeting