"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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SPEAKERS AND CHAIRS

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GENERAL INFORMATION

DATES
Rome, Wednesday 19th - Thursday 20th June 2019
Istituto Superiore di Sanità, Aula Pocchiari
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 31st 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