



**School Directors:**

**PROF. DONATELLA PAOLINO,**  
*Department of Experimental and Clinical Medicine,*  
University "Magna Græcia" of Catanzaro

**PROF. FRANCESCA IEMMA,**  
*Department of Pharmacy, Health and Nutritional Sciences,*  
University of Calabria

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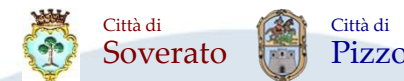
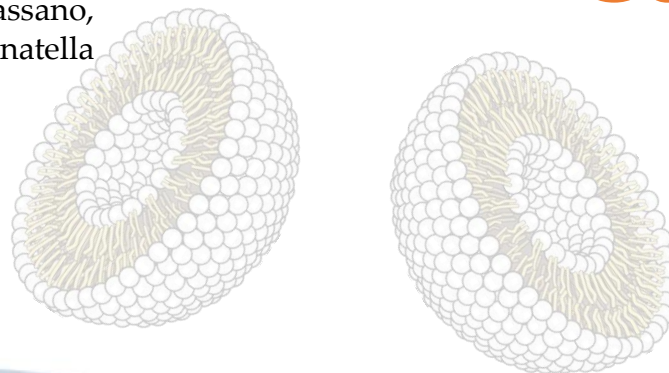


9-12 September 2019  
San Domenico Hotel,  
Soverato (CZ)

19<sup>th</sup> Advanced Course in  
Pharmaceutical Technology

# Characterization of Colloidal Nanocarriers

*The event is organized under the patronage of:*



Our sponsors:





## Program

### DAY 1: Monday, 9 September 2019

12.00 – 14.30 Registration

14.30 – 15.00 Presentation of the school and Welcome

Prof. Anna Maria FADDA, Prof. Donatella PAOLINO, Prof. Francesca IEMMA, Prof. Giuseppe VIGLIETTO

15.00 – 15.30 Opening Lecture “In memory of Nevio Picci” - Prof. Sebastiano ANDÒ  
Department of Pharmacy, Health and Nutritional Sciences, University of Calabria

#### Afternoon Session

Polymers and Calorimetric Techniques

Chairmen: Anna Maria FADDA, Massimo FRESTA

15.30 – 16.15 Prof. Francesco PUOCI  
Department of Pharmacy, Health and Nutritional Sciences, University of Calabria:  
*Functionalization polymers: state of art and future perspectives?*

16.15 – 17.00 Prof. Francesco CASTELLI  
Department of Drug Sciences, University of Catania:  
*Differential Scanning Calorimetry as a versatile tool for the characterization of nanocarrier*

17.00 – 18.00 PhD Students Presentation: Group 1  
Chairmen: Luisa DI MARZIO, Sonia TROMBINO

Francesca FROIO, University “Magna Græcia” of Catanzaro: *Characterization of Citrus essential oils-loaded polymeric nanoparticles and their application for food preservation*

Agnese GAGLIARDI, University “Magna Græcia” of Catanzaro: *GMO-based nanostructures for anticancer therapy*

Nicola D’AVANZO, University “Magna Græcia” of Catanzaro: *Sialic acid: from biological functions to pharmaceutical uses*

18.15 – 19.00 Visit to the Botanic Garden  
*Greetings and Welcome from the Mayor of Soverato*, Dott. Ernesto F. Alecci

20.00 Calabrian Welcome



### DAY 2: Tuesday, 10 September 2019

#### Morning session

*Microscopic Techniques for the characterization of nanocarriers*

Chairmen: Giovanni PUGLISI, Maria CARAFA

9.00 – 9.45 Prof. Luciana DINI  
Department of Biology and Biotechnology, University “La Sapienza” of Rome:  
*Conventional and high resolution microscopies applied to drug’s technologies*

9.45 – 10.30 Prof. Daniele PASSERI  
Department of Basic and Applied Sciences for Engineering, University “La Sapienza” of Rome:  
*AFM methods for mechanical property measurements at the nanoscale*

10.30 – 11.15 Prof. Donato COSCO  
Department of Health Sciences, University “Magna Græcia” of Catanzaro:  
*Pharmaceutical applications of Confocal Laser Scanning Microscopy*

11.15 – 11.45 Coffee break

11.45 – 13.15 PhD Students Presentation: Group 2  
Chairmen: Rita MUZZALUPO, Donato COSCO

Elisabetta MAZZOTTA, University of Calabria: *Multifunctional chitosan nanoparticles for redox responsive and target anticancer drug delivery*

Saliha MOUTAHARRIK, University “La Statale” of Milan: *Design and Development of a Novel Physiologically-Based Combination Approach to Oral Colon Delivery*

Barbara GIORDANI, University “Alma Mater Studiorum” of Bologna: *New liposomes containing natural molecules for treatment of vaginal diseases*

Mohamad ALLAW, University of Cagliari: *Mangiferin loaded vesicles tailored combining phospholipid with tween, glycerol, and propylene glycol to enhance skin permeation and protection*

13.30 – 16.15 Lunch and poster session

#### Afternoon session

*Characterization with instrumental techniques*

Chairmen: Francesca IEMMA, Andrea GAZZANIGA

16.30 – 17.15 Dott. Roberto SANTOLIVU  
Product Manager Alfatest s.r.l., Rome:  
*Orthogonal light scattering techniques for Nano-carrier characterization*

17.15 – 18.00 Dott. Roberto SANTOLIVU  
Product Manager Alfatest s.r.l., Rome:  
*Analytical separation technologies to measure the encapsulation efficiency*

18.00 – 19.30 PhD Students Presentation: Group 3  
Chairmen: Marcello LOCATELLI, Francesco PUOCI

Elvira PANTUSO, University of Calabria: *Functionalized Membranes for protein crystallization*

Anna IMBRIANO, University “La Sapienza” of Rome: *Nanoemulsions Characterization: a fundamental issue*

Lorena SCOTTI, University “Federico II” of Naples: *Self-assembling nanoparticles to deliver miRNAs into the brain*

20.30 Dinner

21.30 Scuola Dottorale: *Passato, Presente e Futuro si incontrano (In Italiano)*

### DAY 3: Wednesday, 11 September 2019

#### Morning session

*Rheology and Analytical Aspects*

Chairmen: Giuseppe DE ROSA, Daniele PASSERI

9.00 – 10.30 Prof. Pietro MATRICARDI  
Department of Chemistry and Technology of Drug, University “La Sapienza” of Rome:  
*Basic concepts of Rheology and Rheometry*

10.30 – 11.15 Prof. Marcello LOCATELLI  
Department of Pharmacy, University “G. d’Annunzio” Chieti- Pescara:  
*Analytical Instrumentations for novel delivery systems*

11.15 – 11.45 Coffee break

11.45 – 13.00 PhD Students Presentation: Group 4  
Chairmen: Pietro MATRICARDI, Roberta CASSANO

Giulia VANTI, University of Florence: *Melissa officinalis essential oil loaded glycosomes: preparation and in vitro activity evaluation against herpes labialis (HSV-1)*

Eleonora TRUZZI, University of Modena and Reggio Emilia: *Drug delivery strategies for Geraniol nose-to-brain administration*

Khalid MOHAMMED GARBA, University “La Statale” of Milan: *Diclofenac orodispersible films by hot-melt ram extrusion 3d printing: a feasibility study*

13.15 – 16.15 Lunch and poster session

#### Afternoon session

*Animal models*

Chairmen: Christian CELIA, Delia MANDRACCHIA

16.30 – 17.15 Dott. Michelangelo IANNONE  
Institute of Neurological Sciences, CNR - Catanzaro:  
*A pathologist in the lab: the histology in the study of animal models of diseases*

17.15 – 19.00 PhD Students Presentation: Group 5  
Chairmen: Giuseppe TRIPODO, Felisa CILURZO

Matteo PUCETTI, University of Perugia: *Development of a novel post-biotic system for the treatment of metabolic syndrome (MetSyn)*

Elia BARI, University of Pavia: *Sponge-like formulations containing msc lyo-secretome: efficacy in a wound healing murine model*

Laura RISALITI, University of Florence: *Ascosomes loaded by khellin for topical use: in vitro and in vivo characterization*

20.30 Dinner

### DAY 4: Thursday, 12 September 2019

#### Morning session

*Risk Assessment*

Chairmen: Paola MINGHETTI, Ruggero BETTINI

9.00 – 9.45 Prof. Marina MARINOVICH  
Department of Pharmacological and Biomolecular Sciences, University “La Statale” of Milan: *Risk assessment of chemicals: key factors in risk analysis*

9.45 – 10.30 Prof. Corrado Lodovico GALLI  
Department of Pharmacological and Biomolecular Sciences, University “La Statale” of Milan: *Application of risk characterization to different goods classes*

Conclusions and Greetings