



New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases

Monday 02.09.2024 14:00 - 19:00, Tuesday 03.09.2024 09:00 - 19:00

Wednesday 04.09.2024 09:00 - 13:00

University of Pavia historical buildings, Aula del '400, Piazza Leonardo Da Vinci, 6, 27100 Pavia

Student registration including accommodation, coffee-break, light lunch, welcome cocktail and gala dinner:

€ 280,00 before May 30th 2024 - € 330,00 after May 30th 2024

Student registration including coffee-break, light lunch, welcome cocktail and gala dinner:

€ 150,00 before May 30th 2024 - € 180,00 after May 30th 2024

Payment must be made by bank transfer:

To: ADRITELF *

IBAN: IT57J0503465890000000004220

Reason for the transfer: SURNAME NAME - 1st SITELF National PhD summer school

**If an invoice is required (for instance in case the payor is a University), the bank transfer must be made to the Organizational Secretariat New Aurameeting: this choice can be made by flagging the relevant option during registration; thereafter the Organizational Secretariat will send all payment information.*

Please note that doctoral students who enroll in the PhD summer school can participate in the SCI congress (Milan, August 26th-30th 2024) without paying the registration fee.

Further details are available on the web site www.sitelf.it

ORGANIZING COMMITTEE

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**Fondazione
INF-ACT**

1st SITELF PhD summer school

New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases

Pavia, 2-4 September 2024

The intensive PhD summer school “**New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases**” is a must-attend event for all PhD students engaged in scientific research in **Pharma**. For 23 years, the SITELF (formerly ADRITELF) PhD summer school has been a traditional gathering for doctoral students in the field of Pharmaceutical Technology, hosted each year by a different Italian Universities.

The goal of the school is to explore and delve into a new, exciting topic in the **Pharma field** each year. This year's focus is on **innovative delivery strategies for therapeutics and vaccines to combat emerging diseases**. The program covers advanced drug delivery methods to overcome microbial barriers and tackle antimicrobial resistance, leveraging the cutting-edge tools offered by nanomedicine. This topic has been chosen due to the critical importance of antimicrobial resistance (AMR) in today's healthcare landscape.

The topic will be thoroughly explored from multiple perspectives:

- Strategies for overcoming microbial barriers
- Polymers and nanosystems for drug delivery
- Techniques for manufacturing nanocarriers
- Advancements in RNA therapeutics

Another aim of the school is to facilitate the gathering of PhD students for the exchange of knowledge. To achieve this, a dedicated session is allocated for presentations by PhD students. This session encompasses both oral presentations, usually delivered by 3rd year PhD students, and poster presentations, presented by 1st and 2nd year PhD students. Oral presentations by PhD students will be categorized into focus groups based on their respective topics, followed by round table discussions organized at the conclusion of each focus group.

The **excellence** of the school lies in the caliber of **experts** involved, hailing from both national and international arenas in academia and leading multinational pharmaceutical entities like **GlaxoSmithKline (GSK), Vaccines and Evotec, Fedegari Group, Sotax, Alfa Test**. Additionally, esteemed representatives from renowned international bodies such as the **European Commission Joint Research Center** will contribute their expertise through lectures and sessions. This esteemed panel of internationally recognized experts will significantly enhance the scientific value of the PhD summer school. Moreover, their presence will provide invaluable scientific networking opportunities for PhD students, opening doors to potential collaborations and future endeavors in their respective fields.

The school is accredited with 3 CFU for the doctoral course in Chemical and Pharmaceutical Sciences, and Related Industrial Innovation, University of Pavia.

Link - <https://sitelf.it/1stsitelf-nationalphd-summerschool/>

1st SITELF PhD summer school

New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases

Pavia, 2-4 Settembre 2024

La scuola estiva intensiva di dottorato " **New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases**" è un'occasione imperdibile per tutti gli studenti di dottorato impegnati nella ricerca scientifica nel **settore Farmaceutico**. Da 23 anni, la scuola estiva di dottorato SITELF (ex ADRITELF) rappresenta un incontro consolidato per gli studenti di dottorato nell'ambito della Tecnologia Farmaceutica, ospitato ogni anno da diverse Università italiane.

L'obiettivo della scuola è esplorare e approfondire annualmente un tema di rilevanza scientifica nel campo Farmaceutico. Il tema selezionato per quest'anno riguarda le nuove strategie di somministrazione per agenti terapeutici e vaccini mirate a combattere le malattie emergenti. Il programma si concentra sulle strategie di somministrazione di farmaci finalizzate a superare le barriere microbiche e la resistenza antimicrobica, nonché sugli strumenti innovativi forniti dalle nanomedicine. Questa scelta tematica è stata effettuata considerando che la resistenza antimicrobica (AMR) rappresenta attualmente una questione cruciale nel settore sanitario.

La tematica sarà approfondita da molteplici prospettive:

- Strategie per superare le barriere microbiche
- Polimeri e nanosistemi per la somministrazione di farmaci
- Tecniche per la produzione di nanocarriers
- Avanzamenti nella terapia con RNA

Un altro obiettivo della scuola è facilitare l'incontro degli studenti di dottorato e lo scambio di conoscenze scientifiche. A tal fine, è stata dedicata una sessione specifica alle presentazioni degli studenti di dottorato. Questa sessione comprende sia presentazioni orali, di solito tenute dagli studenti di dottorato del terzo anno, che presentazioni di poster, presentate dagli studenti di dottorato del primo e secondo anno. Le presentazioni orali degli studenti di dottorato saranno organizzate in base ai rispettivi argomenti, seguite da discussioni a tavola rotonda organizzate al termine di ciascun gruppo.

L'eccellenza della scuola risiede nella qualità degli **esperti** coinvolti, provenienti da ambiti nazionali e internazionali dell'accademia e dalle principali entità farmaceutiche multinazionali come **GlaxoSmithKline (GSK), Vaccines and Evotec, Fedegari Group, Sotax, Alfa Test**. Inoltre, illustri rappresentanti di rinomati organi internazionali come il **Joint Research Center della Commissione Europea** contribuiranno con le loro competenze attraverso lezioni e sessioni. Questo prestigioso panel di esperti riconosciuti a livello internazionale aumenterà significativamente il valore scientifico della scuola estiva di dottorato. Inoltre, la loro presenza offrirà preziose opportunità di networking scientifico per gli studenti di dottorato, aprendo le porte a potenziali collaborazioni e future iniziative nei rispettivi settori.

La scuola è accreditata con 3 CFU per il corso di dottorato in Scienze Chimiche e Farmaceutiche e Innovazione Industriale università degli Studi di Pavia.

Link - <https://sitelf.it/1stsitelf-nationalphd-summerschool/>

1st SITELF National PhD summer school (XXIII ADRITELF National PhD school)

University of Pavia, 2 – 4 September 2024

New delivery strategies for therapeutics and vaccines to fight emerging infectious diseases

Venue: University of Pavia historical buildings, Aula del'400, Piazza Leonardo Da Vinci, 6, 27100 Pavia

Monday September 2nd	
H 14.00	Registration
H14.15 – 14.30	PhD school opening
	Proff Paola Minghetti and Paolo Caliceti president and past president of SITELF
H 14.30 – 15.00	Federico Forneris, Dept. Biology & Biotechnologies, Vice-Rector for Research, University of Pavia, President INFAC Foundation
H 15.00 – 15.30	Marco Terreni, Dept. Drug Sciences University of Pavia, coordinator of Immunohub project. <i>Immuno-Hub. Development of vaccine and monoclonal antibodies for treatment of infective and cancer diseases: The case of glycoconjugate vaccine for TB</i>
H 15.30- 16.00	Francesca Micoli Gsk Vaccine Institute for Global Health. <i>Design of polysaccharide vaccines for low- and middle-income countries</i>
H 16.00 – 16.30	Coffee break and Poster time
	Overcoming microbial barriers session
H 16.30 – 17.10	Claus-Michael Lehr, Helmholtz Centre for Infection Research, Saarland University, Saarbrücken, Germany. <i>Overcoming microbial barriers and models for antimicrobial resistance.</i>
H 17.10 – 17.50	Enrique Aleman Llanos, University politecnica Catalunya, Spain. <i>Multi-responsive systems for controlled delivery</i>
H 17.50 – 18.20	Irem Unalan, Institute of Biomaterials, University of Erlangen-Nuremberg, Germany, <i>Recent Advances and Future Prospects of Essential Oils in Biomedical Applications</i>

18.20 - 18.40 SPONSOR Technical presentation	S. Giordano, SOTAX srl dissolution tester 4
H 19.30	Welcome aperitif
Tuesday September 3rd, morning	PhD students workshop: Focus groups
H 9.00 – 11.00	Oral presentations of 3 rd year PhD students (and perhaps 2 nd year PhD students)
H 11.00 – 11.30	Coffee break and Poster time
H 11.30 – 13.00	Oral presentations of 3 rd year PhD students (and perhaps 2 nd year PhD students)
H 13.00 – 14.00	Light lunch
Afternoon	Polymers and nanosystems for drug delivery session
H 14.00 – 14.40	Nicola Tirelli IIT, Genova, Italy. <i>A living microbe may be a foe, a dead one may be not.</i>
H 14.40 – 15.10	Iole Carafa, Dept. of Chemical & Pharmaceutical Sciences, University La Sapienza, Rome, Italy. <i>New and well-established nano-strategies for antimicrobial agents delivery</i>
15.10 – 15.40	Roberta Cavalli, Department of Drug Science and Technology University of Torino, Italy, <i>Cyclodextrin-based polymers in drug delivery</i>
15.40 – 16.00 SPONSOR Technical presentation	Alfa Test
H 16.00 – 16.20	Coffee break and Poster time
	Manufacturing techniques session
H 16.20 – 17.00	Dimitrios Lamprou, School of Pharmacy Queens University, Belfast, UK <i>Emerging Technologies for Combatting Pandemics</i>
H 17.00 – 17.40	Paolo Gatti, Senior Vice President Head of Scientific Direction Evotec, <i>Manufacturing of Lipid Nanoparticles</i>
H 17.40 – 18.20	Geraldine Piel, Dept. of Pharmaceutical Sciences University of Liege, Belgium, <i>liposome production and sterilization using supercritical CO₂</i>
H 20.00	Summer school Gala dinner (Poster Awards)
Wednesday September 4th	RNA Therapeutics session
H 9.00– 9.40	Stefano Salmaso, Department of Pharmaceutical and Pharmacological Sciences University of Padova, Italy. <i>LNPs for RNA Delivery: are we at the summit or do we have new heights to climb?</i>
H 9.40– 10.20	Luigi Calzolari, European Commission, Joint Research Center (JRC) Ispra, Varese, Italy. <i>Quality attributes of LNP-RNA systems</i>
10.20 – 11.00	Adriele Prina Mello, Department of Clinical Medicine Trinity College, Dublin, Ireland <i>Can analytical LNP-RNA QbD be an early pre-clinical tool for translational success?</i>
H 11.00 – 11.20	Coffee break
H 11.20 – 11.40 SPONSOR Technical presentation	Alessandro Artioli, Fedegari Group srl, <i>Moist heat sterilization process development: a key element to overcome challenges on Glass Pre-Filled Syringes</i>

11.40 – 12.10	Nicolò Mauro, Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, <i>Advancing Treatment of Biofilm-Related Infections Via Biomimetic Macromolecular Conjugates: a strategy to repurpose common antibiotics</i>
H 12.10 – 12.40	Umberto Musazzi, University of Milano, Italy, <i>Regulatory aspects of oligonucleotides drugs</i>
H 12.40 – 13.00	Paola Minghetti, University of Milano, Italy, <i>Closing remarks</i>

Organizing committee

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Scientific committee

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