





## 1<sup>st</sup> 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 2 <sup>nd</sup>                  |  |
|---|--|
| H 14.00   | Registration   |
| Chairpersons: Bice Conti – Silvia Rossi           |  |
| H 14.15 – 14.30                                   | PhD school opening, Bice Conti, University of Pavia.<br>Paola Minghetti and Paolo Caliceti president and<br>past president of SITELF   |
| H 14.30 – 15.00                                   | Federico Forneris, Dept. Biology & Biotechnologies,<br>Vice-Rector for Research, University of Pavia,<br>President INFACT Foundation   |
| H 15.00 – 15.30                                   | Marco Terreni, Dept. Drug Sciences University of<br>Pavia, coordinator of Immuno-Hub project.<br>Immuno-Hub. Development of vaccine and<br>monoclonal antibodies for treatment of infective<br>and cancer diseases: The case of glycoconjugate<br>vaccine for TB |
| H 15.30- 16.00                                    | Francesca Micoli, Gsk Vaccine Institute for Global<br>Health. Design of polysaccharide vaccines for low<br>and middle income countries   |
| Н 16.00 – 16.30                                   | Coffee break and Poster time   |
| Overcoming micro                                  | bial barriers session  |
| Chairpersons: Giuseppina Sandri - Milena Sorrenti |  |
| H 16.30 – 17.10                                   | Claus-Michael Lehr, Helmholtz Centre for Infection<br>Research, Saarland University, Saarbrücken,<br>Germany. Overcoming microbial barriers and<br>models for antimicrobial resistance.  |
| H 17.10 – 17.50                                   | Enrique Aleman Llanso, University Politecnica<br>Catalunya, Barcelona, Spain. <i>Multi-responsive</i><br>systems for controlled delivery   |
| H 17.50 – 18.20                                   | Irem Unalan, Institute of Biomaterials, University of<br>Erlangen-Nuremberg, Germany. <i>Recent advances</i><br>and future prospects of essential oils in biomedical<br>applications   |
| H 18.20 - 18.40                                   | Simone Giordano, SOTAX srl. Dissolution tester 4   |
| SPONSOR Technical presentation                    |  |
| Н 19.30   | Welcome Cocktail   |

| Tuesday September 3 <sup>rd</sup>                   |   |  |
|---|---|--|
| · ·   | shop: Focus groups  |  |
| H 9.00 – 10.30                                      | Oral presentations of 3 <sup>rd</sup> year PhD students   |  |
|   | (Topic I and II)  |  |
| H 10.30 – 10.50                                     | Roundtable Discussion   |  |
| H 10.50 – 11.10                                     | Coffee break and Poster time  |  |
| H 11.10 – 12.40                                     | Oral presentations of 3 <sup>rd</sup> year PhD students   |  |
|   | (Topic III and IV)  |  |
| H 12.40 – 13.00                                     | Roundtable Discussion   |  |
| H 13.00 – 14.00                                     | Light Lunch   |  |
| Polymers and nanosystems for drug delivery session  |   |  |
| Chairpersons: Cristina Bonferoni - Sara Perteghella |   |  |
| 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                                     | Maria Iole Carafa, Dept. of Chemical &  |  |
|   | Pharmaceutical Sciences, University La Sapienza,  |  |
|   | Rome, Italy. New and well established nano-   |  |
|   | strategies for antimicrobial agents delivery  |  |
| 15.10 - 15.40                                       | Roberta Cavalli, Dept. of Drug Science and  |  |
|   | Technology, University of Turin, Italy. Cyclodextrin-   |  |
|   | based polymers in drug delivery   |  |
| H 15.40 – 16.00                                     | Fabio Perissinotto, Alfatest. Ideal conditions for  |  |
| SPONSOR Technical presentation                      | nanomedicine production with microfluidic device  |  |
| H 16.00 – 16.20                                     | Coffee break and Poster time  |  |
| Manufacturing to                                    | echniques session   |  |
| Chairpersons: Laura Catenacci – Barbara Vigani      |   |  |
| H 16.20 – 17.00                                     | Dimitrios Lamprou, School of Pharmacy Queens  |  |
|   | University, Belfast, UK. Emerging Technologies for  |  |
|   | Combatting Pandemics  |  |
| H 17.00 – 17.40                                     | Paolo Gatti, Senior Vice President Head of Scientific   |  |
|   | Direction Evotec, Verona, Italy. Manufacturing of   |  |
|   | Lipid Nanoparticles   |  |
| H 17.40 – 18.20                                     | Geraldine Piel, Dept. of Pharmaceutical Sciences  |  |
|   | University of Liege, Belgium, <i>liposome production</i>  |  |
|   | and sterilization using supercritical CO <sub>2</sub>   |  |
| H 20.00   | Summer School Gala Dinner   |  |
| Wednesday September 4 <sup>th</sup>                 |   |  |
| •   | eutics session  |  |
| Chairpersons: Ida Genta – Maria Luisa Gelmi         | Chafena Columna Darch of Dhamman (1991)   |  |
| H 9.00– 9.40  | Stefano Salmaso, Dept. of Pharmaceutical and  |  |
|   | Pharmacological Sciences University of Padua, Italy.  |  |
|   | LNPs for RNA Delivery: are we at the summit or do   |  |
| H 9.40– 10.20                                       | we have new heights to climb?<br>Luigi Calzolai, European Commission, Joint                     |  |
| 11 J.40 <sup></sup> 10.20                           | Research Center (JRC) Ispra, Varese, Italy. <i>Quality</i>                                      |  |
|   | attributes of LNP-RNA systems   |  |
|   | GENERALES OF LIVE - NIVA SYSTEMS  |  |
| 10.20 - 11.00                                       | Adriele Prina Mello, Dept. of Clinical Medicine   |  |
|   | Trinitiy College, Dublin, Ireland. Can analytical LNP-  |  |
|   | RNA QbD be an early pre-clinical tool for   |  |
|   | translational success?  |  |

| H 11.00 – 11.20                                 | Coffee break  |
|---|---|
| Chairpersons: Rossella Dorati – Raffaella Bucci |   |
| H 11.20 – 11.40                                 | Alessandro Artioli, Fedegari Group srl. Moist heat  |
| SPONSOR Technical presentation                  | sterilization process development: a key element to |
|   | overcome challenges on Glass Pre-Filled Syringes    |
| 11.40 - 12.10                                   | Nicolò Mauro, Dept. of Biological, Chemical and     |
|   | Pharmaceutical Sciences and Technologies,           |
|   | University of Palermo, Italy. Advancing Treatment   |
|   | of Biofilm-Related Infections Via Biomimetic        |
|   | Macromolecular Conjugates: a strategy to            |
|   | repurpose common antibiotics                        |
| H 12.10 – 12.40                                 | Umberto Musazzi, Dept. of Pharmaceutical            |
|   | Science, University of Milan, Italy. Regulatory     |
|   | aspects of oligonucleotides drugs                   |
| H 12.40 – 13.00                                 | Paola Minghetti, President of SITELF, University of |
|   | Milan, Italy. Closing remarks                       |

## Organizing committee:

P. Minghetti, SITELF
P. Caliceti, SITELF
B. Conti, University of Pavia
S. Rossi, University of Pavia
M.C. Bonferoni, University of Pavia
G. Sandri, University of Pavia
I. Genta, University of Pavia
R. Dorati, University of Pavia
S. Perteghella, University of Pavia
M. Sorrenti, University of Pavia
L. Catenacci, University of Pavia
B. Vigani, University of Pavia
E. Chiesa, University of Pavia
S.Pisani, University of Pavia
M. Ruggeri, University of Pavia

## Scientific committee:

P. Minghetti, SITELF R. Aquino, SITELF R. Bettini, SITELF P. Blasi, SITELF P. Caliceti, SITELF G. Cavallaro, SITELF N. Denora, SITELF G. Tosi, SITELF M.C. Bonferoni, University of Pavia B. Conti, University of Pavia I. Genta, University of Pavia S. Rossi, University of Pavia G. Sandri, University of Pavia M. Sorrenti, University of Pavia L. Catenacci, University of Pavia R. Dorati, University of Pavia B. Vigani, University of Pavia S. Perteghella, University of Pavia





