

How to reach the NH and Villa Archirafi hotels:

From Falcone-Borsellino airport you can reach the main train station of the city (Palermo Centrale) by train (train station in the airport) to Palermo Centrale. The ride takes about 1h, and tickets can be purchased on www.trenitalia.com.

Alternatively, you can take the Prestia & Comandè shuttle bus from the airport to Palermo Centrale (the bus stop is outside the airport, about 50 meters to the right). Tickets are available at the airport or on <https://prestiaweb.smartticket.it/home/>

Both the hotels are at walking distance from Palermo Centrale station:



How to reach the venue:

Take bus 109 from the Palermo Centrale station and get off at the stop “Basile-Artale”, from where you can access the Campus and reach Building 16.

Or take metro line A from Palermo Centrale station to “Palazzo Reale-Orleans” stop. From there, you can enter the Campus and reach Building 16 by walking or by free shuttle bus inside the Campus to the “Biologia” stop, which is directly in front of Building 16.



The international **Summer School on Advanced Biotechnology** is a collaborative effort between the Master Degree in Biomolecular and Industrial Biotechnology of the University of Palermo and Biotechnet Switzerland, an association of Swiss Universities of Applied Sciences focused on biotechnology.

The XIX edition of the School will take place in Palermo, at the Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STeBiCeF), with the sponsorship of:



Università
degli Studi
di Palermo

biotechnet
switzerland



Contact & Information

vincenzo.cavalieri@unipa.it

simona.campora@unipa.it

salvatore.feo@unipa.it

giuseppe.gallo@unipa.it

giulio.ghersi@unipa.it

sonia.thomson@biotechnet.ch



UNIVERSITÀ
DEGLI STUDI
DI PALERMO

biotechnet
switzerland

XIX Summer School on Advanced Biotechnology

September 1 - 4, 2025

Mutolo auditorium
Viale delle Scienze, Building 16
University of Palermo
ITALY



Organizing Committee

Vincenzo Cavalieri – UNIPA

Simona Campora – UNIPA

Salvatore Feo – UNIPA

Giuseppe Gallo – UNIPA

Giulio Gherzi – UNIPA

Sonia Thomson – Biotechnet



Monday 1

08:00 - 08:45	Registration
08:45 – 09:00	Welcome and Opening remarks
09:0 -10:30	Organs-on-chip & 3D Models Chair: Christoph Griesbeck
Laura Suter-Dick, FHNW	Organ on a Chip for multitissue experiments
Riccardo Barrile, UniCincinnati	From Cells to Systems: Building Human Organs-on-Chips for Drug Discovery
Giovanni Zito, ISMETT	From 2D to 3D models: new tools to study liver diseases
10:30	Coffee break
11:00 12:30	Advanced therapies Chair: Eric Kubler
Jack Rohrer, ZHAW	Development of a CAR-NK killing assay
Vincenzo Cavalieri, UniPA	Cell-free therapy with the secretome of stem cells
Tereza Mullerova, FHNW	Twin-Column Continuous Chromatography for Viral Vector Gene Therapies
12: 30	Lunch
14:00 – 15:00	Insights from Industry Chair: Georg Lipps
Wolfgang Minas, Biotech Concepts	Biotechnology – going scale-up: Early on considerations and pitfalls
Gabriele Steiner, Spiegeltec	<i>to be defined</i>
15:00	Coffee break
15:30 – 17:00	Synthetic Biology & Biobanking Chair: Simon Crelier
Wolfgang Merkle, ZHAW	Insights and Progress from a Swiss Micro Biogas Research Plant
Maike Otto, FHNW	Future Innovators Wanted: The Journey of the FHNW iGEM Team 2025
Gottfried Dasen, ZHAW	Biobanking for Biotech
18:00	Welcome party

Tuesday 2

09:00 – 10:30	Protein design & analytical biotechnology Chair: Jack Rohrer
Georg Lipps, FHNW	A _____ to Protein Language Models and Protein Design
Dominik Meinel, FHNW	Harnessing focal molography for affinity and concentration measurements of proteins in complex matrices
Simon Crelier, HES-SO	Enzymes and organic solvents: old tricks and recent developments
10:30	Coffee break
11:00 – 12:30	Nanomedicine & cancer therapy Chair: Laura Suter-Dick
Oya Tagit, FHNW	Translating cancer immunotherapy nanomedicines from lab to clinic
Simona Campora, UniPA	3D tumor models for cancer research
Patrick Shahgaldian, FHNW	Functional Nanomedicine Through Enzyme Supramolecular Engineering
12:30	Lunch
14:00 -15:00	Insights from Industry Chair: Vincenzo Cavalieri
Eric Kubler, STERA Scientific AG	Modern Swine Diagnostics: A Dual Focus on Efficiency and Well-being
Lauriane Pillet, Lonza	Bioconjugates: from industrial manufacturing at Lonza to therapeutic applications
15:00	Coffee break
15:30 – 17:00	Invisible threats and beneficial microbes Chair: Giuseppe Gallo
Marco Rupprich, FHNW	Are PFAS be the new asbestos, and what can we learn from the past?
Christoph Borner, UniFreiburg	Herpes Simplex Virus (HSV) - how does it survive in the body of so many humans?
Valeria Villanova, UniPA	<i>to be defined</i>

Wednesday 3

09:00 – 10:30	Bioprocesses Chair: Nicolas Huguenin-Dezot
Harald Schobel, MCI	SpotLIGHT on Biotechnology: Using light as a tool in bioprocesses
Giuseppe Gallo, UniPA	Streptomycte extracellular membrane vesicles affect growth and differentiation of either bacterial strains and tomato plants
Caspar Demuth, ZHAW	Advanced sensor technology to enhance bioprocess understanding
10:30	Coffee break
11:00 – 12:00	Molecular & applied biotechnology Chair: Gottfried Dasen
Gaspere La Rocca, UniPA	microRNA-mediated gene regulation in physiology and disease
Nicolas Huguenin-Dezot, ETH	Towards developing a plasmid-based orthogonal replication system E. coli: Findings and challenges
12:00	Lunch
14:00 14:30	Insights from Industry Chair: Giuseppe Gallo
Maurizio Bettiga, Italbiotec	Dead ideas walking: rescuing them from the valley of death
14:30 – 15:30	Student Working Session in groups
15:30	Coffee break
16:00 – 17:00	Student Working Session in groups
9:00 – 10:15	Student Session I Chair: Patrick Shahgaldian
10:15	Coffee break
10:45 – 12:00	Student Session II Chair: Patrick Shahgaldian
12:00 – 12:30	Prize Ceremony & Concluding Remarks

Thursday 4