

# PhD course in Life Sciences and Biotechnology

## Teaching Activities 2023-2024: seminars & courses schedule

**Please note:** the teaching activities will be held in presence. The Teams links will be provided only upon request and for motivated reasons.

The teaching activities calendar will be updated throughout the year with dates and times. You will find the updated version on the PhD Course website, so please check it out.

Here you will find the schedule of the coming online lectures and seminars:

---

### November

- Mon 13<sup>th</sup>, 16.30-18.30 **Trends in Biomedical Sciences** – organized by V. Orlandi  
**"Clinical microbiology between diagnosis and research: the example of SARS-CoV-2 pandemic"** (0.25 CFU)  
Nicasio Mancini, Università degli Studi dell'Insubria
- Wed 15<sup>th</sup>, 16.30-18.30 **Trends in Biomedical Sciences**– organized by V. Orlandi  
**"Viral evolution: from basic research to clinical applications"** (0.25 CFU),  
Andreina Baj, Università degli Studi dell'Insubria
- Wed 22<sup>th</sup>, 10.30-12.00 **Transversal skills – Module A**  
**"How to write a scientific paper"** (0.25 CFU)  
Félix M. Goñi, University of the Basque Country (Spain)
- Thu 23<sup>th</sup>, 10.30-12.30 **Trends in Biomedical Sciences**  
**"Recent advances on membrane studies"** (0.25 CFU)  
Félix M. Goñi, University of the Basque Country (Spain)
- Thu 30<sup>th</sup>, 14.30-16.30 **Trends in Biomolecular Sciences** – organized by G. Bernardini  
**"Exploring interactions between 2D materials and the immune system"** (0.25 CFU)  
Bengt Fadeel, Head of the Division of Molecular Toxicology, Institute of Environmental Medicine, Karolinska Institute, Stockholm (Sweden)
- 

### January - May

- schedule on the web **Trends in Biomedical Sciences**  
**"ENTer Seminars in Ear, Nose and Throat surgery"** (1.25 CFU)  
Organized by P. Battaglia and M. Turri Zanoni, Università degli Studi dell'Insubria

**NB:** the program is being defined, you will find it in pdf format on the PhD web page in the "Teaching activity" section (at the top, Document, ENTer pdf).

---

### January

- Thu 18<sup>th</sup> 14.30-16.30 **Transversal skills – Module C: Crosslinking academia and industry for the creation of new professional opportunities** (0.25 CFU) - organized by S. Sacchi  
**"The industrial application of microorganisms. A wealth of professional opportunities"**  
Fabrizio Beltrametti (BioC-Chem, gerenzano)

---

## February

From 5<sup>th</sup> to 27<sup>th</sup> **BIostatistics** (3 CFU) – every Monday and Tuesday, 14.30-17.30  
Giorgio Binelli, Università degli Studi dell'Insubria

**NB:** This course is mandatory and scheduled for the XXXVIII cycle students

Fri 23<sup>th</sup> 14.30-16.30 **Transversal skills – Module B: Crosslinking academia and industry for the creation of new professional opportunities** (0.25 CFU)  
**“Addressing problems and implications in the development of a process for the production of an Antibody Drug Conjugate (ADC)”**

**ADCs: chemical and analytical aspects**

Alberto Terraneo, Director, Research & Development, Cerbios

**Process development in the ADC field**

Daniele Martellato, R&D biotech, Cerbios

Wed 28<sup>th</sup> 14.30-16.30 **Transversal skills - Module B: Presentation skills and results dissertations**  
**“Selling your science stuff: A semi-serious guide to get or keep a job, and having fun doing it”** (0.25 CFU)

Francesco Bonomi, Università degli Studi di Milano, La Statale

---

## March

From 7<sup>th</sup> to 21<sup>th</sup> **Introduction to Systems Biology** - (1.5 CFU) every Thursday, 14.00-18.00  
Mauro Fasano, Università degli Studi dell'Insubria

**NB:** this course is borrowed from the PhD in Experimental and Translational Medicine and will provide credits for both the Trends in Biomolecular Sciences and Trends in Biomedical Sciences courses

Fri 15<sup>th</sup> 10.30-13.30 **Trends in Biomolecular Sciences** – organized by G. Bernardini  
**“Nanoactuators for Therapy and Diagnosis”** – (0.5 CFU)  
Jesus Martinez De La Fuente, Instituto de Nanociencia y Materiales de Aragón, INMA, CSIC-Universidad de Zaragoza, Spain

Thu 21<sup>th</sup> 10.30-12.30 **Trends in Biomolecular Sciences** - organized by S. Sacchi (0.5 CFU)  
**“Crowding, protein entanglements and enzyme kinetics”**

**Life in a crowded world: how the complex intracellular environment may influence and regulate biochemical kinetic processes in the cell**

Francesco Piazza – Università degli Studi di Firenze

**Iron sulfur biogenesis in Friedreich's ataxia: analysis in vitro and complex environment**

Salvatore Adinolfi – Università di Torino

Fri 22<sup>th</sup> 14.30-16.30 **Trends in Biomedical Sciences** - organized by P. Campomenosi (0.25 CFU)  
**“Introduction to the droplet digital PCR technology and its applications”**  
Francesca Dionisio, BIORAD

**“MicroRNAs for screening and diagnosis of lung cancer: can droplet digital PCR overcome technical problems in their measurement?”**

Paola Campomenosi, Università degli Studi dell'Insubria

---

## March-June

To be defined

### **Transversal skills – Module C: Project management Innovation camp – Multidisciplinary activity (1 CFU)**

Mauro Fasano, Executive Deputy Chancellor for Innovation and Technology Transfer, University of Insubria

**Please note:** A brief description of the planned activities is available on the PhD web page, while the program of the scheduled lectures and meetings will be available as soon as defined. The attendance of this activity is strongly suggested. This course is part of the transversal activities organized by the PhD School.

---

## April

Tue 9<sup>th</sup> 14.30-16.30

### **Transversal skills – Module C: Crosslinking academia and industry for the creation of new professional opportunities (0.25 CFU) - organized by S. Sacchi “Biotech, offshoring, reshoring and surroundings”**

Roberto Verga (BiCT, Lodi)

Thu 11<sup>th</sup> 14.30-16.30

### **Trends in Biomolecular Sciences – organized by F. Berini (0.25 CFU)**

#### **“An insight into probiotics: from discovery, to production and application”**

#### **Production and application of probiotics and lactic acid bacteria in different industrial sectors**

Luciana Gironi – Sacco S.r.l.

#### **Lyophilisation and encapsulation of next-generation probiotics and postbiotics**

Andreja Leboš Pavunc – Zagreb University

#### **Next generation probiotics for intestinal microbiome**

Jasna Novak – Zagreb University

Mon 15<sup>th</sup> 14.30-16.30

### **“Transfection optimization and flow cytometry” – organized by E. Rosini & A. Bruno (0.5-1 CFU)**

#### **Converging approaches to gene delivery**

Gabriele Candiani, Department of Chemistry, Materials and Chemical Engineering "Giulio Natta", Politecnico di Milano

#### **Flow cytometry: from basics to advanced applications**

Ivan Muradore

Flow cytometry facility manager, Scientific and Technological Pole (PST)

IRCCS MultiMedica, Milan

#### **Practical activities**

Tue May 14<sup>th</sup>

Gene delivery by the VibroFect technology

Elena Rosini and Gabriele Candiani

Lanzavecchia building, blue floor, Immunohub CHO lab (in small groups)

DBSV, Via J.H. Dunat 3, varese

Mon May 20<sup>th</sup>

Insights in flow cytometry

Antonino Bruno and Ivan Muradore

IRCCS MultiMedica, Scientific and Technological Pole (PST)

Via Fantoli 16/15, Milano

**NB:** this short course will provide credits for both the Trends in Biomolecular Sciences and Trends in Biomedical Sciences courses, at your choice

Mon 22<sup>nd</sup> 11-00-13.300 **Trends in Biomolecular Sciences** – organized by S. Sacchi (0.25 CFU)  
**“Application of circular dichroism spectropolarimetry to the study of proteins”**  
Stefano Barbiroli – Università degli Studi di Milano “La Statale”

---

## April-May

To be defined **Course on safety and good practices in the laboratory** (1 CFU)  
Fabio Conti, Università degli Studi dell’Insubria

**NB:** participation in this course is strongly recommended, especially for the XXXIX cycle students. A certificate will be issued at the end of the course

---

## May

Tue 07<sup>th</sup> 14.30-16.30 **Trends in Biomolecular Sciences** - organized by S. Sacchi (0.25 CFU)  
**“Enzymatic assemblies and their role in cellular metabolism”**  
**Exploring the Regulation of de novo Purine Biosynthesis in Cancer Cells**  
Anthony M Pedley – Pennsylvania State University, USA (by remote)

**Human serinosome and serine metabolism**  
Loredano Pollegioni – Università degli Studi dell’Insubria

Mon 13<sup>th</sup> 15.30-17.30 **“Endometrial carcinomas 2024: tumorigenic mechanisms, clinico-pathological and molecular classification”** - (0.5 CFU)  
Antonio Travaglino e Daniela Furlan, Università degli Studi dell’Insubria

**NB:** this seminar is part of [the inter-doctoral activities](#) organized in collaboration with the PhD in Experimental and Translational Medicine and will provide credits for the Trends in Biomedical Sciences course

Wed 15<sup>th</sup> 10.30-12.30 **Trends in Biomolecular Sciences** - organized by L. Pollegioni (0.5 CFU)  
**“Synthetic approaches to novel inhibitors targeting human D-aspartate oxidase (hDASPO)”**

10.30-11.00 **Introduction about hDASPO and its role in neuronal cells**  
Loredano Pollegioni, Università degli Studi dell’Insubria

**Structural insights of hDASPO**  
Marco Nardini, Università degli Studi di Milano

11.00-11.30 **Design of Olanzapine-based hDASPO inhibitors**  
11.30-12.30 **Synthetic approaches to Olanzapine-based hDASPO inhibitors**  
Andrea Citarella – Università degli Studi di Milano

14.30-16.30 **“Biological Evaluation of the Selected Inhibitors”**  
14.30-15.00 **Evaluation of the inhibitory activity and selectivity through enzymatic assays**  
Valentina Rabattoni, Università degli Studi dell’Insubria

15.00-16.30 **Structural biology approach as future perspective and practical demonstration**  
Miriam Cavinato, Università degli Studi di Milano

---

## June

Thu 06<sup>th</sup> 14.30-16.30 **Trends in Biomolecular Sciences** - organized by G. Bernardini (0.5 CFU)  
**“The origins of Alzheimer’s Disease, the mechanisms and the risk factors”**

	Lang Tran, Heriot Watt University, Edinburgh (UK)
Wed 12 <sup>th</sup> 11.00-12.30	<b>Transversal skills - Module B - (0.5 CFU)</b>
14.00-15.30	<b>“Science dissemination through new media”</b> Ivano Eberini, Università degli Studi di Milano, La Statale
To be defined	<b>Transversal skills – Module A: Information Literacy, Digital Literacy - (0.5 CFU)</b> Letizia Pelucchi, Università degli Studi dell’Insubria
25-28	<b>Transversal skills – Module B - (0.5 + 0.5 CFU)</b> <b>“Data Science Essentials for Life Sciences: A Hands-On Approach” (with practical activities)</b> Heather Bondi, Università degli studi dell’insubria <b>“Introduction to R free software environment for statistical computing and graphics of biological data”</b> – organized by Antonello Montagnoli Enrique Andivia, Department of Biodiversity, Ecology and Evolution, Faculty of Biological Sciences, Universidad Complutense de Madrid (by remote)

---

## September

To be defined	<b>Trends in Biomedical Sciences</b> – organized by M. Viola, J. Karousou, L. Azzi (1 CFU) <b>Short course: data collection and writing of clinical protocols, ethics committee</b> Lorenzo Azzi – Università degli Studi dell’Insubria
To be defined	<b>Transversal skills - Module C</b> <b>“How to make the most of your professionalism: former PhD students talk about their experience, inside and outside Academia”- (0.5 CFU)</b> Sarah Grossi Elisa Vignali Ilaria Mancini Nicolò Baranzini <b>“The road to scientific independence: the first grant” - (0.25 CFU)</b> Ivan Raimondi, New York Genome Center (by remote)

---