



Marie Skłodowska-Curie Innovative Training Networks

**DIRNANO GA n° 956544: "Directing the immune response through designed nanomaterials"
- H2020-MSCA-ITN-2020**

REGULAR NETWORK MEETING

16, 17, 18 March 2022

Casa della Gioventù universitaria
Via Rio Bianco 12, Bressanone (BZ)

Scientific program

WEDNESDAY, 16 MARCH

(Aula Magna)

9.00 am – 9.30 am

Opening and Welcoming coffee

9.30 am – 1.00 pm

ESRs presentation of their scientific work

1.00 pm – 2.30 pm

Lunch



2.30 pm – 4.00 pm**Workshop 1 - UNIPD and MH: Biomolecular corona biochemical, omics and functional characterization**

Panellist: Sara Tortorella (MH)

State of the art and recent advances in mass spectrometry-based metabolomics *We will introduce examples of targeted and untargeted lipidomic analysis to assess fingerprints for adverse effects upon pharmacological treatments, and spatial omics analysis for molecular mapping and biomarkers discovery.*

Panellist: Giorgio Arrigoni (UNIPD)

Quantitative approaches in mass spectrometry-based proteomics

We will show how to obtain the identification and the relative quantification of peptides and proteins in a complex mixture, by mass spectrometry. We will treat label-free and label-based approaches, such as feature based quantification, iTRAQ/TMT and SILAC.

Panellist: Alessandro Negro (UNIPD)

Recombinant Protein expression in Escherichia Coli

Recombinant proteins production has a broad range of applications from basic research to biotherapeutic agents. E. coli is the most popular expression platform for production of recombinant proteins allowing easy manipulation, fast growth and low cost. Here we will present different methodologies for the synthesis of proteins with disparate uses, starting from genes.

4.00 pm – 5.30 pm**Workshop 2 - MH: Cheminformatics and bioinformatic for lipidomics – BIG DATA analysis**

Panellist: Sara Tortorella (MH)

Chemometrics and big data in the omics era: from the drug development pipeline to early diagnosis and personalized therapy

We will discuss the current approaches and bioinformatic challenges to bring lipidomics into routine applications. Real case-studies from the pharmaceutical and academic world will be presented and analyzed together.

Mid-afternoon break around 4.00 pm



THURSDAY, 17 MARCH

(Aula Magna)

9.30 am – 1.00 pm

Workshop 3 – SMDG: Management and leadership in bioscience, bio-venture planning, business plan

Panellist: Shadi Farhangrazi (SMDG)

Fundamental principles of leadership and management

We will look at leadership from the perspective of management and team building in life sciences and biotechnology. Students explore and discuss the fundamentals of effective leadership and how what they learn will help them in both academic and industrial careers.

Mid-morning break around 11.00 am

1.00 pm – 2.30 pm

Lunch

2.30 pm – 5.30 pm

Second part of Workshop 3 – SMDG: Management and leadership in bioscience, bio-venture planning, business plan

Panellist: Shadi Farhangrazi (SMDG)

Bio-venture and business planning; first steps in business-plan creation

Students start on their business plan projects.

7.30 pm

Social dinner

Restaurant *Alter Schlachthof*

Schlachthausgasse, 4

39042 Bressanone BZ



FRIDAY, 18 MARCH

(Aula Magna)

9.30 am - 12.00 am**Workshop 5 – MH and UNIPD: Methods in science communication-edutainment and their impact assessment**

Panellists: Sara Tortorella (MH); Regina Tavano (UNIPD); Luca Trappolin (UNIPD) *This workshop will address attitudes and strategies to involve non-specialist audiences in scientific communication related to the DIRNANO's topics.*

ESRs will be supervised in sharing ideas, plans and tools to be adapted for different social audiences (from kids to stakeholders, from university students to journalists). Furthermore, tools for assessing the impact of communication activities will be proposed and negotiated.

12.00 am – 1.30 pm

Lunch

1.30 pm – 5.00 pm**Workshop 4 – BIOT: Interpersonal and team-work skills**

Panellist: András Dinnyés (BIOT)

Project Management in a PhD program, time and conflict management

The training introduces ESRs with a wide set of techniques and activities, including planning, allocating, setting goals, delegation, analysis of time spent, monitoring, organizing, scheduling, and prioritisation.

Mid-afternoon break around 3.30 pm**5.00 pm – 6.00 pm****Final Supervisory Management Board**