TRAINEESHIP 2025/2026

II edizione

SCIENZE DEL FARMACO

Castoldi

Kaunas University of Technology_Lithuania - Faculty of Chemical Technology

- ❖ Synthesis and characterization of heterocyclic compounds; (Department of Organic Chemistry)
- ❖ Extraction and characterisation of bioactive compounds from natural sources;
- ❖ Preparation and characterisation of tablet-based sustainable cosmetics; (Department of Polymer Chemistry and Technology)
- ❖ Next-generation cosmetics: exploring advanced technologies in cosmetics;
- ❖ Preparation and characterisation of cosmetic formulations with encapsulated high-efficacy bioactive compounds;

- Iscrizione al corso di laurea in Chimica e Tecnologia Farmaceutiche, Farmacia, Biotecnologie del Farmaco.
- Tirocinio di 6 mesi_ 5 borse
- Livello inglese B1
- Per maggiori informazioni: laura.castoldi@unimi.it

Fedeli

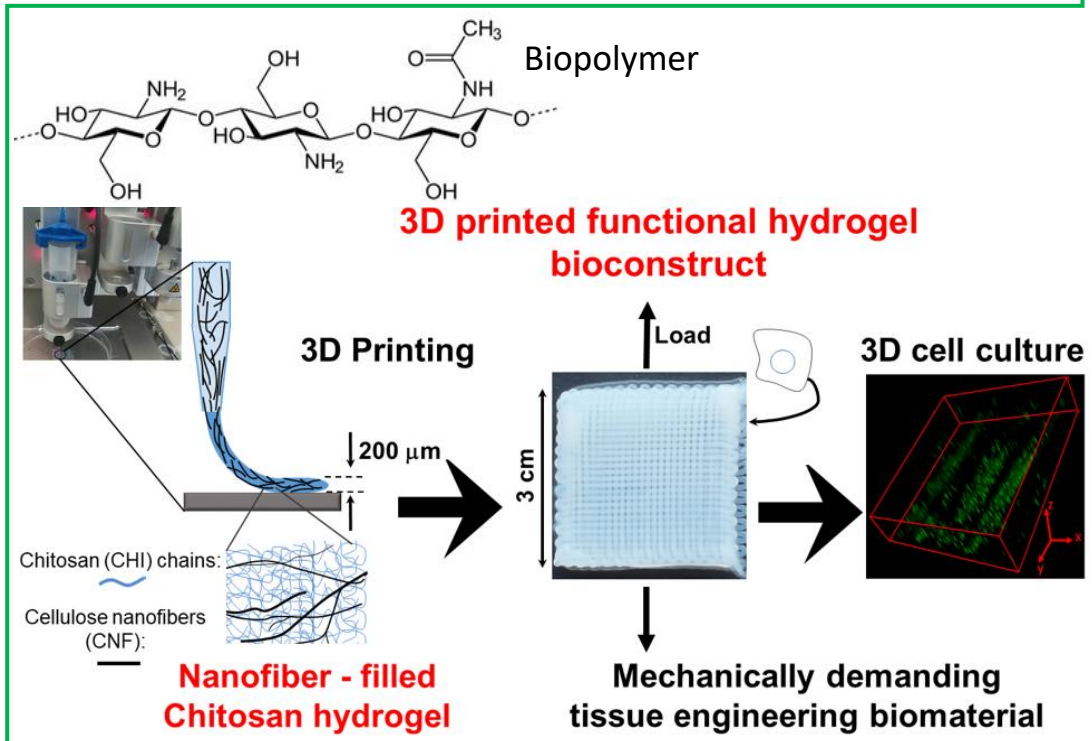
University of Bayreuth - Germany

Contact person @unimi: Dr. Stefano Fedeli

UNIVERSITÄT BAYREUTH

Host lab: Prof. Dr. OSORIO M. Anayancy **Head Chair of Additive Processes (Organ Printing)**

https://www.additive-processes-organ-printing.uni-bayreuth.de/de/team/Prof_-Anayancy-Osorio-Madrazo/index.php



Activity

a) Fabrication, characterization, and applications of biopolymers for tissue printing

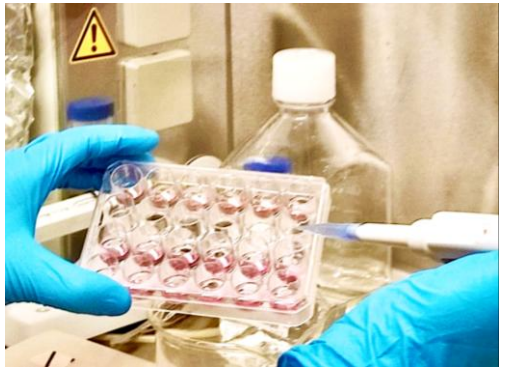
b) Culturing, manipulation, and experiments with cells and biomaterials

c) Data presentation and production of scientific publications

The chemistry lab in Bayreuth

Fluorescence investigation

Cell culturing



HOSTING LAB

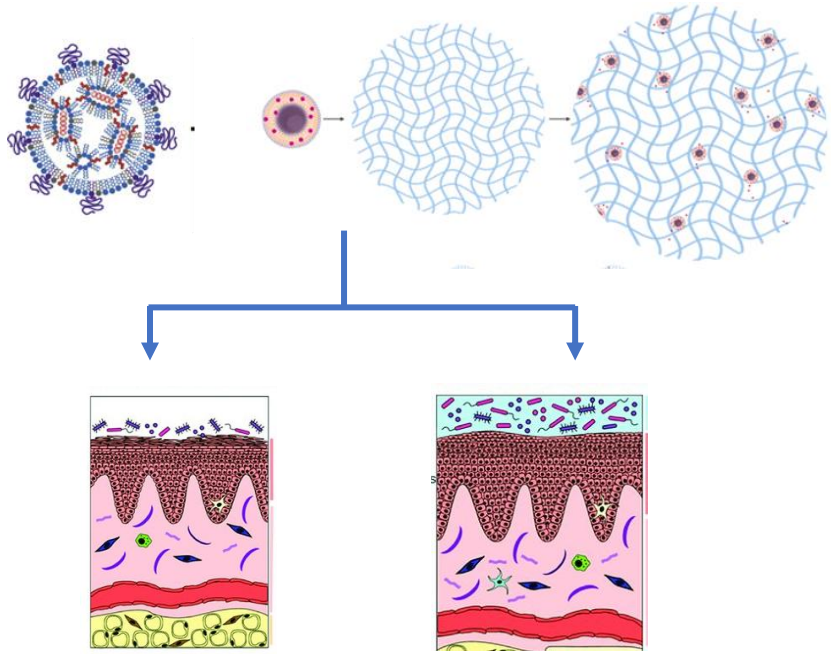
UiT The Arctic University of Norway

Prof. Natasa Skalko-Basnet

Drug Transport and Delivery Research Group
Department of Pharmacy I
University of Tromsø, Norway

RESEARCH FIELD

Design of lipid based nanosystems (including the design of suitable and biocompatible vehicles, (mainly hydrogels) for skin and mucosal drug delivery



1 Open position for undergraduated students in Pharmacy, Industrial Pharmacy, Pharmaceutical Biotechnology @6 months traineeship (Supervisor Unimi: Prof. Silvia Franzè (silvia.franze@unimi.it)

Minghetti

HOSTING LAB

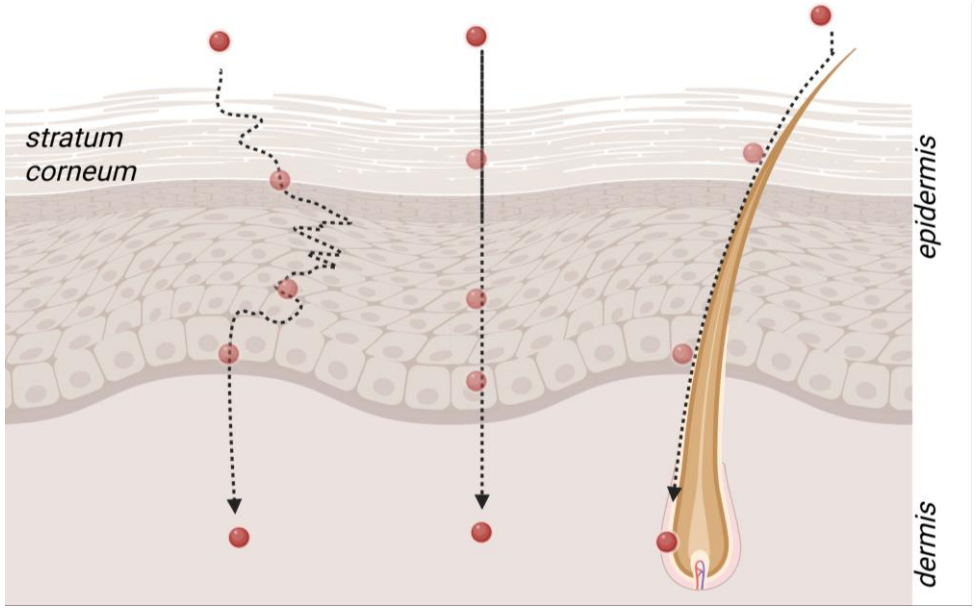
UNIVERSIDAD DE GRANADA

Prof. César Antonio Viseras Iborra

Department of Pharmacy and Pharmaceutical Technology

RESEARCH FIELD

Designing nanovectors for the delivery of pharmacological active ingredients through and/or in the skin



-1 open position for undergraduated students in Pharmacy, Industrial Pharmacy and Herbal Sciences and Technologies

-Supervisor unimi: Prof. Paola Minghetti

- 6 months traineeship

Pirovano

Universidad de Oviedo (Asturias, Spain) - Department of Organic and Inorganic Chemistry

Universidad de Oviedo

- Over 400 years of history
- **Campus of International Excellence**
- 38 Departments, 25000 students
- **800 International students**
- The Department of Organic and Inorganic Chemistry is divided in two areas, Organic and Inorganic. In thOrganic Chemistry area: 9 Full Professors and 12 Associate Professors and several Assistant Professors and Senior researchers. Moreover, there are >35 PhD and Master students.

Prof. Ruben Vicente Arroyo

https://www.unioviedo.es/sos/en/home-2/

@GroupSOSLab1

- Studio di nuove metodologie per la sintesi di composti carbo- ed eterociclici tramite catalisi con metalli di transizione (**AREA CHIMICA ORGANICA**)
- Iscrizione al corso di laurea magistrale a ciclo unico in Chimica e tecnologia farmaceutiche o dottorandi in Scienze Farmaceutiche
- Tirocinio di 6 mesi- 1 POSIZIONE
- Per info: valentina.pirovano@unimi.it

Pirovano

Universidad de Oviedo (Asturias, Spain) - Department of Organic and Inorganic Chemistry

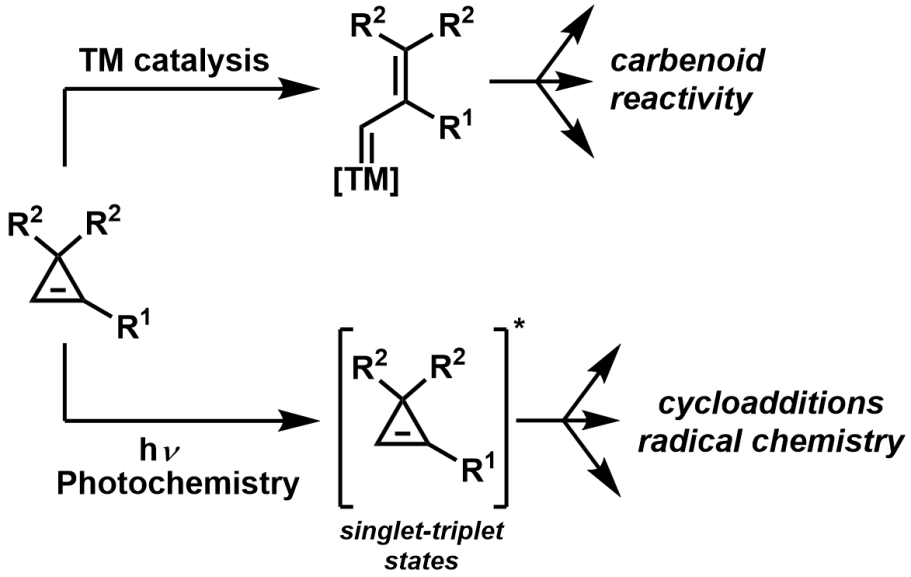
Ambito di interesse: chimica organica

Concetti chiave:

- Da molecole ”semplici” a scaffolds “complessi”
- Atom economy
- Efficienza
- (stereo)Selettività

COME?

Catalisi **metallica**
Catalisi **“photoredox”**



Romanelli

Medical University of Innsbruck

Referent @unimi : Prof. Alessandra Romanelli

1 position - 6 MONTHS

Host lab: Prof. Florentine Marx

Institute of Molecular Biology

University of Innsbruck

ACTIVITY

DESIGN AND SYNTHESIS OF ANTIMICROBIAL PEPTIDES

Identify a natural peptide

Optimize sequence by AA substitution or constrain insertion

Test biologival activity in vitro

Study mechanism of action

Fontana

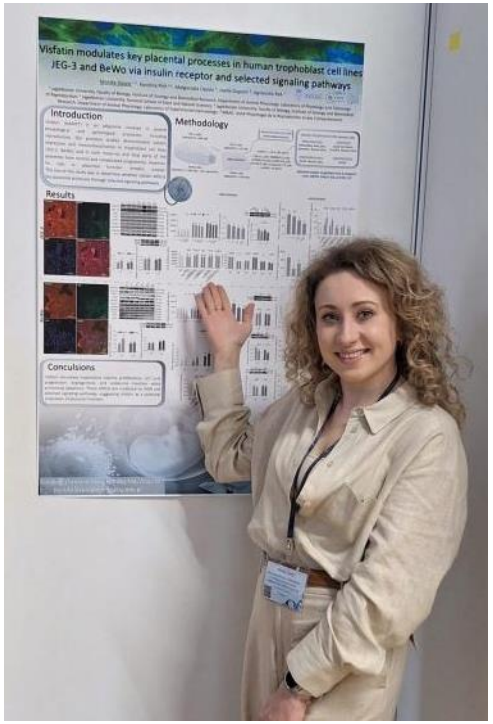
JAGIELLONIAN UNIVERSITY
IN KRAKÓW

Małgorzata E. Grzesiak is a biomedical scientist and researcher based in **Kraków**, Poland, affiliated with the **Jagiellonian University**—specifically the Institute of Zoology and Biomedical Research, Department of Endocrinology.

The **traineeships available for Erasmus students** are aimed at:

a) learning **wet biology lab techniques** (Western blot, PCR, microscopy, immunohistochemistry) and **data analysis**

b) carrying out a research project on the role of **vitamin D3 in female reproduction under physiological and pathological conditions**



Fontana

Research focus

Małgorzata E. Grzesiak's research on **vitamin D** focuses on its **metabolism and functional role within the ovary and peri-ovarian adipose tissue**, especially in the context of **endocrine and metabolic disorders** such as polycystic ovary syndrome (PCOS). She primarily uses **animal models** (rat, rabbit and pig) to explore how vitamin D interacts with ovarian cells, local adipose tissue, and key signaling pathways relevant to reproductive health. Specifically, her projects aim to:

- Expand understanding of **local vitamin D metabolism** in reproductive tissues beyond classical bone/calcium functions.
- Link **metabolic disorders** (like insulin resistance) with **ovarian function** through vitamin D pathways.
- Provide **mechanistic insights** relevant to PCOS pathogenesis and potential therapeutic strategies involving vitamin D supplementation or modulation.

Cariboni

Dr Nhung Trinh - University of Tromsø The Arctic University of Norway

Research focus

The lab is interested in Pharmacoepidemiology. Specifically, the research include application and development of methods to analyze real-world data on safety and effectiveness of medication use with a focus on vulnerable populations (e.g., pregnant individuals and children). The lab is also interested in assessing the impact of drug regulations and adversity (e.g., climate change, economic downturns) on drug utilization. Their research outputs aim to support health policy making, clinical guidelines development, and inform corrective actions.

Availability: 1 student - SAXBI

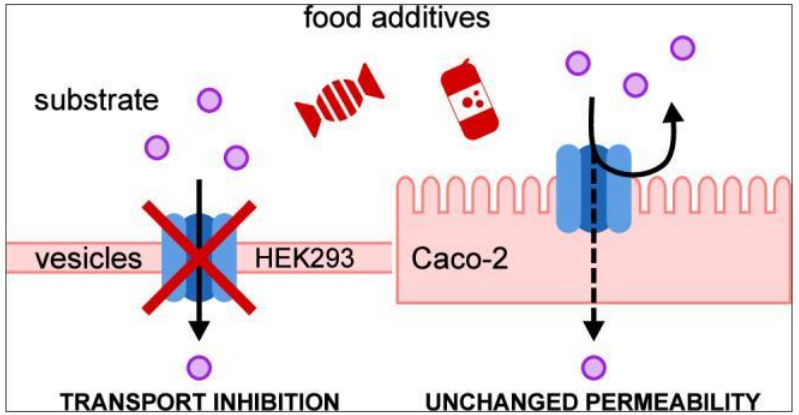
Cariboni

Dr Heidi Kidron
University of Helsinki

Research focus

The project aims at studying the influence of gut microbiota on intestinal and hepatic protein expression and on drug absorption and disposition.
Other interests of the lab include the study of effects of food Additives on Intestinal Drug Transporters

Availability: 1 student – Pharmaceutical Biotechnology



Cristofani

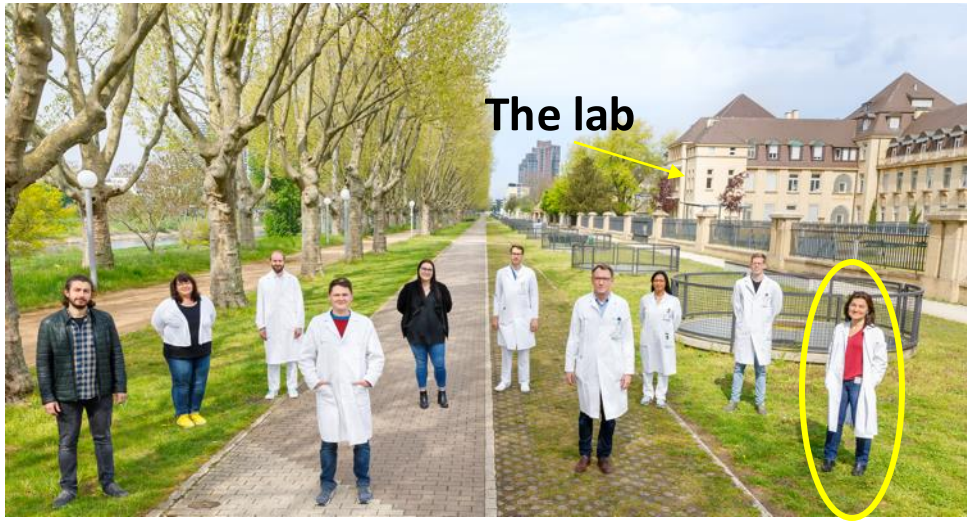
The Division of Neurodegenerative Diseases at the Medical Faculty Mannheim investigates the link between aging and motor neurodegenerative diseases, focusing on amyotrophic lateral sclerosis (ALS), Parkinsons's disease (PD), and Huntington's disease (HD)

Project title:

- Understanding of cellular and molecular signaling dysfunction in ALS pathology by comparing pre- and early-symptomatic stages in genetic mouse models

Our questions:

- What are the molecular mechanisms underlying disease onset and progression?
- Are there any age-dependent transcriptional changes?
- How do individual cell-types contribute to disease progression? What are the relevant subpopulations of cells involved in each stage of disease progression?
- Is cell-type state transition a possible mechanism?
- Why are certain populations of spinal motor neurons selectively affected? Could this be due to transcriptional differences between motor neuron subtypes?



Indoor

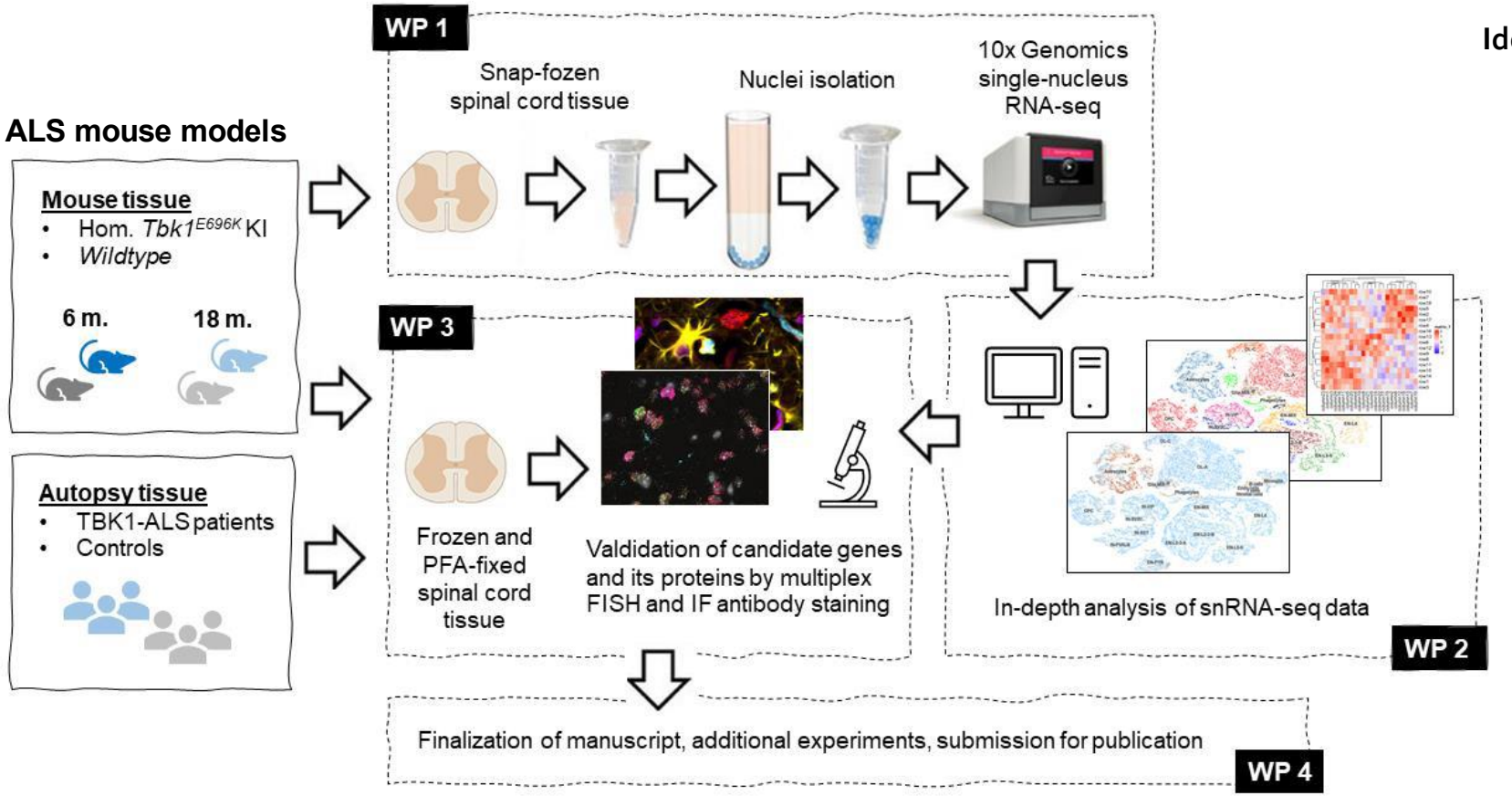
Outdoor

Contact person:
Rosanna Parlato, PhD
Dept. of Neurology / Division of Neurodegenerative Diseases
Medical Faculty Mannheim, Heidelberg University, Germany
E-Mail: rosanna.parlato@medma.uni-heidelberg.de

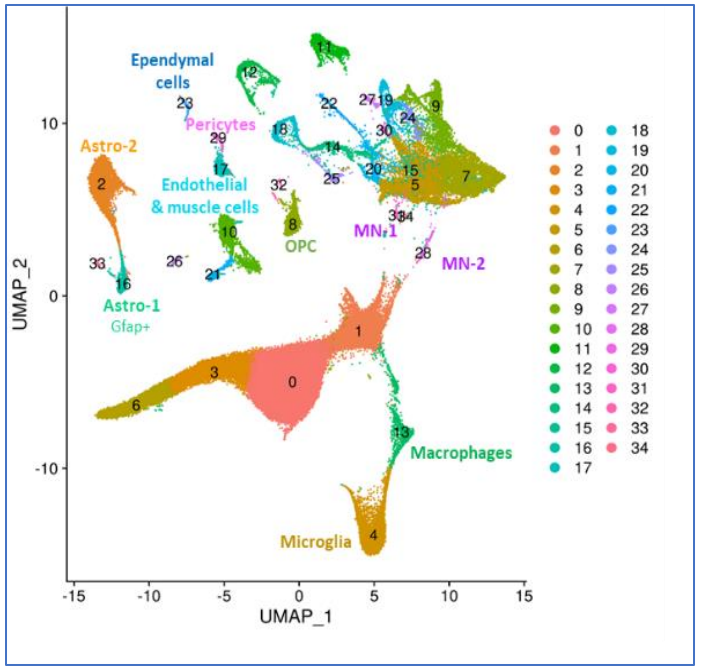
UMM UNIVERSITÄTSMEDIZIN MANNHEIM
Medizinische Fakultät Mannheim der Universität Heidelberg
Universitätsklinikum Mannheim

Cristofani

Project outlook



Identification of major cell-types in the spinal cord by single nuclei RNA-seq (snRNA-seq)



- The Master student will perform all steps of the project, in particular, the major task will be the validation of candidate genes based on snRNA-seq by RNAScope (multiplex FISH) and multiplex immunofluorescence (mIF), including sample preparation, imaging and analysis.

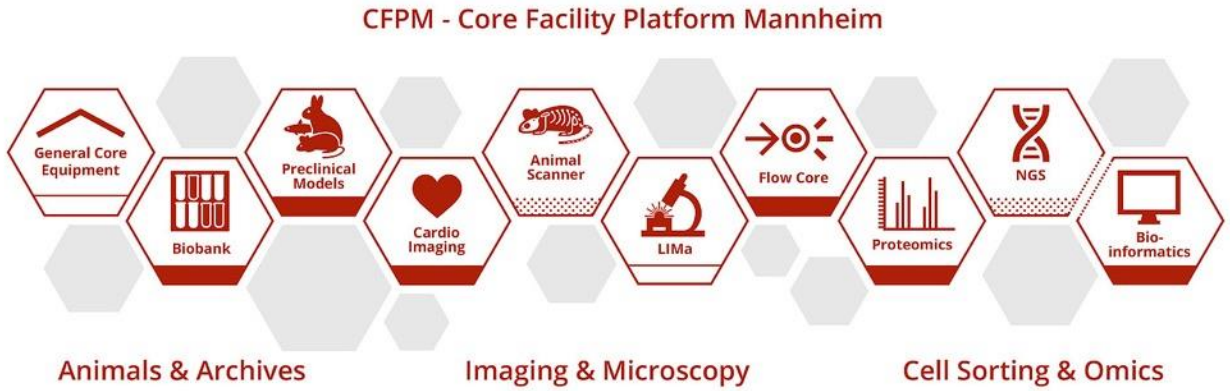
- Depending on interest and specific time-frame, the student might be also involved in the setting up a spatial transcriptomic pipeline in ALS mouse models.

Cristofani

Facilities and infrastructure available to the project

https://www.umm.uni-heidelberg.de/medical-faculty-mannheim/home

https://www.umm.uni-heidelberg.de/core-facilities/cfpm/



CCTP: Partner Core Facilities Heidelberg

The CellNetworks Core Technology Platform (CCTP) is a cross-institutional platform for Core Facilities at Heidelberg Campus. The CellNetworks community unites groups from six faculties of Heidelberg University and five non-university institutions, including the German Cancer Research Center (DKFZ), the European Molecular Biology Laboratory (EMBL), the Heidelberg Institute for Theoretical Studies (HITS), as well as the Max Planck Institute for Medical Research (MPImF) and the Central Institute of Mental Health (ZI) in Mannheim.
www.uni-heidelberg.de/en/coretech

Galbiati M

Biomedical Sciences at Leiden Academic Centre for Drug Research, Leiden University

Universiteit Leiden

Project title:
Investigate metabolic muscle dysfunctions in Spinal and Bulbar Muscolar Atrophy using iPSC models and genetic mouse models.

Our aims:
a) Perform comprehensive metabolomics analysis on both control and SBMA iPSC derived muscle cells and on mouse muscle to identify altered metabolic pathways
b) Investigate proteomics profiles with emphasis on mitochondrial proteins and bioenergetic pathways

Contact person: Prof. Ahmed Ali

He is an Assistant Professor and leads single cell research in the Analytical Biosciences and Metabolomics group.
He leverages his multidisciplinary background in analytical chemistry, pharmacy, biomedical science, and data science to develop novel metabolomics techniques, investigate cellular heterogeneity, as well as cell migration and metastasis. This is enabled by the combination of advanced sampling, and sample handling techniques, patient-derived organ on chip models, 3D organoids, mass spectrometry, and data analysis techniques.

Riva M.A.

Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

AARHUS UNIVERSITY
DEPARTMENT OF CLINICAL MEDICINE

Aims of the project:

a) Investigating animal models of stress and psychiatric disorders

b) Investigating the role of rapid acting antidepressants and/or psychedelic drugs in modulating brain mechanisms relevant for mental diseases

c) If relevant and time allows perform molecular analyses on human samples from patients with depression, bipolar disorders or schizophrenia

Contact person:

Prof. Gregers Wegener
Translational Neuropsychiatry Unit