# UNIBO & MSU FOR A SUSTAINABLE FUTURE



# Securing Agriculture in a Changing Climate: Water-Energy-Food Nexus Solutions for Global Sustainability





Classroom 2, viale Fanin 44, Bologna Department of Agricultural and Food Sciences (DISTAL) 10 June 2025

Morning Agenda: Departmental Networking & Lectio Session 09:00 – 12:00

Introduction - Project introduction and overview of the planning events

09:00 – 09:30 Prof. Francesca Valenti

Project coordinator

Prof. Diana Di Gioia

PhD Programme in Agricultural, Environmental and Food Science and Technology coordinator

**DISTAL** - Department Introduction and research activities

09:30 – 09:45 **Prof. Chiara Cevoli** 

Delegate for International Relations

**DIMEVET - Department Introduction and research activities** 

09:45 – 10:00 Prof. Alessandra De Cesare

Delegate for International Relations

DICAM - Department Introduction and research activities

10:00 – 10:15 Prof. Vittorio Di Federico

Delegate for International Relations

LECTIO - "Securing Agriculture in a Changing Climate: Water-Energy-Food Nexus Solutions for Global Sustainability"

10:15 – 12:00 Prof. Wei Liao

Visiting Professor from Michigan State University (MSU) U.S. Department of Biosystems and Agricultural Engineering (BAE) Director of Anaerobic Digestion Research and Education Center (ADREC)





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Afternoon Agenda - PhD Research Presentations 15:00-18:00

### PhD students from DISTAL, DIMEVET, and DICAM

15:00 - 17:45

- Giuseppe Maistrello Supervisor: Prof. Attilio Toscano
  Integrated Strategies for Innovation and Sustainable Water Management at District Scale
- Pietro Drei Supervisor: Prof. Stevo Lavrnic

  Design of Water Reuse Scenarios Based on Risk Assessment for Sustainable Agricultural

  Water Management
- Elia Pagliarini Supervisor: Prof. Loredana Baffoni
  Chemical and microbiological characterization of agro-industrial wastes and poultry manure
  for the production of mulching biofilms and fertilizers for soil nutrition
- Emanuele Spizzirri Supervisor: Prof. Francesca Valenti GreenFlow: Sustainable Solutions for Water-Energy Nexus
- Francesca Ghiaccio Supervisor: Prof. Andrea Formigoni Mitigation Strategies and Sustainability in Ruminant Nutrition: In vitro studies on the Reduction of Methane Emission by different Feed Additives
- Alessia Federiconi Supervisor: Prof. Alberto Palmonari Inside the rumen: microbial drivers of milk yield and quality
- Gulnara Guluzade Supervisor: Prof. Alessandra De Cesare
  The Hidden Threat of Staphylococcus aureus in Dairy and Its Global Sustainability Impact
- Emma Jones Supervisor: Prof. Lorenzo Bertin & Gonzalo A. Martinez

Microbial Valorization of Agro-Industrial Byproducts through Chain Elongation and PHA Production

- Akarsh Swamilingappa Annaiah Supervisor: Prof. Lorenzo Bertin & Gonzalo A. Martinez
  - Advanced wastewater treatment technologies in the framework of the new wastewater directives
- Martina Santucci Supervisor: Prof. Alessandra Bonoli The APPROACH pathways toward resilience in Tanzanian schools

Final remarks



