

27TH - 29TH OF MAY, 2025

MICROBETECH 2025:

BRIDGING THE GAP FROM LAB TO FIELD WITH ADVANCED
BIOREMEDIATION TECHNOLOGIES

AGENDA: DAY 1 (27 MAY) WORKSHOP



JOIN US AS WE SHARE INSIGHTS ON MICROBIAL SOLUTIONS FOR ENVIRONMENTAL BIOREMEDIATION

TIME	SESSION TITLE	PRESENTERS
09:00-09:10	WELCOME	
BLOCK 1: BRIDGING THE LAB-FIELD GAP IN BIOREMEDIATION (CHAIR: DR. ROCIO BARROS GARCIA)		
09:10-09:30	EXPLORING BIOAVAILABILITY REDUCTIONS AS A PARADIGM SHIFT IN SOIL BIOREMEDIATION	JOSE JULIO ORTEGA
09:30-09:50	APPLICATION OF ISOTOPIC METHODS TO EXPLORE MICROBIAL DEGRADATION AND FATE OF ORGANIC CONTAMINANTS	JOSE CARLOS CASTILLA
09:50-10:10	NATURE'S CLEANUP CREW: USING MICROBIOMES FOR REAL-WORLD BIOAUGMENTATION	SIMONA DI GREGORIO
10:10-10:30	FROM THE PETRI DISH TO A POLLUTED SOIL: UNRAVELLING THE COMPLEXITY OF SUNFLOWER 'CRY-FOR-HELP' ROOT EXUDATION TRIGGERED BY PETROLEUM HYDROCARBONS	ELISA GHITTI
10:30-10:50	BIOELECTROCHEMICAL TECHNOLOGIES: APPLICATIONS, CHALLENGES, AND OPPORTUNITIES FOR BIOREMEDIATION AND BEYOND	EDUARD BORRAS
10:50-11:00	COFFEE BREAK	
BLOCK 2: MICROBIAL DEPLOYMENT STRATEGIES (CHAIR: DR. ALEŠ LAPANJE)		
11:00-11:20	ENCAPSULATION STRATEGIES OF BENEFICIAL MICROORGANISMS IN AGRICULTURE BASED ON BIODEGRADABLE POLYMERS	ALBERTO GONZÁLEZ CHULIÁ
11:20-11:40	BIODEGRADATION OF ANTIBIOTIC POLLUTANTS – A WAY TO TACKLE THE SPREADING OF ARGS IN ONE HEALTH CONTEXT?	PHILIPPE CORVINI
11:40-12:00	ENGINEERED PSEUDOMONAS PUTIDA FOR THE DEGRADATION OF SOIL POLLUTANTS	ZHEREN ZHANG
12:00-13:00	LUNCH AND POSTER SESSION	
13:00-13:20	INTEGRATING METAGENOMICS AND METABOLIC MODELING FOR THE RATIONAL DESIGN OF MICROBIAL CONSORTIA IN POLLUTANT DEGRADATION	SARA GIL GUERRERO

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13:20-13:40	MICROBIAL BIOREMEDIATION IN PORTS: ADDRESSING HYDROCARBON POLLUTION WITH LYOPHILIZED BACTERIA	ANA PAULA MUCHA
BLOCK 3: EXPANDING APPLICATIONS BEYOND BIOREMEDIATION (CHAIR: PROF. PHILIPPE CORVINI)		
13:40-14:00	DEVELOPMENT OF COATED SEEDS WITH BIOLOGICAL AGENTS FOR A SUSTAINABLE AGRICULTURE	DAVID PALACIOS SANTAMARIA
14:00-14:20	ADVANCED TOOLS FOR INTEGRATION AND SYNERGISTIC INTERCONNECTION OF MICROBIOMES IN RESILIENT FOOD SYSTEMS	DANIEL SCICCHITANO
14:20-14:40	ELECTROACTIVE MICROBIAL COMMUNITIES IN BIOREMEDIATION: THE PARTS AND THE WHOLE (AND THE LITTLE THINGS IN BETWEEN)L	CLAUDIO AVIGNONE
14:40-15:00	THE POTENTIAL OF FUNGAL APPLICATION DURING THE TREATMENT OF TPH AND HTF-CONTAMINATED SOILS IN BIOPILES AS BIOREMEDIATION STRATEGY	CYNTHIA ALCÁNTARA POLLO
15:00-15:10	COFFEE BREAK	
BLOCK 4: CHALLENGES, REGULATION AND FUTURE DIRECTIONS (CHAIR: DR. SARA GIL GUERRERO)		
15:10-15:30	CURRENT STATE OF REGULATION ON SOIL BIOREMEDIATION	DAVID DONNERER
15:30-15:50	MICROBIAL RESPONSE DURING BIOREMEDIATION PROCESSES: ADVANCED TECHNIQUES CURRENTLY APPLIED IN LARGE-SCALE PROJECTS FOR MONITOR BIOTIC REMEDIATION	CYNTHIA ALCÁNTARA POLLO
15:50-16:10	VALIDATION OF BIOREMEDIATION STRATEGIES FOR FIELD APPLICATION: CHALLENGES AND OPPORTUNITIES	ALFREDO PÉREZ DE MORA
16:10-16:30	NATURE-BASED SOLUTIONS FOR WASTEWATER MANAGEMENT	ALENKA MUBI ZALAZNIK

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AGENDA: DAY 2 (28 MAY) SUMMER SCHOOL



JOIN US AS WE SHARE INSIGHTS ON MICROBIAL SOLUTIONS FOR ENVIRONMENTAL BIOREMEDIATION

TIME	PRESENTATION TITLE	PRESENTER
09:00-09:45	EVOLVING BIOINFORMATICS: FROM MICROBIAL PETRI DISHES TO GPU-ACCELERATED CLUSTERS AND BEYOND	CRISTINA ESTEBAN (BIOSCAYLE)
09:45-10:30	FROM OMICS TO MODELS: EXTRACTING FUNCTIONAL INFORMATION FOR BIOREMEDIATION DESIGN	AKANKSHA MISHRA, ALEJANDRO GONZÁLEZ BRINCAU, MARTA FRANCO (IDENER)
10:30-10:45	COFFEE BREAK	
10:45-11:30	CONSTRUCTING NETWORKS IN MICROBIOME SCIENCE: ADVANCING OUR UNDERSTANDING OF MICROBIAL ECOLOGY AND BEHAVIOR	MARCO CANDELA (UNIBO)
11:30-12:15	MICROBIAL-ASSISTED PHYTOREMEDIATION: TACKLING POLLUTION IN SALTMARSHES	ANA PAULA MUCHA (CIIMAR)
12:15-12:30	POSTER AWARD VOTING	
12:30	LUNCH	