Friday, 2 June 2023
15:00-17:00 Participant Registration and Poster Positioning
17:00-17:30 Opening Meeting
17:30-18:30 Plenary Lecture Karen Bush
19:00 Cocktail Party and Dinner

Saturday, 3 June 2023
9:30-11:00 Structure, Function, Mechanism and Evolution of Serine-Beta-Lactamases and Metallo-Beta-Lactamases
11:00-11:30 Coffee Break
11:30-13:00 Structure, Function, Mechanism and Evolution of Serine-Beta-Lactamases and Metallo-Beta-Lactamases
13:00 Lunch
14:30-16:30 New Beta-Lactams and Beta-Lactamase inhibitors, and new combinations
16:30-17:00 Coffee Break
17:00-18:30 Poster Session
20:30 Social Dinner

Sunday, 4 June 2023
9:30-11:00 Structure, Function, Mechanism and Evolution of Serine-Beta-Lactamases and Metallo-Beta-Lactamases
11:00-11:30 Coffee Break
11:30-13:30 New Beta-lactams and Beta-lactamase inhibitors, and new combinations
13:30 Lunch
15:00-16:00 Structure, Function, Mechanism and Evolution of Serine-Beta-Lactamases and Metallo-Beta-Lactamases
16:00-16:30 Coffee Break
16:30-17:30 Structure, Function, Mechanism and Evolution of Serine-Beta-Lactamases and Metallo-Beta-Lactamases
17:30-18:00 Concluding Remarks
FRIDAY, 2 JUNE 2023

OPENING MEETING
15:00-17:00 Participant Registration and Poster Positioning
17:00 Mariagrazia PERILLI, University of L'Aquila, Italy
17:05 Edoardo ALESSE, Rector of the University of L'Aquila, Italy
17:10 Francesca ZAZZERONI, Head of Biotechnological and Applied Clinical Sciences Department, University of L'Aquila, Italy
17:15 Gianfranco AMICOSANTE, Emeritus Professor, University of L'Aquila, Italy
17:30–18:30 Plenary Lecture Karen BUSH - Indiana, USA
“What in the World Are We Going to Call Our New Beta-Lactamase? How Nomenclature Has Changed Over 50 Years”

SATURDAY, 3 JUNE 2023

MORNING SESSION
STRUCTURE, FUNCTION, MECHANISM AND EVOLUTION OF SERINE-BETA-LACTAMASES AND METALLO-BETA-LACTAMASES
Moderators: Mariagrazia Perilli, Alejandro J. Vila
9:30-10:00 Catherine TOOK - University of Bristol, UK
Investigating the Basis of Carbapenem Hydrolysis by Class A Beta-Lactamases
10:00-10:30 Laura DABOS - Technical University of Madrid, SPAIN
Exploring the evolutionary potential towards extended spectrum of KPC-2 carbapenemase
10:30-11:00 Shozeb HAIDER - UCL School of Pharmacy, London, UK
Enhanced Sampling Simulation of Beta-lactamases
11:00-11:30 Coffee break

STRUCTURE, FUNCTION, MECHANISM AND EVOLUTION OF SERINE-BETA-LACTAMASES AND METALLO-BETA-LACTAMASES
Moderators: Karen Bush, Gianfranco Amicosante
11:30-12:00 Bogdan IORGA – CNRS, FRANCE
Beta-Lactamase DataBase (BLDB): past, present and future
12:00-12:30 Robert BONOMO - Case Western Reserve University School of Medicine, Cleveland, OH, USA
The State of Affairs: Clinical Challenges in Beta-Lactamase Research
12:30-13:00 Fernando Augusto T. P. MEIRELES, Laboratory for Biomolecular Modeling at EPFL, Lausanne, SWITZERLAND
Investigating the mechanisms of Beta-lactamase membrane association
13:00-14:30 Lunch

SUNDAY, 4 JUNE 2023

MORNING SESSION
STRUCTURE, FUNCTION, MECHANISM AND EVOLUTION OF SERINE-BETA-LACTAMASES AND METALLO-BETA-LACTAMASES
Moderators: James Spencer, Moreno Galleni
9:30-10:00 Alejandro J. VILA – IBR, CONICET, Rosario, ARGENTINA
Evolution of NDM variants
10:00:10:30 Lisandro GONZALEZ – IBR, CONICET, Rosario, ARGENTINA
In-cell kinetic stability is an essential trait in metallo-beta-lactamase evolution
10:30:11:00 Matias C. CARNEVALE – IBR, CONICET, Rosario, ARGENTINA
Future threats on the horizon: environmental homologues of NDM-1 are found in diverse environmental niches
11:00-11:30 Coffee break

AFTERNOON SESSION
NEW BETA-LACTAM AND BETA-LACTAMASE INHIBITORS, AND NEW COMBINATIONS
Moderators: Shahriar Mobashery, Gian Maria Rossolini
14:30-15:00 John BUYNAK - Southern Methodist University, Dallas, TX, USA
Atypically Modified Carbapenem Antibiotics: What Have We Learned?
15:00-15:30 Moreno GALLENI – University of Liège, BELGIUM
Development of class A and class B anti-Beta-lactamase nanobodies as theranostic agents
15:30-16:00 Marco COPPI, University of Florence, ITALY
Emergence of cefiderocol resistance mechanisms among clinical isolates of Enterobacteriales
16:00-16:30 James SPENCER, University of Bristol, UK
Interactions of Metallo-Beta-Lactamases with Beta-lactams and Inhibitors Studied by X-ray Crystallography and Multiscale Molecular Simulations
16:30-17:00 Coffee Break
17:00-18:30 Poster Session
20:30 Social Dinner
YOICHI – Fine Dining, Palazzo Pica Alfieri

11:30-12:00 Vincenzo DI PILATO - University of Genoa, ITALY
Mechanisms of resistance and cross-resistance to novel BLICs in KPC-producing Klebsiella pneumoniae
12:00-12:30 Shahriar MOBASHERY - University of Notre Dame, IN, USA
Restoring Susceptibility to Beta-Lactam Antibiotics in Methicillin-Sensitive and Methicillin-Resistant Staphylococcus aureus
13:00-13:30 Emilia CASELLI - University of Modena and Reggio Emilia, ITALY
MB078: a new Boronic Acid Inhibitor targeting Extended Spectrum B-lactamases (ESBL), Klebsiella Carbapenemase KPC, and Acinetobacter Derived Cephalosporinas (ADCs)
13:00-13:30 Matteo BERSANI - University of Turin, ITALY
In silico-aided optimization of non-covalent Beta-lactamase inhibitors active against clinically relevant carbapenemases
13:30 – 15:00 Lunch

AFTERNOON SESSION
STRUCTURE, FUNCTION, MECHANISM AND EVOLUTION OF SERINE-BETA-LACTAMASES AND METALLO-BETA-LACTAMASES
Moderators: Gian Maria Rossolini, Karen Bush
15:00-15:30 Lucia CAPODIMONTE - IBR, CONICET, Rosario, ARGENTINA
OXAs class D Beta-lactamases “get greasy” in Acinetobacter: selective advantage of OMVs
15:30-16:00 Marceullus UBBINK - Leiden University, NL
Beta-Lactamase of Mycobacterium tuberculosis as a model for protein evolution
16:00-16:30 Coffee Break
16:30-17:00 Laura DABOS, Technical University of Madrid, SPAIN
Novel OXA-48 variant hydrolyzing carbapenem, expanded-spectrum cephalosporins and aztreonam. Welcome, OXA-793.
17:00-17:30 Choon KIM - University of Notre Dame, IN, USA
Posttranslational modifications of Staphylococcus aureus Beta-lactamase BlaZ
17:30-18:00 Concluding Remarks Karen Bush, Indiana, USA