



SIMGBM
Società Italiana di
Microbiologia Generale
e Biotecnologie Microbiche

MICROBIOLOGY 2021

XXXIV SIMGBM Congress

Cagliari, September 15th – 18th, 2021

Wednesday, September 15th

- 14.00-16.00 **Registration**
- 16.00-17.00 **Opening Lecture**, Chairs: P. Visca, D. Zannoni
Ray J. Turner (University of Calgary, Alberta, Canada)
Role of metal-based antimicrobials in the Antimicrobial Resistance Era
- 17.00-19.00 **Plenary Session 1: One health approach in marine and freshwater microbiology**
Chairs: F. Biavasco, L. Vezzulli
- 17.00-17.45 **Farooq Azam** (University of California, San Diego, CA, USA)
Microbial structuring of marine ecosystem: global habitability
- 17.45-18.10 **Francesca Malfatti** (Univ. Trieste)
Microscale interactions shape antibiotic-heavy metal resistance microbial communities from contaminated sediment in the Venice Lagoon (Italy)
- 18.10-18.35 **Francesco Carrara** (ETH, Zürich, Switzerland)
On harmful algal bloom microscale interactions
- 18.35-19.00 **Forest Rohwer** (SDSU, San Diego, CA, USA)
The holobiont approach in health and disease
- 19.00 **Welcome reception**

Thursday, September 16th

- 09.00-11.00 **Plenary Session 2: Functional microbial diversity in polluted environments**
Chairs: A. Franzetti, M. Petruccioli
- 09.00-09.45 **Ibrahim M. Banat** (University of Ulster, Northern Ireland, UK)
Microbial biosurfactants: current trends and applications in environmental, agricultural and biomedical industries
- 09.45-10.10 **Isabella Gandolfi** (Univ. Milano-Bicocca)
Microbial ecosystem functions in polluted environments
- 10.10-10.35 **Silvia Crognale** (Univ. Tuscia, Viterbo)
Phyto- and microbial-combined approaches for remediation and requalification of hydrocarbon polluted urban area
- 10.35-11.00 **Elena Tamburini** (Univ. Cagliari)
Benthic prokaryotic community response to pollutant exposure in mediterranean ports

- 11.00-11.30 **Coffee break**
- 11.30-13.30 **Plenary Session 3: Lessons from the COVID-19 pandemic**
Chairs: G. Gribaudo, M. Pizza
- 11.30-12.10 **Giorgio Palù** (Univ. Padova)
Coronaviruses and SARS-CoV-2; what makes the difference
- 12.10-12.50 **Giovanni Rezza** (Ministero della Salute, Roma)
The COVID-19 pandemic in the global health perspective
- 12.50-13.30 **Rino Rappuoli** (GSK Vaccines, Siena)
SARS-CoV-2 immunotherapies
- 13.30-15.15 **Lunch & Posters viewing (Group 1)**
- 15.15-17.15 **Plenary Session 4: Biology of nitrogen-fixing bacteria and their applications**
Chairs: M. Bazzicalupo, M. Varcamonti
- 15.15 – 16.00 **Alessio Mengoni** (Univ. Firenze)
Evolutionary genomics of nitrogen fixing bacteria
- 16.00 – 16.25 **Marco Nuti** (S.S. Sant'Anna, Pisa)
Application of nitrogen fixing bacteria to sustainable agriculture
- 16.25 – 16.50 **Roberto Defez** (IBBR-CNR, Napoli)
Genetic manipulation of nitrogen-fixing bacteria
- 16.50 – 17.15 **Maurizio Chiurazzi** (IBBR-CNR, Napoli)
Genetics of nitrogen transport in nitrogen-fixating symbioses
- 17.15-17.45 **Coffee break**
- 17.45-19.45 **Plenary Session 5: Metabolic adaptation to stress conditions**
Chairs: L. Baccigalupi, P. Landini
- 17.45-18.30 **Frédéric Barras** (Pasteur Institute, Paris, France)
Stress and metabolic adaptation in enterobacteria
- 18.30-18.55 **Pietro Alifano** (Univ. Salento, Lecce)
Metabolic modifications of Neisseria meningitidis during host infection
- 18.55-19.20 **Gianni Prosseda** (Univ. Sapienza Roma)
Polyamine metabolism during Shigella infection
- 19.20-19.45 **Paolo Visca** (Univ. Roma Tre)
Response to the desiccation stress in Acinetobacter baumannii

Friday, September 17th

- 09.00-11.00 **Plenary Session 6: Cell envelope remodeling to shape bacterial fitness in response to the host and environment**
Chairs: B. Colonna, A. Polissi
- 09.00-09.45 **Waldemar Vollmer** (Newcastle University, UK)
Peptidoglycan remodeling and bacterial fitness under stressful conditions
- 09.45-10.10 **Simonetta Gribaldo** (Institut Pasteur, Paris, France)
One or two membranes? Diderm Firmicutes illuminate the evolution of the bacterial cell envelope
- 10.10-10.35 **Dalia Denapaite** (Univ. Trento)
The cell wall of Streptococcus pneumoniae and closely related species: lessons from genomes
- 10.35-11.00 **Maria Lina Bernardini** (Univ. Sapienza Roma)
Shaping the bacterial cell wall during bacterial infection: the Shigella model
- 11.00-11.30 **Coffee break**
- 11.30-13.30 **Plenary Session 7: Novel strategies to identify antiviral agents**
Chairs: E. Tramontano, M.C. Parolin
- 11.30-12.15 **Johan Neyts** (Univ. Leuven, Belgium)
Antiviral strategies against RNA viruses
- 12.15-12.40 **Raffaele de Francesco** (Univ. Milano)
Models to study capsid HBV assembly
- 12.40-13.05 **Vincenzo Summa** (Univ. Napoli)
Identification of HBV inhibitors
- 13.05-13.30 **Angela Corona** (Univ. Cagliari)
Identification of antiviral agents against Ebola virus targeting non-structural proteins involved in innate immune evasion
- 13.30-15.15 **Lunch & Posters viewing (Group 2)**
- 15.15-16.00 **Plenary Lecture 2**, Chairs: D. Cavalieri – E. Ricca
Silvia Bulgheresi (University of Vienna, Austria)
Cell division in nematode symbionts
- 16.00-17.00 **Prizes Presentations**
- 17.00-17.15 **Franco Tatò Prize**
Name Surname (Univ. XXX)
TBD
- 17.15-17.30 **SIMGBM Prize**
Name Surname (Univ. XXX)
TBD
- 17.30-17.45 **Naicons Prize**
Name Surname (Univ. XXX)
TBD

- 17.45-18.00 **GenProbio Prize**
Name Surname (Univ. XXX)
TBD
- 18.00-18.15 **GSK Prize**
Name Surname (Univ. XXX)
TBD
- 18.15-19.45 **Annual assembly of SIMGBM members**
- 20.30 **Social dinner**

Saturday September 18th

- 09.00-12.00 **PhD Day Parallel sessions: Short Talks from Selected Abstracts**
- Session A: Microbial genetics and genomics**
Chairs: M. Ventura, E. Rossi
12 oral presentations from selected Abstracts
- Session B: Environmental and industrial microbiology**
Chairs: G. Naclerio, C.E. Parolin
12 oral presentations from selected Abstracts
- Session C: Interactions between microbes/viruses and their hosts**
Chairs: A. Tavanti, N. Grandi
12 oral presentations from selected Abstracts

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