

PRELIMINARY SCIENTIFIC PROGRAMME

Sun, 26 May	Mon, 27 May	Tue, 28 May	Wed, 29 May	Thu, 30 May
	08:30–10:00 Session 1 Horizontal gene transfer, mobile genetic elements and antibiotic resistance	08:30–10:00 Session 4 Host-microbe interactions as driving forces of ecosystems/round table	08:30–10:00 Session 7 Microbiology in the metagenomics era – tools, applications, and the emergence of a novel tree of life	
	10:30–12:30 Session 2 Microbial adaptation, functioning and biodiversity in a changing planet	10:30–12:30 Session 5 Host-microbe interactions – ecology and evolution	10:30–12:30 Session 8 The wonders of secondary metabolism: from natural products to novel biocatalysts	09:30–11:00 Session 9 Living in an increasingly aseptic world? – Microbiology in the built and social environment
	13:30–15:30 Session 3 Microbiomes for sustainability – Boosting agri- and aquaculture ecosystems	13:30–15:30 Session 6 Microbiomes for sustainability: Environmental pollution and bioremediation – current and future challenges	13:00–15:00 COST Session Satellite meeting	11:30–13:00 Session 10 Building a modern microbial ecological theory – conceptual and technical advances
	15:30–18:30 Poster Session 1 with snacks and drinks	15:30–18:30 Poster Session 2 with snacks and drinks	12:45–18:30 Afternoon activities	
17:00–17:30 Welcoming				
17:30–18:30 Opening Lecture				
18:30–20:00 Welcome Reception with drinks and snacks			19:30–01:00 Social Evening	

CALL FOR ABSTRACTS

Participants are invited to submit an abstract (length max. 2.000 characters/spaces included, one abstract per presenting author) related to one of the major topics. An international review panel will review the abstracts according to scientific content and suitability for the conference. A limited number of abstracts will be accepted for oral or poster presentation. Online submission of abstracts at www.bageco.org.

DEADLINE: 31 JANUARY 2019

PUBLICATION OF ABSTRACTS

With the submission of abstracts all authors agree to the publication of their abstract within the BAGECO main programme and on the website.

E-POSTERS

For all accepted poster presentations, we would like to offer the additional option to submit your poster as a PDF prior to the start of the conference. This PDF will be available online on our website, through the conference intranet, and will be accessible to participants only.

COMMITTEES

LOCAL ORGANIZING COMMITTEE

Francisco Coelho
Isabel Sá-Correia
Rodrigo Costa
Newton C. M. Gomes

Tina Keller-Costa
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CONFIRMED SPEAKERS

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Lone Gram (DK)
Ute Hentschel (DE)
Kirsten Küsel (DE)

Nikos Kyrpides (US)
Raquel Peixoto (BR/US)
Shawn Semones (US)
Kornelia Smalla (DE)
Søren Sørensen (DK)
Thomas Wichard (DE)

GENERAL INFORMATION

VENUE

Calouste Gulbenkian Foundation
Av. de Berna 45 A
1067-001 Lisbon, Portugal

DATE

26–30 May 2019

CONFERENCE HOMEPAGE

www.bageco.org



CONFERENCE CHAIR

PhD Rodrigo Costa
Institute for Bioengineering and Biosciences
Instituto Superior Técnico
Lisbon, Portugal

CONFERENCE CO-CHAIR

PhD Newton C. M. Gomes
Department of Biology & CESAM
University of Aveiro, Aveiro, Portugal

INDUSTRIAL EXHIBITION

The international symposium will be accompanied by a specialised industrial exhibition.

PROFESSIONAL CONGRESS ORGANIZER

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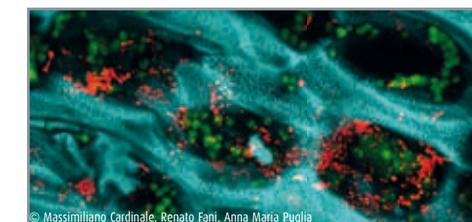
International Society of Microbial Ecology (ISME)



BAGECO 15

Bacterial Genetics and Ecology

15th Symposium on



© Massimiliano Cardinale, Renato Fani, Anna Maria Puglia

Ecosystem drivers in a changing planet

26–30 May 2019
Lisbon/Portugal

Call for Abstracts and Preliminary Programme



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INVITATION AND WELCOME NOTE



Dear colleagues,

During the last few decades, the bi-annual BAGECO symposium has established itself as a leading European conference in prokaryotic genetics and ecology. The upcoming symposium (BAGECO 15), to be held in Lisbon 2019, will once again unite leading scientists to debate the most pressing questions in the broad fields of microbiology, microbial ecology, metagenomics and complementary disciplines.

In particular, BAGECO 15 aims to highlight the pivotal roles that microorganisms play in the functioning of natural and man-made environments. Beyond the acknowledged and acute pressures that natural biomes face due to modern climate change, the way in which we perceive ourselves and the natural world is as well changing rapidly. Our greater understanding of the assembly and functioning of microbiomes in nature, and improved ability to harness the diverse metabolism of cultured and uncultured microorganisms, are expected to have a profound impact on how we manage and mitigate problems of environmental, societal and public health concern within a future circular economy framework.

Microorganisms are in the limelight of this changing planet, and it is the duty of our community to envision how fundamental knowledge on microbial physiology, genetics and ecology can contribute to the sustainable use of ecosystems, the development of cost-effective environment conservation and remediation strategies, improvements in food production and the promotion of human and animal health, and to steer the discovery of new drugs and biosensors. In this context, BAGECO 15 offers an exciting multidisciplinary programme at the forefront of scientific knowledge, inviting high-quality research on contemporary issues of relevance to modern microbial genetics and ecology.

The programme is well suited to the participation of early- and mid-career scientists who wish to showcase and disseminate their research in a highly interactive symposium. Importantly, BAGECO symposia are traditionally organised as a single session, promoting better exchange between all delegates and wider dissemination of the presented research to a truly diverse audience. Ample opportunities for discussions and networking are offered during the poster sessions, which provide appropriate time and space for delegates to interact with one another and explore all the work being presented at the symposium in its full extent.

It is therefore with great pleasure and enthusiasm that we invite you to join us at BAGECO 15. We hope that the symposium will provide plenty of opportunities for you to interact and share your work with renowned scientists in the field while experiencing the unique culture and landscape offered by Lisbon and surrounding areas.

We look forward to welcoming you to Lisbon in May 2019.

Rodrigo Costa
Conference Chair

Newton C. M. Gomes
Conference Co-chair

MAJOR TOPICS

HORIZONTAL GENE TRANSFER, MOBILE GENETIC ELEMENTS AND ANTIBIOTIC RESISTANCE

Following the tradition of previous BAGECO symposia, this session welcomes research on the mobile gene pool as main drivers of microbial adaptability and functioning in natural and fabricated ecosystems, including studies on the emergence and spread of antibiotic resistance in environmental, industrial and clinical settings.

MICROBIAL ADAPTATION, FUNCTIONING AND BIODIVERSITY IN A CHANGING PLANET

Presentations in this session pertain to fundamental research on microbial evolution and diversification, from single cells to the strain and species levels, and on the resilience, functioning and biodiversity of microbial communities in face of environmental changes and anthropic pressures.

MICROBIOMES FOR SUSTAINABILITY: BOOSTING AGRI- AND AQUACULTURE ECOSYSTEMS

More than ever before, human nutrition depends on intensive agro- and aquaculture practices for food production. From disease control through nutrient cycling to host growth promotion, the pivotal roles played by microorganisms in these systems form the basis for presentations in this session.

MICROBIOMES FOR SUSTAINABILITY: ENVIRONMENTAL POLLUTION AND BIOREMEDIATION – CURRENT AND FUTURE CHALLENGES

This session addresses the metabolic features of microbial strains, lab-enriched or natural consortia and their use in the removal/degradation of pollutants. It invites both *in situ* and meso/microcosms-based studies with implications for the mitigation of anthropic impacts on natural and man-made environments.

THE WONDERS OF SECONDARY METABOLISM – FROM NATURAL PRODUCTS TO NOVEL BIOCATALYSTS

Our much improved understanding of microbial diversity opened new avenues to next-generation bioprospection studies of both uncultured and novel cultured taxa. This session will consider cutting-edge research on novel biocatalysts and bioactivities from understudied metabolic pathways, microorganisms and microbiomes.

HOST-MICROBE INTERACTIONS – ECOLOGY AND EVOLUTION

This session comprises fundamental research on the interactions established between microbes and eukaryotic hosts. The roles played by symbionts in increasing host fitness, and in-depth laboratory studies of simpler, bipartite and tripartite systems are enthusiastically considered here.

HOST-MICROBE INTERACTIONS AS DRIVING FORCES OF ECOSYSTEMS

Studies that shed light on the diversity and functioning of host-associated communities and their contribution to the functioning of natural ecosystems, from terrestrial to freshwater and marine biomes, form the scope of this session.

MICROBIOLOGY IN THE METAGENOMICS ERA – TOOLS, APPLICATIONS AND THE EMERGENCE OF A NOVEL TREE OF LIFE

This session highlights research on the development and use of advanced methodology, including hi-end bioinformatics and computing technologies, which contribute to improve our accuracy in assessing complex microbiomes. Studies of the taxonomy, phylogeny and function of uncultured microbes are welcomed in this session.

LIVING IN AN INCREASINGLY ASEPTIC WORLD? MICROBIOLOGY IN THE BUILT AND SOCIAL ENVIRONMENT

We now know that human health is tightly intertwined with a functioning host-associated microbiota, and that our surrounding environment and lifestyle are important deterministic forces in this interplay. Presentations in this session will focus on the host-food-environment microbial continuum and its societal and health implications.

BUILDING A MODERN MICROBIAL ECOLOGICAL THEORY – CONCEPTUAL AND TECHNICAL ADVANCES

This session considers studies that contextualize the enormous amounts of data usually retrieved in modern microbiome projects into mathematical or conceptual models with potential to shape a new and much-needed microbial ecology theory.

MISCELLANEOUS TOPICS

To encourage submissions representing diverse areas of research and to foster a truly multidisciplinary environment, studies which may not fit well into the topics above are welcomed and highly appreciated in this session.

WELCOME TO PORTUGAL

Lisbon is the capital of Portugal and the country's largest city, located on the estuary of the Tejo river, on the European Atlantic coast. Around 3 million people live in the Lisboa region. You may like Lisbon for the monuments, the nature or delicious gastronomy.

This city is enchanting for its relationship with the river, the surrounding region impresses for the constant presence of the sea. Let the river and Fado embrace you and enjoy those so special things that make Lisbon unique.

Further information concerning sightseeing and activities tours can be found at www.visitlisboa.com.

Text: Turismo de Lisboa
Picture: Marcin Krzyzak - stock.adobe.com

