

# 6<sup>th</sup> National Conference of the MikroBioKosmos Society

## MikroBioKosmos: New Horizons in the Micro World

### SCIENTIFIC PROGRAMME

#### FRIDAY, April 3, 2015

#### Registration and Poster Preparation 15:00 -17:00

*Chairpersons* M. A. Typas, Th. Sotiroudis

Opening Ceremony, Welcome

17:00 – 17:15	Welcome by the President of the National Hellenic Research Foundation Dr. V. Grigoriou
17:15 – 17:30	Welcome by the General Secretary of Research and Technology
17:30 – 17:40	Welcome by the President of the Organizing Committee, Th. Sotiroudis
17:40 – 17:50	MikroBioKosmos – Background and Goals, M.A. Typas

#### KEYNOTE LECTURES

*Chairpersons* K. Pappas, N. Kyrpidis

17:50 - 18:30	R. Landick	Engineering microbes for conversion of lignocellulosic hydrolysates to biofuels
18:30 – 19:10	D. Kekos	2nd Generation Bioethanol: from Science to Technology
19:10 - 19:50	R. Poole	Gas microbiology in bioenergy and the environment

20:00 **WELCOME RECEPTION**

#### SATURDAY, APRIL 4, 2015

#### *Agriculture - Environment*

#### Session 1 9:00-11:05

*Chairpersons* G. Zervakis, D. Karpouzas

09:00 – 09:30	P. Baldrian	Involvement of soil microorganisms in the biodegradation of lignocellulosics: from ecology to biotechnology
09:30 – 10:00	D. Daffonchio	The microbial resource management for plant growth promotion under drought in arid ecosystems
10:00 – 10:15	M. Iliadi	Evaluation of maize germplasm for resistance to the mycotoxigenic fungi <i>Fusarium proliferatum</i> - <i>Fusarium verticillioides</i> and the producing fumonisins
10:15 – 10:30	G. Karaoglanidis	Population structure and fungicide resistance profile of

		<i>Botrytis</i> spp. causing damping off disease in stone- and pome-fruit rootstock seedlings
10:30 – 10:45	A. Katsiani	Genetic diversity and evolutionary mechanisms of Closteroviruses with emphasis on LChV-1
10:45 – 11:00	V. Fryssouli	Multigene phylogenetic analysis of the genus <i>Ganoderma</i> (Basidiomycota) with emphasis on species occurring in Europe
11:00 – 11:15	V. Doudoumis	Spiroplasma, a new symbiont in Tsetse flies

**11:15 – 11:45 COFFEE BREAK – POSTER VIEWING**

**Session 2 11:45 – 14:00**

*Chairpersons* D. G. Georgakopoulos, K. Kormas

11:45 – 12:15	C. Morris	The plant pathogenic and ice nucleation active bacterium <i>Pseudomonas syringae</i> : a link between agriculture and Earth system processes
12:15 – 12:45	V. Edgcomb	Microbial “dining” and social “networking” at deep-ocean smorgasboards: activities and interactions in deep Mediterranean haloclines
12:45 – 13:00	K. Nikolouli	Prokaryotic diversity in biodeteriorated wood coming from the fossil forest Bükkábrány (Hungary)
13:00 – 13:15	M. Tourna	Ecology of sulphur-oxidizing bacteria in New Zealand pasture soils
13:15 – 13:30	F. Bekris	Soil bacteria diversity and vegetation in Mediterranean ecosystems of Crete
13:30 – 13:45	C. Perruchon	A proteogenomic analysis of a <i>Sphingomonas haloaromaticamans</i> strain able to degrade the fungicide ortho-phenylphenol used in fruit-packaging industry
13:45 – 14:00	N. Remmas	Denitrifying community dynamics in an intermittently aerated and fed membrane reactor treating landfill leachate via the implementation of pyrosequencing techniques

**14:00 – 15:00 LUNCH– POSTER VIEWING**

**Session 3 15:00 – 16:30**

***Molecular Mechanisms – Model Microorganisms***

*Chairpersons* V. Sophianopoulou, A.I. Koukkou

15:00 – 15:30	C. Scazzocchio	Genes in microorganisms: from the cistron to the pan-genome
15:30 – 16:00	G. Diallinas	Model fungi as unique systems for understanding the function of eukaryotic transporters
16:00 – 16:30	T. Suarez	<i>Dictyostelium discoideum</i> : a versatile eukaryotic model organism for development and cellular functions

**16:30 – 17:00 COFFEE BREAK – POSTER VIEWING**

17:00 – 17:15	S. Boukouvala	Microbial xenobiotic metabolism: Comparative functional investigation of arylamine N-acetyltransferases (NATs) in bacteria and fungi
17:15 – 17:30	S. Tjamos	A bacterial triggered signaling cascade leading to plant protection against <i>Verticillium dahliae</i>

17:30 – 17:45	S. Bellou	Comparative studies of lipid biosynthesis process in heterotrophic ( <i>Yarrowia lipolytica</i> ) and autotrophic ( <i>Chlorella</i> sp. and <i>Nannochloropsis salina</i> ) microorganisms
17:45 – 18:00	A. Oulas	Metagenomic investigation of the geologically unique Hellenic Volcanic Arc reveals a distinctive ecosystem with unexpected physiology
18:00 – 18:15	I.S. Sougleri	<i>CagA</i> protein is involved in epithelial to mesenchymal transition of gastric epithelial cells in experimental <i>H. pylori</i> infection

**18.30 - 20.00 General Assembly–Elections for the Board of Directors of the Mikrobiokosmos Society**

**20.30 Social Dinner**

## SUNDAY, APRIL 5, 2015

### **Session 4                    09:00 – 11:15**

#### ***Microbes and Food***

*Chairpersons*    G. Aggelis, I. Boziaris

09:00 – 09:30	R. Briandet	Biocide action in multispecies biofilms
09:30 – 10:00	G.J. Nychas	Microbiological spoilage of foods; quantitative determination
10:00 – 10:15	D. Ghikas	Revealing association of "flat sour" spoilage in canned condensed milk and presence of thermophilic bacteria in milk powder using rep-PCR fingerprinting
10:15 – 10:30	A.I. Doulgeraki	Resistance of biofilm cells of <i>Salmonella typhimurium</i> and <i>Staphylococcus aureus</i> under mono- and dual-species conditions to sub-lethal concentrations of benzalkonium chloride, paracetic acid and sodium hypochlorite
10:30 – 10:45	N. Chorianopoulos	Production of Greek yoghurt using a <i>Lactobacillus plantarum</i> strain with probiotic potential as starter adjunct
10:45 – 11:00	E. Nikouli	Post-prandial response of gut microorganisms communities after a single meal in trout <i>Oncorhynchus mykiss</i>
11:00 – 11:15	C.V. Bikouli	Qualifying gilthead seabream freshness using microbial indicators

**11:15 – 11:45                    COFFEEBREAK – POSTER VIEWING**

### **Session 5                    11:30 – 14:30**

#### ***New Technologies – Biotechnological Applications***

*Chairpersons*    G. Tsiamis, S. Ntougias

11:45 – 12:15	N. Kyrpidis	Identifying the micro from the peta: a tale of a big data in the micro world
12:15 – 12:45	K. Vorgias	Life at extremes. The molecular basis of protein thermostability. "Looking a needle in the haystack"
12:45 – 13:00	N. Kalogerakis	Combating Marine Oil Spills Employing Biotechnological Methods

13:00 – 13:15	D. Sakoula	Cr(VI) resistance and reduction mechanisms in S3/K bacterial strain-Bench bioreactors creation for the detoxification of Cr(VI) contaminated wastewaters
13:15 – 13:30	E. Nikolaivits	Structural and functional studies of a <i>Fusarium oxysporum</i> cutinase with synthetic activity in water-oil reaction system and thermodynamic studies of the reaction system
13:30 – 13:45	G. Skretas	Directed evolution of small-molecule therapeutics against neurodegenerative diseases
13:45 – 14:00	A. Chaliotis	A novel computational tool for large-scale evolutionary analysis of aminoacyl-tRNA synthetases and detection of paralog fragments with putative biological role
14:00 – 14:15	E. Kapsanaki-Gotsi	Microbial Resources - a biological treasure to foster innovation

**14:15 – 15:15 LUNCH – POSTER VIEWING**

***Virtual Talk and Sponsors Talks***

15:15– 15:45	ASM Presentation by R. Cano	Paleomicrobiology: a study of microbial forensics of ancient habitats and cultures
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**Parallel Thematic Sessions – Group Discussions 16.00 – 17.00**

Session 1:	BioEnergy [Coordinator: to be announced]
Session 2:	Food [Coordinator: to be announced]
Session 3:	Agriculture [Coordinator: to be announced]
Session 4:	Extreme Environments [Coordinator: to be announced]
Session 5:	Environmental Cleanup - Biodegradation – Bioremediation [Coordinator: to be announced]
Session 6:	Molecular mechanisms – model microorganisms [Coordinator: to be announced]
Session 7:	Society (Culture, Tourism, Education) [Coordinator: to be announced]

**ROUND TABLE 17:00 – 18.00 The K. Drinas scholarship award; Awards for the 3 best posters; The ASM award for the best poster by a PhD student**

**END OF CONFERENCE**