



**14th Congress of Microbiologists in
Bulgaria
with International Participation**

PROGRAM



Hisarya, October 10th – 13th, 2018



**14th Congress of Microbiologists
in Bulgaria with International Participation
Hotel Augusta / Hisarya, Bulgaria
October 10th – 13th, 2018**

Program

**Congress
is organized by**

Bulgarian Society for Microbiology



At Union of Scientists in Bulgaria



**The Stephan Angeloff Institute of Microbiology
(Bulgarian Academy of Sciences)**



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Congress Sections

General Microbiology (GM)
Applied Microbiology and Microbial Biotechnologies (AMMB)
Medical Microbiology (MM)
Environmental Microbiology (EnvM)
Virology (Vir)
Infectious Immunology(II)
Food Microbiology (FM)
Veterinary Microbiology and Zoonoses (VMZ)
Varia (Var)

General Program

Wednesday, October 10th, 2018

**Transport Sofia – Hisarya
9:00 – 12:00**

Registration

Onset 12:00

13:30 Opening ceremony

14:00 – 19:00 Congress session

Thursday, October 11th, 2018

8:30 – 17:30 Congress sessions

17:30 – 19:00 Poster session

Friday, October 12th, 2018

8:30 – 18:30 Congress sessions

18:00 – 19:30 Poster session

19:00 - Congress Adjourn

Saturday, October 13th, 2018

Departure to Sofia

Social Events

Wednesday – Friday, October 10th – 14th, 2018

Art Exhibition

Prof. Špiro Radulović – Caricatures and Cartoons

Wednesday, October 10th, 2018

19:30 Welcome Reception at Hotel Augusta, Hisarya

Friday, October 12th, 2018

20:00 Congress Gala Dinner at Hotel Augusta, Hisarya

Saturday October 13th, 2018

**9:00 Trip to Starosel, Thracian Tumuli
and the Starosel Winery**

October 10th, 2018

Augusta Hotel

12:00 Registration
13:30 Congress opening ceremony

Session One

General Microbiology

Chairs: Angel S. Galabov, Bauke Oudega, Stoyanka Stoitsova

Plenary lectures

- 14:00-14:30 GM1 **Structural microbiology and the structure and future of FEMS**
Bauke Oudega
FEMS President, The Netherlands
- 14:30-15:00 GM2 **Phage therapy: more than anti-bacterial action**
Andrzej Górski
L. Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Wrocław
- 15:00-15:30 GM3 **Design and application of antisense oligonucleotides as antibacterial agents**
Robert Penchovski
University of Sofia "St.Kliment Ohridski", Sofia
- 15:30-16:00 GM4 **The blood microbiome in latent tuberculosis and healthy individuals**
Stefan Panaiotov¹, Vladimir Milanov², Maria Nikolova¹, Elena Nikolova³, Rumen Dimitrov⁴, Reni Kalfin⁵
¹National Center of Infectious and Parasitic Diseases, Sofia, ²University Hospital for Respiratory Diseases "St. Sofia", Sofia, ³Institute of Experimental Morphology, Pathology and Anthropology, Bulgarian Academy of Sciences, Sofia ⁴Faculty of Physics, Sofia University, Sofia, Bulgaria, ⁵Institute of Neurobiology, Bulgarian Academy of Sciences, Sofia

Coffee break 16:00 – 16:30

- 16:30-17:00 GM5 **Bacterial biofilms - adaptive mode of life**
Stoyanka Stoitsova, Tsvetelina Paunova-Krasteva, Dayana Borisova
Section of Morphology of Microorganisms and Electron Microscopy, Department of General Microbiology, The Stephan Angeloff Institute of Microbiology, BAS

FEMS & MedILS postdocs summer school

17:00-17:15 FEMS **New opportunities and challenges for excellent postdoc microbiologists**
Vaso Taleski
¹University "Goce Delchev", Shtip
²FEMS Director of Events and Internationalization

Oral reports

17:15-17:25 GM7 **Characterization of a sialidase from *Aeromonas caviae* A40/02**
Stephan Engibarov, Romyana Eneva, Penka Petrova, Vera Kolyovska, Radoslav Abrashev
Department of General Microbiology, The Stephan Angeloff Institute of Microbiology, BAS, Sofia

Applied Microbiology and Microbial Biotechnologies

Plenary lectures

Chairs: Maria Angelova, Stefano Donadio

17:30-18:00 AMMB1 **Discovery of bioactive metabolites at NAICONS**
Stefano Donadio
NAICONS Srl, Milano, Italy
FEMS Secretary General

18:00-18:30 AMMB2 **Health effects of yogurt - past, present and future**
Stefan A. Denev
Department of Biochemistry and Microbiology, Trakia University, Stara Zagora

18:30-19:00 AMMB3 **Metabolomics and its application in biotechnology**
Milen I. Georgiev^{1,2}
¹The Stephan Angeloff Institute of Microbiology, Plovdiv; ²Center of Plant Systems Biology and Biotechnology, Plovdiv, Bulgaria

Thursday, October 11th, 2018

Session Two

Medical Microbiology

Chairs: Mariana Murdjeva, Lazar Ranin

Plenary lectures

- 8:30-9:00 MM1 **Changes in antibiotic susceptibility of *Helicobacter pylori* in last ten years**
Lazar Ranin
Institute of Microbiology and Immunology, Faculty of Medicine, University of Belgrade, Belgrade
- 9:00-9:30 MM2 **Microbiological aspects of joint and bone-marrow infections**
Mariana Murdjeva¹, Lubomir Paunov², Atanaska Petrova¹
¹Department of Microbiology and Immunology, Medical University-Plovdiv and Laboratory of Microbiology, University Hospital "St. George"-Plovdiv
²Department of Special Surgery, Medical University-Plovdiv and Second Surgical Clinic, University Hospital "St. George"-Plovdiv
- 9:30-10:00 MM3 **From Hildegard von Bingen to evidence-based phytotherapy: insight into herbal remedies for bacterial infections**
Alexandra-Maria Nășcuțiu^{1,2}
¹"Carol Davila" University of Medicine and Pharmacy, Bucharest; ²"Cantacuzino" National Institute for Medical-Military Research and Development, Bucharest
- 10:00-10:30 MM4 **Evolution of the mechanism of transmission of infection**
William Monev
National Committee of Control of Infection Diseases and Immunoprophylaxis by Ministry of Health, Sofia

Coffee break 10:30 – 11:00

- 11:00-11:30 Glaxo **Booster vaccination vs *Bordetella pertussis* infection in**
Smith-Kline **growing up persons**
presentation **Magdalena Mircheva**
Glaxo Smith-Kline

Oral reports

- 11:30-11:40 MM5 **New drugs for treatment of infections caused by multidrug - resistant Gram-negative bacteria**
Encho Savov¹, K. Kovachka¹, A. Trifonova¹, E. Kioseva¹, T. Strateva³
¹Military Medical Academy, Sofia; ²MBAL, Samokov; ³Medical University, Sofia
- 11:40-11:50 MM6 **Emergence and clonal spread of carbapenem-resistant *Klebsiella pneumoniae* in Bulgarian University Hospital**
Rossitza Vatcheva-Dobrevska¹, L. Zamorano², X. Mulet², P Stefanova¹, V. Dicheva¹, S. Alberti³, A. Oliver²
¹Microbiology and Virology Department, University Hospital Queen Joanna, Sofia; ²Microbiology Department, Hospital Son Espases, Palma de Mallorca; ³University of the Balearic Islands, Palma de Mallorca

11:50-12:00 MM7 Micellar curcumin improves the antibacterial activity of the alkylphosphocholines erufosine and miltefosine against pathogenic *Staphylococcus aureus* strains
Maya Zaharieva¹, Alexander Kroumov¹, Lyudmila Dimitrova¹, Iva Tsvetkova¹, A. Trochopoulos³, S. M. Konstantinov³, M. R. Berger⁴, M. Momtchilova⁵, K. Yoncheva⁵, Hristo Najdenski
¹Department of Infectious Microbiology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, ²Department of Applied Microbiology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ³Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University of Sofia, ⁴Toxicology and Chemotherapy Unit, German Cancer Research Center, INF581, D-69120 Heidelberg, ⁵Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, Medical University of Sofia

12:00-13:30 Mini symposium Aquachim PLC
From identification to biochemical phenotyping – modern tools for metabolic research
1. Microbial identification – approaches to overcome limitations
2. Determination of cellular metabolism and sensibility to chemical agents. Potential for development of novel target antimicrobial agents
3. Characterization of phenotypes for taxonomical and epidemiological research
4. Optimization of microbial lines and conditions for biotech production
Tanya Rasheva
AQUACHIM PLC

Lunch break 13:30-14:30

Session Three

Environmental Microbiology

Chairs: Galina Satchanska, Mihail Iliev

Plenary lectures

- 14:30-15:00 EnvM1 Chemolithotrophic bacteria and *archaea* for practical applications**
Mihail Iliev¹, Veneta Groudeva¹, Stoyan Groudev²
¹Sofia University "St. Kliment Ohridski", Sofia; ²University of Mining and Geology "St. Ivan Rilski", Sofia
- 15:00-15:30 EnvM2 Clean-up of phenol by environmental bacteria biofilms entrapped in PEO cryogels**
Galina Satchanska
New Bulgarian University, Sofia
- 15:30-16:00 EnvM3 Anaerobic digestion of organic wastes - state of the art and some perspectives**
Ivan Simeonov, Dencho Denchev, Venelin Hubenov, Elena Chorukova, Snejanka Mihailova, Vasil Lakov
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia

Coffee break 16:00 – 16:30

Oral reports

- 16:30-16:40 EnvM4 Microbial biodegradation as a technological approach for utilization of cellulose containing wastes during long-term manned space missions**
Hristo Najdenski¹, Veselin Kussovski¹, Venelin Hubenov¹, Lyudmila Dimitrova¹, Yana Gocheva¹, Elena Chorukova¹, Petar Grozdanov¹, Lyudmila Kabaivanova¹, Dencho Denchev¹, Plamen Angelov², Ivan Simeonov¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, ²Space Research and Technology Institute, Bulgarian Academy of Sciences, Sofia
- 16:40-16:50 EnvM5 Interplay between crayfish host, its epibionts and oomycet pathogen *Aphanomyces astaci*, causative agent of crayfish plague**
Ana Bielen¹, Marija Vuk², Karla Orlić², Lucija Burić², Ivana Maguire², Jenny Makkonen³, Tomislav Vladušić¹, Lidija Šver¹, Reno Hrašćan¹, Sandra Hudina²
¹Faculty of Food Technology and Biotechnology, University of Zagreb; ²Faculty of Science, University of Zagreb; ³Department of Biology, University of Eastern Finland

- 16:50-17:00 EnvM6 Evaluation of the risk of damage on drupaceous fruit species as the result of infection with prunus necrotic ringspot virus (PNRV, PNRSV) and prune dwarf virus (PDV)**
Antony Stoev
 ISSAPP “Nikola Pushkarov”, Sofia
- 17:00-17:10 EnvM7 Biological activity of extracts isolated from *Geum urbanum* L.**
Lyudmila Dimitrova¹, Maya M. Zaharieva¹, Nedelina Kostadinova², Milena Popova³, Iva Tsvetkova¹, Spiro M. Konstantinov⁴, Vassya Bankova³, Hristo Najdenski¹
¹Department of Infectious Microbiology and ²Section of Mycology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ³Laboratory Chemistry of Natural Products, Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia; ⁴Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University Sofia
- 17:10-17:20 EnvM8 Microbiota in atmospheric aerosols during lidar monitoring of densely populated urban area in Sofia**
Ralitza Ilieva¹, Michail Iliev¹, Angelova B.1, I. Grigorov², G. Kolarov², D. Stoyanov², I. Nedkov², Veneta Groudeva¹
¹University of Sofia “St.Kliment Ohridski”, Sofia; ²Institute of Electronics, Bulgarian Academy of Sciences, Sofia
- 17:20-17:30 EnvM9 Isolation of the bacteria from genus *Geobacter* and application in microbial fuel cell for electricity generation**
Ralitza Ilieva¹, Michail Iliev¹, Irena Spasova², Stoyan Groudev², Plamen Georgiev², Angelova B.¹, Veneta Groudeva¹
¹University of Sofia “St.Kliment Ohridski”, Sofia; ² University of Mining and geology “St. Ivan Rilski”, Sofia

Poster Session One

17:30-19:00

Chairs: Stefan Panayotov, Lyubka Doumanova, Ekaterina Krumova

GM, MM, AMMB

General Microbiology

- GM8** **Actin re-arrangements during infection of A549 and MDCK cultured cells with *Pseudomonas aeruginosa* and its T3SS mutants**
Dayana Borisova¹, Tanya Topouzova-Hristova², Tsvetelina Paunova-Kraasteva¹, Undine Mechold³, Stoyanka Stoitsova¹
¹Department of Cytology, Histology and Embryology, Faculty of Biology, Sofia University "St. Kliment Ohridski"; ²Section of Morphology of Microorganisms and Electron Microscopy, Department of General Microbiology, The Stephan Angeloff Institute of Microbiology, BAS; ³Unité de Biochimies des Interactions Macromoléculaires, Département de Biologie Structurale et Chimie, Institut Pasteur, Paris, France
- GM9** **Cell response of antarctic strain *Penicillium chrisogenum* P29 to short term low temperature exposure**
Ekaterina Krumova, Radoslav Abrashev, Nedelina Kostadinova, Galina Stoyancheva, Jeni Miteva-Staleva, Vladislava Dishlijska, Boryana Spasova, Maria Angelova
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- GM10** **Whole genome sequence analysis of lab-adapted *Bacillus subtilis* strains implies strain evolution in 40 years**
Meltem Kutnu, Naz Kocabay, İlayda Baydemir, Nazlı H. Erdal, Gülay Özcengiz
Biological Sciences Dept., Middle East Technical University, Ankara
- GM11** **Low temperature stress induces age-related protein damages in antarctic *Penicillium* strains**
Jeny Miteva-Staleva, Ekaterina Krumova, Nedelina Kostadinova, Vladislava Dishlijska, Boryana Spasova, Radoslav Abrashev, Maria Angelova
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- GM12** **Bioinformatics Web-Based server for bacterial genome analyses**
Nikolet Pavlova, Robert Penchovsky
Department of Genetics, Biology Faculty, Sofia University "St. Kliment Ohridski", Sofia
- GM13** **Control of gene expression by bacterial riboswitches and their application as drug targets**
Lozena A. Otcheva, Katya B. Popova, Nikolet Pavlova, Martina Traykovska, Robert Penchovsky
Department of Genetics, Biology Faculty, Sofia University "St. Kliment Ohridski", Sofia
- GM14** **Effects of low-temperature stress on the ultrastructural characteristics of Antarctic strain *Penicillium chrisogenum* P29**
Paunova-Kraasteva, Ts.¹, Borisova, D.¹, Krumova, E.², Stoitsova, S.¹
¹Section of Morphology of Microorganisms and Electron Microscopy, Department of General Microbiology; ²Section of Mycology, The Stephan Angeloff Institute of Microbiology, BAS, Sofia
- GM15** **Probing general toxicity of antisense oligonucleotides to bacterial and mammalian cells**
Katya B. Popova, Lozena A. Otcheva, Martina Traykovska and Robert Penchovsky
Department of Genetics, Biology Faculty, Sofia University "St. Kliment Ohridski", Sofia
- GM16** **Response of proliferating and quiescent *Saccharomyces cerevisiae* cells to menadion and H₂O₂ toxicity**
Anna Tomova, Polyana Marinovska, Ventsislava Petrova
Biology Faculty, Sofia University "St. Kliment Ohridski", Sofia

- GM17** **Influence of thin nanostructured films on the development of *E. coli***
Yulia Kutsova, Dragomira Stoyanova, Manoela Andreeva, Iliana Ivanova
Faculty of Biology, Sofia University "St. Kliment Ohridski", Sofia

Medical Microbiology

- MM8** **Macrolide resistance and *EMM* type distribution of group A streptococcal isolates from Bulgarian patients**
Muhtarova A., Gergova R., Markovska R., Mitov I.
Department of Medical Microbiology, Faculty of Medicine, Medical University Sofia
- MM9** **Prevalence of rheumatogenic and nephritogenic *EMM* genotypes *Streptococcus pyogenes* in Bulgaria**
Gergova R¹, Muhtarova A¹, Markovska R¹, Mihova K², Kaneva R², Mitov I¹
¹Department of Medical Microbiology, Medical University of Sofia; ²Department of Medical chemistry and Biochemistry, Molecular Medicine Center, Medical University of Sofia
- MM10** **Production and bioactivity of exopolysaccharide from *Porphyridium sordidum***
Juliana Ivanova¹, Ivanina Vasileva¹, Biliana Nikolova², Severina Semkova², Viktoria Pehlivanova², Yana Tsoneva², Lyudmila Kabaivanova³
¹Department of Experimental Algology, Institute of Plant Physiology and Genetics, Bulgarian Academy of Sciences, Sofia; ²Department of Electroinduced and Adhesive properties, Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Sofia; ³Department of Applied Microbiology, The "Stephan Angeloff" Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- MM11** ***Haemophilus influenzae* vaginitis. Case report**
Gergana Lengerova¹, Tihomir Dermendzhiev^{1,2}, Zoya Rachkovska², Mariana Murdjeva^{1,2}, Ekaterina Uchikova³
¹Department of Microbiology and Immunology, Faculty of Pharmacy, Medical University, Plovdiv; ²Laboratory of Microbiology, University Hospital "St. George", Plovdiv; ³Clinic of Obstetrics and Gynecology, St. George University Hospital, Plovdiv
- MM12** **Anti-staphylococcal effect and *in vivo* toxicity of ethyl acetate fraction from aerial parts of *Geum urbanum* L.**
Lyudmila Dimitrova¹, Stanislav Philipov², Maya M. Zaharieva¹, Jeni Miteva-Staleva³, Milena Popova⁵, Lilia Tserovska⁴, Ekaterina Krumova³, Galina Zhelezova⁴, Spiro M. Konstantinov⁶, Vassya Bankova⁵, Hristo Najdenski¹
¹Department of Infectious Microbiology and ³Section of Mycology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Laboratory Pathomorphology, Chair "Anatomy, Histology, Pathology and Forensic Medicine" and ⁴Department of Biology, Medical Genetics and Microbiology, Medical Faculty, Sofia University "St. Kliment Ohridski"; ⁵Laboratory Chemistry of Natural Products, Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia; ⁶Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University, Sofia
- MM13** **Fecal carriage of extended-spectrum β -lactamase-producing *Enterobacteriaceae* among hospitalized patients in two hospitals in Varna and Sofia**
P. Stankova¹, R. Markovska¹, T. Stoeva², D. Ivanova², D. Dimitrova², M. Bozhkova², G. Nedelcheva², L. Boyanova¹, I. Mitov¹
¹Medical University of Sofia, Bulgaria, Medical Faculty, Department of Medical Microbiology; ²Medical University of Varna, Department of Microbiology and Virology; University Multiprofile Hospital for active treatment (UMHAT) "St Marina", Varna
- MM14** **Distribution of virulence genes and *MEC A* in *Staphylococcus aureus* isolates from outpatients and hospitalized patients**
V. M. Tsitou¹, R. Gergova¹, I. Gergova², I. Mitov¹
¹Department of Medical Microbiology, Medical University, Sofia; ²Department of Military Epidemiology and Hygiene, Military Medical Academy, Sofia

- MM15** **Outbreak of *Serratia marcescens* in a cardiac surgery clinic**
B. Zaharieva¹, A. Kevorkyan², T. Dermendzhiev³, Y. Zahariev⁴, R. Vacheva-Dobrevska⁵, I. Ivanov⁶, M. Murdjeva³, T. Kantardjiev⁷
¹Microbiological Laboratory, University Hospital "Kaspela", Plovdiv; ²Department of Epidemiology and Disaster medicine, Faculty of Public Health, Plovdiv; ³Department of Microbiology and Immunology, Faculty of Pharmacy, Medical University Plovdiv; ⁴Department of Vascular Surgery, Faculty of Medicine, Medical University of Plovdiv; ⁵Department of Microbiology and Virology, University Hospital "Tsaritsa Yoanna-ISUL", Sofia; ⁶National Reference Laboratory "Monitoring and Control of Antimicrobial Resistance", NCIPD, Sofia; ⁷National Center for Infectious and Parasitic Diseases, Sofia
- MM16** **Protocols for intimin toxin encoding genes differentiation and characterization in *Escherichia coli***
Ivo Sirakov¹, Tanya Strateva¹, Ralitsa Popova², Irina Alexandar³, Biliyana Borisova⁴, Ivan Mitov¹
¹Medical University-Sofia, Department of Medical Microbiology; ²Gen Lab, Ltd; ³The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Science; ⁴Medical University-Sofia, Faculty of Dental Medicine
- MM17** ***Elizabethkingia miricola* recovered from peritoneal cavity**
Yordan Kalchev^{1,2}, Atanaska Petrova^{1,2}, Gergana Lengerova¹, Nikolay Krastev³, Mariana Murdjeva^{1,2}
¹Department of Microbiology and Immunology, Faculty of Pharmacy, Medical University, Plovdiv; ²Laboratories of Microbiology and Virology, St. George University Hospital, Plovdiv; ³Clinic of Gastroenterology, St. George University Hospital, Plovdiv

Applied Microbiology and Microbial Biotechnologies

- AMMB4** **Secondary metabolites produced by two newly isolated *Trichoderma* strains**
Badalova M.¹, Licheva Ts.², Koleva V.³, Savov V.^{1,2,3}
¹Research Organization and Manufacture of Bioproducts-Bulgaria, Sofia; ²Sofia University "St. Kliment Ohridski", Sofia; ³Balkan Plant Science-Bulgaria, Sofia
- AMMB5** **Endophytic fungi from *Leucojum aestivum* L. and their ability for transformation of *Amaryllidaceae* alkaloids**
Ekaterina Krumova¹, Nedelina Kostadinova¹, Jeny Miteva-Staleva¹, Maria Angelova¹, Blaga Mutafova¹, Strahil Berkov²
¹The Stephan Angeloff Institute of Microbiology, BAS, Sofia; ²The institute of Biodiversity and Ecological Investigations, BAS, Sofia
- AMMB6** **Copper and silver in synergism against industrial *E. coli* strain**
Dragomira Stoyanova, Iliana Ivanova
 Faculty of Biology, Sofia University "St. Kliment Ohridski", Sofia
- AMMB7** **Influence of nitrogen and phosphate sources on growth and biochemical composition of microalgal cultures**
Ivanina Vasileva, Juliana Ivanova
 Experimental Algology, Institute of Plant Physiology and Genetics, BAS, Sofia
- AMMB8** **Antimicrobial activity of *Bacillus* and *Lactobacillus* strains against phytopathogenic bacteria and micromycetes**
Koleva V.¹, Licheva Ts.², Tropcheva R.², Badalova M.³ and Savov V.^{1,2,3}
¹Balkan Plant Science-Bulgaria, Sofia; ²St. Kliment Ohridski" Sofia University, Faculty of Biology, Sofia; ³Romb Ltd., Sofia
- AMMB9** ***Bacillus* strains as an effective treatment of mobile forms of phosphorus in Bulgarian soils**
Licheva Ts., Badalova M., Tropcheva R., Deleva G., Chakalov K., Savov V.¹
¹Sofia University St. Kliment Ohridski, Faculty of Biology
- AMMB10** **Antibacterial effect of hybrid materials, containing pectin and silver against Gram-positive and Gram-negative bacteria**
Tsvetelina Angelova¹, Nadezhda Rangelova², Nelly Georgieva¹
¹Department of Biotechnology, University of Chemical Technology and Metallurgy, Sofia; ²Department of Fundamentals of Chemical Technology, University of Chemical Technology and Metallurgy, Sofia

AMMB11 Antibiotic susceptibility of *Lactobacillus plantarum* strains isolated from homemade Bulgarian cheese
Rositsa Tropcheva, Emanuela Lukach
Department of Biotechnology, Faculty of Biology, Sofia University St. Kliment Ohridski, Sofia

Friday, October 12th, 2018

Session Four

Virology

Chairs: Angel S. Galabov, Dijana Škorić

Plenary lectures

- 8:30-9:00 Vir1 **Hepatitis e virus infection: Turkey vs Europe**
A. Arzu Sayiner
Medical Microbiology Department, Dokuz Eylul University, School of Medicine, Izmir
- 9:00-9:30 Vir2 **Antienteroviral activity of newly synthesized diaryl ethers**
Ivanka Nikolova
The Stephan Angeloff Institute of Microbiology, BAS, Sofia
- 9:30-10:00 Vir3 **Pathogenic complexes in plants and their silent players**
Dijana Škorić, Silvija Černi and Martina Šeruga Musić
University of Zagreb, Faculty of Science, Department of Biology, Zagreb
- 10:00-10:30 Vir4 **Gene silencing and enteroviruses**
Nikolay M. Petrov¹, Mariya I. Stoyanova², Angel S. Galabov³
¹New Bulgarian University, Sofia; ²The Institute of Soil Science, Agrotechnologies and Plant Protection "N. Pushkarov", Sofia; ³The Stephan Angeloff Institute of Microbiology, BAS, Sofia

Coffee break 10:30 – 11:00

Infectious Immunology

Chairs: Anastas D. Pashov, Petya Dimitrova

Plenary lecture

- 11:00-11:30 II1 **The universe of proteins as seen by IgM antibodies**
Anastas D. Pashov¹, Milena Todorova¹, Velizar Shivarov²
¹The Stephan Angeloff Institute of Microbiology, BAS, Sofia; ²SOFIAMED University Hospital
- 11:30-12:00 II2 **Homeostasis of neutrophils in inflammatory and degenerative joint diseases**
Milena Leseva¹, Kalin Stoyanov², Lora Simeonova³, Luciano Saso⁴ and Petya Dimitrova¹
¹Department of Immunology, The Stephan Angeloff Institute of Microbiology, Sofia; ²Faculty of Medicine, Sofia University "St. Kliment Ohridski", Sofia; ³Department of Virology, The Stephan Angeloff Institute of Microbiology, Sofia; ⁴Department of Physiology and Pharmacology "Vittorio Erspamer", Sapienza University of Roma

12:00-13:00 **Mini** **Innovations in the microbiology lab - from sampling to**
symposium **getting the result**
ELTA 90M **Halina Panicharova**
Microbiology sales expert

Lunch break 13:00 -14:00

Session Five

Food Microbiology

Chair(s): Hristo Najdenski, Stefan Denev

Plenary lecture

14:00-14:30	FM1	Climate changes and foodborne pathogens Hristo Najdenski ¹ The Stephan Angeloff Institute of Microbiology, BAS, Sofia
14:30-15:00	FM2	Metabolic fluctuations in the metabolism of prebiotic oligosaccharides from lactic acid bacteria Iliia Iliev, Iskra Ivanova ¹ Department of Biochemistry and Microbiology, Plovdiv University "Paisii Hilendarski", Plovdiv; ² Department of Microbiology, Sofia University "St. Kliment Ohridski, Sofia
15:00-15:30	FM3	Probiotic solution for vaginal candidiasis Kiril Perkov¹, Marzena Rys-Panova² ¹ ProViotic AD, Sofia; ² St. Sofia Hospital, Sofia
15:30-16:00	GM6	Aminoglycoside resistance by ribosomal RNA methyltransferases: molecular insight and perspectives Gordana Maravic-Vlahovicek Faculty of Pharmacy and Biochemistry, University of Zagreb
16:00-16:30	Biocom-Trendafilov presentation	Fast and reliable methods for microbiological control of surfaces, food and beverages Nikolaj Velikov Biocom-Trendafilov Ltd

Coffee break 16:30 – 17:00

Veterinary Microbiology and Zoonoses

Chair(s): Rajko Peshev, Konstantin Simeonov

Plenary lecture

17:00-17:30	VMZ1	Pest of small ruminants (peste des petits ruminants) Nikolay Massalski¹, Hristo Najdenski² ¹ National Diagnostic and Research Veterinary Medical Institute, Sofia; ² The Stephan Angeloff Institute of Microbiology, BAS, Sofia
17:30-18:00	VMZ2	Studies of molecular biological peculiarity of bovine herpesvirus 4 (BHV 4) Rajko Peshev¹, Ivo Sirakov² ¹ National Diagnostic and Research Veterinary Medical Institute, Sofia; ² Medical University, Dept. of Microbiology, Sofia

18:00-18:30 VMZ3

20 years epidemiological, epizootical and phylogenetic investigations on tularemia in Bulgaria

Krastyo Marinov¹, Anetka Trifonova¹, Hristo Najdenski²

¹Military Medical Academy, Sofia; ²The Stephan Angeloff Institute of Microbiology, BAS, Sofia

Oral reports

18:30-18:40 VMZ4

***Chlamydia abortus* and *Coxiella burnetii* related abortions in small ruminants in Bulgaria during a five years period (2013-2018)**

Konstantin Simeonov, Mariela Chilingirova

Laboratory for Chlamydial and Rickettsial Diseases, National Diagnostic and Research Veterinary Medical Institute, Sofia

Poster Session Two

18:00 – 19:30

Chair(s): Maria Stoyanova, Lilia Ivanova, Petya Orozova

EnvM, FM, Vir, VM

Environmental Microbiology

- EnvM10 Occurrence and antimicrobial resistance of *Enterococcus* spp. from Bulgarian groundwater sources**
Aleksandar Petrov¹, Georgi Beev², Todor Stoyanchev⁴, Diana Dermendzieva³, Toncho Dinev², Stefan Denev²
¹Department of Health Care, Trakia University, Faculty of Human Medicine, Stara Zagora; ²Department of Biochemistry, Microbiology & Physics, Faculty of Agriculture, Trakia University, Stara Zagora; ³Department of Applied Ecology and Animal Hygiene, Faculty of Agriculture, Trakia University, Stara Zagora; ⁴Department of Hygiene, Technology and Control of Food Products of Animal Origin, Faculty of Veterinary Medicine, Trakia University, Stara Zagora
- EnvM11 Microbial pretreatment of a gold-bearing sulphide**
Groudev S.¹, Nicolova M.¹, Spasova I.¹, Georgiev P.¹, Iliev M.², Ilieva R.², Groudeva V.²
¹University of Mining and geology“St. Ivan Rilski“, Sofia; ²University of Sofia “St.Kliment Ohridski“, Sofia
- EnvM12 Bioleaching of chalcopyrite concentrate by means of chemolithotrophic microorganisms from different taxonomic groups**
Groudev S.¹, Spasova I.¹, Nicolova M.¹, Georgiev P.¹, Iliev M.², Ilieva R.², Groudeva V.²
¹University of Mining and geology“St. Ivan Rilski“, Sofia; ²University of Sofia “St.Kliment Ohridski“, Sofia
- EnvM13 Microbial cleaning of polluted waters connected with electricity generation**
Spasova I.¹, Groudev S.¹, Nicolcova M.¹, Georgiev P.¹, Iliev M.², Ilieva R.², Groudeva V.²
¹University of Mining and geology“St. Ivan Rilski“, Sofia; ²University of Sofia “St.Kliment Ohridski“, Sofia
- EnvM14 Mucus from *Cornu aspersum* – a perspective resource of antioxidant substances**
Kostadinova N.¹, Dolashka P.², Krumova E.¹, L. Velkova², A. Dolashki², Abrashev R.¹, Miteva-Staleva J.¹, Spasova B.¹, Angelova M.¹
¹The Stephan Angeloff Institute for Microbiology, Bulgarian Academy of Sciences, Sofia; ²Institute of Organic Chemistry with Centrum of Phytochemistry, Bulgarian Academy of Sciences, Sofia
- EnvM15 New plant host of *Pseudomonas viridiflava* in Bulgaria**
Mariya Stoyanova¹, Liliya Georgieva², Nikolay Petrov³, Nevena Bogatzevska¹
¹Agrobiointitut, Sofia; ²Institute of Soil Science, Agrotechnologies and Plant Protection “Nikola Pushkarov“, Sofia; ³New Bulgarian University, Sofia, Bulgaria
- EnvM16 Physiological, biochemical and molecular-genetic characterization of bacterial strains isolated from spring and healing waters in the region of Haskovo**
Nedyalka Valcheva-Jekova¹, Zapryana Denkova², Radosveta Nikolova², Rositsa Denkova³
¹Department of Biochemistry, Microbiology & Physics, Faculty of Agriculture, Trakia University, Stara Zagora; ²Department of Microbiology, University of Food Technologies, Plovdiv; ³ Department of Biotechnology, Sofia University “St. Kliment Ohridski“, Sofia

- EnvM17 Phage sensitivity of Bulgarian phytopathogenic xanthomonads isolated from tomato and pepper plants**
 Yoana Kizheva¹, Venislava Racheva¹, Zoltan Urshev², Sergei Ivanov³, Petia Hristova¹ and Nevena Bogatsevska⁴
¹Faculty of Biology, Sofia University, "St. Kliment Ohridski", Sofia; ²LB Bulgaricum Plc., R&D Department, Sofia; ³Centre of Food Biology, Ltd., Sofia; ⁴Institute of Soil Science, Agrotechnologies and Plant Protection 'Nikola Pushkarov', Sofia
- EnvM18 A thermophilic bacterium found in Antarctica**
 Anna Bratchkova, Veneta Ivanova, Adriana Gousterova, Jordan Manasiev, Dilnora Gouliamova, Margarita Stoilova-Disheva, Svetla Danova
 The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia

Food Microbiology

- FM4 Isolation and characterisation of lactic acid bacteria from traditional dairy product katak**
 Dobрева L.¹, Nemska V.² and Danova S.¹
¹Department of General Microbiology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Department of Biotechnology, Faculty of Chemical and System Engineering, University of chemical technology and metallurgy, Sofia
- FM5 Microbiological evaluation of bottled K-brand water**
 Manoela Andreeva, Dragomira Stoyanova, Yulia Kutsova, Iliana Ivanova
 Faculty of Biology, Sofia University „St. Kliment Ohridski“ , Sofia
- FM6 Detection of *Paenibacillus larvae* spores in honey by conventional PCR and it's potential for American foulbrood control**
 Nikolina Rusenova¹, Parvan Parvanov¹, Spaska Stanilova²
¹Faculty of Veterinary Medicine, Department of Veterinary Microbiology, Infectious and Parasitic Diseases, Trakia University, Stara Zagora; ²Faculty of Medicine, Department of Molecular Biology, Trakia University, Stara Zagora
- FM7 Wild growing herbs - natural sources for isolation of lactic acid bacteria**
 Tsvetanka Teneva-Angelova¹, Katerina Georgieva^{1,3}, Emilia Atanasova¹, Milena T. Nikolova², Ina Aneva², Dora Beshkova¹
¹The Stephan Angeloff Institute of Microbiology, BAS, Department of Applied Microbiology, Laboratory of Applied Biotechnology, Plovdiv; ²Institute of Biodiversity and Ecosystem Research, BAS, Department of Plant and Fungal Diversity and Resources, Sofia; ³Medical University, Faculty of Pharmacy, Department of Chemistry and Biochemistry, Plovdiv
- FM8 Bad microbiota in full-cream yellow cheese**
 Tsenova M.¹, Stefanova P.², Dicheva V.², Vatcheva-Dobrevska R.² and G. Satchanska¹
¹Biolaboratory, New Bulgarian University, Sofia; ²University Hospital Queen Joanna-ISUL, Sofia
- FM9 Identification of lactobacilli from traditional Bulgarian white-brined cheese**
 Veronica Nemska¹, Lili Dobрева², Nelly Georgieva¹ and Svetla Danova²
¹University of Chemical Technology and Metallurgy, Sofia; ²The Stephan Angeloff Institute of Microbiology, BAS, Sofia
- FM10 Utilization of human breast milk oligosaccharides from lactic acid bacteria strains isolated from neonatal gut microbiota**
 Daniela Mollova, Tonka Vasileva, Iliia Iliev
 Department of Biochemistry and Microbiology, Plovdiv University "Paisii Hilendarski, Plovdiv

Virology

- Vir4 Double antiviral combinations applied by consecutive alternating administration against Coxsackievirus B1 infection in mice**
Adelina Stoyanova¹, Stefan Philipov², Gerhard Pürstinger³, Ivanka Nikolova¹, Angel S. Galabov¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia; ³Institute of Pharmacy, University of Innsbruck, Innsbruck
- Vir5 Antiviral activity of double drug combinations with anti-enterovirals versus Coxsackievirus B1**
Adelina Stoyanova¹, Stefan Philipov², Gerhard Pürstinger³, Angel S. Galabov¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia; ³Institute of Pharmacy, University of Innsbruck, Innsbruck
- Vir6 Effect in vitro of double drug combinations against Coxsackievirus B3**
Adelina Stoyanova¹, Lucia Mukova¹, Stefan Philipov², Gerhard Pürstinger³, Angel S. Galabov¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia; ³Institute of Pharmacy, University of Innsbruck, Innsbruck
- Vir7 HBV and HCV incidence among non-Hodgkin's lymphoma patients in Varna region (2013-2016)**
Tsvetelina Kostadinova¹, Liliya Ivanova^{2,3}, Denitsa Tsaneva-Damyanova³, Zhivka Stoykova^{2,3}
¹Education and Research Sectors of Medical Laboratory Assistant, Medical College, Medical University, Varna; ²Laboratory of Clinical Virology-University hospital "St. Marina", Varna; ³Department of Microbiology and Virology, Medical University, Varna
- Vir8 Investigation of anti-EA (D) IgG in patients with haematological diseases**
Tsvetelina Kostadinova¹, Liliya Ivanova^{2,3}, Zhivka Stoykova^{2,3}, Denitsa Tsaneva³
¹Education and Research Sectors of Medical Laboratory Assistant, Medical College, Medical University, Varna; ²Laboratory of Clinical Virology, University Hospital "St. Marina", Varna; ³Department of Microbiology and Virology, Medical University, Varna

Veterinary Medicine and Zoonoses

- VMZ5 Effect of *Staphylococcus aureus* infection on the activities of the alkaline phosphatase, aspartate and alanine transferases in the blood plasma of rabbits**
Teodora M. Georgieva, Ivan Penchev
¹Faculty of Veterinary Medicine, Trakia University, Stara Zagora
- VMZ6 Comparative study of the effect of electrochemically activated water solutions on *Pseudomonas aeruginosa***
Teodora P. Popova¹, Toshka E. Petrova¹, Mila D. Kaleva², Stoil D. Karadzhov³
¹University of Forestry, Faculty of Veterinary Medicine, Sofia; ²Veterinary Clinic UNION VET, Sofia; ³Bulgarian Association of Activated Water, Sofia
- VMZ7 Preliminary insight into genetic diversity of *Mycobacterium bovis* strains in cattle in Bulgaria**
Violeta Valcheva¹, Tanya Savova-Lalkovska², Albena Dimitrova², Yosko Petkov², Gergana Hadzhieva², Hristo Najdenski¹, Magdalena Bonovska¹
¹The Stephan Angeloff Institute of Microbiology, BAS, Sofia; ²National Diagnostic and Research Veterinary Medical Institute, Sofia
- VMZ8 Outbreak of *Aeromonas hydrophila* associated with the parasitic infection *Ichthyophthirius multifiliis* in European catfish (*Silurus glanis*) juveniles**
P. Orozova, V. Krusteva, Sv. Kirova, T. Hubenova, A. Zaikov
National Diagnostic and Research Veterinary Medical Institute, Sofia

VMZ9 Determination of proteins in bovine and avium PPD tuberculin
Gergana Hadzhieva

Department of Research and Development Activities, Biopharm Engineering, Sliven

VMZ10 Prevalence of *Yersinia enterocolitica* in fattening pigs originated from different regions of Bulgaria

Maya Gatzovska¹, Maya Zaharieva¹, Ludmila Dimitrova¹, Viktoria Teneva¹, Iva Tsvetkova¹, Tanya Dimova², Els van Collie³, Mark Heyndricks³, Hristo Najdenski¹

¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences; ²Institute of Biology and Immunology of Reproduction, Bulgarian Academy of Sciences; ³Unit "Food Safety", Institute for Agriculture and Fisheries Research (ILVO), Brusselsesteenweg 370, Melle, Belgium

Varia

Var1 The glyconoside myconoside, extracted from *Haberlea rhodopensis* Is a promising agent for phytopharmacological development of balanced cytotoxicity

Ralitsa Veleva¹, Aleksandrina Nesheva¹, Tanya Topouzova-Hristova¹, Jeny Miteva-Staleva³, Ekaterina Krumova³, Daniela Moyankova⁴, Dimitar Djilianov⁴, Aneliya Kostadinova²

¹Faculty of Biology, Sofia University "St. Kliment Ohridski", Sofia; ²Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Sofia; ³Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ⁴AgrobiolInstitute, Agricultural Academy, Sofia

19:00 - Congress Adjourn

Saturday, October 13th, 2018

10:00 Trip to Starocel

Thracian Tumuli and the Starosel Winery

Departure to Sofia