



13th Congress of Microbiologists in Bulgaria

with International Participation

PROGRAM AND ABSTRACTS



Tryavna, October 7th – 10th, 2014

13th Congress of Microbiologists in Bulgaria with International Participation

Tryavna, October 7th – 10th, 2014

Program

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of the Bulgarian Society for Microbiology
(Section of Union of Scientists in Bulgaria)

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13th Congress of Microbiologists in Bulgaria with International Participation

Tryavna

October 7th - 10th, 2014

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Social Events

Tuesday - Friday, October 7th-10th, 2014

Art Exhibitions

Prof. Špiro Radulović: Caricatures and Cartoons

Maria Diankova: Paintings

Thursday, October 9th, 2014

Congress Banquet

20:00 Kalina Palace Hotel

Friday, October 10th, 2014

13:00 Departure from Kalina Palace Hotel for the sightseeing trip

Bozhentsi architectural reserve

Tuesday, October 7th, 2014

Kalina Palace Hotel

13:00 Registration

18:00 Congress opening ceremony

Chair(s): Angel S. Galabov, Hristo Najdenski

18:30 V1 Cellular and molecular basis of *Henipavirus* pathogenicity
Fabian Wild
INSERM U758, Lyon, France

19:00 MM1 Comparative pathophysiological analyses of *Y. pseudotuberculosis* to *Y. pestis*
Elisabeth Carniel
Yersinia Research Unit, Yersinia National Reference Laboratory and WHO Collaborating Center, Institut Pasteur, Paris

20:00 Welcome reception

Wednesday, October 8th, 2014

Session 1

Plenary Lectures

Chair(s): Hristo Najdenski, Stoyan Grudev

Environmental Microbiology (EM)

Infectious Immunology (IIm)

Veterinary Microbiology (VM)

- | | | |
|-------|------|--|
| 8:30 | EM1 | Pharmaceutically relevant molecules from plant origin and their sustainable bioproduction
Milen I. Georgiev
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia |
| 9:00 | IIm1 | Host-microorganism interactions: from symbiosis to diseases
Maria Damian
"Cantacuzino" National Institute of Research-Development for Microbiology and Immunology, Bucharest |
| 9:30 | VM1 | Food-borne zoonoses in Europe
Hristo Najdenski
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia |
| 10:00 | | Break |
| 10:30 | EM2 | Some essential problems of biohydrometallurgy currently developed in Bulgaria
Stoyan Grudev
University of Mining and Geology "Saint Ivan Rilski", Sofia |
| 11:00 | EM3 | RNAi - strategy to control viral infections
¹Nikolay Petrov, ²Angel S. Galabov
¹ Institute of Soil Science, Agrotechnologies and Plant Protection "Nikola Pushkarov", Sofia; ² The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia |
| 11:30 | EM4 | Phytochemical screening and pharmacological potential of aromatic products from Bulgarian <i>Rosa alba</i> L.
<u>Milka Mileva</u>¹, Dimo Krastev², Ana Dobрева³, Ilijan Badzhakov⁴, Ivajla Dincheva⁴, Neli Vilhemova-Ilieva¹, Ivan Iliev⁵, Vesselin Kussovski¹, Luchia Mukova¹, Angel S. Galabov¹
¹ The Stefan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ² Medical Colleague "Jordanka Filaretova", Medical University, Sofia; ³ Institute for Roses and Aromatic Plants, Kazanlak; ⁴ Agrobiointitute, Centre of Excellence in Plant Biotechnology, Sofia; ⁵ Institute of Experimental Morphology, Pathology and Anthropology with Museum, Bulgarian Academy of Sciences, Sofia |

Oral Presentations

Chair(s): Angel S. Galabov, Raiko Peshev

Virology (V)

Veterinary Microbiology (VM)

- 11:50 V2 Characterization of genomic changes in the cervical pre-cancerous lesions and tumors, induced by different types of human papillomaviruses**
Petar Grozdanov¹, Ivanka Dimova², Savina Hadzhidekova², Draga Toncheva², Gancho Ganchev³, Victor Zlatkov⁴, Angel S. Galabov¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Department of Medical Genetics, Medical University, Sofia; ³Specialized Hospital for Active Treatment in Oncology, Sofia; ⁴The University Obstetrics and Gynecology Hospital "Maichin Dom", Sofia
- 12:05 V3 Consecutive alternating administration (CAA) course with pleconaril containing triple combination of enterovirus replication inhibitors prevents the development of drug-resistance in coxsackievirus B1 neuroinfection in mice**
Adelina Stoyanova, Ivanka Nikolova, Angel S. Galabov
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- 12:20 V4 Inhibitory effect of extracts from *Sambucus nigra* L. and *Sambucus ebulus* L. against HSV-1 and HSV-2**
Anton Hinkov¹, Daniela Seimenska², Petko Denev³, Maria Kratchanova³, Petia Angelova¹, Stoyan Shishkov¹
¹Laboratory of Virology, Faculty of Biology, Sofia University "St. Kliment Ohridski", Sofia; ²Faculty of Pharmacy, Medical University of Plovdiv; ³Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Laboratory of Biologically Active Substances, Plovdiv
- 12:30 V5 Combined activity of oseltamivir and some biological response modifiers against experimental infection with influenza virus A/H3N2 *in vivo***
Lora Simeonova¹, Galina Gegova¹, Elitsa Pavlova², Kirilka Todorova¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²University of Sofia "St. Kliment Ohridski", Sofia
- 12:40 V6 Bulgarian contribution on the invention of mumps vaccine**
Hristo Odisseev
Sofia
- 13:00 VM2 Implementation of immunohistochemical and *in situ* hybridization methods in the diagnostic of circovirus infection in pigs**
Reneta Petrova¹, Dimitrina Kazachka¹, Konstantin Simeonov¹, Marina Sibila², Raiko Peshev¹
¹National Diagnostic and Research Veterinary Medical Institute, Sofia, Bulgaria; ²Centre de Reserca en Sanitat Animal, Barcelona, Spain
- 13:15 Lunch Break**

Session 2

Plenary Lectures

Chair(s): Angel S. Galabov, Raiko Peshev

Virology (V)

Veterinary Microbiology (VM)

- 14:00 V7 **Contemporary issues of viral hepatitides**
Tatyana Tcherveniakova
Specialized Hospital of Infectious and Parasitic Diseases, Medical University, Sofia
- 14:30 VM3 **Molecular-biological peculiarities of animal herpesviruses**
Raiko Peshev
National Diagnostic and Research Veterinary Medical Institute "Prof. G. Pavlov", Sofia

Oral Presentations

Chair(s): Antoniy Stoev, Galina Sachanska

Veterinary Microbiology (VM)

Environmental Microbiology (EM)

- 15:00 VM4 **Presence of *Listeria* spp. in industrial refrigerators in Bulgaria**
Rumen Karakolev
National Diagnostic and Research Veterinary Medical Institute, Sofia
- 15:15 EM5 **Insecticidal activity of actinomycetes isolated from Salt Range, Pakistan, against mosquitoes and red flour beetle**
Sumaira Anwar, Basharat Ali, Fouzia Qamar, Imran Sajid
Department of Microbiology and Molecular Genetics, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan
- 15:30 EM6 **Brome mosaic virus (BMV) as participant in the infectious background of different cereal crops in Bulgaria**
Antoniy Stoev¹, Zheliu Avramov², Todorka Savova³, Nonka Bakardjieva¹
¹Poushkarov Institute of Soil Science, Agrotechnology and Plant Protection, Sofia;
²Central Laboratory of Plant Quarantine, Sofia; ³Institute of Agriculture, Karnobat, Bulgaria
- 15:45 EM7 **Two potyviruses on the important aromatic and medicinal plant *Foeniculum vulgare***
Bistra Dikova
N. Poushkarov Institute for Soil Science, Agrotechnologies and Plant Protection, Sofia
- 16:00 **Break**
- 16:30 **Alternative methods in microbiology**
Halina Pater
ELTA 90 Ltd., Sofia
- 17:00 EM8 **Antibacterial activity of organically grown vegetables**
Aleksander Tomov, Angel Kirilov, Ana Doycheva, Galina Satchanska
Department Natural Sciences, New Bulgarian University, Sofia
- 17:15 EM9 **Biotechnological processing of a gold-bearing pyrite concentrate**
Stoyan Groudev, Irena Spasova, Plamen Georgiev and Marina Nicolova
University of Mining and Geology "Saint Ivan Rilski", Sofia

- 17:30 EM10 Microbial cleaning of uranium polluted wastewaters**
Michail Iliev¹, Veneta Groudeva¹, Ralitza Ilieva¹, Stoyan Groudev²
¹ Sofia University "Saint Kliment Ohridski", Sofia; ² University of Mining and Geology "Saint Ivan Rilski", Sofia
- 17:45 EM11 Mechanisms of bacterial leaching of uranium**
Veneta Groudeva¹, Ralitza Ilieva¹, Michail Iliev¹, Ludmila Tzokova¹, Stoyan Groudev²
¹ Sofia University "Saint Kliment Ohridski", Sofia; ² University of Mining and Geology "Saint Ivan Rilski", Sofia
- 18:00 EM12 Comparative analysis of bacterial diversity in metal polluted soil near an operated lead-zink smelter as estimated via the 16S rRNA gene approach**
Galina Satchanska¹, Sonja Selenska-Pobell² and Evgeni Golovinsky³
¹ New Bulgarian University, Sofia, Bulgaria; ² Institute of Radiochemistry, Helmholtz Zentrum Dresden-Rossendorf, Germany; ³ Institute of Molecular Biology, Bulgarian Academy of Sciences, Sofia
- 18:15 EM13 Evaluation of different *Aspergillus fumigatus* Fres. strains of sensitivity for joint action compounds of cuprum, cadmium, nickel, zink and plumbum**
Vitalii Gryshko¹, Olga Korinovskaya¹, Maria Angelova², Ekaterina Krumova²
¹Kryvyi Rig Botanical Garden, National Academy of Sciences of Ukraine, Kryvyi Rig, Ukraine; ²The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria
- 18:30 Session End**

Thursday, October 9th, 2014

Session 3

Plenary Lectures

Chair(s): Encho Savov, Lazar Ranin

Medical Microbiology (MM)

General and Applied Microbiology (GAM)

- 8:30 MM2 Type distribution of beta-haemolytic streptococci group A in Serbia – results and experiences of National Reference Laboratory for Streptococci**
Lazar Ranin
Institute of Microbiology and Immunology, School of Medicine, University of Belgrade, Serbia
- 9:00 MM3 Molecular epidemiology and evolution of drug resistant and susceptible tuberculosis genotypes**
Igor Mokrousov
Laboratory of Molecular Microbiology, St. Petersburg Pasteur Institute, St. Petersburg, Russia
- 9:30 MM4 Tuberculosis research in Bulgaria: epidemiology, drug resistance and search of new effective antitubercular drugs**
Violeta Valcheva
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- 10:00 MM5 Antibiotic resistance - world health problem**
Encho Savov, Angelina Trifonova, Ivanka Gergova, Maja Borisova, Elena Kjoseva, Iva Todorova
Department of Military Epidemiology and Hygiene (Laboratory of Microbiology), Military Medical Academy, Sofia
- 10:30 Break**

Chair(s): Maria Angelova, Milton S. Da Costa

- 11:00 MM6 Immunomodulatory properties of common food preservatives**
J. M. Gostner, K. Becker, F. Ueberall, Dietmar Fuchs
Divisions of Biological Chemistry and Medical Biochemistry, Medical University, Innsbruck, Austria
- 11:30 GAM1 Compatible solutes from mesophiles to hyperthermophiles; their potential in biotechnology**
Milton S. Da Costa
Departamento de Ciências da Vida, Universidade de Coimbra, Coimbra, Portugal
- 12:00 GAM2 Antarctic fungi – life at low temperature**
Nedelina Kostadinova¹, Ekaterina Krumova¹, Svetlana Pashova¹, Solveig Tosi², Jeni Miteva-Staleva¹, Radoslav Abrashev¹, Stoyanka Stoitsova¹, Maria Angelova¹
¹The Stephan Angeloff Institute of Microbiology, BAS, Sofia, Bulgaria; ² Dipartimento di Ecologia del Territorio, Università degli Studi di Pavia, Pavia, Italy

- 12:30 GAM3 Bulgarian lactic acid bacteria for functional foods and medicines**
Svetla Danova¹, Rositsa Tropcheva¹, Ralica Georgieva¹, Silvia Dimitonova¹, Stoyanka Stoicova¹, Nina Ivanovska¹, Veronique Delcenserie²
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Fundamental and Applied Research for Animal & Health (FARAH), Food Science Department, Faculty of Veterinary Medicine, University of Liège, Liege, Belgium

13:00 Break

Session 4

Plenary Lecture Oral Presentations

Chair(s): Stefan Denev, Svetla Danova

General and Applied Microbiology (GAM)

- 14:00 PROVIOTIC: the first probiotic of plant origin**
Kiril Petkov
 Sevex Pharma Ltd. (Bulgaria)
- 14:30 GAM4 Cold-active antioxidant enzymes from Antarctic fungi – production and advantages**
Ekaterina Krumova¹, Svetla Pashova¹, Solveig Tossi², Radoslav Abrashev¹, Jeni Miteva-Staleva¹, Nedelina Kostadinova¹, Boryana Spasova¹, Emilia Evtova¹, Maria Angelova¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria; ²Sezione di Micologia, Dipartimento di Ecologia del Territorio, Università degli Studi di Pavia, Pavia, Italy
- 14:45 GAM5 Biodegradation of aromatic and aliphatic xenobiotics by cryogel immobilized bacterial cells**
Lyudmila Kabaivanova¹, Nelly Christova¹, Aleksander Hristov¹, Lilyana Nacheva¹, Petar Petrov², Ivanka Stoineva³
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Institute of Polymers, Bulgarian Academy of Sciences, Sofia; ³Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, Sofia
- 15:00 GAM6 Rapid assessment of the viability of yogurt's microflora by newly synthesized fluorogenic dyes**
Rositsa Tropcheva¹, Nedyalko Lesev², Stefka Kaloyanova², Svetla Danova¹
¹ The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences; ² Faculty of Chemistry and Pharmacy, Saint Kliment Ohridski University of Sofia
- 15:15 GAM7 Preliminary investigation of organic acid synthesis by yeast strains**
Kostanca Pavlova¹, Katerina Georgieva¹, Magdalena Stoianova²
¹Laboratory of Applied Biotechnologies, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Plovdiv; ²University of Food Technology, Plovdiv
- 15:30 GAM8 Mathematical analysis and experimental study of photobioreactor design system for CO₂ mitigation from biogaz**
Alexander D. Kroumov¹, Gergana V. Gacheva², Plamen S. Pilarski²
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Institute of Plant Physiology and Genetics, Bulgarian Academy of Sciences, Sofia

15:45 GAM9 Optimization of the inulin fermentation by *Lactobacillus paracasei* B41

Petya Velikova¹, Kaloyan Petrov², Penka Petrova¹

¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences;

²Institute of Chemical Engineering, Bulgarian Academy of Sciences

16:00 Break

Chair(s): Iskra Ivanova, Alexander Ratkov

16:30 GAM10 Anaerobic digestion of algae biomass in pilot-scale bioreactor

Ivan Simeonov¹, Venelin Hubenov¹, Snezhana Mihajlova¹, G. Gacheva², P. Pilarski², I. Iliev²

¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences;

²Institute of Plant Physiology and Genetics, Bulgarian Academy of Sciences

16:45 GAM11 Factors influencing the formation of sheaths by bacteria of genus *Leptothrix*

Ralitsa Angelova^{1,2}, Mihail Iliev¹, Lyubomir Slavov², Milena Mitova¹, Stefka Antonova-Nikolova¹, Ivan Nedkov², Veneta Groudeva¹

¹ Faculty of Biology, Sofia University "Saint Kliment Ohridski, Sofia; ² Institute of Electronics, Bulgarian Academy of Sciences, Sofia

17:00 GAM12 Properties of *Vibrio cholerae* non-O1 sialidase and sequence analysis of the *NANH* gene

Rumyana Eneva¹, Stephan Engibarov¹, Penka Petrova¹, Radoslav Abrashev¹, Tanya Strateva², Ignat Abrashev¹

¹The Stephan Angeloff Institute of Microbiology, Bulgarian academy of Sciences, Sofia;

²Medical University, Sofia

17:15 GAM13 Induction of neuraminidase production in *Aeromonas* strain A40/02

Stephan Engibarov¹, Rumyana Eneva¹, Vera Kolyovska², Ignat Abrashev¹

¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia;

²Institute of Experimental Morphology, Pathology and Anthropology with Museum, Bulgarian Academy of Sciences, Sofia

17:30 GAM14 Alteration of protein patterns in filamentous fungi in response to low temperatures

Nedelina Kostadinova¹, Michele Dalgarrondo ², Jean-Marc Chobert ², Thomas Haertle², Iskra Ivanova³, Roumen Dimitrov⁴, Maria Angelova¹

¹The Stephan Angeloff Institute of Microbiology, Department of Mycology, Bulgarian Academy of Sciences, Sofia; ²Institut National de la Recherche Agronomique, Unité Biopolymères, Interactions, Assemblages (B.I.A.), Nantes, France; ³Sofia University "Saint Kliment Ohridski", Faculty of Biology, Department of General and Industrial Microbiology, Sofia; ⁴Institute of Biology and Immunology of Reproduction, Department of Molecular Immunology, Bulgarian Academy of Sciences, Sofia

17:45 GAM15 Effect of copper, cadmium and chromium ions on *Trichosporon cutaneum* cells

Nevena Lazarova¹, Ekaterina Krumova², Tsvetanka Stefanova², Nelly Georgieva¹, Maria Angelova²

¹University of Chemical Technology and Metallurgy, Sofia; ²The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia

18:00 GAM16 Oxidative stress induced by low temperatures in Antarctic *Penicillium* strains

Jeni Miteva-Staleva, Tsvetanka Stefanova, Ekaterina Krumova, Maria Angelova

The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences

18:15 GAM17 Current status and perspectives in microbial production of amino acids. Developments and achievements at the Institute of Microbiology, BAS
Alexander Ratkov, Ignat Dimov, Rositza Petkova, Julia Kristeva, Filip Filipov
Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria

18:30 Session End

Friday, October 10th, 2014

Session 5

Plenary lecture

Oral presentations

Chair(s): Mariana Murjeva, Viliam Monev

Medical Microbiology (MM)

- 8:30 MM7 First polymerase-chain reaction detection of carbapenemase coding genes in gram negative nonfermenting isolates from the University Hospital "St. George" in Plovdiv**
A. Petrova^{1,2}, I. Stanimirova^{1,2}, M. Mircheva¹, M. Petrov¹, V.Kardjeva³, Mariana Murdjeva^{1,2}
¹Department of Microbiology and Immunology, Faculty of Pharmacy, Medical University-Plovdiv; ²Laboratory of Microbiology, University Hospital "St. George", Plovdiv; ³Aquachim JSC, Department of Molecular Biology, Sofia
- 8:45 MM8 Drug tolerance to Ethambutol of *Mycobacteria* cell wall deficient L-forms**
Georgi Slavchev, Nadya Markova
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- 9:00 MM9 Antibacterial activity of human sperm donated by middle age healthy man**
Galina Satchanska¹, Ana Doycheva¹, Boyko Satchansky²
¹Department Natural Sciences, New Bulgarian University, Sofia; ²Mladost 2, Sofia
- 9:15 MM10 Phenotypic variations in cell-surface polysaccharide antigen of *E. coli* O157**
Tsvetelina Paunova-Krasteva¹, Cristina De Castro², Radka Ivanova, Antonio Molinaro², Stoyanka Stoitsova¹
¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria; ²Universita di Napoli Federico II, Dipartimento di Scienze Chimiche, Naples, Italy
- 9:30 MM11 Contemporary problems of the epidemiology of infectious diseases**
Viliam Monev
National Expert Council of Infectious Diseases and Immunoprophylaxis of the Ministry of Health, Sofia
- 10:00 Break**

Plenary lectures

Chair(s): Ivan Simeonov, Alexander Kroumov

General and Applied Microbiology (GAM)

- 10:30 GAM18 Probiotic potential of yogurt cultures - a review**
Stefan A. Denev¹, Georgi Beev¹, R. Moutafchieva², T. Dinev¹
¹Department of Biochemistry & Microbiology, Faculty of Agriculture, Trakia University, Stara Zagora; ²Department of Pharmacology, Veterinary Physiology & Physiological Chemistry, Faculty of Veterinary Medicine, Trakia University, Stara Zagora

- 11:00 GAM19 System analysis of CO₂ sequestration from waste gases by microalgae in closed innovative photobioreactor (PBR). Rate based modeling of the PBR system. Examples**
Alexander Kroumov
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- 11:30 GAM20 Biogas technologies from organic wastes**
Ivan Simeonov
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- 12:00 Congress Adjourn**

Wednesday/Thursday, October 8/9th, 2014

Poster Session

GENERAL AND APPLIED MICROBIOLOGY (GAM)

- GAM21 Copper tolerance of fungi isolated from industrially polluted Bulgarian soils**
Ekaterina Krumova¹, Nedelina Kostadinova¹, Jeny Miteva-Staleva¹, Svetlana Pashova¹, Vitalii Gryshko³, Michail Iliev², Maria Angelova¹
¹The Stephan Angeloff Institute of Microbiology, Department of Mycology, Bulgarian Academy of Sciences, Sofia, Bulgaria; ² Sofia University "St Kliment Ohridski", Faculty of Biology, Department of General and Industrial Microbiology, Sofia; ³ Kryvyi Rig Botanic Garden of NAS, Plant physiology and soils biology department, Ukraine
- GAM22 A simple mathematical model of mesophilic anaerobic digestion of wasted fruits and vegetables**
Elena Chorukova, Ivan Simeonov
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- GAM23 Screening for bacteriocin-encoding genes in *Lactobacillus* strains with vaginal origin**
Galina Stoyancheva¹, Marta Marzotto², Penka Petrova¹, Petya Velikova¹, Dilnora Gouliamova¹
¹Department of Microbial Genetics, Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria; ²Dipartimento di Biotecnologie, Università degli Studi di Verona, Verona, Italy
- GAM24 Lysis of the Antarctic cyanobacteria *Synechocystis salina***
Juliana Ivanova¹, Galina Stoyancheva², Irina Pouneva¹
¹ Institute of Plant Physiology and Genetics, Sofia, Bulgarian Academy of Sciences, Sofia;
² Institute of Microbiology, Bulgarian Academy of Sciences, Sofia
- GAM25 Modelling and optimization of the process for intensive microbial production of branched amino acids**
Tzanko Georgiev², Ignat Dimov¹, Julia Kristeva¹, Rositza Petkova¹, Filip Filipov¹, Alexander Ratkov¹
¹ The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Science, Sofia; ² Technical University of Sofia, Faculty of Automatics, Department Industrial Automation
- GAM26 Study on the influence of some organic nitrogen sources on the spore-forming *Bacillus* spp. strain at submerged cultivation**
Zlatka Bataklieva, Aneta Atanasova, Stanimira Bataklieva, Anton Tonchev
- GAM27 Enzymes influence on contaminated yeast cultures of *Pichia pastoris***
Stelyana Galabova, Valeri Nazarov
Research and Development Direction, Biovet JSC - Peshtera

MEDICAL MICROBIOLOGY

- MM12 Culture conditions influence the morphology and the motility-related phenotypes of *Escherichia coli* O157:H(-)**
Dayana Borisova¹, Tsvetelina Paunova-Krasteva¹, Viktoria Jordanova^{1,2}, Stoyanka R. Stoitsova¹
The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ² Faculty of Biology, Sofia University "Saint Kliment Ohridski"
- MM13 Strain-specific impact of growth temperature of the biofilm formation by *E. coli* K-12**
Viktoria Jordanova^{1,2}, Stoyanka Stoitsova¹
¹ The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ² Faculty of Biology, Sofia University "Saint Kliment Ohridski"

MM14 Cell-surface variations of *E. coli* O6:K2 due to cell-to-cell differences in the co-expression of capsule and LPS

Tsvetelina Paunova-Krasteva¹, Dayana Borisova¹, Mariana Marhova², Elena Nikolova³, Velichka Pavlova³, Lyubka Doumanova¹, Stoyanka Stoitsova¹

¹The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia; ²Plovdiv University "Paisiy Hilendarski"; ³Institute of Experimental Morphology, Pathology and Anthropology with Museum, Bulgarian Academy of Sciences, Sofia

MM15 Antibacterial activity of synthetic analogues of biologically active compounds

Irina Lazarkevich, Anna Sotirova, Tatyana Avramova, Danka Galabova

The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia

VETERINARY MICROBIOLOGY (VM)

VM5 Quantitative assessment of Interferon in blood serum of layer hens following treatment with polybacterial immunomodulator

Krasimira Gospodinova¹, Rumen Karakolev², Lilyan Sotirov¹, Magdalena Bonovska², Angel Angelov³

¹Faculty of Veterinary Medicine, Trakia University, Stara Zagora

²National Diagnostic and Research Veterinary Medical Institute "Prof. Dr. G. Pavlov", Sofia; ³Hipro Bulgaria OOD

VM6 Quantitative assessment of lysozyme and complement in blood serum of layer hens treated with polybacterial immunomodulator

Rumen Karakolev¹, Lilyan Sotirov², Magdalena Bonovska¹, Krasimira Gospodinova², Daniel Nikolov¹, Angel Angelov³

¹National Diagnostic and Research Veterinary Medical Institute "Prof. Dr. G. Pavlov", Sofia; ²Trakia University, Faculty of Veterinary Medicine, Stara Zagora; ³Hipro Bulgaria OOD, Veliko Tarnovo

VM7 Influence of age, technologies of growing and polybacterial immunomodulator on serum lysozyme concentrations and complement activity in laying hens

Rumen Karakolev¹, Lilyan Sotirov², Magdalena Bonovska¹, Krasimira Gospodinova², Daniel Nikolov¹, Angel Angelov³, Tsvetan Koynarski², Petko Petkov²

¹National Diagnostic and Research Veterinary Medicine Institute "Prof. Dr. G. Pavlov", Sofia;

²Trakia University, Faculty of Veterinary Medicine, Stara Zagora; ³Hipro Bulgaria OOD, Veliko Tarnovo

VM8 Effect of age and hybrid type on serum lysozyme concentrations and complement activity in broiler chicken

Rumen Karakolev¹, Lilyan Sotirov², Magdalena Bonovska¹, Krasimira Gospodinova², Daniel Nikolov¹, Angel Angelov³, Tsvetan Koynarski², Petko Petkov², Krasen Penchev⁴

¹National Diagnostic and Research Veterinary Medicine Institute "Prof. Dr. G. Pavlov", Sofia;

²Trakia University, Faculty of Veterinary Medicine, Stara Zagora; ³Hipro Bulgaria OOD, Veliko Tarnovo; ⁴Pilko EOOD, Razgrad, Bulgaria

VM9 Waterbirds migrating along the east-European flyway as carriers of some zoonotic pathogens

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- VM10 Prevalence of enteropathogenic *Yersinia* in tonsils of slaughter-aged pigs**
 Maya Gatzovska, Tanya Dimova, Maya M. Zaharieva, Trayana Draganova, Iva Tsvetkova, Hristo Najdenski
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- VM11 Identification of *Yersinia pseudotuberculosis* in raw cow milk**
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- VM12 Zearelenone producing activity of *Fusarium oxysporum* isolated from Bulgarian wheat**
 Georgi Beev¹, Stefan A. Denev¹, Dariena Bakalova²
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²Laboratory of Quality Control, Quality Insurance & Control of Mycotoxins, Bulgarian Food Safety Agency, Sofia
- VM13 Clinical and morphological studies on spontaneous cases of *Pseudomonas aeruginosa* infections of birds**
 Ivan Dinev¹, Stefan A. Denev², Georgi Beev²
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- VM14 Plasma protein profiles and fibrinogen concentrations in dogs with experimentally induced *Staphylococcus aureus* infection**
 Dimitrinka Zaprynova¹, Teodora M. Georgieva¹, Stefan A. Denev²
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- VM15 Plasma C-reactive protein concentration in dogs with experimentally induced *Staphylococcus aureus* infection**
 Teodora M. Georgieva¹, Dimitrinka Zapryanova¹, Ivan Nikiforov², Stefan A. Denev³
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- VM16 Effects of experimentally induced *Staphylococcus aureus* infection on blood protein fractions in obese rabbits**
 Teodora M. Georgieva¹, Stefan A. Denev², Vassil Petrov³, Ivan Dinev⁴, Y. Saco⁴, R. Pato⁵, A. Bassols⁵, Ivan Nikiforov⁴
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- VM17 Haematological profiles in canine monocytic ehrlichiosis: a retrospective study of 31 spontaneous cases in Greece**
 Ilia Tsachev¹, Dimitrinka Gundasheva², V. Kontos³, E. Papadogiannakis³, Stefan A. Denev⁴
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- VM18 Photodynamic inactivation of some representative dental bacterial pathogens with metallophthalocyanines**
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VM19 Detection of Koi herpes virus in carps by PCR method in Bulgaria

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National Diagnostic and Research Veterinary Medicine Institute "Prof. Dr. G. Pavlov ", Sofia

VIROLOGY (V)

V8 Antiviral activity of Bulgarian medicinal plant extracts against coxsackievirus replication *in vitro*

Nikolay Petrov^{1,2}, Miroslava Valkova¹, Mariya Stoyanova¹, Angel Galabov²

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V9 Effect of ellagitannins and galotannins on HSV-1 replication

Neli Vilhelmova-Ilieva¹, Remi Jacquet², T. Sylla², L. Pouysegou², Stephane Quideau², Angel S. Galabov¹

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V10 Cytological and histological changes of the gastrointestinal tract caused by influenza virus infection in mice

Ivanka Drendarska¹, Adriana Dimitrova², Dimo Krastev³, Milka Mileva², Angel S. Galabov²

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V11 Histological features of capillary vessels in the kidneys caused by influenza infection in mice

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V12 Triumph in treatment of the chronic HCV infection

Hristo Odisseev

Sofia

ENVIRONMENTAL MICROBIOLOGY (EM)

- EM14 Antiviral and antibacterial activity of plant extracts against plant pathogens**
Nikolay Petrov, Mariya Stoyanova , Miroslava Valkova
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- EM15 Monitoring of microbial diversity on the rock painting in Magoura cave, Bulgaria**
Milena Mitova, Mihail Iliev, Ralitsa Angelova, Veneta Groudeva
Faculty of Biology, Sofia University “Saint Kliment Ohridski”, Sofia
- EM16 Abundance and distribution of fecal indicator and potentially pathogenic bacteria in sand of marine beach in the world biosphere reserve: Slowinski National Park (Southern Baltic Sea)**
P. Perliński, P. Skórczewski, Z. Mudryk, J. Miranowicz, M. Zdanowicz
Department of Experimental Biology, Pomeranian University in Słupsk, Poland
- EM17 Detection of biotic stress (sharka) in plum trees by using of hyperspectral data**
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