



NATIONAL CONFERENCE
"NATURAL SCIENCES 2019" (NCNS2019)

PROGRAM

OF

NATIONAL CONFERENCE

"NATURAL SCIENCES 2019"

(NCNS2019)



Shumen
2019



NATIONAL CONFERENCE "NATURAL SCIENCES 2019" (NCNS2019)

ORGANISING COMMITTEE

Assoc. Prof. Petinka Radeva Galcheva - **Chairman**

Krasimira Nikolaeva Dimitrova - Chief Coordinator

Prof. Valerij Hristov Hristov DSc

Prof. Tsveteslava Veselinova Ignatova-Ivanova PhD

Prof. Dimcho Ivanov Zahariev PhD

Prof. Svetla Dimitrova Stankova PhD

Assoc. Prof. Rositsa Tsankova Vladeva PhD

Assoc. Prof. Nina Arhangelova Nikolova-Todorova PhD

As. Seniha Ismail Salim

Sevelina Alexandrova Stoyanova - specialist

Sevginar Feimova Ibryamova – PhD

Ivailo Stefanov Traikov– PhD

Borislava Krasimirova Pavlova – student

Elitsa Tsvetanova Stanachkova – student

SPONSORS





NATIONAL CONFERENCE "NATURAL SCIENCES 2019" (NCNS2019)

4 October 2019

15:00 – 17:00 Registration

5 October 2019

8:00 – 9:00 Registration

9:00 – 9:15 Opening Ceremony

Plenary Lecture

9:15 – 9:45

Проф. д-р Георги Милошев, *Българска академия на науките*

Тема: Епигенетика или кой управлява нашите гени, от екологията до медицината?

9:45 – 10:15

Доц. д-р инж. Данчо Даналев, *Химикотехнологичен и металургичен университет, София*, (съавтори Тамара Пайпанова, Десислава Борисова, Спаска Янева, Татяна Дзимбова, Мая Георгиева, Анелия Балачева, Андреас Цакос, Иван Гивечев, Здравка Захаријева, Емилия Найденова)

Тема: Нови молекули на основата на пептиди за прицелна терапия на рак

10:15 – 10:30

Coffee Break

10:30 – 12:30

Session Proceedings

12:30 – 13:30

Lunch Break

13:30 – 14:00

Poster Session

14:00 – 14:30

Coffee Break

14:30 – 16:00

Session Proceedings

19:00 –

Conference Dinner

6 October 2019

8:30 – Closing Ceremony

9:00 – Excursion (upon preliminary request)



**NATIONAL CONFERENCE
"NATURAL SCIENCES 2019" (NCNS2019)**

5 October 2019

**SECTION BIODIVERSITY, BIOMEDICINE, BIORESOURCES, ECOLOGY,
CHEMICAL SCIENCES AND PHYSICAL SCIENCE**

FIRST SESSION

Moderator: **Prof. Tsveteslava Ivanova, Ph.D**

Secretary: **As. Sevginar Ibryamova**

Auditorium: **202 (Rectorate)**

10:30-10:45

Lachezar Yakimov, Nesho Chipev, **Trace metal content and bioaccumulation capacity in tissues of *Mytilus galloprovincialis* Lam. from the Black Sea (Bulgaria)**, *Institute of Biodiversity and Ecosystem Research at the Bulgarian Academy of Sciences*

10:45-11:00

Nikolay Natchev, Teodora Koynova, Dimitar Doychev, Stephan Handschuh, **Skull kinetic in Vertebrates - general remarks and new experimental data**, *Shumen University "Konstantin Preslavski", VetCore Veterinärmedizinische Universität Wien*

11:00-11:15

Borislava Pavlova, Vanya Koleva, Asya Dragoeva, Jeni Dimitrova, **Cytotoxic and genotoxic activity of *Achillea thracica* Velen extracts**, *Shumen University "Konstantin Preslavski"*

11:15-11:30

Reni Tzveova, Galya Naydenova, Teodora Yaneva, Silvia Vandeva, Diana Pendicheva-Duhlenska, Petar Atanasov, Vanyo Mitev, Radka Kaneva, Tzveta Georgieva, **Genetic Variants from Genome-Wide Association Studies and Cardiovascular Risk in Bulgarian population**, *Medical University - Pleven*

11:30-11:45

Irina Jotova, **Nucleophilic addition to 1,2-alkadienephosphonates**, *Shumen University "Konstantin Preslavsky"*

11:45-12:00

Rositsa Davidova, Nina Arhangelova, Senay Sevginov, **Radionuclide content and their impact on testate amoebae (Amoebozoa, Rhizaria) in Beli Lom and Brestovene dams**, *Shumen University "Konstantin Preslavsky"*

12:00-12:15

Doncho Ivanov, **Ethology and evolution**, *University of Library Studies and Information Technologies*

12:15-12:30

Sevginar Ibryamova, Nina Arhangelova, Teodora Koynova, Dimitar Dimitrov, Zheni Dimitrova, Radoslav Ivanov, Karamphil Kalchev, Nesho Chipev, Nikolay Natchev, Tsveteslava Ignatova-Ivanova, **Integrative investigation on the ecology of the Black sea mussel *Mytilus galloprovincialis* Lam. and its habitat**, *Shumen University "Konstantin Preslavsky"*

12:30-13:30 LUNCH

13:30-14:00 POSTER SESSION

14:00-14:30 COFFEE BREAK



NATIONAL CONFERENCE "NATURAL SCIENCES 2019" (NCNS2019)

SECOND SESSION

Moderator: **Prof. Nikolay Natchev, Ph.D**

Secretary: **As. Seniha Salim**

Auditorium: **202 (Rectorate)**

14:30-14:45

Rositsa Davidova, Pavlina Koleva, Maria Boycheva, **Diversity and biotopic distribution of the testate amoebae (Amoebozoa, Rhizaria) in the Baltata Reserve**, *Shumen University "Konstantin Preslavsky"*

14:45-15:00

Asya Tsanova, Vishnya Stoyanova, Lachezar Stanchev, Emiliya Stoimenova, Albena Jordanova, **New biochemical and biophysical methods for lung maturity assessment in infants**, *Sofia University "St. Kliment Ohridski"*

15:00-15:15

Borislav Borisov, **Laplace equation in bipolar coordinates**, *Shumen University "Konstantin Preslavsky"*

15:15-15:30

Diana Kjurkchieva, Velimir Popov, Yordanka Eneva, Nikola Petrov, **Analysis of the results of the study of twelve black stars of the W UMa type**, *Shumen University "Konstantin Preslavsky", National Astronomical Observatory Rozhen*

15:30-15:45

Nina Ivanova, Angelina Stoyanova, Christomir Christov, Albena Bachvarova-Nedelcheva, **Synthesis and detoxification activity of modified with cerium and boron titanium dioxide**, *Shumen University "Konstantin Preslavsky", Medical University - Pleven*

15:45-16:00

Stanislav Donchev, Cvetan Cenov, Christomir Christov, **Thermodynamic Phase Equilibrium Models for Cesium Binary and Mixed Systems**, *Shumen University "Konstantin Preslavsky"*

16:00-16:15

Plamen Chamurliyski, **Status of a collection from common wheat varieties (*Triticum aestivum* L.) with a Bulgarian origin after a ten-year an Ex situ storage period**, *Shumen University "Konstantin Preslavsky"*

SECTION GEOGRAPHY AND TOURISM

FIRST SESSION

Moderator: **Prof. Dimitar Vladev, Ph.D**

Secretary: **Sevdzhan Sabrieva, Ph.D**

Auditorium: **121 (Rectorate)**

10:30-10:45

Sevdzhan Sabrieva, **Status and prospects for the development of specialized types of tourism in the South Central Planning Region**, *Shumen University "Konstantin Preslavski"*

10:45-11:00

Tzanko Tzankov, Svetla Stankova, Tatyana Aleksieva Ilia Mitkov, **Kraishte morphostructural zone**, *Shumen University "Konstantin Preslavski", South-West University "Neofit Rilski"*

11:00-11:15

Vanya Vasileva, Violeta Ilieva, **Contemporary features in the development of hotels in switzerland**, *Shumen University "Konstantin Preslavski"*

11:15-11:30

Stanislav Dimitrov, Veselin Petkov, Milen Penerliev, **Bulgarian relics in Northern Dobrudzha**, *Shumen University "Konstantin Preslavski"*



NATIONAL CONFERENCE "NATURAL SCIENCES 2019" (NCNS2019)

11:30-11:45

Dora Kabakchieva, Teodora Karcheva, **River cruises - a promising direction in tourism**, *Shumen University "Konstantin Preslavsky"*

11:45-12:00

Lazar Kolev, Jaklina Simeonova, Kalin Ruskov, Veselina Miteva, Veselin Petkov, **Depopulation rates in the villages of Shumen region**, *Shumen University "Konstantin Preslavsky"*

12:00-12:15

Veselin Keremedchiev, **Changes in the territorial scope and administrative division of Razgrad District**, *Shumen University "Konstantin Preslavsky"*

12:15-12:30 DISCUSSION

12:30-13:30 LUNCH

13:30-14:00 POSTER SESSION

14:00-14:30 COFFEE BREAK

SECTION DIDACTICS AND EDUCATION POLICIES

FIRST SESSION

Moderator: **Assoc. Prof. Maria Boycheva, Ph.D**

Secretary: **Gergana Hristova**

Auditorium: **412 (Rectorate)**

10:30-10:45

Petinka Galcheva, Rositsa Vladeva, **The competency approach in training of future natural science teachers**, *Shumen University "Konstantin Preslavski"*

10:45-11:00

Pavlina Serafimova, Petinka Galcheva, **Possibility to form key competences in the chemical module in the subject Man and Nature V-VI form**, *High School of Mathematics "Dr Petar Beron" – Varna, Shumen University "Konstantin Preslavski"*

11:00-11:15

Kristiana Dobрева-Stankova, **Geography and economics learning process as a construct for achieving of digital competence**, *University of Veliko Tarnovo*

11:15-11:30

Ivailo Trajkov, Dancho Danalev, **Introducing the capabilities of on-line information technology in the creation of electronic tests as tools of improving the organization of control and assessment of knowledge and skills**, *Shumen University "Konstantin Preslavski", University of Chemical Technology and Metallurgy*

11:30-11:45

Gergana Stankova, Zlatka Vakleva, Delka Karagyzova-Dilkova, **A sample work model for developing communicative and presentative skills in the English tuition of students from the bachelor degree courses: Biology and Chemistry, Biology and English, from the Faculty of Biology at the University of Plovdiv**, *Plovdiv university "Paisii Hilendarski"*

11:45-12:00

Aynur Ahmed, Petinka Galcheva, **The project method in chemistry teaching in 7 th grade**, *"Hristo Botev" Primary school, Shumen University "Konstantin Preslavsky"*

12:00-12:15

Daniela Dimitrova, Petinka Galcheva, **The Role of Interactive Methods for Increasing the Motivation and Cognitive Interest in Chemistry and Environmental Education in 7 th and 8 th Grade**, *"Sv. Knyaz Boris I" Primary school, Varna*

12:15-12:30



NATIONAL CONFERENCE "NATURAL SCIENCES 2019" (NCNS2019)

Detelina Georgieva-Kartelova, Petinka Galcheva, **Use of Interdisciplinary Links for the Formation of Ecological Competences in Chemistry and Environmental Education in 7 th and 8 th Grade**, *Sofia University "St. Kliment Ohridski"*

12:30-13:30 LUNCH

13:30-14:00 POSTER SESSION

14:00-14:30 COFFEE BREAK

SECOND SESSION

Moderator: **Assoc. Prof. Maria Boycheva, Ph.D**

Secretary: **Gergana Hristova**

Auditorium: **412 (Rectorate)**

14:30-14:45

Zlatina Dimova, **Theoretical aspects of the competence approach in training**, *Shumen University "Konstantin Preslavsky"*

14:45-15:00

Gergana Hristova, **Formation of geographical values for environmental protection**, *Shumen University "Konstantin Preslavsky"*

15:00-15:15

Krasimira Zheleva, Rositsa Davidova, Maria Boycheva, **Didactic possibilities of the software ENVISION to increase the effectiveness of education in Biology and Health Education in VII grade**, "Petko Rachov Slaveykov" Secondary school, *Shumen University "Konstantin Preslavsky"*

15:15-15:30

Stela Dermendzhieva, Semra Nejdet, **Establishing test tasks for current verification and evaluation of the results of geographic and economic learning - areas of competence nature geography - of 8 classes**, *Shumen University "Konstantin Preslavsky"*

15:30-15:45

Tatyana Tsankova, Delka Karagyozeva-Dilkova, **Developing key competencies through project-based biology teaching**, *Plovdiv university "Paisii Hilendarski"*

13:30-14:00 POSTER PRESENTATIONS

Moderator: **Assoc. Prof. Petinka Galcheva, Ph.D**

Secretary: **Ivailo Trajkov**

Auditorium: **3rd floor (Rectorate)**

P1 Karamfil Kalchev, Dilyan Stoyanov, Gergana Manova, Lyubomir Manov, **Isolation, purification and fluorescence analysis of the interaction of serum albumin with secondary metabolites of birch bark extract**, *Shumen University "Konstantin Preslavsky"*

P2 Elina Tsvetanova, Almira Georgieva, Tsveta Stoyanova, Albena Alexandrova, Lachezar Yakimov, **Oxidative damage of biomolecules in soft tissues of *Mytilus galloprovincialis* Lam from different sites of Bulgarian Black sea aquatory**, *Institute of Neurobiology at the Bulgarian Academy of Sciences*

P3 Penyo Ivanov, Bela Vasileva, Lachezar Yakimov, Nesho Chihev, Milena Georgieva, George Miloshev, **Genotoxological analysis of the mussel *Mytilus galloprovincialis* populations of the Bulgarian coast**, *Institute of Molecular Biology „Roumen Tsanev“ at the Bulgarian Academy of Sciences*



NATIONAL CONFERENCE "NATURAL SCIENCES 2019" (NCNS2019)

P4 Asya Tsanova, Vishnya Stoyanova, Albena Jordanova, Ivo Grabchev, **Influence of a novel antibacterial benzanthrone on model membranes**, *Sofia University "St. Kliment Ohridski"*

P5 Dimitar Vassilev, Mariya Kaschieva, **Study of some abiotic factors on the yield and quality of four cherry cultivars**, *Shumen University "Konstantin Preslavsky"*

P6 Daniela Pechlivanova, Borislav Assenov, Elena Dzhambazova, Peneva Petia, Todorov Petar, **Antinociceptive effects of newly synthesized peptide analogues of hemorphine in mice**, *Institute of Neurobiology at the Bulgarian Academy of Sciences*

P7 Emilia Stoimenova, Assya Tsanova, Vishnya Stoyanova, Albena Jordanova, **Visualisation of surface interactions between bacterial glycolipids and alveolar surfactant**, *Sofia University "St. Kliment Ohridski"*

P8 Neli Ermenlieva, Emilia Georgieva, **Sensitivity of the human microbiome to cosmetic products**, *Medical University - Varna*

P9 Dimcho Zahariev, Dencho Dimitrov, **Medicinal plants with conservation status of Madarski skalni venci Protected Site**, *Shumen University "Konstantin Preslavsky"*

P10 Smina Kraveva, Evelina Daskalova, **Molecular interactions, pathways and networks involved in Buerger's disease (Thromboangiitis obliterans)**, *Plovdiv university "Paisii Hilendarski"*

P11 Mariya Kaschieva, Mihaila Toneva, Desislava Krumova, Aylin Halim, **Condition of the production of essential oil crops (rose, lavender and lemon balm) in Bulgaria for the period 2013-2018**, *Shumen University "Konstantin Preslavsky"*

P12 Sevginar Ibryamova, Nina Arangelova, Teodora Koynova, Dimitar Dimitrov, Zheni Dimitrova, Radoslav Ivanov, Karamphil Kalchev, Nescho Chipev, Nikolay Natchev, Tsvetelava Ignatova-Ivanova, **Microbiological characterization of the Black sea mussel *Mytilus galloprovincialis* Lam. and its habitat**, *Shumen University "Konstantin Preslavsky"*

P13 Mariya Kaschieva, Nikolay Nedyalkov, **„Viola pumila“ - challenges for the conservation of rare species in Bulgaria**, *Shumen University "Konstantin Preslavsky"*

P14 Reni Tzveova, Galya Naydenova, Teodora Yaneva, Silvia Vandeva, Diana Pendicheva - Duhlenska, Petar Atanasov, Vanyo Mitev, Radka Kaneva, Tzveta Georgieva, **Association study of polymorphic variants in 9p21 locus and the manifestation of coronary artery disease in Bulgarians**, *National Center of Public Health and Analyses, Medical University - Pleven*

P15 Vishnya Stoyanova, Asya Tsanova, Lachezar Stanchev, Antonio Dimitrov, Albena Jordanova, **Electrophoretic analysis of specific surfactant proteins in gastric aspirates from prematurely born children after corticosteroid therapy**, *Sofia University "St. Kliment Ohridski"*

P16 Hristo Hristov, Borislava Pavlova, Seniha Salim, Daniela Nedeva, Zhenya Dimitrova, Nina Arangelova, **Measurement of natural radioactivity of *Cichorium intybus* collected from different regions in Bulgaria**, *Shumen University "Konstantin Preslavsky", Technical University of Gabrovo*

P17 Aneliya Gerasimova, Dilyana Ivanova-Stancheva, **Investigation of foam films from albumin and its mixtures with n- dodecyl- β - D maltoside by a cell allowing exchange of the film-forming liquid**, *Shumen University "Konstantin Preslavsky"*



**NATIONAL CONFERENCE
"NATURAL SCIENCES 2019" (NCNS2019)**

P18 Aneliya Gerasimova, Dilyana Ivanova-Stancheva, **Influence of the Hamaker Constant on the Value of the Critical Thickness of Foam Films**, *Shumen University "Konstantin Preslavsky"*

P19 Stanislav Donchev, Ismail Ismailov¹, Ivaylo Parushev, Christomir Christov, **Solubility in the LiBr-CaBr₂-H₂O system at T = (308.15 and 323.15) K**, *Shumen University "Konstantin Preslavsky"*

P20 Hasan Hasanov, Ismail Ismailov, Emel Ramadan, Mergyl Mustafa, Ivaylo Parushev, Ivaylo Ivanov, Valerij Christov, **Synthesis, Electrophilic Reactions and Cycloisomerization of Phosphorylated 3-(α - or β -hydroxyalkyl)allenes**, *Shumen University "Konstantin Preslavsky"*

P21 Ismail Ismailov, Ivaylo Parushev, Hasan Hasanov, Halime Eyubova, Ivaylo Ivanov, Valerij Christov, **Regioselective synthesis of phosphorylated beta-hydroxyallenes with protected and unprotected hydroxy Group**, *Shumen University "Konstantin Preslavsky"*

P22 Sevda Hamza, Darina Bachvarova, Aleksandar Doichinov, **A review of *Pachyiulus hungaricus* (Karsch, 1881) (Diplopoda: Julida: Julidae) – the largest millipede in Bulgaria**, *Shumen University "Konstantin Preslavsky"*