

Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE
FACULTY OF VETERINARY MEDICINE - SKOPJE



Joint meeting
5th International Vet-Istanbul Group Congress
&
8th International Scientific Meeting
Days of veterinary medicine - 2018

BOOK OF ABSTRACTS

23-27 September 2018
Ohrid, R. of Macedonia

**EXECUTIVE COMMITTEES
OF THE JOINT MEETING
5th INTERNATIONAL VET-ISTANBUL GROUP CONGRESS AND
8th INTERNATIONAL SCIENTIFIC MEETING
DAYS OF VETERINARY MEDICINE - 2018**

President

Prof. Lazo Pendovski, PhD, Ss. Cyril and Methodius University in Skopje, Macedonia

Chairman

Prof. Güven Kaşıkçı, PhD, Istanbul University, Turkey
Prof. Zehra Hajrulai-Musliu, PhD, Ss. Cyril and Methodius University in Skopje, Macedonia

International Scientific Committee

Members

- | | |
|--|--|
| Prof. Nuri Turan, PhD
Istanbul University, Turkey | Prof. Jozef Laurincik, DrSc, Prof.H.C.,
Constantine the Philosopher University in Nitra, Slovakia |
| Prof. Nihad Fejzic, PhD
University of Sarajevo, Bosnia and Herzegovina | Prof. Lazo Pendovski, PhD,
Ss.Cyril and Methodius University in Skopje, Macedonia |
| Prof. Serhat Alkan,
Istanbul University, Turkey | Prof. Vladimir Petkov, PhD
Ss. Cyril and Methodius University, Macedonia |
| Prof. Nenad Turk, PhD
University of Zagreb, Croatia | Assoc. Prof. Edil Makhashev, PhD
Kazakh National Agrarian University, Kazakhstan |
| Prof. Andrej Kirbis, PhD,
University of Ljubljana, Slovenia | Prof. Cavit Arslan, PhD
Selcuk University, Turkey |
| Prof. Velimir Stojkovski, PhD,
Ss. Cyril and Methodius University in Skopje, Macedonia | Prof. Murat Guzel, PhD
Ondokuz Mayıs University, Turkey |
| Prof. Vaselivic F. Ivanovic, PhD
Moscow State Academy of Veterinary Medicine and
Biotechnology named after K.I. Skryabin, Russia | Prof. Alen Slavica, PhD
University of Zagreb, Croatia |
| Prof. Miso Hristovski, PhD
Ss. Cyril and Methodius University, Macedonia | Prof. Hasan Guzelbektes, PhD
Kyrgyzstan-Turkey Manas University, Kyrgyzstan |
| Prof. Ali Aydin, PhD
Istanbul University, Turkey | Prof. Bogdan Aminkov, PhD
University of Forestry Sofia, Bulgaria |
| Prof. Halil Gunes, PhD,
Istanbul University, Turkey | Prof. Mihni Lyutskanov, PhD
Trakia University, Bulgaria |
| Prof. Skender Kaciu, PhD
University of Prishtina, Kosovo | Prof. Dine Mitrov, PhD
Ss. Cyril and Methodius University, Macedonia |
| Prof. Galimzyan Fazylyanovic Kabirov, PhD
Bauman Kazan State Academy, Russia | Dr. Verica Milosevic, PhD
University of Belgrade, Serbia |
| Prof. Anatoly Stekolnikov, PhD
St. Petersburg State Academy, Russia | Prof. Alexander V. Turyansky, PhD
Belgorod Agriculture University, Russia |
| Prof. Larissa Karpenko, PhD
St. Petersburg State Academy, Russia | Prof. Ulgen Gunay, PhD
Uludag University, Turkey |
| Prof. Vlatko Ilijeski, PhD,
Ss. Cyril and Methodius University in Skopje, Macedonia | Prof. Telman Iskenderov, PhD
Azerbaijan State Agrarian University, Azerbaijan |

Local Organizing Committee**Members**

Prof. Igor Ulchar, PhD
 Prof. Florina P. Percinic, PhD
 Prof. Toni Dovenski, PhD
 Prof. Plamen Trojancanec, PhD
 Prof. Slavco Mrenoski, PhD
 Prof. Romel Velez, PhD
 Prof. Pavle Sekulovski, PhD
 Prof. Blagica Sekovska, PhD
 Prof. Jovana Stefanovska, PhD
 Prof. Dean Jankuloski, PhD
 Prof. Aleksandar Dodovski, PhD
 Ass. Prof. Branko Atanasov, PhD

Ass. Prof. Kiril Krstevski, PhD
 Ass. Prof. Iskra Cvetkovikj, PhD
 Ass. Prof. Igor Džadovski, PhD
 Ass. Prof. Irena Celeska, PhD
 Ass. Prof. Mirko Prodanov, PhD
 Ass. Prof. Sandra Mojsova, PhD
 Ass. Prof. Ksenija Ilievska, PhD
 Ass. Prof. Nikola Adamov, PhD
 Dr. Elizabeta Dimitrievska Stojkovik, PhD
 Dr. Katerina Blagoevska, PhD
 Dr. Biljana Dimzovska Stojanovska, PhD

all from the Faculty of Veterinary Medicine -Skopje (Ss. Cyril and Methodius University in Skopje, R. Macedonia)

Secretariat of the Meeting

Dr. Ljupco Mickov, PhD, Dr. Alesandar Cvetkovikj, PhD, Dr. Branko Angelovski, PhD,
 Dr. Aleksandra Angeleska, PhD, Dr. Ana Cvetanovska, PhD, Ljupco Angelevski, MSc, Miroslav Radevski, DVM,
 Martin Nikolovski, DVM, Monika Dovenska, DVM, Riste Uzunov, DVM, Marija Ratkova, DVM

Financial Secretariat

Milica Tosevska Apostolova
 Maja Menkova, MSc

IT, DTP and Web Support

Viktor Denkovski, MSc

Editors:

Prof. Florina P. Percinic, PhD
 Prof. Lazo Pendovski, PhD
 Dr. Katerina Blagoevska, PhD

Published by:

Faculty of Veterinary Medicine – Skopje,
 Lazar Pop Trajkov 5/7, 1000 Skopje
 Tel: ++389 2 3240 700 Fax: ++ 389 2 3114 619
 www.fvm.ukim.edu.mk



CIP - Каталогизација во публикација

Национална и универзитетска библиотека "Св. Климент Охридски", Скопје
 636.09(062)(048.3)

INTERNATIONAL scientific meeting (8 ; 2018 ; Ohrid)

Book of abstracts : join meeting : 5 th International Vet-Istanbul group congress & 8 th International scientific meeting days of veterinary medicine - 2018, Ohrid, 2018 Republic of Macedonia / [editors Florina P. Percinic, Lazo Pendovski, Katerina Blagoevska]. - Skopje : Faculty of Veterinary medicine, 2018. - 200 стр. ; 23 см

Регистар

ISBN 978-9989-774-31-7

а) Ветеринарна медицина - Зборници - Апстрактни COBISS.MK-ID 108195850

FOREWORD

Dear Colleagues,

It is my great pleasure to welcome you to the 5th International Veterinary Days of veterinary medicine - 2018, Ohrid, 23th to 27th September.

This year, in cooperation with the Faculty of Veterinary Medicine, we'll be organizing an academic cooperation (VEE) partners, by the public good.

The Faculty of Veterinary Medicine is together outstanding experts in the field of research, veterinary researchers, veterinary doctoral students, off in the veterinary education following topics: animal and food safety.

The program for 2018 will retain its usual popular student papers and posters authors, whose research of the International Scientific Meeting is electing 117 papers followed by two poster invited speakers for the talks.

A successful conference place, where ideas about veterinary medicine are debated, which will open new opportunities for enjoyment.

On the behalf of the Faculty of Veterinary Medicine in Macedonia.

We look forward to welcoming you to Ohrid.

12.50-13.00	<i>Effects of Black Cumin addition to rations on the performance parameters in laying hens</i> Tahir Balevi , Uçkun Sait Uçan, Oğuzhan Kahraman, Abdullah Özbilgin
13.00-14.00	Lunch
Moderators: Prof. Zehra Hajrulai-Musliu and Prof. Ali Aydin	
Scientific papers – Oral presentations	
14.00-14.10	<i>Evaluation Of The Quechers Method And Gas Chromatography–Mass Spectrometry For The Analysis Fipronil And Its Metabolites In Egg Products</i> Aleksandra Tasic , Ksenija Nestic, Tijana Mitrovic, Nebojsa Vukovic
14.10-14.20	<i>Optimization And Validation Of Lc-Ms/Ms Method After Quechers Sample Preparation For Determination Of Fipronil And Its Metabolites In Eggs And Chicken Muscle</i> Elizabeta Dimitrieska-Stojkovič , Dushica Koceva, Aleksandra Angeleska, Biljana Stojanovska-Dimzosa, Gordana Ilievska, Risto Uzunov, Stefan Jovanov, Zehra Hajrulai-Musliu, Dean Jankuloski
14.20-14.30	<i>Determination Of B-Agonist Residues In Liver Using Lc-Ms/Ms Method</i> Risto Uzunov , Zehra Hajrulai-Musliu, Velimir Stojkovski, Elizabeta Dimitrieska-Stojkovic, Biljana Stojanovska-Dimzosa, Stefan Jovanov, Dean Jankuloski
14.30-14.40	<i>The Evaluation Of Histamine Levels In Carp (Cyprinus Carpio) Samples Collected From Afyonkarahisar, Turkey</i> Acaroz Ulas
14.40-14.50	<i>Detection Of Nitroimidazole Residues In Chicken Muscle Tissue And Egg Samples Using Competitive Enzyme Immunoassay</i> Dušica Koceva , Elizabeta Dimitrieska-Stojkovič, Gordana Ilievska, Zehra Hajrulai-Musliu, Dean Jankuloski
14.50-15.00	<i>Development And Validation Of A P-35S, T-NOS, And P-Fmv Multiplex Real-Time PCR Screening Method To Detect Regulatory Genes Of Genetically Modified Organisms In Food</i> Katerina Blagoevska , Dean Jankuloski, Gordana Ilievska
15.00-15.10	<i>Determination Of Total Phosphorus Content In Complete Dog Foods And Its Part In The Nutritional Balance</i> Ana Angelovska , Radmila Chrcheva Nikolovska, Zehra Hajrulai Musliu

Parallel Session II

SCIENTIFIC
SESSION VSTUDENT SESSION**Moderators: Prof. Alen Slavica and Prof. Igor Ulcar****Plenary lecture – Invited speaker**

9.30-10.00	<i>Harmonization of EU Veterinary Curriculum According To The New Skills And Knowledge</i> Prof. Alen Slavica, PhD , Faculty of Veterinary Medicine, University of Zagreb, Croatia
------------	--

10.00-10.30	Coffee break
-------------	--------------

P36	Dual Infection Of Fetal And Neonatal Small Ruminants With Border Disease Virus And Peste Des Petits Ruminants Virus (Pprv): Neuronal Tropism Of Pprv As A Novel Finding <i>N. Toplu, T. C. Oguzoglu, H. Albayrak</i>	163
P37	Bacteria Associated With Subclinical Bovine Mastitis In Small Dairy Farms <i>Aleksandar Janevski, Iskra Cvetkovikj, Sanja Kiprijanovska, Katarina Davalieva, Aleksandar Dimovski, Andrej Pengov, Dine Mitrov</i>	164
P38	Gastrointestinal Parasites Of The Red Deer In Croatia – Results Of Scat Analysis And Intestine Examination <i>Miljenko Bujanić, Zdravko Janicki, Franjo Martinković, Snježana Lučinger, Ninon Pailloux, Dean Konjević</i>	165
P39	Species Composition Of The <i>Culicoides</i> Fauna In The Republic Of Macedonia <i>Aleksandar Cvetkovikj, Ljubica Rashikj, Branko Angjelovski, Iskra Cvetkovikj, Jovana Stefanovska</i>	166
P40	Antimicrobial Susceptibility Of <i>Escherichia Coli</i> Isolated From Farmed Sows With Postpartum Dysgalactia Syndrome <i>Iskra Cvetkovikj, Branko Angjelovski, Slavcho Mrenoshki, Jovana Stefanovska, Aleksandar Cvetkovikj</i>	167
P41	A New Class Of Anthelmintic Drugs In Farm Animals Amino-Acetonitrile Derivatives <i>Yiğit Güneş, Ataman Bilge Sari</i>	168
P42	Transmission Pathology Of Sows <i>Jovan Bojkovski, Branko Angjelovski, Zsolt. Becskei, Jasna Prodanov-Radulović, Ivan Dobrosavljević, Radiša Prodanović, Ivan Vujanac, Sreten Nedić, Nemanja Zdravković, Ivan Pavlović</i>	169
P43	Ultrastructural And Immunohistochemical Investigations In Calves With Coronavirus Pneumoenteritis Syndrome <i>Ismet Kalkanov, Ivan Dinev, Katerina Todorova, Marin Alexandrov, Yulian Ananiev, Maya Galabova</i>	170
P44	Risk Management Strategies In Case Of Vector Borne Disease Outbreak In R. Macedonia <i>Blagica Sekovska, Jovana Stefanovska</i>	171
P45	3D Printing And Its Pharmaceutical Application In Veterinary Medicine <i>Romel Velev, Natasha Krleska-Veleva</i>	172
P46	Etiological And Pathomorphological Investigations In Calves With Coronavirus Pneumoenteritis <i>Ismet Kalkanov, Ivan Dinev, Ivan Zarkov</i>	173
P47	Changes Of Fatty Acids Composition During Yogurt Processing <i>Mila Arapcheska, Zehra Hajrulai – Musliu, Jovanka Tuteska, Risto Uzunov, Maja Dimovski</i>	174
P48	Determination Of The Content Of Essential Oil In Different Oriental Tobacco Varieties (<i>Nicotiana Tabacum L.</i>) And Their Use For Medical Purposes <i>Ana Angelovska, Radmila Chrcheva Nikolovska Marija Krstikj, Lenka Cvetanovska, Zehra Hajrulai Musliu</i>	175
P49	Honey Sugars Analysis By HPLC-Rid Method <i>Zehra Hajrulai-Musliu, Velimir Stojkovski, Risto Uzunov, Vangelica Enimiteva, Stefan Jovanov, Elizabeta Dimitrieska- Stojkovic, Biljana Stojanovska-Dimzoska, Dean Jankuloski</i>	176
P50	Melissopalynologic Analysis For Identification Of Botanical Origin Of Honey From Republic Of Macedonia <i>Irena Djimrevska, Hrisula Kiprijanovska</i>	177
P51	Animal Types Of Proteins In Feed Vs. Verification Of Proteins In Meat And Meat Products <i>Radmila Chrcheva Nikolovska, Ljupco Angelovski, Ana Angelovska, Aleksandra Angeleska</i>	178

P52	Total Anti-Rosehip F <i>Berika Tas</i>
P53	Veterinary Subjects V <i>Gordana U</i>
P54	Evaluation System By <i>Pinar Öz,</i>
P55	Determin Digestibil <i>Asiye Kekk</i>
P56	Case Stud Producing <i>Nevijo Zde</i>
P57	Antibiotic Mussel St <i>Orhan Yav</i>
P58	Biofilm C <i>Ljupco An</i>
P59	Effects Of Character <i>Deniz Bele</i>
P60	Real-Tim <i>Katerina E</i>
P61	Validation <i>Gjylai Alij</i>
P62	Occurren In Some I <i>Biljana St</i>
P63	Assessme <i>Aleksandr</i>
P64	Evaluatio Validated <i>Gordana I</i>

P52	Total Antioxidant Capacity, Tannin, Flavonoids, Phenolic Acid And Ascorbic Acid Of Rosehip Fruits Grown In Samsun And Surroundings <i>Berika Taştekin, Gülay Çiftci</i>	179
P53	Veterinary Regulations And Demands Of Food Safety System In Menagement Of Small Subjects With Food Of Animal Origin <i>Gordana Ušćebrka, Dragan Žikić, Slobodan Stojanović, Verica Milošević</i>	180
P54	Evaluation Of The Performance Of Atp Bioluminescence Hygiene Monitoring System By Comparison With Classical Cultural Method <i>Pinar Öz, Özge Özgen Arun</i>	181
P55	Determination Of In Vitro True Dry Matter And Neutral Detergent Fiber Digestibilities Of Tomato Pomace <i>Asiye Keklikci, Zehra Selcuk</i>	182
P56	Case Study Of <i>Listeria Monocytogenes</i> Contamination In Fermented Sausages Producing Chain <i>Nevijo Zdolec, Dean Jankuloski</i>	183
P57	Antibiotic Resistance Profiles Of Staphylococcal Isolates From Ready-To-Eat Mussel Stuffed Samples <i>Orhan Yavuz, Mert Sudagidan, Ali Aydin</i>	184
P58	Biofilm Control Measures In The Food Industry <i>Ljupco Angelovski, Dean Jankuloski, Radmila Crceva Nikolovska, Marija Ratkova, Mirko Prodanov, Sandra Mojsova, Pavle Sekulovski</i>	185
P59	Effects Of Plumage Color Mutation And Gender On Slaughter And Carcass Characteristics In Japanese Quail <i>Deniz Belenli, Dogan Narinc, Serkan Erdogan, Eser Kemal Gurcan, Firdevs Korkmaz Turgud</i>	187
P60	Real-Time PCR Detection Of Prohibited Bovine DNA In Animal Feed <i>Katerina Blagoevska, Gordana Ilievska, Dean Jankuloski</i>	188
P61	Validation Of Lc-MS/MS Method For Detection Of Penicillin Antibiotics In Milk <i>Gjylai Alija, Zehra Hajrulai-Musliu, Risto Uzunov</i>	189
P62	Occurrence And Estmation Of Aflatoxins And Ochratoxin A Exposure In Some Food Commodities <i>Biljana Stojanovska-Dimzoska, Elizabeta Dimitrieska-Stojkovic, Zehra Hajrulai-Musliu, Risto Uzunov, Aleksandra Angeleska, Dushica Koceva, Dean Jankuloski</i>	190
P63	Assessment Of ^{226}Ra, ^{232}Th, And ^{40}K Levels In Poultry Feed, Produced In Macedonia <i>Aleksandra Angeleska, Elizabeta Dimitrieska-Stojkovic, Radmila Crceva Nikolovska, Zehra Hajrulai-Musliu, Biljana Stojanovska-Dimzovska</i>	191
P64	Evaluation Of Fluoroquinolone Residues In Pig, Cattle And Lamb Kidneys Using Validated Elisa Method <i>Gordana Ilievska, Elizabeta Dimitrieska-Stojkovic, Dushica Koceva</i>	193
	INDEX OF AUTHORS	195

S10

DETECTION OF ARTIFICIAL SWEETENERS AND FOOD PRESERVATIVES IN ENERGY DRINKS WITH HPLC-DAD METHOD

Stefan Jovanov^{1*}, Zehra Hajrulai-Musliu¹, Risto Uzunov¹, Velimir Stojkovski²,
Elizabeta Dimitrieska-Stojkovic¹, Biljana Stojanovska-Dimzoska¹, Dean Jankuloski¹

¹*Food Institute, Faculty of Veterinary Medicine,
Ss. Cyril and Methodius University in Skopje,
Lazar Pop Trajkov 5-7, 1000 Skopje, Macedonia*

²*Institute of Reproduction and Biomedicine, Faculty of Veterinary Medicine,
Ss. Cyril and Methodius University in Skopje,
Lazar Pop Trajkov 5-7, 1000 Skopje, Macedonia*

Artificial sweeteners are often used in food and beverages to control calorie intake and in certain medical conditions such as diabetes, while food preservatives are used to prevent spoilage (they inhibit microbial growth). The control of sweeteners and preservatives in food and beverages is essential for the assurance of food safety and reduce the adverse health effects. The adverse effects include causing dermatological problems, headaches, mood variations, behavior changes, respiratory difficulties, seizures, allergies and cancer. The permitted levels in beverages for saccharin is 80 mg/L, for acesulfame-K is 350 mg/L, for aspartame is 600 mg/L, for sodium benzoate is 150 mg/L and for potassium sorbate is 250 mg/L. The aim of this study was determination of three sweeteners: saccharin, acesulfame-K and aspartame and two food preservatives, sodium benzoate and potassium sorbate in energy drinks using HPLC-DAD method. Total of 82 energy drinks were collected from the local stores. The preparation of the samples was performed according to the standard method EN 12856:2010. The analyses were carried out on a HPLC-DAD. The mobile phase A was acetonitrile and mobile phase B was 0.0125 M phosphate buffer, pH 3,5. The elution was gradient and separation of the analyte was with C18 (3x150 mm, 2,7µm) column. In the validation study was included evaluation of: linearity, limit of detection (LOD), limit of quantification (LOQ), precision and reproducibility of the method. The described analytical method correctly separated the preservatives and artificial sweeteners in the samples. Calibration curve of all analytes was in the range from 10 to 100 mg/L and the correlation coefficient varies from 0.9964 to 0.9999. The LOD for saccharin, acesulfame-K, aspartame, sodium benzoate and potassium sorbate were 0.7, 0.6, 12.0, 12.0 and 1.3 mg/L respectively. LOQ for all analytes was 20 mg/L. The accuracy of the method was evaluated by determining the recovery of spiked energy drink samples at three concentration levels 20.0; 50.0; 100.0 mg/L. The recovery was from 89.37 to 106.19 %. The precision and reproducibility of the method were evaluated by the relative standard deviation (RSD), obtained from the three spiked levels in two days. The RSD for the precision was from 0.221 to 2.916 %, and the RSD for reproducibility

was from 0.325 to 2.419 %. From the 82 analyzed energy drink samples acesulfam-K and saccharin were found in 65 samples in the range from 25 – 181.4 mg/l and 22-58 mg/l, respectively. Aspartam was detected in 50 samples at the concentration from 30 – 204.7 mg/l. Preservatives were found in all analyzed samples as follows: sodium benzoate at concentration levels from 50-140 mg/l and potassium sorbate from 200-220 mg/l. In conclusion, the method was successfully validated and applied for the analysis of real samples of energy drinks. The manufacturers are use these substances in the production of energy drinks, but concentration levels were in agreement with Macedonian Regulation.

Key words: artificial sweeteners, preservatives, energy drinks, validation, HPLC-DAD

S11

**THE EFF
MEMBR**Selin Yağcı
İdil Oruç¹, R¹D
Facul²Faculty of Ve

The long-term fields, such as so banks etc. In this techniques was to as cell transfection properties. It was and also storage primer embryonic *freezing in liquid* straws were comp 2 million cells/ml straws with other after thawing their a result of the stat in cryovial, 82.68 in vitrification me 73.75±3.45, 80.6 POF cells were slow freezing and membrane were (p=0.00). As conc to be more effecti while slow freezin

Key words:

vapor

*This study was fu
and TSG-2017-20*