

# INTERNATIONAL SCIENTIFIC CONFERENCE



## PROCEEDINGS

**FRIDAY, 6 OCTOBER 2017**

### PLENARY SESSION

#### **The future of veterinary reproductive medicine**

*Axel Wehrend (Justus Liebig University Giessen, Germany)*



***Dermanyssus gallinae – a ghost ectoparasite for the Greek laying hen industry: Results of a pilot study***

*Konstantinos Arsenopoulos, Athanasios Angelou & Elias Papadopoulos (Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece)*



**Reduced stress and fatigue indicators (cortisol and creatinine kinase) in dairy cattle due to fly repellency using deltamethrin (Butox®, MSD)**

*Konstantinos Arsenopoulos, Eleftherios Triantafillou & Elias Papadopoulos (Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece)*



**Ways to control dog and cat populations – contraception in companion animals**

*Sandra Goericke-Pesch (Faculty of Health and Medical Sciences, University of Copenhagen, Denmark)*

#### **Orthopedics – joint diseases in cattle**

*Alexander Starke (Faculty of Veterinary Medicine, University of Leipzig, Germany)*



**Pathology of the canine aging brain: An animal model of human neurodegenerative diseases**

*Nikolaos Papaioannou (Aristotle University of Thessaloniki, Greece)*

#### **One health: What veterinarians know that physicians don't**

*Ilia Tsachev (Faculty of Veterinary Medicine, Stara Zagora, Bulgaria)*



**Application of proteomics in cancer research**

*Hamdi Uysal (Ankara University, Turkey)*

## ORAL SESSION 1: BIOMEDICAL & PRECLINICAL SCIENCES



### Comparison of PCR primers for the identification of *Cryptosporidium* species and genotypes in calves

E. Hatalová, A. Valenčáková, J. Kalinová, L. Luptáková, O. Danišová & M. Húška



### Viruses and parasitic diseases identification by molecular methods of the honey bee (*Apis mellifera*)

Hristov, P., A. Georgieva, D. Sirakova, B. Neov & G. Radoslavov



### Mitochondrial profile in Bulgarian native breeds of dogs

M. Marinov, P. Hristov, A. Georgieva, D. Sirakova, B. Neov & G. Radoslavov



### Morphogenesis of endocrine islets of pancreas of geese

I. Fesenko, O. Miroshnik & Y. Maslak



### Ethological aspects of hens welfare supplemented with immunomodulator *Immunobeta*

N. A. Bozakova, L. K. Sotirov, T. V. Koynarski, S. V. Kalvacheva & P. P. Boycheva



### Productivity aspects of turkey welfare after *Immunobeta* supplementation

N. A. Bozakova, L. K. Sotirov, T. V. Koynarski, N. S. Mincheva, M. G. Oblakova, M. T. Lalev & P. D. Hristakieva

## ORAL SESSION 2: CLINICAL SCIENCES



### Histopathologic alterations of lung tissue caused by hypoxia in calves deceased due to dystocia

P. Martz, K. Failing & A. Wehrend



### The effect of glucose administration on plasma potassium in cattle

P. Mudroň & E. Helin



### Immune and metabolic indices in dairy cows with inflammation

P. Mudroň



### Fibroblasts and their role in health and disease

H. Uysal



### Fluid biomarkers, clinical and histopathological features in aged canine: The prognostic value for the canine cognitive dysfunction

I. T. Stylianaki, Z. S. Polizopoulou, G. G. Koliakos & N. G. Papaioannou



### Surgical approach to a chronic recto-vaginal prolapsus in an Anatolian buffalo

S. Alkan, G. Petrovas, R. Arici & G. Naglis

## ORAL SESSION 3: PUBLIC HEALTH



### Detection and frequency of infectious bursal disease virus (IBDV) VP2 gene variants in chickens in Turkey

N. Turan, A. Gurel, A. Yilmaz, U. Y. Cizmecigil, O. E. Bamac, O. Aydin, E. Bayraktar, B. Çakan & H. Yilmaz



### Variants of infectious bronchitis virus (IBV) in chickens in Turkey and production of recombinant IBV-N protein by using baculovirus expression system

H. Yilmaz, U. Y. Cizmecigil, A. Gurel, B. Faburay, B. Cetinkaya, O. Aydin, J. A. Richt & N. Turan



**Use of fenbendazole and abamectin for control of helminthoses  
in free living mouflons (*Ovis musimon* L.)**

I. Dakova, M. S. Panayotova-Pencheva & M. T. Alexandrov



**Home produced Hellim cheese and its microbiological control**

A. Karaarslan, G. Petrovas, E. Akkaya & T. Kahraman



**The usage of electronic nose in food industry**

B. Ozcan, S. Ikiz & T. Kahraman



**Use of *Artemia franciscana* as a biofilter for catching *Cryptosporidium parvum* oocysts**

J. Kalinová, A. Valenčáková, E. Hatalová, O. Danišová, L. Luptáková & M. Špalková

**SATURDAY, 7 OCTOBER 2017**

**ORAL SESSION 1: BIOMEDICAL & PRECLINICAL SCIENCES**



**Effect of antioxidants on spermatological parameters in two different carp species after short-term storage**

I. Yavas, F. S. Seçer & T. K. Yavas



**Age-related anatomical and microscopic features of the oesophagus and stomach in the rainbow trout (*Onchorynchus mykiss*)**

P. Y. Yonkova, H. A. Bardarova, G. I. Zhelyazkov, R. S. Simeonov, K. K. Dimitrov, G. Penchev, G. S. Vateva & M. G. Stefanov



**Effect of fish oil and restricted feeding on blood lipid profile in a rabbit model of castration induced obesity**

N. Grigorova, B. Bjorndal, Zh. Ivanova, G. Penchev, E. Vachkova, R. Berge, T. Mircheva- Georgieva & I. Penchev Georgiev



**Activated carbon from fruit stones as ibuprofen carrier – encapsulation and *in vitro* release study**

Z. L. Yaneva, L. L. Bekirska, N. V. Georgieva, B. K. Derventlieva & I. D. Gandev



**Distribution of extracellular matrix protein laminin in the placenta of *Myotis myotis* (Borkhausen, 1797) (Chiroptera: Vespertilionidae)**

E. P. Paksuz & S. Paksuz



**Is Kaiserling solution a convenient fixative for mammalian organ specimens? Evaluation of morphometric, colorimetric and volumetric properties**

C. Bakici, R. O. Akgün, O. Ekim, Ç. Oto, D. Özén & M. Bilsay



**Volumetric and colorimetric evaluation of formalin and Kaiserling fixation methods in domestic avian specimens**

R. O. Akgün, C. Bakici, O. Ekim, C. Oto, I. O. Orhan & U. Kaya



**Immobilization of brown bears (*Ursus arctos* L.) in Bulgaria**

V. Todorov & D. Zlatanova

**ORAL SESSION 2: CLINICAL SCIENCES**



**Innovative approach to cryopreservation of canine semen**

D. Gradinarska & Maria Ivanova



**Dorsal pharyngeal collapse in a Thoroughbred filly**

S. P. Sabev & D. T. Kanakov



**Rostral displacement of the palatopharyngeal arch in a foal – clinical and endoscopic survey**  
S. P. Sabey & D. T. Kanakov



**Intensive care to wild avivorous-carnivorous raptors and seagulls**  
B. K. Tekelioglu, M. Celik, M. A. Gokce, O. Tasbozan, Y. Uzun, C. Erbas, S. S. Tabakoglu, S. Kandir & L. Celik



**Ultrasonographic determination of the gestational age through measurements of some parameters of the fetal heart in Bulgarian local goats**  
M. Karadaev, I. Fasulkov, N. Vasilev & S. Atanasova



**Nuclear morphometry and survival in canine spontaneous cutaneous squamous cell carcinomas**  
R. S. Simeonov



**Survey on brainstem auditory-evoked responses in dogs with normal hearing**  
G. V. Terziev



**Linear and goniometric measurements in dogs with medial patellar luxation**  
R. Gornoeva, M. Paskalev, M. Koleva & K. Nedeva



**First-service conception rates in anestrus dairy cows after Double-Ovsynch and additional progesterone treatment**  
G. Naglis, I. Fasulkov, M. Karadaev, R. Vasileva, G. Petrovas & N. Vasilev



**Diamond doves – aggressive behaviour during egg incubation**  
S. Nikolov & B. Murad

## ORAL SESSION 3: PUBLIC HEALTH



**Detection of *Cryptosporidium* spp. in various foods**  
F. Y. Eker, T. Kahraman & A. Koluman



**Canine papillomatosis: clinical outcome after oral isotherapy, subcutaneous *Tarantula cubensis* venom and oral levamisole-azithromycin treatment**  
B. K. Tekelioglu, C. Parkan, A. Yilmaz, N. Turan, A. Gurel, K. Berber, D. Haktanir, K. Sonmez, M. Noelle-Issautier & H. Yilmaz



**Spread of infection to poultry challenged with *E. coli* K88 and fed different diets**  
B. Ekim, S. Y. Dogan & C. Ozdemir



**Comparative pathomorphological investigations in important gastrointestinal diseases in newborn and growing calves**  
I. Kalkanov, I. Dinev & P. Iliev



**Antibacterial activity of a powder product for floor and litter sanitation in intensive poultry farming**  
G. Zheley, I. Lazarov, V. Petrov, K. Koev & M. Lyutskanov



**Isolation of methicillin-resistant *Staphylococcus aureus* (MRSA) from bulk tank milk (BTM) of dairy farms in Greece**  
P. Papadopoulos, A. Angelidis & D. Sergelidis



**Campylobacteriosis (biology of the pathogen, sensitivity to antibacterial drugs)**  
T. Fotina, A. Berezovskiy, H. Fotina, A. Fotin, Z. Klishova, A. Fotin & O. Kasyanenko



**Comparison of haematological, serum biochemical and histopathological changes in sheep liver fluke**  
E. Xhemollari, L. Dhaskali, E. Dimço & J. Abeshi



**Changes in red blood count parameters in New Zealand White rabbits after experimentally induced *Pasteurella multocida* infection**

Y. P. Petrova, T. M. Georgieva, I. P. Georgiev, V. S. Petrov, I. I. Kalkanov,  
M. P. Karadaev & S. H. Stoev



**Chicken mite: epidemiological aspects of distribution**

A. Berezovskiy, L. Nagorna & T. Fotina



**Prevalence of *Listeria monocytogenes* in raw cow milk – a review**

D. R. Bangieva & V. N. Rusev

**SATURDAY, 7 OCTOBER 2017**

**POSTER SESSION 1: BIOMEDICAL & PRECLINICAL SCIENCES**



**Maternal nutritional metabolic diseases, affect the epigenetics of preimplantation rabbit embryos**

D. V. Abadjieva & E. K. Kistanova



**Use of dry corn distillers grain with solubles in weaned pig feeding**

M. S. Todorova & M. M. Ignatova



**Antitumour activity of lipid-lowering drug simvastatin on Graffi myeloid cells**

A. Georgieva, V. Uzunova, R. Tzoneva & R. Toshkova



**Effect of *Haberlea rhodopensis* oral intake on healthy volunteers**

R. Todorova, R. Radev & A. T. Atanasov



**Sensitivity of human and rat platelet-rich blood plasma to drugs inhibiting platelet aggregation**

A. T. Atanasov, S. Radev & R. T. Todorova



**Design of inulin acetates with potential antimicrobial activity**

N. T. Petkova, Y. D. Tumbarski, I. I. Ivanov & P. P. Denev



**Antimicrobial activity of *Bacillus methylotrophicus* BM47 against *Botrytis cinerea* in different conditions of cultivation**

Y. D. Tumbarski



**The practice of applying iodine polymer Monclavit-1**

A. Kuznetsov, G. Nikitin, K. Rozhkov, A. Belopolsky & I. Lunegova



**Use of adaptogen «Energy» in industrial pig breeding**

I. Lunegova, A. Kuznetsov & A. Lunegov



**Influence of sanitary-hygienic factors on swine resistance and health**

N. Cherniy, A. V. Mitrofanov, A. Mitrofanov, Y. Shchepetilnikov,  
Y. Balym & O. Machula



**Influence of immunostimulating preparations on resistance of pigs kept under non-regulated microclimate conditions**

N. Cherniy, A. V. Mitrofanov, A. Mitrofanov, Y. Shchepetilnikov, O. Machula & E. Tkachuk



**Changes in Δ-desaturation and fatty acid composition in rats chronically treated with sucrose in the drinking water**

K. Starčević, N. Filipović, A. Galan, M. Šperanda, M. Didara & T. Mašek



**Increasing the adsorption of clinoptilolite as toxin binder by heat treatment**

H. M. Eseceli, A. Ozcan, E. Demir & T. Bilal



### **Ultrastructural peculiarities of Sertoli cells in pig testes**

G. Penchev



### **SEM: Microvascular corrosion casting of the feline myocardium**

D. I. Vladova, R. S. Dimitrov, D. L. Kostov, K. D. Stamatova-Yovcheva, D. G. Yovchev & M. G. Stefanov



### **Age-related light microscopy histometric investigation on bursa of Fabricius in the common bronze turkey (*Meleagris meleagris gallopavo*)**

D. S. Dimitrov, G. Penchev, D. Yovchev & K. Stamatova-Yovcheva



### **Micrometrical study of the oesophageal wall of the wild bronze turkey (*Meleagris gallopavo*)**

D. G. Yovchev, G. P. Georgiev & D. S. Dimitrov



### **Garden valerian (*Valeriana officinalis*) – from sedative drug to a pheromone**

B. Murad, P. Vassileva, B. Derventlieva & S. Nikolov



### **Elaboration of transparent biological specimens for visualisation of developing cartilage and bone structures**

N. Tsandev, A. Atanasoff, G. Kostadinov, E. Petrova-Pavlova & I. Stefanov



### **An alternative method for the preparation and preservation of various insect specimens**

O. Ekim, M. Ayvali, C. Bakici, R. O. Akgun, M. Aslan, M. C. Bezgal & A. Atanasoff



### **EPA and DHA influenced differently the mRNA expression levels of some lipolysis-related factors in subcutaneous and visceral rabbit ADSCs *in vitro***

E. Vachkova, D. Bosnakovski, B. Bjørndal, P. Yonkova, N. Grigorova, Zh. Ivanova, G. Penchev, A. Milanova & I. Penchev Georgiev

## **POSTER SESSION 2: CLINICAL SCIENCES**



### **The influence of the sheep breed on the cryotolerance of spermatozoa**

M. N. Andreeva, N. T. Metodiev, T. S. Tsvetkov & R. G. Stefanov



### **Effect of non-hormonal agents Tribestan and Lactina® on the sexual behaviour and quality of semen in rams during non-breeding season**

K. Hristov, P. Parvanov, N. Vasilev, I. Fasulkov & M. Karadaev



### **Evaluation of dog encephalitis causes with encephalographic findings**

Y. Toker, A. Bayrakal, O. Iskefli & A. Akdoğan Kaymaz



### **Hirudotherapy: a rediscovered alternative therapy technique in human and veterinary medicine**

G. Campay, S. Ikiz, Y. Develioglu, G. Kasikci & M. Toparlak



### **Heavy metal pollution in the view of veterinary public health**

N. Sipahi & S. Ikiz



### **Unusual hyperthermia related to general anaesthesia in an Anatolian Sheep dog**

Ö. Güzel, E. Yıldar, B. Karan, D. Aydin & D. S. McKinstry



### **Investigation on effects of aflatoxin B<sub>1</sub> alone or co-administered with Mycotox NG on the renal function of turkey broilers**

I. Valchev, N. Grozeva, D. Kanakov, Ts. Hristov, L. Lazarov, K. Stoyanchev & R. Binev



### **Investigation on humoral immunity and histopathological changes in the bursa of Fabricius of turkey broilers challenged with aflatoxin b<sub>1</sub> alone or co-administered with Mycotox NG**

N. Grozeva, I. Valchev, L. Lazarov, Ts. Hristov, D. Kanakov, K. Stoyanchev & R. Binev



**Unilateral ovariocornuectomy – a successful treatment to preserve fertility in bitches with granulosa cell tumour**

A. L. Antonov, A. S. Atanasov & R. S. Simeonov



**A rare case of galactorrhoea in a domestic tom cat**

A. L. Antonov, I. S. Irinkova & S. D. Simeonov



**Apocrine gland adenocarcinoma in a dog – a case report**

R. S. Simeonov



**Proventricular dilatation disease: Anatomical aspects of diagnostics in the domestic canary (*Serinus canaria*)**

H. R. Hristov, D. I. Vladova, D. L. Kostov, R. S. Dimitrov, Ts. M. Chaprazov & N. V. Goranov



**A case of extreme hypoglycemia in a pregnant bitch**

P. Georgiev, A. Antonov, Ts. Ivanova, I. Kalkanov, A. Atanasov, M. Karadaev & I. Dinev



**Radiological findings of common dental diseases in dogs and cats**

A. Robaj & E. Shabani



**Radiological findings of lysosomal enzymes disease in dogs and cats – a review**

E. Shabani & A. Robaj

## POSTER SESSION 3: PUBLIC HEALTH



**Detection and frequency of hepatitis A and E viruses in mussels collected from the Bosphorus, in Istanbul, Turkey**

H. Yilmaz, U. Y. Cizmecigil, E. A. Tarakci, O. Aydin, A. Yilmaz, M. Calicioglu, G. Ciftcioglu, A. Aydin, K. Bostan, T. Sireli, M. Guzel, A. Karakullukcu, B. Kocazeybek, W. H. M. van der Poel, J. A. Richt & N. Turan



**Examination of potency of tuberculin purified protein derivatives, produced in Bulgaria**

G. P. Hadzhieva, S. D. Hadzhiev & M. G. Bonovska



**Recent avian avulavirus 1 outbreaks in Bulgaria**

G. Goujgoulova & G. Stoimenov



**Pathological observation in pigs naturally infected with *Mycoplasma hyopneumoniae***

R. Pepovich, B. Nikolov, K. Hristov & K. Genova



**New device for extracting larvae and small nematodes from herbivore's faeces**

O. A. Loginova, L. M. Belova & N. A. Gavrilova



**New method for larvae and small nematodes immobilisation**

O. A. Loginova, L. M. Belova & N. A. Gavrilova



**Identification of chlamydial species in small ruminants with ocular infections**

O. Danišová, M. Halánová, A. Valenčáková, J. Kalinová, E. Hatalová & L. Čechová



**Leptospirosis in Albania in 2015**

L. Alla, X. Koleci, E. Abazaj, E. Rogozi & S. Bino



**Comparison of haematological and serum biochemical parameters in different liver pathologies**

E. Xhemollari, L. Dhaskali, N. Papaioannou, M. Kritsepi, E. Dimço & J. Abeshi



**Gastrointestinal helminths of sheep reared in southwest Serbia**

I. Pavlović, S. Ivanović, D. Ćirković, M. P. Petrović, V. Caro Petrović, N. Maksimović & D. Ivanovic



**Potential antimicrobial activities of *Zostera* spp. from Aegean Sea against *Edwardsiella tarda***

H. Yavuzcan, F. S. Seçer, M. Eryilmaz, S. Özbilgin, B. Ergene, H. C. Tekin & G. S. Işcan

**Microbiome: The second brain**

A. I. Kekec, S. Ikiz, I. Abas & A. K. Seyyal

**The evolution of bacterial identification**

B. Maslak, S. Ikiz & A. F. Bagcigil

**Phenotypic determination of heavy metal resistance in *E. coli* isolates from bovine faeces**

S. Ikiz & N. Sipahi

**Evaluation of different anti-rabies conjugates used for rabies diagnosis confirmation**

M. A. Dascalu, A. Servat, F. Daraban, E. Velescu & O.-I. Tanase

**Two different systems for the isolation of rabies virus in cell cultures**

M. A. Dascalu, A. Servat, F. Daraban, E. Velescu & O.-I. Tanase

**Effect of temperature and desiccation on some exogenous stages of *Haemonchus contortus***

P. Iliev, P. Prelezov, A. Ivanov, Z. Kirkova & I. Kalkanov

**Retrospective analysis on helminthic and protozoan infections in dogs and cats in Bulgaria**

P. Iliev, Z. Kirkova, A. Ivanov, P. Prelezov, A. Tonev & I. Kalkanov

**Changes in blood lipid profile in rabbits after experimental infection with *Staphylococcus aureus***

T. M. Georgieva, V. Petrov, I. P. Georgiev, D. Zapryanova, L. Lazarov, Ts. Hristov, J. P. Petrova, P. Iliev & F. Cecilianni

**Rapid Alert System for Food and Feed notifications referring to food contact materials in 2016**

S. Todorova

**Availability of residues from veterinary medicinal products, according to the Rapid Alert System for Food and Feed (RASFF) for the period 01.01.2015–31.05.2017**

I. Bogoeva

**Determination and assessment of the content of collagen in minced meat and meat products offered at the Bulgarian market**

G. Kalinova, M. Marinova, P. Mechkarova, D. Mladenova & E. Grigorova

**Diagnostics and prevention of linguatulosis in carnivores**

L. M. Belova, N. A. Gavrilova, M. S. Petrova & O. A. Loginova

**Medications for treatment of pigs with mono- and mixed parasitic infections**

M. S. Petrova, L. M. Belova, N. A. Gavrilova, O. A. Loginova & V. A. Shiryaeva

**Serological investigation of donkey and mule blood samples for detection of equine hepatitis virus**

N. G. Sandev, N. V. Rusenova, A. G. Rusenov, D. S. Zapryanova, R. N. Vasileva

**Academicians' views about nature of science in veterinary medicine faculties**

S. Ikiz, N. Erzaim, O. S. Irez, O. K. Dogan, N. Fejzic & Z. Herulaj-Musli

**As a stranger, why Istanbul University for PhD**

G. Petrovas



International Scientific Conference  
**“VETERINARY MEDICINE IN SERVICE OF PEOPLE”**  
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## THE USAGE OF ELECTRONIC NOSE IN FOOD INDUSTRY

B. OZCAN<sup>1</sup>, S. IKIZ<sup>2</sup> & T. KAHRAMAN<sup>3</sup>

<sup>1</sup>Faculty of Veterinary Medicine student, Istanbul University, Istanbul, Turkey; Department of Microbiology, Faculty of Veterinary Medicine, Istanbul University, Istanbul, Turkey; <sup>2</sup>Department of Food Hygiene and Technology, Faculty of Veterinary Medicine, Istanbul University, Istanbul, Turkey

### **Summary**

Ozcan, B., S. Ikiz & T. Kahraman, 2017. The usage of electronic nose in food industry. In: *Proceedings of the International Scientific Conference “Veterinary Medicine in Service of People”*, 6-7 October 2017, Stara Zagora, Bulgaria

This presentation was aimed to mention the working principles, usage areas and advantages of electronic nose used for food control. Electronic noses based on the biological model work in a similar manner, albeit substituting sensors for the receptors, and transmitting the signal to a program for processing, rather than to the brain. Electronic noses were originally used for quality control applications in the food, beverage and cosmetics industries. An electronic nose is a device that identifies the specific components of an odour and analyses the chemical detection. Nowadays the electronic noses have provided a plethora of benefits to a variety of commercial industries, including the agricultural, biomedical, cosmetics, environmental, food, manufacturing, military, pharmaceutical, regulatory, and various scientific research fields.

**Key words:** : electronic nose, food industry, quality control