



ISTANBUL UNIVERSITY
CERRAHPAŞA

ACTA VETERINARIA EURASIA

Formerly Journal of the Faculty of Veterinary Medicine İstanbul University
Official Journal of İstanbul University-Cerrahpaşa Faculty of Veterinary Medicine

VOLUME: 50 ISSUE: 3

'24

 AVES

EISSN 2619-905X
actavet.org

 IUC
UNIVERSITY
PRESS

ACTA VETERINARIA EURASIA

Formerly Journal of the Faculty of Veterinary Medicine İstanbul University

Editorial Management

Editor in Chief

Serhat ALKAN

Department of Reproduction and Artificial Insemination, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
salkan@iuc.edu.tr

ORCID iD: 0000-0003-4741-1416

Managing Editor

Tülay BAKIREL

Department of Pharmacology and Toxicology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
tulbakir@iuc.edu.tr

ORCID iD: 0000-0001-5805-2178

Editors

Atila ATEŞ

Department of Biochemistry, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
atiates@iuc.edu.tr

ORCID iD: 0000-0002-9013-930X

Ali AYDIN

Department of Food Hygiene and Technology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
aliaydin@iuc.edu.tr

ORCID iD: 0000-0002-4931-9843

Gülcan DEMİREL

Department of Animal Nutrition and Nutritional Diseases, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
gdemirel@iuc.edu.tr

ORCID iD: 0000-0002-6864-5134

Bülent EKİZ

Department of Animal Breeding and Husbandry İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
bekiz@iuc.edu.tr

ORCID iD: 0000-0001-6458-5747

Osman Behzat Burak ESENER

Department of Histology-Embryology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
burake@iuc.edu.tr

ORCID iD: 0000-0001-9444-3598

Karlo MURATOĞLU

Department of Food Hygiene and Technology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
karlomrt@iuc.edu.tr

ORCID iD: 0000-0001-8705-6813

Kerem ÖTER

Department of Parasitology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
oter@iuc.edu.tr

ORCID iD: 0000-0001-7488-5276

Özge TURNA

Department of Obstetrics and Gynecology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
turnao@iuc.edu.tr

ORCID iD: 0000-0002-7638-0519

Hüseyin YILMAZ

Department of Virology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye
hyilmaz@iuc.edu.tr

ORCID iD: 0000-0002-7897-2358



General Manager
Ali Şahin

Journal Managers
Deniz Kaya
Irmak Berberoğlu

Publications Coordinators
Derya Azer
Nisanur Atıcı
Şeref Mert Akgün
Yiğit Pekzeren
Lütfiye Çetin

Publications Technologies Coordinator
Ayça Nur Sezen

Project Assistants
Batuhan Kara
Ozan Şahin

Contact
Address: Büyükdere Cad. 199/6,
34394, Şişli, İstanbul, Türkiye
Phone: +90 212 217 17 00
E-mail: info@avesyayincilik.com

ACTA VETERINARIA EURASIA

Formerly Journal of The Faculty of Veterinary Medicine İstanbul University

Editorial and Advisory Board

Rao Zahid ABBAS

Department of Parasitology, University of Agriculture Faisalabad, Pakistan

Melih AKSOY

Department of Reproduction and Artificial Insemination, Adnan Menderes University, Aydın, Türkiye

Rizah AVDIC

University of Sarajevo, Faculty of Veterinary Medicine, Bosnia and Herzegovina

Ahmet AYDIN

Department of Toxicology, Faculty of Pharmacy, Yeditepe University, İstanbul, Türkiye

Eduardo BERRIATUA FERNANDEZ DE LARREA

Department of Animal Health Murcia, University of Murcia, Spain

Sema BİRLER

Department of Reproduction and Artificial Insemination, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye

Kamil BOSTAN

Department of Gastronomy and Culinary Arts, İstanbul Aydın University, İstanbul, Türkiye

Giuseppe CAMPANILE

Department of Obstetrics and Reproduction, In Physiopathology of Ruminants' Reproduction, University of Naples Federico, Faculty of Veterinary Medicine, Naples, Italy

Marimar Del Mar CAMPO

Department of Animal Husbandry and Food Science, Instituto Agroalimentario de Aragón-IA2, University of Zaragoza-CITA, Zaragoza, Spain

Georgios FTHENAKIS

Department of Obstetrics and Reproduction, Faculty of Veterinary Medicine, University of Thessaly, Karditsa, Greece

Anton GERILOVYCH

National Scientific Center 'Institute of Experimental and Clinical Veterinary Medicine', Kharkov, Ukraine

Mustafa HASÖKSÜZ

Department of Virology, İstanbul University-Cerrahpaşa, Faculty of Veterinary Medicine, İstanbul, Türkiye

Michael HESS

Clinic for Poultry and Fish Medicine, University of Veterinary Medicine Vienna, Vienna, Austria

Munir IQBAL

The Pirbright Institute, Avian Viral Diseases Programme, UK

Fatih Mehmet KANDEMİR

Department of Medical Biochemistry, Faculty of Medicine, Aksaray University, Aksaray, Türkiye

Kostas KOUTSOMANIS

Laboratory of Food Microbiology and Hygiene, Department of Food Science & Technology, Faculty of Agriculture, Aristotle University, 54124 Thessaloniki, Greece

Gianluca NEGLIA

Department of Veterinary Medicine, University of Naples Federico II, Naples, Italy

Gülden Zehra OMURTAG

Department of Pharmaceutical Toxicology, Faculty of Pharmacy, Medipol University, İstanbul, Türkiye

Nikos PAPAIOANNOU

Department of Pathology, Faculty of Veterinary Medicine, Aristotle University of Thessaloniki, Greece

Mark G. PAPICH

College of Veterinary Medicine, North Carolina State University, Raleigh, NC, USA

Jurgen A. RICHT

Department of Diagnostic Medicine/Pathobiology, Kansas State University, USA

Kazım ŞAHİN

Department of Animal Nutrition, Faculty of Veterinary Medicine, Fırat University, Elazığ, Türkiye

Adel M. TALAAT

Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin—Madison, Madison, Wisconsin, USA

Altay USSENBAYEV

Kazakh National Agrarian University, Veterinary Sanitary Expertise and Hygiene, Kazakhstan

Nasko VASILEV

Department of Obstetrics, Reproduction and Reproductive Disorders, Trakia University, Faculty of Veterinary Medicine, Stara Zagora, Bulgaria

Stanimir YOTOV

Department of Obstetrics, Reproduction and Reproductive Disorders Trakia University, Faculty of Veterinary Medicine, Stara Zagora, Bulgaria

ACTA VETERINARIA EURASIA

Formerly Journal of The Faculty of Veterinary Medicine İstanbul University

About the Acta Veterinaria Eurasia

Acta Veterinaria Eurasia (Acta Vet Eurasia) is a peer-reviewed, open-access, online-only journal published by the IUC Press.

Acta Veterinaria Eurasia is a triannual journal published in English in the months of January, May, and September.

Journal History

As of 2018, the journal has changed its title to "Acta Veterinaria Eurasia".

Formerly Title (2002-2017)

İstanbul Üniversitesi Veteriner Fakültesi Dergisi/Journal of Faculty of Veterinary Medicine, Istanbul University

ISSN: 0250-2836

EISSN: 2148-8320

Current Title (2018-...)

Acta Veterinaria Eurasia

EISSN: 2619-905X

Abstracting and indexing

Acta Veterinaria Eurasia is covered in the following abstracting and indexing databases;

- Web of Science-Emerging Sources Citation Index
- Web of Science- Zoological Records
- SCOPUS
- DOAJ
- EBSCO
- TUBITAK ULAKBİM TR Index
- China National Knowledge Infrastructure (CNKI)
- Embase
- Gale
- AGRIS Nutrition Abstracts and Reviews Series B:Livestock Feeds
- Nutrition and Food Database
- Parasitology Database
- Review of Medical and Veterinary Mycology
- Veterinary Bulletin
- CABI AgBiotechNet

- CABI Animal Breeding Abstracts
- CABI Animal Science Database
- CABI CAB Abstracts
- CABI Dairy Science Abstract
- CABI Helminthological Abstracts
- CABI Index Veterinarius
- CABI VetMed Resource
- CABI Poultry Abstracts
- CABI Tropical Diseases Bulletin

All content published in the journal is permanently archived in Portico.

Aims, Scope, and Audience

The Acta Veterinaria Eurasia is a journal that covers scientific and technological aspects of various fields in veterinary science. The scope of the journal includes, but is not limited to, the following related fields:

- Veterinary Basic Sciences, such as Anatomy, Histology & Embryology, Physiology, Biochemistry, and Veterinary Medicine History & Deontology
- Veterinary Preclinical Sciences, such as Pathology, Parasitology, Microbiology, Epidemiology Pharmacology & Toxicology, Virology, Aquatic Products & Diseases
- Veterinary Clinical Sciences, such as Reproduction & Artificial Insemination, Surgery, Obstetrics & Gynecology, Internal Medicine, Wildlife Diseases, and Ecology, Radiology,
- Animal Breeding and Husbandry; Animal Welfare
- Animal Nutrition and Nutritional Diseases
- Food Hygiene and Technology; Veterinary Public Health

The journal's target audience includes specialists and professionals working and interested in all disciplines of veterinary medicine.

You can find the current version of the Instructions to Authors at <https://actavet.org/en/instructions-to-authors-105>

Contents

Original Articles

- 166 **Effect of Chrome Nanoparticle on Growth Performance, Liver Tissue, and Oxidative Stress in Japanese Quails**
S. Ercüment ÖNEL, Sema ALAŞAHAN, Altuğ KÜÇÜKGÜL, Tuncer KUTLU, Şana SUNGUR
- 173 **Potential Impact of Non-conventional Protein Resources *Cyamopsis tetragonoloba* (Guar Meal) in Lamb's Diet**
Ali Mahdi Mahmood MANI
- 180 **Histopathological and Immunohistochemical Investigation of the Effects of Methylprednisolone Administration on Some Pro-inflammatory Cytokine Levels in Mouse Kidney Tissue in a Systemic Chronic Inflammation Model**
Aykut ULUCAN
- 190 **Investigation of the Social Behavior of *Gazella marica* Fawns in Semi-captive Conditions**
Adil UZTEMUR, Abdülkadir ORMAN
- 196 **Determination of Microplastic and Mold Species in Mussels from the Marmara Sea, Türkiye**
Artun YIBAR, Muge Nur GENÇ, Aybala CEYLAN, Bayram SUZER, Muhammed DUMAN
- 210 **Antidiabetic Effect of Hydroalcoholic Extract of *Myrtus communis* L. Fruit in a Type 2 Diabetes Mouse Model**
Tuğba Melike PARLAK, Bünyamin TRAŞ, Kamil ÜNEY, Beyza SUVARIKLI ALAN

Systematic Review

- 218 **A Systematic Review on Management Practices Affecting Welfare in Male Calves: A Five Domains Model Approach**
Brahian Camilo TUBERQUIA-LÓPEZ, Natalia ÁLVAREZ HERNÁNDEZ, Nathalia M. CORREA VALENCIA

Review

- 230 **Russian Vaccines Against *Chlamydia* Infection in Livestock**
Valentina FEODOROVA, Yury SALTUKOV, Vitaliy EVSTIFEEV, Fidail KHUSAINOV, Svetlana IVANOVA, Daria MOROZOVA, Sergey YAKOVLEV, Olga LARIONOVA

Short Communication

- 242 **Molecular Characterization and Pathogenicity of *Vibrio atlanticus* and *Vibrio rotiferianus* Associated With Mortality of Cownose Ray *Rhinoptera bonasus***
Muhammed DUMAN, Bayram SÜZER, Nihed AJMI, Özkan YAVAŞ, İzzet Burçin SATICIOĞLU

Case Report

- 250 **Treatment and Potential Co-occurrence of Hip Subluxation, Patella Alta, and Medial Patellar Luxation in a Canine: Case Report**
Leonardo Martins LEAL, Carlos Henrique SILVA, Pedro APARECIDO CAMPOS JÚNIOR, Gabriel Aguiar PAVILAK, Milena Dias GONÇALVES, Isaac ROMANI, Tais Harumi de Castro SASAHARA, Paola Castro MORAES