PEERS ALLEY MEDIA

## WHO SHOULD ATTEND

Directors, CEOs | Veterinarians | Veterinary Clinic Teams | Veterinary Specialists | Veterinary Academicians | Research Scholars | Veterinary Technicians | Veterinary Professionals and Students | Veterinary Nurse | Veterinary Organization members | Veterinary Societies | Veterinary Associations | Animal Health Companies | Manufacturing Companies | Animal Trainers | Drug Development Companies | Animal Equipment Handling members

# EURO VETERINARY SCIENCE CONGRESS

**APRIL 02-03, 2020 | PARIS, FRANCE**

## Venue

**Mercure Paris Charles De Gaulle Airport & Convention**

BP 20248 -Roissypôle Ouest -Route de la commune -95713 Roissy CDG Cedex

**2** DAYS WITH MORE THAN 45 SESSIONS, KEYNOTES & TALKS

**12+** INNOVATIVE FEATURED SPEAKERS

**20+** HOURS OF NETWORKING EVENTS

**60+** INTERNATIONAL SPEAKERS

**125+** EDUCATIONAL SESSIONS

# PRESENTATION FORUM

## KEYNOTE FORUM / MINI-PLENARY SESSIONS

Presentations under Keynote Forum or Mini-Plenary Sessions includes abstracts with remarkable research value selected by the program committee. These significant speeches are delivered by globally recognized honorable speakers and it is open to all registrants.

## DISTINGUISHED SPEAKERS FORUM (ORAL ABSTRACT SESSIONS)

In this forum, speakers and experts of the research field gets an opportunity to showcase their noble research work that involves comprehensive research findings. These formal oral presentations include a wide range of talks covering basic research to advanced research findings in accordance to the theme and scientific sessions of the conference.

## STUDENT FORUM

### POSTER SESSION

This session is particularly introduced to encourage more number of student participation at international conferences, however it is not restricted only to students since it is also available for the participants with language barrier. There are specific guidelines to be followed to prepare the poster. Poster topic should be selected only from relevant scientific sessions with in-depth technical details.

### YOUNG INVESTIGATORS FORUM

An exclusive opportunity for students and young investigators to present their research work through a formal oral presentation. Young Investigators Forum provides a global platform for young researchers and scholars to showcase their valuable contribution to the scientific world and to get acknowledged by the global scientific community of experts. It is an excellent opportunity to recognize young scientific assets with promising research ideas. These oral presentations are of shorter time duration with 10-15 minutes of informative and precise presentations in relevant scientific sessions.

TIME TO **CONNECT** WITH YOUR **PEERS**

Register & Participate in

EURO VETERINARY 2020

TYPES OF ACADEMIC REGISTRATIONS

| SPEAKER REGISTRATION |
| --- |
| COMBO A (Registration + 2 night's accommodation) |
| COMBO B (Registration + 3 night's accommodation) |
| DELEGATE REGISTRATION |

SUBMIT YOUR ABSTRACT CLICK HERE

NO SECRET IS SAFE SHARE YOUR RESEARCH

## EDUCATIONAL WORKSHOPS/ RESEARCH WORKSHOPS/CORPORATE WORKSHOPS/MINI- SYMPOSIA

With an aim of transferring knowledge among the participants, workshops are introduced as a part of international conferences. These interactive and occasionally practical sessions gives an opportunity for participants to engage in detail discussion. Workshops are mostly scheduled for 60 to 90-minutes. It may range from learning about a specific topic relevant to international education, products and research which sometimes involves practical demonstration. It helps in enhancing skills, knowledge and understanding of the research field in depth through interactive discussions.

## HIGHLIGHTS OF THE DAY SESSIONS

"Highlights of the Day Sessions" is introduced to discuss and focus a ray upon previous day ORAL ABSTRACT presentations by experts to summarise the key findings. It helps in getting better insights into the various dimensions of the topic.

## EDUCATIONAL SESSIONS/ TRAINING PROGRAMS

Educational Sessions or training programs are specifically designed for a better understanding of the latest findings and technologies. These are generally 45-minute sessions that gives an exposure to the multidisciplinary field, that provides in-depth learning experiences and address educational needs.

## MEET THE PROFESSOR @ NETWORKING SESSIONS

This session involves open discussion between the experts and session attendees, it gives enough time for getting answers to specific questions and doubts. It is an opportunity for attendees to increase their professional networking, sometimes also leads to an excellent collaboration opportunity.

## SCIENTIFIC TRACKS/ SESSIONS

Veterinary Toxicology | Veterinary Surgery & Radiology | Camel & Equine Science | Animal Nutrition | Veterinary Research | Genetics & Animal Breeding | Veterinary Epidemiology | Veterinary Medicine | Agriculture, Animals and the Ecosystem | Aquaculture | Veterinary Forensics | Veterinary Nursing | Veterinary Physiotherapy | Animal Biotechnology | Mobile Veterinary Clinic | Animal Models & Testing | Veterinary Vaccines | Preventive Healthcare and Club | One Health | Veterinary Stem Cell Therapy

## TYPES OF BUSINESS REGISTRATIONS

| SPEAKER REGISTRATION |
| --- |
| COMBO A (Registration + 2 night's accommodation) |
| COMBO B (Registration + 3 night's accommodation) |
| DELEGATE REGISTRATION |

## TYPES OF STUDENT REGISTRATIONS

| REGISTRATION |
| --- |
| YIF |
| COMBO A (Registration + 2 night's accommodation) |
| COMBO B (Registration + 3 night's accommodation) |
| POSTERS |

## TYPES OF ADDITIONAL REGISTRATIONS

| Accompanying Person |
| --- |
| E-Poster |
| Virtual Presentation |
| Workshops |
| Start-Ups |

SUBMIT YOUR ABSTRACT CLICK HERE

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# Concurrent Educational Sessions

## THURSDAY, APRIL 02, 2020

### VETERINARY TOXICOLOGY

- Veterinary pharmacology
- Veterinary pathology
- Pesticide poisoning in Animals
- Clinical Veterinary Toxicology
- Applications & Current Trends
- Animal Toxicology Essentials
- Venomous Animals

### VETERINARY SURGERY & RADIOLOGY

- Veterinary Diagnosis and Treatment
- Veterinary Anesthesiology
- Veterinary Surgical Instruments
- Digital Radiography
- Veterinary Radiology Equipments
- Veterinary Radiography positioning

### CAMEL & EQUINE SCIENCE

- Camel & Equine Adaptations
- Innovations in Camel & Equine Research
- Camel & Equine reproduction
- Camel & Equine Equipment

## GROUP PHOTO | COFFEE BREAK

### ANIMAL NUTRITION

- Animal Health and Diseases
- Animal Supplements
- Principles of Animal Nutrition and Feeds
- Animal Herbal Health
- Animal Resources
- Animal Protection

### VETERINARY RESEARCH

- Dairy farming
- Livestock Production and Animal Husbandry
- Poultry farming
- Avian and Exotic Science
- Wildlife Management
- Meat Science & Technology

### GENETICS & ANIMAL BREEDING

- Animal Growth & Development
- Evolution of Animal Breeding
- Breeding Practice
- Artificial Insemination
- Animal Production
- Farm Animal Genetic Resources
- Importance of weight control for breeding animals
- Epigenetics

## LUNCH BREAK

### VETERINARY EPIDEMIOLOGY

- Animal welfare
- Animal Behavior
- Animal Ecology & Physiology
- Animal Habitats

### VETERINARY MEDICINE

- Veterinary Ophthalmology & Cardiology
- Veterinary Dermatology & Dentistry
- Veterinary Oncology & Orthopaedics
- Veterinary Nephrology & Urology
- Veterinary Chiropractic
- Veterinary Gastroenterology, Endocrinology and Neurology

### AGRICULTURE, ANIMALS AND THE ECOSYSTEM

- Coral Reefs
- Veterinary Entomology
- Effect of climate change on animals
- How does farming affect plants and animals?
- Effect of crops on animals

## COFFEE BREAK

### AQUACULTURE

- Fish farming Equipment
- Impacts of Aquaculture systems
- Use of Antibiotics in Aquaculture
- Offshore Aquaculture
- Mariculture

### VETERINARY FORENSICS

- Animal Rehabilitation
- Animal Cruelty Investigations
- Practical Veterinary Forensics

### VETERINARY NURSING

- Animal Care
- Applications of Veterinary Nursing
- Bioveterinary Science

# Concurrent Educational Sessions

## FRIDAY, APRIL 03, 2020

### VETERINARY PHYSIOTHERAPY

- Veterinary Hydrotherapy
- Small and Large Animal Physiotherapy

### ANIMAL BIOTECHNOLOGY

- Animal Cloning & Transgenic Animals
- Veterinary Microbiology and Microbial Diseases
- Veterinary Biochemistry
- Regulations of Animal Biotechnology
- Animal Synthetic Biotechnology

### MOBILE VETERINARY CLINIC

- Veterinary Care & management
- Emergency Animal Treatments
- Animal First Aid

## GROUP PHOTO | COFFEE BREAK

### ANIMAL MODELS & TESTING

- Animal Cosmetic Testing
- Clinical Veterinary Research
- Chemical Toxicology Testing
- Animal Testing Laws

### VETERINARY VACCINES

- Veterinary Immunology
- Veterinary Virology
- Veterinary Parasitology
- Animal Hematology

### PREVENTIVE HEALTHCARE AND CLUB

- Preventive measures
- Regular Health checkup

## LUNCH BREAK

### ONE HEALTH

- Evolution of One Health
- Concept and applications of One Health
- Zoonosis

### VETERINARY STEM CELL THERAPY

- Advances in use of Stem cells
- Regenerative Stem cell Therapy

## COFFEE BREAK

FEATURED TALKS

# Title: Was Jack the Ripper a Slaughterman? Human-Animal Violence and the World's Most Infamous Serial Killer

**Andrew Knight** | University of Winchester, UK

**Abstract:**

Hundreds of theories exist concerning the identity of "Jack the Ripper". His propensity for anatomical dissection with a knife - and in particular the rapid location and removal of specific organs - led some to speculate that he must have been surgically trained. However, re-examination of a mortuary sketch of one of his victims has revealed several aspects of incisional technique highly inconsistent with professional surgical training. Related discrepancies are also apparent in the language used within the only letter from Jack considered to be probably authentic. The techniques he used to dispatch his victims and retrieve their organs were, however, highly consistent with techniques used within the slaughterhouses of the day. East London in the 1880s had a large number of small-scale slaughterhouses, within which conditions for both animals and workers were exceedingly harsh. Modern sociological research has highlighted the clear links between the infliction of violence on animals and that inflicted on humans, as well as increased risks of violent crimes in communities surrounding slaughterhouses. Conditions within modern slaughterhouses are more humane in some ways but more desensitising in others. The implications for modern animal slaughtering, and our social reliance on slaughterhouses, are explored.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Optimal grain matrices for cyclopiazonic acid production by *Penicillium griseofulvum*

**Alexey A. Burkin | All-Russian Research Institute for Veterinary Sanitation, Hygiene and Ecology, Russia**

**Abstract:**

Cyclopiazonic acid (CPA) is a well-known mycotoxin with the dangerous ability to alter intracellular calcium flux in animals and a widely occurring contaminant of feed grasses and hay. Recently a 10-fold increase of the intensity of CPA biosynthesis by *Penicillium griseofulvum* Dierckx (= *P. urticae* Bainier) strains from mixed grass hay (Moscow region, 2013) on rice solid substrate in comparison to agar medium was revealed by the rapid screening procedure. The purpose of this study was to carry out the same test using the set of grain matrices. Each toxigenic strain was grown on watering polished rice (the control cultural matrice), oat flakes, corn and millet grits, barley and wheat groats in 15-ml vials in three replicates, and incubated for 7 days at 25°C without lightening. Fungal biomass samples were extracted with acetonitrile-water mixture (84:16 v/v) and CPA quantitation was made by ELISA with detection limit of 1.0 ng/ml.

On rice toxin levels were equal to 10, 7 and 16 µg/g for the strains. Strain # 434/3 was inferior to the others in intensity of toxin biosynthesis on all substrates. On corn, millet and oat, the ratio of CPA amounts formed by # 201/4 and # 584/4 were reversed to those found on rice due to the mismatch of reactions of strains to the change of medium. The ratio of CPA level in the strains formed on barley and wheat were the same as on rice. The accumulation of toxin produced by both strains increased 1.5 times, and for # 434/3 it remained the same. On the wheat substrate, the intensity of production of all three strains increased 2.3, 2.0 and 1.75 times. Thus, according to the received data, wheat and barley could be considered as the most appropriate cereal substrates for laboratory assessment of producing potential of *Penicillium griseofulvum.*

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# FEATURED TALKS

PEERS ALLEY MEDIA

**Title:** Membrane Lipid Replacement with plant glycerolphospholipids significantly improves fatigue, pain and other symptoms while improving age-related health changes

**Garth L. Nicolson** | **The Institute for Molecular Medicine, USA**

**Abstract:**

Mammalian aging is associated with loss of mitochondrial function by the key organelle responsible for about 90% of cellular energy production. This can result in cell death, excess fatigue, pain, loss of hearing, vision, hair and other symptoms that are common problems in age-related chronic conditions. Mitochondrial function also decreases naturally with advanced age, and at the end of lifespan mitochondrial function is on the average 50% of normal young adult levels. At the molecular level loss of mitochondrial function parallels loss of inner membrane mitochondrial trans-membrane electrical/chemical potential, which is used to drive production of high-energy molecules like ATP. Loss of mitochondrial function in aging and disease is related to membrane oxidative damage by Reactive Oxygen Species (ROS) as well as loss of critical mitochondrial cofactors. Membrane Lipid Replacement (MLR) using an extremely safe, all-natural, oral dietary supplement containing membrane glycerolphospholipids (NTFactor Lipids®) has been used to repair inner mitochondrial membrane matrix and recover trans-membrane electrical/chemical potential, reverse ROS damage, and return the production of ATP to normal levels. In laboratory rodents MLR with NTFactor Lipids in chow reduced age-related hearing loss and prevented age-related deletions in mitochondrial DNA. Recent clinical trials in humans have shown the benefits of MLR with NTFactor Lipids® in significantly reducing fatigue, pain, gastrointestinal and other symptoms, while improving mood and cognition in aged subjects with chronic symptoms. MLR has also been used to reduce the adverse effects of cancer therapy and improve Quality of Life indicators in aged patients. MLR also improves sperm function and motility. Addition of NTFactor Lipids® to animal food may by a cost-effective way to reduce age-related health problems.

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PEERS ALLEY MEDIA

# Title: Development Of Herbal Mosquito Repellent Nanopatch

**Prayag Dutt Juyal** | Nanaji Deshmukh Veterinary Science University, India

**Abstract:**

There were considerable efforts made to promote the use of environmentally friendly and biodegradable natural insecticides and repellents, particularly from botanical sources. However, limited period of effect is the major drawback of these products. There is a need in art for a safe, cost effective and highly efficient carriers/absorbent composition of matter that provides for a controlled time release of an aromatic substance, such as an essential oil or a combination of essential oils. The objective of research project relates to wearable insect repellent patch comprised of nanopatch intended to provide personal protection from insect bites particularly from mosquitoes. The repellent action is attributable to a one or mixture of essential oils including eucalyptus oil, citronella oil, geranium oil, rosemary oil, lemongrass oil and neem oil. Resultant nanopatch have shown enhanced surface-to-volume ratio, high porosity, numerous active sites, and controlled release of encapsulated oils. The developed nanopatch serve as matrix for essential oils, enclosed in a perforated backing substrate and further with a release liner to protect the volatile component from the external environment. The resulting patch provides an effective means of personal protection against flying insects and safe for use in children.

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PEERS ALLEY MEDIA

# Title: miR-34c regulates PKA activity independent of cAMP in Theileria annulata-infected macrophages and Plasmodium falciparum-infected red blood cells

**Gordon Langsley** | Cochin Institute, France

**Abstract:**

MicroRNAs (miRNAs) are small non-coding RNAs that can play critical roles in regulating various cellular processes including during many parasitic infections. Here, we report a regulatory role for miR-34c in cAMP-independent regulation of PKA activity during *Theileria annulata* and *Plasmodium falciparum* infection of bovine leukocytes and human erythrocytes, respectively. We identified PRKAR2B (cAMP-dependent protein kinase A type II-beta regulatory subunit), as a novel miR-34c target gene and demonstrated how infection-induce up-regulation of miR-34c repressed PRKAR2B expression to increase PKA activity in *T. annulata*-transformed macrophages promoting their virulent disseminating tumor phenotype. Similarly, *P. falciparum*-infection of red blood cells also induces increase in miR-34c-3p levels that ablate both erythrocyte PKAR2B and parasite PfPKAr levels leading to heighten PKA activity, which is important for both intra-erythrocytic development and merozoite invasion of fresh red blood cells. Induction of miR-34c therefore represents a novel cAMP-independent way of regulating both parasite and host PKA activity and miR-34c mimics or inhibitors have potential as therapeutics in the fight again tropical theileriosis and malaria.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Livestock based Integrated Farming System for sustainable livelihood of small farm households in India

**Azad Singh Panwar** | **ICAR-Indian Institute of Farming Systems Research, India**

**Abstract:**

Consumption pattern in India is also changing over the period of time and the share of calories in diet will be around 50% only from food grains while non-food crops and animal products share will increase in the coming years. The other problems in the Indian agriculture are the nature of tiny holdings which leads to low or no marketable surplus especially from crops. Integration of existing components is essential to have profitability in farming by way of reducing cost of production. Livestock can play major role in improving the livelihood of small households especially in Southern and Western parts of India.

**Livestock based pre-dominant farming systems:**

The quick survey conducted as a part of characterization of existing farming systems throughout the country indicates existence of 19 pre-dominant farming systems with majority as crop + livestock (85%). Although crop + livestock system is dominating in the country, based on the % contribution to net income, the systems are classified as crop, horticulture, livestock, fisheries dominant systems where in dominant component contributes more than 50 % of the total net returns. Livestock dominant systems are present in Rajasthan and Parts of Gujarat. West Bengal, parts of Odisha and Assam states have the fisheries as a major source of income to the existing farming systems. In selected states and locations, highly diversified systems also exists where in none of the component contributes for 50 % or more to the returns. Though the various farming systems exists in the country, integration of input and output within the system is either completely lacking or at partial integration.

**Conclusion:**

Crop and livestock co exists in India in many of the households. Fisheries is also an integral part of farming system in many parts including major share in eastern and north eastern India. Integrated fish farming with livestock is found to be highly profitable if the integration is done on scientific basis.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Non-infectious disease conditions in rescued Asian elephants and their management

**Yaduraj Khadpekar** | Wildlife SOS, India

**Abstract:**

India has one of the largest populations of captive Asian elephants. The country has a centuries old tradition of keeping and managing elephants in captivity. The latest captive elephant census in India estimated their number to be around 2,400. This number includes the captive elephants with private owners, state forest departments, zoos, and rehabilitation centres. In last few decades, with the changes in the laws, the purposes of keeping elephants and thus the management practices have been changing accordingly. In current times, unfortunately, many captive elephants in India suffer with variety of health conditions resulting from poor management practices such as long hours of tethering or walking on unnatural hard surfaces, negative training methods, unbalanced nutrition and neglected veterinary management protocols. Wildlife SOS (WSOS), a non-profit wildlife conservation and welfare organization in India, manages two elephant rescue and rehabilitation centres in the country. Captive elephants rescued by state forest departments are brought to one of these facilities for long-term veterinary treatment and care. In many cases, for lifetime care and rehabilitation. Over the years, the veterinary team at these centres have experienced a typical set of health issues in these rescued elephants. The most common non-infectious health problems in these elephants can be broadly categorised in three categories as, (1) Chronic wounds and abscesses, (2) Joint problems, and (3) Feet problems. All of these conditions need long-term veterinary treatment, care and management that generally lasts for months to years, and in some cases, even for lifetime. Treatment and management of these conditions involve regular diagnostic procedures such as thermal imaging and radiography examinations to assess the healing, routine veterinary treatments and most importantly, following husbandry protocols that help in long-term management of these issues.

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# Title: Map of A Conformational Antigen Epitope on ORFV-B2L Recognized by the 2E4 mAb

**Yongzhong Yu** | **Heilongjiang Bayi Agricultural University, China**


## Abstract:

Orf (contagious pustular dermatitis or contagious ecthyma), is one of the most widespread contagious viral diseases worldwide, affecting mostly small ruminants such as sheep, goats and, sometimes, other species, including wild animals. All along, orf is the most frequently diagnosed zoonosis in some sheep rearing countries or areas. The causative agent, orf virus (ORFV), has been extensively investigated over recent years, owing to its zoonotic importance and ability to cross-infect other species sporadically, but many questions remain unanswered.

Among the molecular markers, B2L of ORFV is known to be the primary immunogenic envelope protein p42K, the homologue of p37K from the vaccinia virus. For vaccine design, its precise epitope informations are essential for understanding a possible immunoprotection mechanism. Here, we have successfully mapped a conformation-dependent antigen epitope in B2L recognized by 2E4 monoclonal antibody (mAb). Briefly, the simulated epitope (mimotope is selected by 2E4) peptide VKVNPPQYDLE/RR derived from biopanning (Figure 1) closely resembles $^{84}$VDVQSKDKDADELR$^{97}$ located at the N-terminus of B2L, strongly suggesting that 2E4 epitope is conformationally or spatially structure-dependent. Subsequently, we designed three truncated fragments of B2L (F1, F2 and F3), and only the F1 fragment was found to be eligible for the advanced stage. Alanine-scanning mutagenesis suggested that the D94 residue is structurally crucial for the 2E4 epitope. The other participating residues, including K61, E62, and D92, together with D94 (the key amino acid residue) were responsible for enabling 2E4 binding and served as factors that synergistically enabled binding to the whole 2E4 epitope.

As conclusion, using a set of combinatorial programs, we meticulously mapped the 2E4 epitope. This study describes, for the frst time, the architecture of an ORFV conformational epitope, and it is also expected that mAb 2E4 and its epitope can be used for applications relating to orf control.



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PEERS ALLEY MEDIA

# Title: Evaluation of total antioxidant, total calcium, selenium, insulin, free triiodothyronine and free thyroxine levels in cows with clinical and subclinical ketosis

**Süleyman Kozat | Yuzuncu Yıl University, Turkey**

**Abstract:**

Ketosis is an important metabolic disease of high milk-producing cows. There are significant changes in many metabolite and hormonal concentrations in metabolic diseases. This study was carried out to assess the concentrations calcium (Ca), selenium (Se), total antioxidant (TAOC), insulin, free triiodothyronine (fT3) and free thyroxine (fT4) in cows with subclinical and clinical ketosis. This study included 20 dairy cows within the first two months of lactation, aged between 4-8 years. Cows with BHBA concentrations 1.20 mmol/L were considered healthy, whereas 1.20 and 1.50 mmol/L were considered subclinical and 1.60-2.20 mmol/L were classified as clinically ketotic. Serum AST, ALT, LDH, glucose, Ca, plasma TAOC capacity and BHBA concentrations were performed spectrophotometrically. Serum insulin, free triiodothyronine and free thyroxine concentrations were measured using the chemi-luminescence method. Serum Se concentrations were measured using an Inductively Coupled Plasma-Mass Spectrometry (ICP-MS).

In conclusion, significant changes were noted in decreased concentrations of TAOC, Ca, Se, fT3, fT4 and insulin in cows with subclinical and clinical ketosis. The study identified important parameters, changes in the levels of these parameters will be important in determining the treatment and prognosis of the disease. Their use may also help reduce the economic losses suffered by dairy farmers as a result of the disease.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Characterization of *Amelogenin* gene as sex-specific marker in Yak

**Partha Pratim Das** | **ICAR-National Research Centre, India**

**Abstract:**

Yak, an economically important bovine species considered as the lifeline for high altitudes of Himalayas. Indeed, this gigantic bovine is neglected from the scientific intervention for a long time. Amelogenin is an essential protein for tooth enamel which Eutherian mammals possess two copies in both X and Y chromosomes each. This gene is believed to undergone very less recombination throughout its evolution, thereby considered to represent the ancestral pseudo-autosomal boundary. In bovine, the deleted nucleotide sequence in Y chromosome copy of exon 6 made Amelogenin an excellent sex-specific marker. So an attempt was made to use this gene as an advanced molecular marker for sexing of yak for its conservation.

For the current study, eight pairs of primers were subjected to use, spanning the whole AMELX gene (Primer 1 to 8), which covers 9023bp. PCR result revealed a similar gel pattern in both males and females except for primer-5. The specific primer 5, spanning exon 6 gives an extra band of 216bp in male, whereas it is absent in the female. Few mismatches were observed in the positions 2106.A>C, 3255.A>G, 6217.A>T, 6235.C>A, G.6657.C with cattle along with a deletion in position G. 6657.C in AMELX5 amplicon in the female yak, but not in cattle. The Y-specific deletion of 63bp nucleotides in the AMELX5 is a novel finding in the yak.

Further, the test is validated by qPCR with copy number variation in males and females using four housekeeping genes as reference. Significantly ($p>0.5$), a difference in copy number was observed, in the female, compared to males (Fig.1). The high level of sequence polymorphisms of AMELX and AMELY identified in yak established as a novel phenomenon. These tests in the future would be beneficial in several specialized fields including forensics and quality control for commercial intervention.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Characterization of Stem Cells from Bovine Mammary Tissue and Milk

**Shailesh Ingole** | **Mumbai Veterinary College, India**

**Abstract:**

Stem cells detected in mammary gland tissue with differentiation capacity to originate mammary epithelial cell and myoepithelial cells have been considered as the sources of stem cells in breast milk. The bovine mammary stem cells are critically important to mammary development and tissue maintenance. Its identification and characterization may be beneficial for human medicine because of similarities between bovine and human mammary tissues with regard to tissue architecture and mammary growth characteristics. We aimed to isolate and characterize MaSCs from the normal and mastitic mammary gland of buffaloes and milk stem cells from normal milk, colostrum and mastitic milk. The histomorphological studies of mammary gland showed that the lactating mammary tissue exhibited a similar histological ultrastructure to the non-lactating tissue with minor changes, while the mastitic tissue exhibited a significant change in mammary tissue ultrastructure and no remnant milk constituents were observed. The impression smear cytology of non-lactating mammary gland was similar to that of lactating mammary gland with minor changes, while the mastitic gland showed inflammatory cells, myoepithelial cells and neutrophils. The resting and lactating mammary gland showed the ability of pluripotency, whereas mastitic mammary gland tissue showed the higher expression levels of stem cells distributed throughout the stroma which suggests that the MaSCs are essential for the regeneration with each cycle of lactation and could play a major role in overall development and repair of mammary tissue caused by mastitis. The increased number of pluripotent stem cells and embryonic stem cell gene OCT4 in mastitic mammary gland suggest the tumerogenecity in the fibrosed udder which could relate to the breast tumours in humans. The OCT4, SOX2 and NANOG genes confirmed the presence of pluripotent stem cells in colostrum and normal milk which are myoepithelial in origin which may be shading from the mammary gland and possibly have role in immune function of the calf and contribute to tissue homeostasis, repair, and/or regeneration in the young one.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: The influence of different inorganic phosphorus sources in broilers diet on production results and bone mineralization

**Dragan Sefer** | **University of Belgrade**

**Abstract:**

The aim of this trial was to determine the influence of monobasic calcium phosphate (MCP), as source of inorganic phosphorus, on production results of broilers, but also to determine the bone breaking strength, which indicates the level of availability of phosphorus from mineral nutrients. The trial included 200 broilers (Cobb 500), both sexes, from the same hatch. Broilers were divided in two groups, 100 each. During the 42 experimental days, which was divided in three phases (1-21, 21-35 and 35-42 days), groups were fed with different experimental diets. One group of broilers was fed with diet supplemented with MCP, provided by “Elixir Group” D.O.O., Sabac, Serbia. The other group was fed with diets supplemented with MCP originating from Russia. During the trial, health status and mortality were monitored on daily basis. Production results (average body weight, average daily gain, feed intake and feed to gain ratio) were monitored during the trial. At the end of the trial, 6 broilers from each group were slaughtered and the tibiae bone was examined on breaking strength. Production results of the first experimental group (fed with addition of MCP-Elixir), were significantly better, compared to the group fed with MCP from Russia ($p<0.05$). Bone breaking strength in the same group was higher but without statistical signifcance ($p>0.05$). The results of the experiment indicated that MCP as inorganic phosphorus source and has significant impact on growth, production performances, but also on level of mineralization of bones.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Role of miR-731 and miR-2188-3p in mediating Chlorpyrifos induced head kidney injury in common carp via targeting TLR and apoptosis pathways

**Qi Liu** | **Northeast Agricultural University, China**

**Abstract:**

Chlorpyrifos (CPF) is an environmental pollutant with increasing importance due to its high toxicity to fish and aquatic animals. In the present study, we divided 120 common carp (Cyprinus carpio L.) into two groups including control group and CPF group, CPF group was exposed to 14.5 μg/L CPF for 30 d. 17 miRNAs were differentially expressed in CPF group head kidney tissues according to the results of miRNAome analysis. In addition, histopathological examination and electron microscopy proved that CPF exposure could lead to damage of head kidney and obvious apoptosis characteristics. The possible target genes of miRNA were predicted using online target gene prediction websites, miRNAome sequencing, GO and KEGG enrichment. miRNAome results showed that expression of miR-731 and miR-2188-3p in CPF group was 0.48 time and 0.45 time as control group, respectively. qRT-PCR results proved the reality of miRNAome. During CPF exposure, mRNA expression of TLR pathway genes and its downstream genes involved in autophagy and apoptosis pathway including TLR1, TLR2, TLR7, TLR9, MyD88, IRAK1, IRAK4, IRF7, PI3K, AKT, mTOR, Caspase3, Caspase8 and Bax were differentially increased under CPF exposure, along with ATG13 and Bcl2 decreased at the same time. Western blot results indicated that apoptosis related protein Caspase3 and Caspase8 were differentially up-regulated in the CPF group. In summary, CPF exposure could induce apoptosis while inhibited autophagy in head kidney of common carp via the regulation of miR-2188-3p and miR-731 by targeting TLR pathway. These results provide new insights for unveiling the biological effects of CPF and miRNAs in common carp.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Israeli experience in molecular diagnosis of Simbu viruses

**Natalia Golender** | **Kimron Veterinary Institute, Israel**

**Abstract:**

The Simbu serogroup is one of 18 serogroups assigned to the genus *Orthobunyavirus* of the family *Peribunyaviridae*, order *Bunyavirales*. The serogroup currently consists of 32 viruses grouped into 19 virus species, among them Akabane orthobunyavirus, Shuni orthobunyavirus, or Schmallenberg orthobunyavirus. Simbuviruses are distributed worldwide and they persist in nature by alternately infecting mammalian hosts and *Culicoides* vectors. Several members of this virus group, e.g. Akabane, Shuni, Schmallenberg, Aino, Peaton and Shamonda viruses, infect a wide range of ruminants and are able to cross the placental barrier causing abortion, stillbirth and congenital abnormalities. Notably, Akabane and Shuni viruses are also known to induce severe neurological symptoms in some livestock animals, whereas Schmallenberg virus may also cause fever, decreased milk production, or diarrhea in adult ruminants. According to Israeli experiences, Shuni virus, Akabane virus and the only recently isolated Sango virus, which was identified at the end of 2019, may also cause mild clinical signs such as reduced milk yield, fever or diarrhea in cattle.

Molecular diagnosis of Simbu viruses differs markedly between different laboratories worldwide. Diagnostic systems range from conventional reverse-transcription polymerase chain reaction (RT-PCR) and different types of nested PCRs to real-time quantitative species- or group-specific PCRs (RT-qPCR) and mixed types of PCR, depending mostly on the epidemiological situation of the region. For areas where several Simbu serogroup members circulate, a generic single probe-based RT-qPCR has been recently developed. By using this method, two new different Israeli strains of Akabane virus and an Israeli strain of Sango virus were recently identified.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Ammonia Regulates Chicken Tracheal Cell Necroptosis via the LncRNA-107053293/MiR-148a-3p/FAF1 Axis

**Wang Wei** | **Northeast Agricultural University, China**

**Abstract:**

Ammonia ($NH_3$) is a known harmful gas that causes injury to the respiratory system. Ammonia also exists in haze, forming secondary organic aerosols. However, the specific damage caused by $NH_3$ in chicken trachea has not been determined. The regulatory mechanism of ceRNA and its multiple roles have been proposed in many pathomechanisms; therefore, we investigated the functional role of ceRNA in chicken trachea after $NH_3$ inhalation. Broiler chicken trachea exposed to $NH_3$ was selected as the research object. The pathological ultrastructure was observed by transmission electron microscopy. Transcriptome analyses were applied and referenced, and lncRNA-107053293 and miR-148a-3p and FAF1 were selected. A dual-luciferase reporter assay verified the target relationship. Real-time quantitative PCR (RT-PCR) and western blotting were performed to examine the expression levels of necroptosis genes, such as RIPK1, RIPK3, MLKL, caspase 8, and FADD. Our results indicated that lncRNA-107053293 regulated necroptosis by acting as a competing endogenous RNA of miR-148a-3p. FAF1, as a gene target of miR-148a-3p, also affects necroptosis.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Galectin Domain Containing protein from *Haemonchus contortus* modulates the immune functions of goat PBMCs and regulates CD4+ T-Helper Cells *in vitro*

**Muhammad Ali-ul-Husnain Naqvi** | Nanjing Agricultural University, China

## Abstract:

Galectins are glycan-binding proteins that are widely expressed and distributed in mammalian tissues as well as cells of innate and adaptive immune responses. CD4+ T-helper cells differentiate into effector subsets in response to cytokines. T helper 9 cells are one of the recently described subsets of effector T cells that are relatively new and less studied. In this study, galectin domain containing protein from Haemonchus contortus (Hc-GDC) was cloned, expressed in pET32a, and immunoblotting was performed. Localization of recombinant (r)Hc-GDC on outer and inner surface of H. contortus worm and binding with goat Peripheral Blood Mononuclear cells (PBMCs) were performed using immunofluorescence assay. Moreover, effects of rHc-GDC on proliferation, apoptosis, cell migration, and the nitric oxide production in goat PBMCs were evaluated. Furthermore, modulatory effects of rHc-GDC on production of Th1, Th2, and Th9 cells were evaluated by flowcytometry and on interferon gamma, interleukin (IL)-4 and IL-9 were evaluated by quantitative real-time polymerase chain reaction. The results demonstrated that rHc-GDC was successfully cloned, expressed in expression vector as well as in the gut surface of adult H. contortus worm and successful binding with PBMCs surface were observed. Immunoblotting results revealed that rHc-GDC is an important active protein of H. contortus excretory and secretory products. Moreover, the interaction of rHc-GDC with host cells increased the production of Th2, Th9 cells, IL4, IL-9, PBMC proliferation, nitric oxide, and cell migration. No effects of rHc-GDC were observed on PMBC apoptosis, production of Th1 cells, and secretions of IFN- and IL-10 cytokines. These findings indicate that recombinant GDC protein from H. contortus modulates the immune functions of goat PBMCs and has the potential to enhance protective immunity by inducing T helper-9-derived IL-9 in vitro.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: In search of the *Rhipicephalus* (*Boophilus*) *microplus* in the western-central regions of the Eastern Cape Province, South Africa

**Mandla Yawa** | **University of Fort Hare, South Africa**

**Abstract:**

The objective of the study was to determine the distribution of *R. (B.) microplus* under different ecological zones in the western-central regions of Eastern Cape Province. Engorged adult blue ticks were collected monthly from 360 randomly selected cattle and free living ticks from six replicate drags of the vegetation over a period of 1 year at Bedford Dry Grassland (BDG), Kowie Thicket (KT) and Bhisho Thornveld (BT). Special attention was paid to the lower perineum, neck, dewlap and ventral body parts which are the preferred sites for blue ticks during sampling. In this study, 9 species of ticks which grouped under 5 genera were identified. A total of 4382 females and 3708 males of *R. (B.) decoloratus* were recovered during the survey. Of the ticks (n=2885) collected from the vegetation, *R. (B.) decoloratus* was the most abundant species with a relative prevalence of 58.16%, followed by R. appendiculatus (18.37%) and R. evertsi evertsi (16.90%). Least abundant ticks were *H. rufipes* (2.98%), *A. hebraeum* (2.46%), *H. elliptica* (0.38%), *R. follis* (0.34%), *I. pilosus* (0.24%) and *R. simus* (0.17%). The distribution of *R. (B.) decoloratus* ticks differ significantly ($P < 0.05$) among the vegetation types. More ($P < 0.05$) engorged *R. (B.) decoloratus* were collected in KT during summer season (1.39 ± 0.063 females and 1.30 ± 0.063 males) compared to other vegetation types. The *R. (B.) decoloratus* larvae were significantly higher ($P < 0.05$) in BT (20.56±1.154) and KT (18.50±1.154) vegetation types during the spring season. *R. (B.) microplus* was not found in the present study, signifying that it is not yet established in western-central regions of the Eastern Cape Province and as such, continuous monitoring would be advisable.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Effect of acrylamide subchronic treatment on glycogen content and morphometrical parameters of adult rat liver

**Jelena Marković Filipović** | University of Novi Sad


## Abstract:

Acrylamide (AA) is a chemical known for its neurotoxic, carcinogenic and mutagenic effects on living organisms. AA occurs in mixed concentrate feed for dairy cows and carry-over into milk. Since AA exerts numerous adverse effects, the aim of our study was to examine effects of acrylamide on glycogen content and morphometrical parameters of adult rat liver. The investigation was conducted on adult male Wistar rats aged 65 days at the beginning of the experiment. Thirty rats were divided into three groups, one control and two groups subchronically treated with 25 mg/kg bw and 50 mg/kg bw of AA during three weeks. Morphometrical analysis of rat hepatocyte was performed on liver sections stained with heamatoxylin and eosin using multipurpose test grid (M42). Estimated parameters were: volume density of hepatocytes, their cytoplasm and nuclei and nucleocytoplasmic ratio. Analysis of the glycogen content was performed on the liver sections stained with Periodic acid-Schiff (PAS). Quantification of PAS-positive granulations was carried out using Windows based ImageJ program (ImageJ, Version 1.50f). We measured optical density (OD) of PAS-stained granulations, since OD is proportional to the concentration of the stain.

Volume density of hepatocyte nuclei and nucleocytoplasmic ratio showed statistically significant increase in group treated with 50 mg/kg of AA compared to the control, while volume density of hepatocyte cytoplasm significantly decreased in group treated with 50 mg/kg of AA compared to the control. However, volume density of hepatocytes of AA-treated groups did not show statistically significant differences compared to the control animals. Analysis of PAS-stained liver sections revealed that OD of PAS-stained granulations did not significantly differ between control and AA-treated groups. Our study showed that acrylamide treatment changes microstructure of hepatocyte. On the other hand, AA does not affect glycogen content in adult rat hepatocytes.



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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Prevalence of Gastrointestinal Parasite in Cattle of Rupandehi District of Nepal in Different Seasons

**Utsav Lamichhane** | Agriculture and Forestry University

**Abstract:**

Majorly the gastrointestine of cow is infected with nematodes, cestodes and trematodes. This eventually contribute to decrease the productivity of cattle. To analyze the seasonal prevalence of the gastrointestinal parasite, a study was done in Thutipipal of Rupandehi district in two different seasons i.e. summer and winter. Method used to recover and identify the parasite egg or larva from the fecal sample was sedimentation technique. In summer season total of 48 fecal samples of cattle were taken out of which 14 samples showed the parasitic infestation. This was 29.17% infestation. Similarly, 51 fecal samples were taken in winter season in the same location, out of which 10 samples showed the parasitic infestation. This showed the winter infestation to be 19.6%. Infestation within the result for the summer was 58.33% which was higher than that of winter which was 41.67%. Statistically the result in both seasons was found to be non-significant. Also, the infestation in the breed of cattle was analyzed. Result showed 7 fecal samples of Jersey infested with parasite out of 47 Jersey cattle which was 14.89% infestation. Similarly, 21 fecal samples of Jersey cross infested with parasite out of 52 Jersey crosses which was 40.38%. Infestation within the result was also higher for the Jersey cross which was 75% than that of the Jersey which was 25%. The result was statistically non- significant. But the infestation percentages in both seasons are itself significant to hamper the productivity of the cattle.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Effects of acrylamide treatment on inducible nitric oxide synthase expression in rat hepatocytes

**Jelena Marković Filipović** | **University of Novi Sad**


## Abstract:

Acrylamide (AA) is industrial toxic substance with neurotoxic and reprotoxic effects. AA is a Maillard reaction product formed during processing of starchy food at high temperature. In liver AA is metabolized into genotoxic glycidamide (GA). Both AA and GA have pro-oxidative effect. [1, 2] The aim of our study was to examine in vitro and in vivo effects of AA on inducible nitric oxide synthase (iNOS) expression in rat hepatocytes.

Rat hepatoma cells H4IIE were treated with 4 mM (IC20) and 4.5 mM (IC50) of AA for 24 h. Relative mRNA expression for iNOS was quantified using real-time RT-PCR. Adult male Wistar rats were subchronicly (three weeks) treated with 25 mg/kg or 50 mg/kg body weight (bw) of AA. Formalin-fixed paraffin-embedded liver tissue was cut into 5 µm thick sections and immunostained with anti-iNOS antibody. The amount of iNOS in immunostained liver sections was determined using Windows based ImageJ program (ImageJ, Version 1.50f). We measured optical density (OD) of immunolabeled iNOS, since OD is proportional to the concentration of the stain.

After AA treatments, mRNA level for iNOS significantly increased in a concentration-dependent manner in H4IIE cells. In order to examine effects of AA on iNOS expression in hepatocytes in vivo, we analyzed iNOS protein level in liver of rats subchronically treated with AA. Immunostaining of iNOS in the liver sections showed cytoplasmic iNOS immunoreactivity in hepatocytes. AA treatment induced dose-dependent increase of OD of immunolabeled iNOS. The increase of OD proved to be statistically significant for group treated with higher dose of acrylamide (50 mg/kg bw) compared to the control. Dose-dependent increase in iNOS expression upon AA treatment was also observed in endocrine pancreas.



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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Bifurcations of a two-dimensional discrete-time plant-herbivore system

**Abdul Qadeer Khan** | **University of Azad Jammu & Kashmir**

**Abstract:**

This work is purely dedicated to the bifurcations analysis of a two dimensional discrete-time plant-herbivore system formulated by Allen et al. (1993). It is proved that the system undergoes a transcritical bifurcation in a small neighborhood of boundary equilibrium and a Neimark–Sacker bifurcation in a small neighborhood of the unique positive equilibrium. An invariant closed curve bifurcates from the unique positive equilibrium by Neimark–Sacker bifurcation, which corresponds to the periodic or quasi-periodic oscillations between plant and herbivore populations. For a special form of the system, which appears in Kulenovic and Ladas (2002), it is shown that the system can undergo a supercritical Neimark–Sacker bifurcation in a small neighborhood of the unique positive equilibrium and a stable invariant closed curve appears. This bifurcation analysis provides a theoretical support on the earlier numerical observations in Allen et al. (1993) and gives a supportive evidence of the conjecture in Kulenovic and Ladas (2002). Some numerical simulations are also presented to illustrate our theoretical results.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Assessment of Community Knowledge, Attitude and Practices on Selected Zoonotic Diseases in and around Hirna Town, Western Hararge, Ethiopia

**Tilahun Bekele Hailemariam** | **Wollo University**


## Abstract:

The study was conducted from November 2017 to June 2018 in and around hirna town, western hararge zone to assess community knowledge, attitude and practices on selected zoonotic diseases. For this cross-sectional study, a simple random sampling procedure was employed to select study participants from six kebeles, smallest administrative zones. Then, 64 households were selected and interviewed from each kebeles. A structured questionnaire was used to collect the data through face-to-face interviews among 384 respondents. The data was analyzed using SPSS statistical software version 20 and the frequency distribution of both dependent and independent variables were worked out by using descriptive statistics technique (Frequencies and percentage). Association between dependent and independent variables was calculated using Pearson's Chi square. Out of 384 respondents, 236 (61.5%) were males and 148 (38.5%) were females. One hundred sixty five (43%) of the respondents had no formal education (illiterate) whereas 18 (4.7%) were graduate with health profession. Majority of the community indicated that Rabies and bovine tuberculosis were frequently heard zoonotic disease.

Eighty four point one and seventy eight point two of the respondents know bovine tuberculosis and Rabies had zoonotic effect, respectively. Majority of the respondents listed bite (84.8%), inhalation (55.7%), ingestion (67.1%) contact (90.9%), ingestion (87.4%) and ingestion (62.5%) as means of transmission for rabies, BTB, anthrax, brucellosis, taeniasis and echinococcosis, respectively. About 82.2% believed that a person infected by zoonotic disease can be cured by modern means of treatment. On the other hand, 97.7% suggested that zoonotic diseased could be prevented. Most of the communities were performing good practices that reduced the prevention and control of the diseases by bringing diseased animals to health care centers and vaccinated animals. However, common bad practices exhibited by the community were consumption of raw meat and milk, sharing the same house with animals, slaughtering of animal at home, feeding raw offals to dog etc.The majority of the respondents awareness levels were statistically influenced by age, occupation and educational status ($P<0.05$). In general, the awareness of the study participants especially on echinococcosis and brucellosis was found poor. Hence, Veterinarians and health professionals should prepare and deliver continuous and strategic community awareness programs on prevention and control of common zoonotic diseases in the study area.



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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Serodiagnosis of *Toxoplasma gondii* in Domesticated Cats and its Associated Risk Factors in district Jhang, Pakistan

**Mazhar Abbas** | **University of Veterinary and Animal Sciences**

**Abstract:**

Toxoplasmosis, an important zoonotic parasitic disease causing infection in humans and contaminating the environment. Cats are the sole source of spreading infection. Current study was designed to serodiagnose in the flooded area, Jhang, Pakistan. Using rapid identification pen side strip test 316 pet cats were examined at CVAS, Jhang and other private clinics in that area. Rapid ID Chromatographic immune assay was performed to detect the antibodies for Feline toxoplasma IgM and IgG in serum. Related assosiated risk factors like breed, sex, contact with other livestock animals, deworming, location type (urban or rural area), diet (nature of food either cooked or uncooked meat), and outdoor access for wandering were also interviewd by owner. Total seroprevalence of cats was 10.4% (33/316). IgG antibodies were found 9.09 (29/316) while IgM antibodies were 2.21%(7/316) in cats. Seroprevalence was significantly high in cats older than one year. No significant difference was recorded between males and females. Cats from periurban areas showed higher prevalence. Cats having access to outside, contact with other animals and eating uncooked food showed high seroprevalence. The current study confirms that Toxoplasma gondii is widespread in pet animals in district Jhang, Pakistan. This study will help the highrt authorities and researchers to take an effective control measure against this infectious disease.

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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Medicinal Value of *C. macrostachyus* and *S. incanum in treatment of Food* borne Diseases

**Tagesu Abdisa** | **Jimma University**


## Abstract:

Food-borne diseases are a public health threat which causes a large economic impact across the worldwide. Escherichia coli, Listeria monocytogenes, Salmonella species, S. aureus, and many more other organisms are the leading causes of foodborne illness and death in the world. Increment of antibiotic resistance exhibited by the actions of microbial infectious agents has led to screening of several medicinal plants for their potential antimicrobial activity. Therefore, the aim of this paper is to review on the medicinal value of C. macrostachyus and S. incanum against causative agents of foodborne disease. Antimicrobial compounds of medicinal plants differ from antibiotics as they have fewer side effects, better patient tolerance, relatively less expensive, acceptance due to long history of use and being renewable in nature. There are so many medicinal plants used to treat food borne diseases associated with gastroenteritis in humans and animals, among medicinal plants S. incanum and C. macrostachyus are the common for treatment of food borne diseases. S. incanum has different bioactive substances which have medicinal importance against skin diseases, abdominal pains, fever, stomachaches and indigestion, treatment of dandruff, wounds, sore throat, angina, ear inflammation, liver disorders, wart and ringworm and treatment of Cowdriosis, Dermatophilosis, Foot rot, pastreurellosis, black legs, fasciolosis and snake bite.

Bioactive compounds which present in S. incanum are including alkaloids, steroids, saponins, tannins, glycosides, flavonoid and terpenoids. C. macrostachyus is medicinal plant which have bioactive compounds including terpenoids, alkaloid, flavonoids, lignoids, proanthcyanidins, sesquiterpenoids and lupeol, saponnins, resins, crotepeoxide, alkaloids. C. macrostachyus have medicinal value in treatment of malaria, rabies, gonorrhea, wound, diarrhea, hepatitis, jaundice, abdominal pain, cancer, toothache, pneumonia, typhoid and gastrointestinal disorder. And also used as abortifacient and uterotonic to expel retained placenta. Therefore, S. incanum and C. macrostachyus have different medicinal value against foodborne disease and drug resistance infectious agents. However, an advanced study has not been conducted on the extract of pure bioactive compounds and toxicity analysis. Therefore, the further study should have to be conducted to extract pure compounds from these medicinal plants for production of novel drugs in pharmaceutics industry.



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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Effects of prepartum dietary energy density and supplementing bypass lysine on energy metabolites, milk yields and composition in dairy cows during the transition period

**Girma Debele Delelesse** | Oromia Agricultural Research Institute


## Abstract:

The objective of this study was to investigate the effects of dietary energy levels and rumen-protected lysine supplementation on serum free fatty acids levels, β-hydroxybutyrate levels, dry matter intake, milk production, and composition. Treatments were arranged in a 2 x 2 factorial design with two dietary energy levels (High NEL = 1.53Mcal/kg DM vs Low NEL = 1.37Mcal/kg DM, HE vs LE) fed either with rumen-protected lysine 40 g/cow per day, bypass lysine (Blys), or without rumen-protected lysine (control, CK).Sixty-eight third lactation Holstein dairy cows entering their 4th lactations were randomly allocated to 4 treatments groups: high energy with bypass lysine (HEBlys), high energy without bypass lysine (HECK), low energy with bypass lysine (LEBlys), and low energy without bypass lysine (LECK). Groups were balanced based upon their expected calving date, previous milk yields, and body condition score. All cows were fed the same diet (NEL = 1.34 Mcal/kg DM) during the dry period prior to starting the trial. Rumen-protected lysine was top-dressed on a total mixed ration to deliver 9.68 g/d metabolizable lysine to pre and post-partum cows. After calving, all cows received the same TMR (1.69 Mcal/kg DM). Blood samples were collected at -21, -14, -7, 0, 3, 7, 14, and 21 d relative to calving and free fatty acids and β-hydroxybutyrate concentrations were measured. Milk samples were collected once per week following calving and milk composition was analyzed. Feeding high NEL to close-up cows decreased the concentrations of free fatty acid and β-hydroxybutrate in pre-partum cows but not in post-partum cows. Addition of rumen-protected lysine increased post-partum dry matter intake, and decreased serum free fatty acid and β-hydroxybutyrate concentrations. Neither energy nor rumen-protected lysine supplementation nor their interaction impacted milk yield, fat nor lactose yields. However, cows in HEBlys tended to produce more milk compared to other groups and had lower blood β-hydroxybutyrate concentration in postpartum cows. It was concluded that feeding a high energy diet together with rumen-protected lysine improved dry matter intake and lowered serum free fatty acid and β-hydroxybutyrate concentrations in transition cows.



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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Assembly of Arenavirus: An Ultra structural Perspective

**Abdullah Sethar** | **Sindh Agriculture University**


## Abstract:

The Arenaviredae are a family of viruses whose members are generally associated with rodent transmitted disease in humans which currently comprises 24 viral species. Arenavirus infections are relatively common in humans in some areas of the world and can cause severe illnesses including several haemorrhagic fevers. The virus particles vary in diameter from 60 to more than 300 nm. They are spherical and have a reported average diameter of 92 nanometres. All are enveloped in a lipid bilayer and have a bisegmented ambisense RNA genome, but relatively little is known about how virions are assembled and how virion structure relates to transmissibility. To investigate the role of each viral structural protein in forming and maintaining the structure of the virion, we have imaged particles of arenaviruses LCMV, PICV and TCRV, and compared their shape and structural characteristics to similar sized phospholipid vesicles.

A very strong association between particle size and shape was found for all arenavirus particles: small virions were significantly rounder than vesicles of similar size, while large particles tended to be more elliptical in appearance. The natural variation in surface glycoprotein decoration and ribonucleoprotein incorporation was then measured. From this data it was concluded that there is no strong evidence relating particles size to decoration for arenaviruses as a group, but we did detect significant correlations between internal density and virion shape. Overall, we are able to conclude that small virions are round and relatively rigid compared to vesicles of the same size, while large virions are not. By comparing relative density of the membrane- proximal region it was discovered that arenavirus shape is controlled by complexes containing GPC, Z and NP at the surface of the virion, and that an unbroken inner shell of NP is essential for maintaining a rigid spherical shape. Furthermore, it was revealed that the inner leaflet of intact arenaviruses has a lower density than the inner leaflet of vesicles consistent with the interpretation that viral proteins are displaying lipid molecules from the inner leaflet of the viral membrane.

These data provide a new way of assessing the function of viral protein interactions on virion structure and may be of use in designing antiviral drugs that act at the level of virion structure.



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FEATURED TALKS

PEERS ALLEY MEDIA

# Title: Comparison of Serological and Coprological diagnostic techniques for Fasciolosis in buffaloes

**Asma Waheed Qureshi** | GC Women University

**Abstract:**

Fasciolosis is a parasitic disease, usually diagnosed by examining presence of eggs in feces of infected host. However, the disadvantage of this method is that pathology occur few days after infestation, but detection is only possible after 10 weeks of infection when eggs begin to appear in feces. The immunodiagnostic tests make possible even to diagnose fascioliasis at early stages. These tests were basically focused on specific antigen/antibody detection and can be used for recent infection. Keeping in view the importance of diagnostic techniques, coprological (direct microscopic examination of feces) and serological (IHA-test) methods were compared for effective diagnosis of fasciolosis in buffaloes. It was noted that by IHA test showed higher no of positive samples as compared to coprological examination. Overall prevalence (%) in buffaloes was observed 11.67% and 9.72%, respectively by two methods. Risk factors including monthly, seasonal, age and sex wise prevalence was also considered in study and it was noted that seroprevalence values were also higher for these factors. Chi ($\chi^2$) revealed no significant difference between diagnosis of two methods. While, sensitivity (%) and specificity (%) of IHA test was noted 100% and >97.0%, respectively. We recommend serological test for diagnosis of fasciolosis as negative results of fecal sample examination may lead to development of chronic conditions in infected host. And IHA test is easier to follow and results can be obtained on same day.

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PEERS ALLEY MEDIA

# Title: The Application Of An Indigenous Polymer For The Plastination Of Teaching Anatomical And Biological Specimens

**Alaa A. Sawad** | **University of Basrah**

**Abstract:**

Plastination was fabricated in 1978 by Dr. Gunther Von Hagens at the University of Heidelberg, Germany, which Kept for the good conservation of anatomical and biological material**.** The present goal was to utilize a cost-effective plastination polymers as compared to the standard S10 technique using silicone polymers. The S10 is the original silicone polymer used for the preparation of plastinated specimens and whole dissecting body.

Specimens were fixed in formalin 10%, dehydrated and decreasing in acetone, and at last, impregnated by local commercial unsaturated polyester resin and ultimately hardening at 50 °C temperature.

The plastinated specimens were clean, durable ,odorless ,portable and non-toxic ,it can be kept for long durations without any changes .The usage of widespread S10 silicon method is high costs so with the aid of using indigenous chemicals it is possible to produced low costs anatomical models for education and for studying anatomy**.**

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