



3rd International Conference of Veterinary Medicine
Role of Veterinary Medicine in Community Service
“Hopes and challenges”

Sunny Days El Palacio Resort - Hurghada
4-7 August 2018

Under the auspices of

Prof. Dr. Khaled Atef Abdel Ghaffar

Minister of Higher Education

Prof. Dr. Yasmine Fouad

Minister of Environmental Affairs

General: Ahmed Abdullah

Governor of Red Sea Governorate

Prof. Dr. Abbas Mohammed Mansour

President of South Valley University

Prof. Dr. Youssuf Ahmad Gharbawy

Vice-president of South Valley University for the Community Services and Environmental Affairs

Prof. Dr. Jehan Ragab Daoud

*Dean of the Faculty of Veterinary Medicine
and Chairman of the Conference*

Prof. Dr. Adel El-Sayed Ahmed

*Rapporteur of the Conference
and Vice dean for the Community Services and Environmental Affairs*

Prof. Associate Yasser Abdel Galil Ahmed

General Secretary



Prof. Dr. Abbas Mansour
President of the South Valley University



Prof. Dr. Youssuf Ahmad Gharbawy
*Vice-president for the community services and
environmental affairs*



Prof. Dr. Jehan Ragab Daoud
*Chairman of the Conference and Dean of the
Faculty of Veterinary Medicine*

Organizing Committee

Associate professor Dr. Yasser Ahmed,

General Secretary of the Conference and Head Department of Histology.



Associate professor Dr. Mohie Haridy,

Assistant Prof. and Head Department of Pathology and Clinical Pathology.



Dr. Hassan Ahmed,

Lecturer of Animal Physiology.



Dr. Mahmoud Awad,

Lecturer of Histology.



Dr. Mohammed Yousef,

Lecturer of Animal Physiology.



Dr. Ahmed Hassaneen,

Lecturer of Theriogenology, Obstetrics and Artificial Insemination.



Dr. Elsayed Mickdam,

Lecturer of Animal and Clinical Nutrition.



Vet. Hanan Abdel Sabour,

Veterinarian at the Faculty of Veterinary Medicine, South Valley University.



Table of Contents

A1: Time course-dependent study on Equine herpes virus 9-induced abortion in Syrian hamsters	5
A2: Morphological and Histochemical Investigations on the Pulmonary Tissue of the Nile Monitor Lizard (<i>Varanus niloticus</i>).....	6
A3: Developmental identification of duodenum in quail embryo: using light and scanning electron microscope	7
A4: Histogenesis of the Sternum in Quail Embryos.....	8
A5: Morphological Studies of the Oral Roof of the Laughing Dove (<i>Streptopelia senegalensis aegyptiaca</i>) and Japanese Quail (<i>Coturnix coturnix</i>)	9
A6: Biological importance of Egg-white glycomics in game birds	10
A7: Reduction of Plasmemyl-phospholipids in microglia exaggerates lipopolysaccharides-induced neuroinflammation	11
A8: Effects of senktide, a neurokinin-3 receptor agonist, on ovarian functions in cows.....	12
A9: Co-culturing of mesenchymal stem cells of different sources improved regenerative capability of osteochondral defect in the mature rabbit.....	13
A10: Effects of Ginger and <i>Saccharomyces</i> on the Immune Response of African Sharptooth Catfish	14
B1: Assessment of heavy metals concentrations in water of the River Nile at Aswan governorate, Egypt and their bioaccumulation in some tissues of the infected fish species and nematode parasites.....	15
B2: Incidental detection of <i>Enterosporea nucleophila</i> (Microsporidia) in peripheral blood of gilthead sea bream.....	16
B3: Evaluation the toxicity of accumulated dose of tramadol on gonads of albino rat.....	17
B4: Characterization and Development of Resistance in <i>Culex pipiens</i> Against Malathion and <i>Bacillus Sphaericus</i>	18
B5: Ants occupying the investment zones in Egypt (The golden triangle area, the Red Sea Coast, Aswan to Abu-Simbel and the western desert)	19

B6: Quantitative and qualitative evaluation of research performance of the Egyptian faculties of veterinary medicine: A bibliometric study.....	20
B7: The Manifestations of Animal Care in Islamic Civilization "In The Light of Models of Illustrated Manuscripts.....	21
B8: Redescription and ultrastructural study on <i>Hapladena magna</i> (<i>Nagaty, 1948</i>) from <i>Acanthurus</i> sohal fishes from Red Sea, Egypt".....	22
B9: Dengue fever; transmission, characteristics and prevention.....	23
C1: Rediscovering the Adipochondrocytes; A Novel Cell Type in The Rabbit Auricular Cartilage.....	24
C2: Effect of Enteritis in Sheep on Some Antioxidants in Sohag Governorate.....	25
C3: Effects of pre-maturational culture duration on developmental competence of bovine small-sized oocytes.....	26
C4: The effects of phytobiotics supplementation on ruminal fermentation and nutrient degradation in vitro.....	27
C5: Detection and Serotyping of Foot and Mouth Disease in Buffaloes.....	28
C6: Histological and Histochemical Features of the Kidney in the Nile monitor (<i>Varanus niloticus</i>).....	29
C7: The impact of cyclophosphamide treatment on the pathogenesis of Marek's disease virus in 3-weeks-old chicks.....	30
C8: Use of advanced molecular biology techniques in isolation and characterization of viruses; Melon necrotic Spot Virus as an example.....	31
C9: Effect of <i>Moringa Oleifera</i> leaves on the performance and carcass traits of broiler chickens.....	32
C10: Passive immunization: a prophylaxis enhancing immunity, maximizing performance and productivity in broilers.....	33
C11: Hematological and some Biochemical Parameters of Spur thighed Tortoise infected with internal parasite.....	34
C12: Impact of bile salts toxicity on kidney.....	35

D1: Morphological analysis of spine dynamics in pyramidal cells of primary motor cortex	36
D2: Phylogenetic study of Cysticercus tenuicollis of ruminants in Upper Egypt	37
D3: Clinical observations on some surgical udder and teat affections in cattle and buffaloes	38
D4: The titer of immunity and signs of health due to changes in group size in two strains of Lohmann classic layers	39
D5: Expression of the γ - δ T-cell receptor and CD8+ in the intraepithelial lymphocyte in Eimeria vermiformis-infected mice and treated with garlic extracts.....	40
D6: Phenotypic and genotypic aspects of Pseudomonas putida isolates from Nile Tilapia (Oreochromis niloticus).	41
D7: The synthetic lethality induced by the PRMT5 inhibitor EPZ015666 proving it as a novel therapy for the ATL leukemia.....	42
D8: Clinical and laboratory diagnosis of Fascioliasis in buffaloes in Sohag governorate	43
D9: Effect of bacterial Lipopolysaccharide on serum testosterone level and sperm vitality in mature albino rats	44
D10: Citrobacter Septicemia in African Sharptooth Catfish, an Emerging Infection	45
D11: Isolation of Staphylococcus species from ice-cream samples.....	46
D12: The effect of miR-1, Cisplatin and pemetrexed on mesothelioma cell lines.....	47

Oral presentation A1

A1: Time course-dependent study on Equine herpes virus 9-induced abortion in Syrian hamsters

M. Haridy^{1*}, O. Abas^{2,3}, W. Abdo⁴, H. Sakai², T. Yanai²

¹Department of Pathology and Clinical Pathology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Department of Pathogenic Veterinary Sciences, United Graduate School of Veterinary Sciences, Gifu University, 1-1 Yanagido, Gifu 501-1193, Japan, ³Department of Animal Medicine, Faculty of Veterinary Medicine, Alexandria University, ⁴Department of Veterinary Pathology, Faculty of Veterinary Medicine, Kafr El-Sheikh University, Kafr El-Sheikh, Egypt.

*Corresponding author: Mohie Haridy,

E-mail: mohieharidy@svu.edu.eg

Abstract:

The pathological findings of EHV-9-induced abortion at a point of time in mice, hamsters and rats had been previously studied. The present study aims to follow up the time-course pathogenesis of EHV-9 abortion in both early and late trimesters to provide detailed descriptive data through detection of viremia, viral DNA in different fetal and maternal tissue, pathological changes in fetal tissue as well as placenta and cytokines associated with abortion at different time points. Twenty-seven pregnant dams, at the 3rd day of gestation, were divided randomly into 3 groups; group 1: three dams served as control and were sacrificed at 8th, 11th, 13th and 15th days of gestation. Group 2 were inoculated intranasally with 50µl (containing 1×10^4 pfu) of EHV-9 at the 5th day of gestation (early trimester) and were sacrificed at 8th, 11th and 15th day of gestation. Group 3 were inoculated at the 10th day of gestation (late trimester) and were sacrificed at the 13th and 15th day of gestation. In group 2, nervous signs appeared at 3rd dpi and increased onward. Congestion of uteri, empty pregnancy cysts was appeared early after 3dpi. Later at 6th dpi, uteri were severely congested and small undersized uterine vesicles with absence of motility were evident for fetal death. At full term, undersized congested dead feti. In group 3, ascites and hepatomegaly were noted in few cases beside other lesions as group 2. Congested, undersized dead feti were observed at 3rd and 6th dpi. Number of dead feti in group 3 was higher than those in group 2. In group 2, coagulative necrosis of maternal spaces and stromal decidual cells was observed especially in decidua capsularis at 3rd dpi. Moreover, dead embryos were degenerated with ill-developed ectoplacental cone and the decidua capsularis was severely necrotic with focal dystrophic calcification. IHC, virus antigen was detected in mononuclear leucocytes in areas of necrotic D. capsularis. At 6th dpi, dead feti were similarly observed. Vacuolation of decidua basalis, vacuolation, necrosis and hemorrhage of spongiotrophoblast layer as well as labrynth with foreign body-type giant cell formation was observed in placental disc. IHC, mononuclear and necrotic leukocytes in thin decidua capsularis and basalis, were stained positively with EHV-9 antibodies. At 11th dpi, multifocal necrosis of chorionic villi and spongiotrophoblast areas as well as mononuclear cells near the junction of uterine wall and trophospongium was observed. The cervical epithelium was necrotic. None of dead or alive feti showed pathological lesions. IHC, focal necrotic chorionic villi, chorionic epithelium and mononuclear cells in the lumen and around maternal blood vessels as well as necrotic epithelium of cervix were stained positive. In group 3, minimal changes in placentation cone at 3rd dpi. IHC, chorionic epithelium of some feti stained positive. At 5th dpi, degeneration of chorionic villi and degeneration of trophoblast in trophospongium was observed. IHC, chorionic villi, few trophoblast, mononuclear cells around necrotic maternal tissue were stained positive. Some fetal tissue was positive. In conclusion, virus cannot cross through capsular placenta but through developed decidual placentation. Abortion in EHV9 occurred through necrosis of the chorionic villi.

Oral presentation A2

A2: Morphological and Histochemical Investigations on the Pulmonary Tissue of the Nile Monitor Lizard (*Varanus niloticus*)

Dalia Ibrahim^{1*}

¹Department of Histology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Dalia Ibrahim,

E-mail: dalia.mohamadain@vet.svu.edu.eg

Abstract:

Lungs of the monitor lizard have been discovered to practice unidirectional breathing like birds. However, detailed information on the morphological features of the pulmonary tissue in the Nile lizard has not been elucidated to date. In this study, the histological and histochemical characteristics of the Nile lizard lung were analyzed using Hematoxylin and eosin, periodic acid Schiff, alcian blue (pH 2.5) and crossman's trichrome and semi-thin sections. Histologically, numerous disconnected structures formed of a central core of connective tissue (mostly collagenous fibers, stained green by trichome stain) and fusiform smooth muscle fibers (stained magenta by trichrome stain). They contained a network of blood capillaries on each surface. The trabecular epithelium consisted of two cell types namely, the ciliated and serous secretory cells (negative for alcian blue and periodic acid schiff). Semi-thin sections revealed the existence of numerous granules in the secretory cells. The respiratory surfaces were lined with alveolar cell type I (pneumocyte I, flat cell with flat nucleus) and alveolar cell type II (pneumocyte II, cuboidal with round nucleus). Arteries with well-developed muscularis could be demonstrated as well. In summary, the pulmonary tissue of Nile monitor lizard is generally different from that of mammals and it owns the microscopic features which permits the process of unidirectional breathing.

Oral presentation A3

A3: Developmental identification of duodenum in quail embryo: using light and scanning electron microscope

Fatma Abdelhakeem^{1*}, Salma A. Mohamed¹, Mohammed Abdelsabour-Kalaf¹, Soha Soliman², Fatma A. Madkour¹

¹Department of Anatomy and Embryology, South Valley University, ²Department of Histology, South Valley University, Qena 83523, Egypt

*Corresponding Author: Fatma Abdelhakeem,

E-mail: fatmahakeem987@yahoo.com

Abstract:

The present study applied to give detailed information about the morphological development of duodenum during incubation period of quail embryo and reach to the satisfactory explanation about how the duodenum play a vital role in digestion, absorption and immunity. For building a complete picture about embryonic development of quail duodenum, fertile eggs were obtained from the hatchery of quail farm of south valley university from day 3 to hatching day. The specimens analyzed anatomically, morphometrically and described microscopically by light and scanning electron microscope: starting from appearance of primitive gut at day 3, which was simple tube consisted of pseudostratified endoderm, covering mesothelium and in between them the mesenchyme. The first recognition of the prospective duodenum at day 4 connected with gizzard and at day 5 the prospective pancreatic acini observed in between the mesenchymal cells of its wall. At day 9 the endoderm transformed into simple columnar type and organized into finger like villi as villogenesis coincided with simplification of the epithelium into columnar type. Differentiation of the muscular wall started as mesenchymal condensation from day 5 to hatching day. Epithelial cells characterization and invagination of epithelium as crypts of Leiberkühn were the last events investigated.

Keywords: Incubation, Quail embryo, duodenum, Villi, goblet cell.

Oral presentation A4

A4: Histogenesis of the Sternum in Quail Embryos

Nashwa Araby^{1*}, Soha Soliman¹, Eman Abdel Raheem², Yasser Ahmed¹

¹Department of Histology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Department of Histology, Faculty of Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Nashwa Araby,

E-mail: nashwamohamed50@yahoo.com

Abstract:

Flat bone develops through intramembranous ossification, when mesenchymal cells are directly driven towards osteogenic lineage. While long bone develops through endochondral ossification, where cartilage template act as an intermediate stage between mesenchymal and bone cells. Although the avian sternum is a flat bone, some studies describe formation of a cartilage template during its development. The aim of the current study was to investigate the mechanism of ossification in quail sternum during embryonic development. Thirty quail embryos were daily collected (5 embryos/day) during the period between the 5th to 10th days of embryonic development, and processed for light microscopy. Mesenchymal cells condensation began at day 5 and transformed into chondrogenic cells, which secreted small amount of extracellular matrix at day 6. The cartilage primordia were observed by day 7 and consisted of chondrocytes, embedded in matrix and surrounded by perichondrium. The cartilage template was developed by day 8 and in this stage the chondrocytes appeared inside their lacuna. The cartilage template continued to grow and acquired the shape of the sternum by day 9. The shape of the sternum became more distinct at day 10. This preliminary data suggested that the quail sternum grows through endochondral ossification. The future study will further explore the histological changes of quail sternum during post-hatching development.

Oral presentation A5

A5: Morphological Studies of the Oral Roof of the Laughing Dove (*Streptopelia senegalensis aegyptiaca*) and Japanese Quail (*Coturnix coturnix*)

Fatma A. Madkour^{1*}

¹Department of Anatomy and Embryology of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Fatma A. Madkour,

E-mail: madkour.fatma@yahoo.com

Abstract:

This study aimed to determine the morphological characteristics of the palate, choanal slit of two birds of different families; Japanese Quail (JQ) for family Phasianidae and Laughing Dove (LD) for family Columbidae by gross anatomy, scanning electron microscopy and light microscopy. The organs of 16 birds (eight laughing doves and eight quails) were used. The length of the oropharyngeal roof was nearly equal in both birds; it divided into oral and pharyngeal roofs. The oral roof (palate) was narrow elongated triangular shaped in LD and wide triangular shaped in JQ, and the oral roof (palate) was longer in LD than that of JQ. The ratio of the oral roof (palate) to the total length of the oropharynx was 86.36% in LD and 72.82% in JQ. The choanal slit constituted a nearly same percentage of the length of the palate which was 49-50% while to the total length of the oropharynx was 43.19% in LD and 36.75% in JQ. The line of demarcation between narrow and wide parts of the choanal slit demarcated by caudolaterally directed papillae and mucosal elevation in LD and by a transverse row of V-shape papillae in JQ. The edges of the rostral part of the narrow part bearded small sized wide spaced papillae giving edges a serrated appearance and edges of the wide part were smooth in LD. In JQ 3 transverse rows of papillae and one transverse mucosal fold presented around the choanal slit. The lamina propria of the palate consisted of dense connective tissue, rich in several types of sensory corpuscles; Merkel's corpuscles were the majority of sensory corpuscles in LD, Herpst corpuscles with variable sizes and shapes were the majority of sensory corpuscles in JQ. Submucosa of the palate on each side of choanal slit consisted of 2 groups of palatine salivary glands medial and lateral groups in JQ and few lobules of medial salivary glands were observed in LD.

Oral presentation A6

A6: Biological importance of Egg-white glycomics in game birds

Ibrahim F. Rehan^{1*}, Hiroshi Hinou^{2,3}, Abrha G. Gebrehiwot², Tetsu Ohashi^{2,3}, Shin-Ichiro Nishimura^{2,3}

¹Department of Animal Behaviour and Husbandry, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Advanced Chemical Biology, Graduate School of Life Science, and Faculty of Advanced Life Science, Hokkaido University, N21, W11, Sapporo, 001-0021, Japan, ³Medicinal Chemistry Pharmaceuticals Co. Ltd., N21, W12, Sapporo 001-0021, Japan.

*Corresponding author: Ibrahim Rehan,

E-mail: Ibrahim.rehan@vet.svu.edu.eg

Abstract:

The glycans in the birds' egg-whites used as a decoy of the pathogen recognition. The alteration of the glycan structure in biological species had been acquired to adapt themselves to various environmental conditions. Game birds such as quails, buttonquail and partridges are of different geographical distribution, genes, behaviour, life-style and management. 24 egg-whites from those birds, 29 *N*-glycan structures were detected using glycoblotting combined with MALDI-TOF/MS spectra, and then quantitation of sialic acid(s) using DMB-HPLC with fluorescence detection from *N*-glycans of quails' egg white glycoproteins shown in (Fig.1). The high mannose *N*-glycans were highly expressed in quail ($P \leq 0.001$) and partridge ($P \leq 0.001$). However, tri-tetra antennary *N*-glycan bearing two Neu5Ac-residues clearly appeared in buttonquail as specific egg-whites candidates ($P \leq 0.001$). This characteristic *N*-glycoforms caused by the changes in the expression levels of enzymatic activities, concentrations of sugar nucleotides, and the biosynthetic pathway. Herein, highly sensitive egg-white *N*-glycan candidates indicating an environmental stress affecting the general health condition. Our study has indicated that glycomics profiling is one of the non-invasive approaches to investigate the immune balance and productivities of the game birds under integrated environmental stresses.

Keywords: glycoblotting, *N*-glycan, game bird, egg-white.

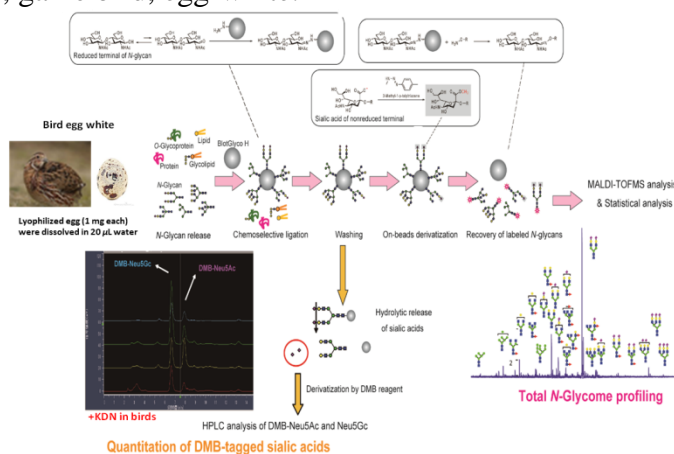


Fig.1 Schematic illustration of Glycoblotting combined with MALDI-TOF/MS and DMB/HPLC.

Oral presentation A7

A7: Reduction of Plasmeynl-phospholipids in microglia exaggerates lipopolysaccharides-induced neuroinflammation

Mohammed Youssef Saleh^{1*}, Shamim Hussein², Ahmed Ibrahim³, Toshihiko Katafuchi²

¹Department of Physiology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Department of Integrative Physiology, Graduate School of Medical Sciences, Kyushu University, Japan, ³Department of Poultry Diseases, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Mohammed Y. Saleh, E-mail: mohamed.saleh@vet.svu.edu.eg

Abstract:

Microglia is the main immune cell in brain tissue which exerts a crucial role during neuroinflammation. Activation of microglia is achievable through Lipopolysaccharides (LPS), Toll-like receptor 3 agonist treatment. Regrettably, Oxidative radicals' production by activated microglia is detrimental to neighboring neurons leading to neurodegeneration. Plasmeynl-phospholipids (PPs), unique class of glycerophospholipids enriched in microglia and brain tissue, have a special antioxidant characters. To understand the role of PPs in neurodegeneration mechanism, the impact of PPs reduction on microglial activation was investigated through knock-down of glyceronephosphate O-acyltransferase (*GNPAT*) and Alkylglycerone Phosphate Synthase (*AGPAS*); the genes responsible for production of PPs synthesis key enzymes in brain. Interestingly, reduction of PPs in microglial cells exaggerates activation of p38-MAPK and NF-kB translocation leading to high output of oxidative radicals. On contrary, the treatment of activated microglia with purified PPs attenuates microglial activation and radical production. Hence, it's concluded that PPs availability in brain tissue is crucial for protection against neurodegeneration during acute immune response.

Oral presentation A8

A8: Effects of senktide, a neurokinin-3 receptor agonist, on ovarian functions in cows

Ahmed Saad Ahmed Hassaneen^{1,2*}, Shuichi Matsuyama³, Masahiro Kato², Yuta Suetomi²,
Ryosuke Misu⁴, Shinya Oishi⁴, Hiroko Tsukamura², Satoshi Ohkura²

¹Department of Theriogenology, Obstetrics and Artificial Insemination, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Graduate School of Bioagricultural Sciences, Nagoya University, Nagoya 464-8601, Japan, ³NARO Institute of Livestock and Grassland Science, Nasushiobara 329-2793, Japan, ⁴Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto 606-8501, Japan

*Corresponding Author: Ahmed Hassaneen,

E-mail: ahmed.hassaneen@vet.svu.edu.eg

Abstract:

Recent studies suggest that hypothalamic neurokinin B (NKB)/neurokinin-3 receptor (NK3R) signaling has an essential role in regulating gonadotropin-releasing hormone (GnRH) release via control of kisspeptin/NKB/dynorphin A (KNDy) neuronal activity. The present study aimed to examine the effects of senktide, a highly selective NK3R agonist, on gonadotropin release, follicular development, and ovulation during the follicular phase in cows. Cows (n=12) during follicular phase were intravenously administered with senktide (30 or 300 nmol/min) or vehicle for 2 h, and blood samples were collected every 10 min for 24 h from 8 h before to 16 h after the onset of the senktide infusion for analysis of luteinizing hormone (LH) and follicle-stimulating hormone (FSH). Follicular growth and ovulation were examined by the transrectal ovarian ultrasonography. Plasma LH concentration increased immediately after the senktide (300 nmol/min) infusion and showed sustained increase for 6-8 h. Two out of 4 cows treated with high dose of senktide showed high LH release response. Plasma FSH concentrations showed sustained increase in high dose group. Low dose of senktide failed to stimulate LH and FSH secretions. High dose of senktide induced early ovulation in 2 out of 4 cows. Taken together, this study suggests that administration of senktide could be a useful approach to induce follicular development and ovulation for treatment of reproductive failures and improve the reproductive fertility in cows.

Keywords: NKB, GnRH, follicular development, ovulation

Oral presentation A9

A9: Co-culturing of mesenchymal stem cells of different sources improved regenerative capability of osteochondral defect in the mature rabbit

Elhussein Elbadry Mahmoud^{1*}, Amany Sayed Mawas², Mitsuo Ochi³, Nobuo Adachi³

¹Department of Animal Surgery, Faculty of Veterinary Medicine, South Valley University, ²Department of Pathology and Clinical Pathology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ³Department of Orthopaedic Surgery, Institute of Biomedical and Health Sciences, Hiroshima University, Japan.

*Corresponding Author: Elhussein Elbadry Mahmoud, E-mail: elhussein1985@yahoo.com

Abstract:

The present study investigated co-culturing mesenchymal stem cells (MSCs) from different sources to provide an improved therapeutic cell option for osteochondral repair. Dutch and Japanese white rabbits were used in this study, the first for isolating MSCs and the second for creating an osteochondral model in the medial femoral condyle. The rabbit knees were divided randomly into 4 groups: control (n=6), bone marrow-derived MSCs (BMSCs) (n=7), synovial tissue-MSCs (SMSCs) (n=7) and co-cultured MSCs (n=6). Tissue repair was assessed using the Fortier scale, and colony-forming assay was performed. At different cell densities, co-cultured and SMSCs formed larger colonies than BMSCs, indicating their high proliferative potential. After 2 months, complete filling of the defect with smooth surface regularity was detected in the co-cultured MSC group, although there was no significant difference among the therapeutic groups macroscopically. Additionally, tissue repair was histologically better in the co-cultured MSC group than in the other groups, due to repair of the subchondral bone and coverage with hyaline cartilage. Also, Toluidine blue and collagen- II staining intensity in the repaired tissue was better in the co-cultured MSC group than in the remaining groups. Subsequently, our results suggest that co-cultured MSCs are a suitable option for the regeneration of osteochondral defects due to their enhanced osteochondrogenic potential compared with the independent use of BMSCs or SMSCs.

Oral presentation A10

A10: Effects of Ginger and Saccharomyces on the Immune Response of African Sharptooth Catfish

Walaa F.A. Emeish^{1*}, Ahmed Ibrahim Ahmed², Mohammed Nour- Eldin Ismail³, Ahmad A.A. Elkamel⁴

¹Fish Diseases Department, Faculty of Veterinary Medicine, South Valley University, ²Poultry Diseases Department, Faculty of Veterinary Medicine, South Valley University, ³Animal Medicine Department, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ⁴Department of Aquatic Animals Medicine and Management, Faculty of Veterinary Medicine, Assuit University, Egypt.

*Corresponding Author: Walaa F.A. Emeish,

E-mail: walaavet2002@yahoo.com

Abstract:

Diseases outbreaks were the significant constrain in aquacultures, which faced conventionally with limited success by antibiotics. It is common nowadays to use natural food additives to increase the fish growth, activity and immunity to overcome the drawbacks of antibiotics. Therefore, the aim of this study was to investigate the influence of dietary supplementation of ginger 0.5%, Saccharomyces 5% or combination of ginger 0.5% and Saccharomyces 5% used to feed fish for 30 successive days on growth rate, hematological, biochemical and immunological parameters of African sharptooth catfish *Clarias gariepinus*. The results indicated that, ration containing ginger only lead to significant decrease in fish weight. But ration containing Saccharomyces only or combination of ginger and Saccharomyces lead to significant increase in fish weight. Also the present findings indicated that, ration containing ginger, and/or Saccharomyces showed a significant increase in the level of all tested hematological and immunological parameters during the most of experiment when compared with the control. Spectrophotometric analysis revealed a significant increase in serum total protein and globulins in fish fed ration containing ginger or combination of ginger and Saccharomyces. But there is insignificant increase in total protein and globulins in fish fed ration containing Saccharomyces only. Also there is insignificant increase in albumin in all fish groups in comparison to control. There were significant increase in phagocytic activity and index in all fish groups in comparison to control. Challenge of the fish groups with *Vibrio vulnificus*, indicated that there were significant decrease in cumulative mortality percentage in all fish groups in comparison to control. The present study concluded that, the combined mixture of both ginger and Saccharomyces, 0.5% and 5% of diet respectively, was beneficial than individual administration.

Oral presentation B1

B1: Assessment of heavy metals concentrations in water of the River Nile at Aswan governorate, Egypt and their bioaccumulation in some tissues of the infected fish species and nematode parasites

Abdel-Nasser A. Hussein^{1*}, Kareem Morsy², Khalaf N. Ammar¹, Ali Mansour¹

¹Department of Zoology, Faculty of Science, South Valley University, Qena, Egypt, ²Department of Zoology, Faculty of Science, Cairo University, Cairo, Egypt

*Corresponding author: Abdel-Nasser Hussein, E-mail: Hussein.ana@sci.svu.edu.eg

Abstract:

The River Nile is the main source of drinking, irrigation, natural fertilization of fields, fishing, and navigation in Egypt. It receives continuously waste water discharge from agricultural, sewage and industrial sources. The present study was carried out to determine the concentration of some heavy metals (cobalt, zinc, iron, manganese, copper and nickel) in Shniarha region along the River Nile at Aswan governorate and also in the gills, muscles of *Clarias lazera*, *Oreochromis niloticus* and *Lates niloticus* as well as in the nematode parasites tissue during summer and winter seasons. The current study showed that the concentrations of Co, Ni, Mn, Fe, Cu and Zn in water of the studied area, gills and muscles of the analyzed three commercial fish species as well as tissues of nematode parasites were presented by range values, averages and standard errors. It was observed that there were vast differences among the heavy metals concentrations in it. In water of the studied locality, the concentration of Ni, Fe and Cu was significantly higher in summer than winter season where other measured heavy metals increase in winter than summer. Seasonally, in organs of studied fish species, the concentration of all of the measured heavy metals was significantly higher in summer than winter season except for gill Co; gill Mn; muscle Co; muscle Ni and muscle Zn which increased during winter. In tissues of nematode parasites, the concentrations of heavy metals were arranged as Fe > Zn > Co > Mn > Ni > Cu. It was observed that nematode parasites had the ability to accumulate different amounts of metals compared with the organs of fish species. This assures that nematode parasites act as bio-indicators of environmental pollution by removing heavy metals and help in the survival of fish.

Keywords: Heavy metals, River Nile, Aswan governorate, Water, Gills, Muscles, *Clarias lazera*, *Oreochromis niloticus*, *Lates niloticus*, Nematode parasites.

Oral presentation B2

B2: Incidental detection of *Enterospora nucleophila* (Microsporidia) in peripheral blood of gilthead sea bream

Hossam Eldin N^{1,2*}, Abu El-Ezz A², Metwally A³, Mosaab A. Omar³, Palenzuela O¹

¹Institute of Aquaculture Torre de la Sal (IATS-CSIC), Castellón, Spain, ²National Institute of Oceanography and Fisheries (NIOF), Hurghada, Egypt, ³Department of Parasitology, Faculty of Veterinary Medicine, South Valley University, Qena, Egypt

*Corresponding Author: Nahla Hossam Eldin,

E-mail: dr_nahla83@hotmail.com

Abstract:

Enterospora nucleophila is a unicellular microsporidian parasite targeting the intestinal tissue of gilthead sea bream *Sparus aurata*, which causes serious emaciative syndrome in the infected fish. During this study we examined the blood of the infected fish using qPCR and fluorescent microscopy techniques to test for the presence of the parasite within the peripheral blood cells. The DNA was extracted using an automated robotic system (Eppendorf epmotion 5075) with Machery-Nagel blood extraction kits. The blood smears were stained using calcofluor white M2R stain. Isolated parasite spores were detected under the fluorescent microscope between the blood cells of some infected fish. The minimum detection limit using qPCR test was 9.97E-02 target gene copies per reaction when tested against a standard curve made with 10-fold dilutions of a plasmid containing known numbers of the target sequence (coefficient of correlation R²=0.998)

Oral presentation B3

B3: Evaluation the toxicity of accumulated dose of tramadol on gonads of albino rat

Rana A. Ali^{1*}, Mouchira M. Mohi-Eldin², Heba A. Mohammed¹

¹Department of Zoology, Faculty of Science, South Valley University, Qena, Egypt, ²Department of Pathology, Faculty of Veterinary Medicine, South Valley University, Qena, Egypt.

*Corresponding author: Rana A. Ali,

E-mail: rana.ahmed@sci.svu.edu.eg

Abstract:

In this experiment we focus on studying some changes on testicles and ovaries in albino rats, after exposure to high and low doses of Tramadol. Rats were divided into 6 groups (3 male groups and 3 female groups). group (1) control male group, received (saline), group (2) and group (3) received oral doses of tramadol (high dose 90 mg / kg b.w. / day) and (low dose 45 mg / kg b.w. / day) respectively for two months, group (4) control female group, received (saline), group (5) and group (6) received oral doses of tramadol (high dose 90 mg / kg b.w. / day) and (low dose 45 mg / kg b.w. / day) respectively, for two months, hormonal and histopathological examination were carried out. This study revealed significant decrease in sperm count of high dose, low dose groups. Testosterone, FSH and LH hormones exhibited significant decrease in its level of groups 2, and 3 when compared with control group at $P < 0.05$ revealed significant decrease in level of FSH and LH hormones of the female rats groups 5, and 6 when compared with female control group at $P < 0.05$. Progesterone hormone showed significant increase in low dose when compared with control female. In conclusion, tramadol has a toxic effect on gonad functions, these findings may provide a possible explanation for delayed fertility and psychological changes associated with tramadol abuse.

Keywords: Tramadol, Testis, Ovary, Rats.

Oral presentation B4

B4: Characterization and Development of Resistance in *Culex pipiens* Against Malathion and *Bacillus Sphaericus*

Mohammed Z.Y. Aly¹, Belal A. Soliman², Khalid S.M. Osman^{1*}, Ebrahim M.E. Alhousini¹

¹Zoology Department, Faculty of Science, South Valley University, ²Zoology Department, Faculty of Science, Suez University, Egypt

*Corresponding author: Khaled S.M. Osman,

E-mail: khaledsae@yahoo.com

Abstract:

Insecticide resistance is an increasing problem in many insect vectors of diseases such as the Egyptian *Culex pipiens*. To better understand how the resistance status affects the success of vector control programs, two control methods were used, chemical insecticide (malathion) and biocide (*Bacillus sphaericus* 2362) among 25 successive generations of two *Cx. pipiens* selected strains. The fauna were collected from Cairo, Egypt, comparing to another unselected susceptible strains, in both cases of selection, the genetic basis controlling the inheritance of resistance factors among generations was examined by reciprocal crosses between resistant and susceptible strains. Also, the stability of insecticide resistance was investigated after larvicide selection removal. The results showed rising levels of resistance starting from F₂ in the case of malathion selection reaching 36.12-fold at F₂₅ and from F₁₄ in the case of *Bs. Sphaericus* selection reaching 39.34-fold F₂₅, new emerged progenies from reciprocal crosses have showed intermediate levels of resistance in case of malathion and low levels of resistance approaching parents' resistance levels in case of *Bs. Sphaericus*, in both resistant strains, resistance stability was maintained even after larvicide selection removal from F₂₆. It was concluded that, inappropriate continuous use of the same larvicide might be responsible for resistance development and stability. Also, *Cx. pipiens* resistance might be inherited by incomplete dominant factors in case of malathion selection and recessive fact is recommended in Egyptian *Cx. pipiens* mosquito control programs.

Keywords: *Culex pipiens*, Insecticide resistance, Malathion, *Bacillus sphaericus*.

Oral presentation B5

B5: Ants occupying the investment zones in Egypt (The golden triangle area, the Red Sea Coast, Aswan to Abu-Simbel and the western desert)

Khaled S.M. Osman¹, Mervat. A.B. Mahmoud^{1*}

¹Zoology Department, Faculty of Science, South Valley University, Qena, Egypt

*Corresponding author: Mervat Mahmoud

E-mail: mervat.mahmoud@sci.svu.edu.eg

Abstract:

Many insects' species are considered serious pest. It causes structural damage for building. Besides, its nuisance effect on people because of its painful sting. Some are very dangerous such as fire ants which can cause death in hypersensitive people. This article aims to unveil the ants' species occupying the golden triangle economic zone (El Quseir, Safaga, Qena and their east desert in between), Red Sea coast till Shalatin, New Valley and Aswan governorates. Hand picking collecting was used. Searching for ant specimens was visually concentrating on the ground, under rocks, sand, some of the household and random buildings in the area. The results showed that 20 formicin and 17 myrmicin species were collected. The most abundant species were *Mosser aegyptiacus*, *Camponotus (Tanaemyrmex) thoracicus* and *Monomorium salomonis atrata* representing 50.2%, 7.0%, and 5.4% of all collected formicid individuals in all regions, respectively. Thus, it is recommended to do the best efforts for eliminating or controlling these species to ensure the development process.

Oral presentation B6

B6: Quantitative and qualitative evaluation of research performance of the Egyptian faculties of veterinary medicine: A bibliometric study

Doaa K. El-Berry^{1*}

¹Department of Library and Information Science, Faculty of Arts, South Valley University, Qena, Egypt

*Corresponding author: Doaa K. El-Berry,

E-mail: doaaelberry4@gmail.com

Abstract:

Research performance of the scientific institutions is measured by quantitative (publication productivity) and qualitative (journal impact factor and citation counts) indicators. The current study was reviewed from previous studies published by the author with the aim of analyzing and comparing the research performance of the Egyptian faculties of veterinary medicine. The study used published papers between 2000 and 2014 in PubMed-indexed journals. The journal impact factor (IF) was analyzed using ISI and citation counts of publications were measured using Google Scholar databases. Egyptian faculties of Veterinary medicine produced together 710 articles. According to their contributions to the total productivity, the 15 Egyptian faculties were ranked as follow; Cairo on the top followed by Assiut, Mansura, Zagazig, Alexandria, Benha, Suez Canal, Beni-Suef, Kafr El-Sheikh, South Valley, Menoufia, Damanhur, Sohag, Aswan and Minia. Cairo, Assiut and Mansura produced more than 52% of total publications, while Aswan and Minia had no publication contribution during the study period. Department's contributions were relatively diverse from faculty to another and some departments were not represented in faculty publications. The frequency of journal published for researchers from faculties of veterinary medicine in Egypt was summarized. In the current study, the PubMed research output of the Faculties of veterinary medicine, the ISI journal impact factor and the Google Scholar citation counts were analyzed. Such bibliometric studies should be considered during funding research of veterinary faculties .

Oral presentation B7

B7: The Manifestations of Animal Care in Islamic Civilization "In The Light of Models of Illustrated Manuscripts

ب ٧ : مظاهر رعاية الحيوان في الحضارة الإسلامية في ضوء نماذج من تصاوير المخطوطات

ماهر سمير عبدالسميع السيد عطاالله* ١

اقسم الآثار الإسلامية - كلية الآثار - جامعة جنوب الوادي - قنا ٨٣٥٢٣ - جمهورية مصر العربية

بريد إلكتروني :

* للمراسلة: د. ماهر سمير عبد السميع عطا الله،

maher_samir@arch.svu.edu.eg

الملخص:

تلقي هذه الدراسة الضوء على أحد أهم مظاهر الحضارة الإسلامية الشاهدة على عظمتها، وهي رعاية الحيوان والرفق به، إذ لم تهتم أي حضارة من حضارات العالم القديم بالحيوان كما اهتمت الحضارة الإسلامية، من توفير سبل العيش والإقامة له، وكذلك تغذيته والاهتمام بصحته، فكما كان للإنسان مأوى يحتضنه من برودة الجو وحرارة الشمس كالبيوت وغيرها، كان الأمر بالنسبة للحيوانات أيضاً؛ إذ أنشأت في العصر الإسلامي ما عُرف بمنشآت رعاية الحيوان كالإسطبلات والعربخانات التي كانت مخصصة لمعيشتها وإقامتها، وكما عُرف أيضاً بنظام الأسبلة لشرب المارة في الشوارع، عُرفت أيضاً الأحواض لسقي الدواب، وقد وصلت إلينا مجموعة كبيرة من الرسوم التي كانت تزين المخطوطات الإسلامية، توضح لنا بالصورة هيئة تلك المنشآت وطرزها وأشكالها في العصر الإسلامي، بالإضافة إلى مجموعة أخرى من التصاوير تبرز مدى اهتمام المسلمين بصحة الحيوان من غسله بالمياه وتنقيته من القاذورات وكذا تغذيته وتقديم الطعام له فضلاً عن رعايته الصحية والبدنية، إذ تعتبر هذه الرسوم وثائق مادية مُصوّرة تشهد على عظمة الحضارة الإسلامية من ناحية، وتوصل لوسائل رعاية الحيوان وتوفير سبل العيش له.

الكلمات المفتاحية: الحضارة الإسلامية، الحيوان، تصاوير، الإسطبلات، الأحواض.

Oral presentation B8

B8: Redescription and ultrastructural study on *Hapladena magna* (Nagaty, 1948) from *Acanthurus sohal* fishes from Red Sea, Egypt"

Refaat M. Khalifa¹, Hemely Abdel-shafy Hassan², Hoda saady Mohamadain^{2*}, Yasser Farhat Mahmoud Karar²

Department of Medical Parasitology, Faculty of Medicine, Assiut University¹, Department of Zoology, Faculty of Science, Qena, South Valley University²

*Corresponding author: Hoda saady Mohamadain E-mail: hoda.abdelgalil@sci.svu.edu.eg

Abstract:

From eighteen fish specimens of *Acanthurus sohal* which collected from Sharm EL-Naga, Safaga, Red Sea, Egypt, four fishes were infected by *Hapladena magna* (Nagaty, 1948). The collected parasites were described morphologically and morphometrically by means of light and scanning electron microscopy.. Present investigations revealed two main tegmental structures; spines & papillae. Spines short, conical to claw-shaped, randomly distributed, consisting of a wide sub-globular base and pointed curved terminal end. Spines not seen on the lateral margins, dense anteriorly sparsely distributed near posterior extremity. Rounded to button-like papillae observed on the body surface, of random sizes and differentiated into three types: 1) papillae which are the larger and condensed around the circumference of ventral sucker and hermaphroditic sac opening; 2) Papillae at the posterior extremity of body and lateral margins; 3) Papillae among spines which numerous and the smallest. SEM study of this parasite was done for the first time in Egypt with addition of many ultrastructural details; most of which are of taxonomical and functional importance.

Keywords: Trematoda, Haploporidae, *Hapladena magna* (Nagaty, 1948), *Acanthurus sohal* Red Sea Fishes.

Oral presentation B9

B9: Dengue fever; transmission, characteristics and prevention

Warda Ramadan Abouzeid Mohamed^{1,2*}

¹Critical Care and Emergency Nursing, South Valley University, Egypt, ²UniSA International University of South Australia, GPO Box 2471, Adelaide, South Australia 5001, Australia.

*Corresponding author: Warda Ramadan A. Mohamed E-mail: wardarr1199@gmail.com

Abstract:

Dengue is a mosquito-borne viral infection. The infection causes flu-like illness and occasionally develops into a potentially lethal complication called severe dengue. The global incidence of dengue has grown dramatically in recent decades. About half of the world's population is now at risk. Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas. Severe dengue is a leading cause of serious illness and death among children in some Asian and Latin American countries. There is no specific treatment for dengue/severe dengue, but early detection and access to proper medical care lowers fatality rates below 1%. Dengue prevention and control depends on effective vector control measures. A dengue vaccine has been licensed by several National regulatory authorities for use in people 9-45 years of age living in endemic setting.

Oral presentation C1

C1: Rediscovering the Adipochondrocytes; A Novel Cell Type in The Rabbit Auricular Cartilage

Yasser A. Ahmed ^{1*}, Mohammed Abdelsabour-Khalaf ²

¹Department of Histology, Faculty of Veterinary Medicine, South Valley University, Qena, Egypt,

²Department of Anatomy and Embryology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Yasser A. Ahmed,

E-mail: yasser.ali@vet.svu.edu.eg

Abstract:

Chondrocytes are described as one cell population in different cartilage types. The auricular cartilage in mouse and rat contains unique chondrocytes similar in morphology to white adipocytes and known as lipochondrocytes. Lipochondrocytes were not mentioned in other species. The current study aimed to explore the existence of this cell type in rabbits. The auricles of adult male white rabbits were harvested and processed for histological examination with light and electron microscopy. With the light microscopy, the auricular cartilage of adult rabbits contained central large rounded adipocyte-like chondrocytes, termed in the current study “adipochondrocytes” The adipochondrocytes were embedded in relatively wide lacunae and had large lipid droplets with a rim of cytoplasm. This result was confirmed by the scanning electron microscopy. With the transmission electron microscopy, the adipochondrocytes showed dark nucleus and electron-dense cytoplasm with few organelles and cytoplasmic processes. The adipochondrocytes of the auricular cartilage in adult rabbits were unique cell type and different from chondrocytes in other cartilage subtypes. This result should be considered during cartilage transplant. Further studies are suggested to investigate the development and physiological roles of adipochondrocytes in the auricular cartilage in rabbits.

Oral presentation C2

C2: Effect of Enteritis in Sheep on Some Antioxidants in Sohag Governorate

Adel E.A. Mohamed^{1*}, Azza M. Mosleh², Sally E.O. ²

¹Department of Animal Medicine, Faculty of veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Animal Health Research Institute, Sohag, Egypt.

*Corresponding author: Adel E.A. Mohamed, E-mail: adel.mohamed@vet.svu.edu.eg

Abstract:

The current study was carried out on 130 mixed-breed selected sheep of both sexes, and aged between 1- to 15-months-old, from 5 different localities “villages” at Sohag governorate. The clinical examination of these animals revealed that 76.92% (100 out of 130) suffered from enteritis with signs of diarrhea of different degrees, anorexia, loss of appetite, depression and slight emaciation and the rest of sheep (30 out of 130) were apparently clinically healthy with percentage of 23.07%. The examined animals were divided according to type of infection into 6 groups; group 1 (healthy), group 2 (*Fasciola-infected*), group 3 (*Ascaris-infected*), group 4 (*strongylus-infected*), group 5 (*Coccidia-infected*) and group 6 (animals with mixed infestation). Hematological analysis revealed a significant decrease ($P<0.05$) in TEC, Hb, and PCV in sheep suffered from enteritis (group 2 to group 6) when compared to those in apparently healthy cases (group 1). The biochemical analysis revealed a significant decrease ($P<0.05$) in the levels of some trace minerals including Zn, Cu, and Se, and antioxidants enzymes including SOD and GPx in sheep suffered from enteritis (group 2 to group 6) when compared to those in apparently healthy animals (group 1).

Oral presentation C3

C3: Effects of pre-maturational culture duration on developmental competence of bovine small-sized oocytes

Mohammed A. Abdel-Ghani^{1,2*}, Masashi Nagano²

¹Department of Theriogenology, Faculty of Veterinary Medicine, Assuit University, Assuit, 71515, Egypt, ²Laboratory of Theriogenology, Department of Clinical Sciences, Faculty of Veterinary Medicine, Hokkaido University, Sapporo 060-0818, Japan

*Corresponding Author: Mohammed Abdel-Ghani, E-mail: mohammed_ali76@hotmail.com

Abstract:

Developmental competence of oocytes with a small diameter is generally reduced in vitro. We investigated the effects of a pre-maturational (pre-IVM) culture on the developmental competence of small-sized oocytes (110 to <115 μm). Bovine oocytes collected from antral follicles were cultured for 0, 5, or 10 h with 3-isobutyl-1-methylxanthine (IBMX) as pre-IVM. Pre-IVM oocytes were then submitted to in vitro maturation (IVM), fertilization (IVF), and culture (IVC). Cleavage rate of embryos derived from oocytes (110 to <115 μm) with 5 h pre-IVM was higher than those with 0 and 10 h pre-IVM. Blastocyst rate, based on inseminated oocytes, and cell number in blastocysts derived from oocytes (110 to <115 μm) with 5 h pre-IVM were higher than those with 0 and 10 h pre-IVM. These results expand the utility of pre-IVM to enhance developmental competence of oocytes, regardless oocyte diameters, obtained by ovum pick-up with pre-IVM for 5 h.

Keywords: Oocytes, IBMX, Pre-IVM duration

Oral presentation C4

C4: The effects of phytobiotics supplementation on ruminal fermentation and nutrient degradation *in vitro*

Elsayed Mickdam^{1*}, Qendrim Zebeli²

¹Nutrition and Clinical Nutrition Department, Faculty of Veterinary Medicine, South Valley University, 83523 Qena, Egypt, ²Institute of Animal Nutrition and Functional Plant Compounds, Department of Farm Animals and Veterinary Public Health, University of Veterinary Medicine Vienna, Vienna, Austria

*Corresponding author: Elsayed Mickdam,

E-mail: elsayed.mickdam@yahoo.com

Abstract:

In ruminant nutrition, the role of herbal components commonly known as phytobiotics has recently been recognized as rumen fermentation modulators. Among the market available phytobiotic products, plant derived alkaloids (PDA) are most common. Addition of PDA resulted in decrease amino acid degradation and lower ammonia nitrogen concentration *in vitro*. Therefore, we hypothesized that the addition of phytobiotics to rumen *in situ* fermenters fed high protein diets would lower ammonia nitrogen concentrations, increase rumen fermentation and decrease amino acid degradation. This experiment was conducted to investigate the effects of different feed additives based on three different combinations of PDA, prebiotics, tannins, vitamins and minerals on rumen fermentation and nutrient degradation *in vitro*. A RUSITEC-experiment was conducted in 2 runs using a complete randomized design with 3 replicates per treatment resulting in total of 6 treatment (n = 6). Each run lasted 12 days with the last 5-d served as measurement period. The diets were formulated as normal dairy diets (40:60; forage: concentrates) The concentrate mixture was composed of 87% concentrate mixture for dairy cows and 13% casein to increase the protein content of the diet. The diets were supplemented either with no phytobiotic (CON), phytobiotic1 (PHY1) or phytobiotic 2 (PHY2) or phytobiotic 3 (PHY3) at a level of 100 mg/l. Daily measurements of pH-value and redox potential were conducted using the respective electrodes connected to a pH-meter (Seven Multi TM, Mettler-Toledo GmbH, Schwerzenbach, Switzerland). Additionally, fermentation gases were collected daily in gas-tight aluminium bags and analysed for methane and carbon dioxide with an infrared detector (ATEX Biogas Monitor Check BM 2000, Ansyco, Karlsruhe, Germany). On the sampling days, incubation fluid was collected for short chain fatty acid (SCFA) and ammonia analysis. Nutrient degradation was determined from the differences between the experimental feeds and the pooled feed residue samples. Means were subjected to analysis of variance by MIXED procedure of SAS. In this study, the addition of phytobiotics had no effect on either methane or carbon dioxide production throughout the experiment ($P = 0.67$ and $P = 0.70$, respectively). However, the supplementation with phytobiotics tended to ($P = 0.06$) enhance ammonia production by 7 -12 % compared to the control diet. The effect of phytobiotic supplementation on nutrient degradation *in vitro* was no different than the CON. Supplementation did not impact the degradation of dry matter (DM), crude protein (CP) and neutral detergent fiber (NDF). However, both total SCFA ($P = 0.08$) and molar concentrations of acetate ($P = 0.06$) tended to be increased in the phytobiotic supplemented treatments in comparison to CON, with PHY2 having the highest overall values (102.7 mmol/l and 43.3 mmol/l, respectively). In conclusion, this study showed that the addition of phytobiotics can modulate ruminal fermentation without clear effect on nutrient degradation in high protein diets.

Oral presentation C5

C5: Detection and Serotyping of Foot and Mouth Disease in Buffaloes

Hassan Y.A.H. Mahmoud^{1*}, Alsagher O. Ali¹, Wael Qossa², Adel Elsayed Ahmed³

¹Division of Infectious Diseases, Department of Animal Medicine, Faculty of Veterinary Medicine, South Valley University, ²Sohag Veterinary Medicine Directorate, Sohag, ³Division of Clinical Laboratory Diagnosis, Department of Animal Medicine, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding Author: Hassan Y.A.H. Mahmoud,

E-mail: mhasan@vet.svu.edu.eg

Abstract:

Foot and Mouth Disease (FMD) is considered one of the most important viral diseases affecting cloven footed animals in Egypt as well as other parts of the world. It induces serious economic impacts in national income and imposing a great hindrance on mutual trade. One hundred sixty buffalo's serum samples were collected from different villages in Sohag Governorate (Akhmim District) from February to August, 2014. The PrioCHECK FMDV NS (blocking ELISA) used to detect antibodies directly against the non-structure 3ABC protein of FMDV, but also discriminates between infected and vaccinated buffaloes. Sixty out of 160 animals showed positive results, while, 100 animals showed negative results. Positive buffalo's serum samples were subjected to solid phase competitive ELISA for detection of FMDV serotypes A, O and SAT2, only 20 samples were positive to one serotype and the other 40 samples were positive to more than one serotype. Serotype O recorded the highest number of positive cases (91%), the second most prevalent serotype was serotype SAT2 (63%) and the lowest prevalent serotype was serotype A (60%).

Keywords: FMDV, Serotyping O, A, SAT2

Oral presentation C6

C6: Histological and Histochemical Features of the Kidney in the Nile monitor (*Varanus niloticus*)

Mahmoud M.A. Awad^{1*}

¹Department of Histology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Mahmoud Awad,

E-mail: mahmoud.awad@vet.svu.edu.eg

Abstract:

Nile monitor is one of the monitor species natively habitat in Africa especially in the River Nile, swamp and lakes. It considers the second large reptiles live in the River Nile after crocodiles. The aim of this study is to study the anatomical and histological structure of the kidneys of monitor lizard and their adaptation with the surrounding environment. Three apparently healthy adult animals of six kidneys were caught from a swamp close to the Nile River during the summer season (months of June to August). Animals were sacrificed and kidneys were dissected (two kidneys /animal). Samples were rabidly put in 4% neutral buffered formalin and submitted to histological techniques procedures. Four different stains (hematoxylin and eosin (H&E) as a general stain, Periodic Acid Schiff (PAS) in combination with Alcian blue (AB) to elucidate the neutral and acidic mucus, and Crossmons trichrome to stain connective tissue according to the instructions), were used. The anatomical results showed that right and left kidneys were located on both sides of vertebral column just posterior to right and left testis respectively. Kidneys had lobulated surface covered with peritoneum. The histological results demonstrated typical uriniferous tubules that consisted of double-walled Bowman's capsule, proximal convoluted tubules (PCT, cuboidal cells), distal convoluted tubules (DCT, cuboidal cells) and collecting tubules (tall columnar cells). Juxta-glomerular apparatus was clearly identified. Numerous brownish granules (haemosiderin pigment) were detected in the apical epithelium of the proximal convoluted tubules. Interestingly, most of the renal parenchyma was represented by renal tubules and few renal corpuscles. Most of the DCT reacted strongly-positive with alcian blue (pH 2.5) while the basolateral and luminal borders of the PCT were periodic acid Schiff positive. In conclusion, the kidney of Nile monitor lizard showed similar renal structure like other lizard that characterized by low number of renal corpuscles and numerous renal tubules and that may play role in the environmental adaptation through reabsorption of vital elements from extracted urine especially during hibernation.

Oral presentation C7

C7: The impact of cyclophosphamide treatment on the pathogenesis of Marek's disease virus in 3-weeks-old chicks

Mohammed Sabry Ahmed^{1*}, Jun Sasaki², Kenji Ochiai^{2,3}, Masanobu Goryo^{2,3}

¹Department of Poultry Diseases, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Department of Veterinary Pathology, Faculty of Agriculture, Iwate University, 3-18-8 Ueda, Iwate 020-8550, Japan, ³Department of Pathogenic Veterinary Science, The United Graduate School of Veterinary Sciences, Gifu University, 1-1 Yanagido, Gifu 501-1193, Japan.

*Corresponding Author: Mohammed Sabry Ahmed, E-mail: moh_sabry83@yahoo.com

Abstract:

Marek's disease is lymphoproliferative and transmissible-neoplastic disease of chickens and it characterized by a complex pathogenesis. The bursa of Fabricius is one of the important organs in the immune system of the chicken body, on the other hand, it play a crucial role in the pathogenesis of some viruses including ,MDV. In this study we want to study the pathogenesis of MDV in chemically bursectomised chicken, Cyclophosphamide (Cy)-treated chickens. on the light of the result, the impact of the Cy-treatment on the pathogenesis of MDV will be revealed. Fifty-eight one-day-old chicks were randomly divided into 4 groups; MDV–Cy, MDV, Cy and control group. The Cy-treated groups received a total amount of 9 mg of Cy intramuscularly at thigh muscle at the first three days directly after hatching. While the MDV was inoculated at 3-week-old and sampling was performed at 4, 5 and 6 weeks old. No significant differences were detected in the hematocrit value of the experimented group, but there are many differences were noticed on the other physical parameters, body weight, spleen, and bursa Fabricius weight, particularly in the Cy and MDV-Cy group. The severe lymphocytic depletion in bursa Fabricius was noticed, but these lesions were recovered in all groups by 5-week-old. The impact of the Cy treatment on the pathogenesis of MDV was noticeable. Cy treatment had a negative impact on the pathogenesis of MDV, that resulted in suppression to the lymphoproliferative lesions.

Oral presentation C8

C8: Use of advanced molecular biology techniques in isolation and characterization of viruses; Melon necrotic Spot Virus as an example

Naglaa M.S. Hassan^{1,2*}, Noriko Yamagishi², Masamishi Isogai², Nobuyuki Yoshikawa²

¹Department of Plant Pathology, Faculty of Agriculture, South Valley University, Qena, Egypt,

²Laboratory of Plant Pathology, Faculty of Agriculture, Iwate University, Ueda 3-18-8, Morioka, Iwate 020-8550, Japan.

*Corresponding author: Naglaa M.S. Hassan, E-mail: naglaahassan_76@yahoo.com

Abstract:

A virus was isolated from cucumber showing veinal chlorosis and yellowish blotch on the fruits in Miyagi Prefecture. Mechanical inoculation of the virus to several plant families revealed that the virus has narrow host rang. The chlorotic local lesions on inoculated leaves of *Chenopodium. quinoa*, and *C. amranticolor*, and asymptomless infection were observed in inoculated leaves of *Nicotiana. benthamiana*,. Electron microscopy of virus preparations revealed isometric virus-like particles 30 nm in diameter. The coat protein migrated in electrophoresis gel as a single band of 41 kDa and RNA of the purified virus was separated by electrophoresis into one component approximately 4300 nucleotides. Sequence analysis of the cDNA of the virus showed 88% identity to *Melon Necrotic Spot Virus* (designated as MNSV--Miyagi-Cu). MNSV-Miyagi-Cu had only 4 ORFs and the p7B was missed. The identities of the ORFS of p42, p89, p29 and p7A were ranged from 49-52%, 58-69%, 47-50% and 75-79%, respectively. Due to the inability of MNSV-Miyagi-Cu to infect mechanically melon, watermelon and cucumber, the lower identity of the amino acids to the reported isolates of MNSV, and the absence of p7B ORF, MNSV-Miyagi-Cu should be classified as a new strain of MNSV.

Keywords: cucumber, identity, MNSV- Miyagi-Cu, ORFs, p7B

Oral presentation C9

C9: Effect of Moringa Oleifera leaves on the performance and carcass traits of broiler chickens

Sara Alwaleed¹, Elsayed Mickdam¹, Ahmed Ibrahim², Abdelbaset Sayed^{3*}

¹Nutrition and Clinical Nutrition Department, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Poultry Diseases Department, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ³Animal and Clinical Nutrition Department, Faculty of Veterinary Medicine, Assuit University, Assuit, Egypt.

*Corresponding author: Abdelbaset Sayed,

E-mail: abdelbaset.ahmed@vet.au.edu.eg

Abstract:

One of the major challenges facing poultry industries is the issues of infection which cause high mortality and morbidity, therefore, a number of chemical feed additives such as antibiotics and ionophores have been introduced in the diet of poultry to improve performance and protect against infection. However, most of these additives are not used routinely because of the toxicity problems to the birds. Therefore, phytobiotics attracted the attention in animal nutrition as alternative to antibiotics growth promoters. Among the market phytobiotics, Moringa is common in Egypt; which has been previously shown to have anti-carcinogenic and antioxidant effects. Consequently, our hypothesis is that using of Moringa Oleifera (M.O) in broiler diets in different levels may improve growth performance and carcass traits of broiler chickens. The current work was conducted to study the effect of M.O leaves as feed additives on growth performance and carcass traits of broiler chickens. One hundred and fifty (150) one day age unsexed broiler chicks were obtained from local commercial source, weighed and randomly distributed into 5 equal groups, each of 30 chicks. Diets were formulated to contain approximately the same level of crude protein (23% for starter, 20% for grower, 18% for finisher) and metabolizable energy 3100 Kcal/kg BW. In the first group, birds were fed ad-libitum on diet without addition of M.O and this group was assigned as control. Chicks in second, third, fourth, fifth groups were fed ad-libitum on the basal diets containing 1%, 3%, 5% and 7% M.O leaves. Experimental period was extended for 6 weeks. Growth performance and carcass traits were assessed. The results showed that broilers fed on diet containing 3% M.O leaves achieved higher body weight gain(1941±29 g; P=0.029) and better feed conversion (2.13) compared with other experimental groups, while the lowest was observed in group fed 7% M.O. (1732±35 g; P≤0.05). The addition of M.O showed no effect on dressing percentage however, the highest dressing percentage numerically was recorded in broilers fed on diet containing 1 % M.O leaves, while the lowest was observed in group 7% M.O. Results of the study concluded that the best growth performance and carcass traits was observed in broilers fed on diets containing 3% M.O leaves while addition of M.O has no clear effect on dressing percentage.

Oral presentation C10

C10: Passive immunization: a prophylaxis enhancing immunity, maximizing performance and productivity in broilers

Ibrahim F. Rehan¹, Mootaz A.M. Abdel-Rahman², Sohaila G.F. Abdallah^{1*}

¹Animal Behaviour and Husbandry Department, Faculty of Veterinary Medicine, South Valley University, Qena, 83523, Egypt, ²Animal Behaviour and Management, Department of Animal Hygiene, Faculty of Veterinary Medicine, Assuit University, Assuit, Egypt.

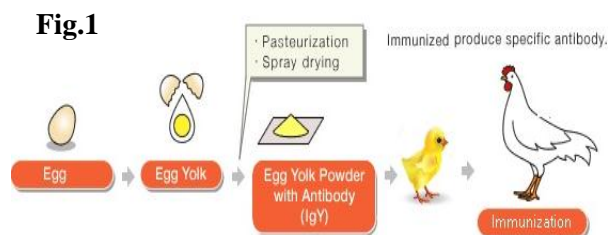
*Corresponding author: Sohaila G.F. Abdallah,

E-mail: sohaila_gehad@yahoo.com

Abstract:

In order to improve animal welfare, production, and public health safety, probiotic is promising new future in the poultry production. European Union banned the use of antibiotics as growth promoters in poultry because of antibiotic residual effects in meat and eggs as well as harmful effects on human consumers. So far probiotics can be used as alternatives for antibiotics to stimulate the growth of beneficial microflora and to suppress the growth of pathogenic bacteria. Meanwhile, bacterial infection is the famous problems for poultry producers in the tropical countries. That is why the addition of probiotics has a positive effect on the development of hen egg yolk antibodies, especially immunoglobulin Y (IgY). IgY is considered a useful alternative to conventional polyclonal antibody production in mammals for the therapy and prophylaxis of broiler diseases that commonly affect respiratory as well as digestive system. With a carefully designed immunization protocol (Fig.1) will enhance both the chickens' immune response and its welfare during their life. Moreover, the ability to establish a microbiome early in broilers' GIT could improve their health and immunity of broilers. In this study, IgY has been purified from fertile eggs using water dilution method (over 94% purity). 200 chicks (Ross), one day old, will be used. The birds will be separated into 5 groups; i) fed basal diet as control, ii) fed basal diet with probiotics, iii) fed basal diet with IgY, iv) fed basal diet with probiotics plus IgY, and v) fed basal diet with vitamin E & selenium. All these feed additives will be added orally "1g/1kg diet". Lipopolysaccharides (LPS) will be injected I/peritoneal (0.1mg/kg body weight) at day 28 of chick to evaluate the ability of its adaptive immune system to cope such stress. Our direction is to collect data from all groups around performance, health status, behaviour, welfare assessments, hematological parameters, clinical health parameters, immunological assessment, microbial & pathological assessment and meat quality along the cycle (42 days). In addition, the concentration of IgY in broilers sera and antimicrobial bioactivity will be analyzed. The birds fed with combination of IgY and probiotics in the ration might be the best choice (with significance difference among the groups). It indicates the standardization of health and welfare of broilers through stimulating their immune system. Conclusion would contribute greatly to the improvement of their management, cost-effective ration, and high-quality productivity. Moreover, it will undoubtedly be used more extensively in the future in a wide range of applications, from human (consumer) and veterinary medicine for nutritional immunomodulation. After describing passive immunization along with the probiotics supplementation and its potential, the reports will put forward recommendations to the authorities, societies and organizations on producing antigen-specific IgY in broilers.

Keywords: probiotic, IgY, performance, immunity, productivity, broilers.



Oral presentation C11

C11: Hematological and some Biochemical Parameters of Spur thighed Tortoise infected with internal parasite

Asmaa F.Ali¹, Adel Elsayed Ahmed Mohamed^{1*}, Alsagher O.Ali¹

¹Department of Animal medicine, Faculty of Veterinary medicine, South Valley University, 83523 Qena, Egypt

*Corresponding author: Adel E. Mohamed, E-mail: adel.mohamed@vet.svu.edu.eg

Abstract:

Chelonians (Turtle and Tortoise) are kept in captivity as pet animals. However, the close contact of humans with these animals has not been met with appropriate medical information. *Testudo. graeca* is called Spur thighed tortoise for its large conical tubercle present on each Thigh. *T. graeca* is considered endangered across its entire range. They are illegally imported from Libya to Egypt. The aim of this paper is to determine prevalence of parasites and to measure hematological and biochemical parameters of both male and female parasitic tortoise. Fecal and blood samples were taken from 37 tortoises, 13 females and 24 males. Feces were examined by qualitative and quantitative methods. RBCs Count, WBCs Count, PCV, HB, MCV, MCH, MCHC value and DLC%, ALT, AST, Urea, creatinine were measured. Strongylus and Oxyuris eggs were found. We report differences in hematological and biochemical parameters in both male and female Spur thighed tortoise and their relation to parasite infection.

Oral presentation C12

C12: Impact of bile salts toxicity on kidney

Aya A. Abbas^{1*}, Abdellatif S. Seddek¹, Ahmed Ghallab¹, Yasser A. Ahmed²

¹Department of Forensic Medicine and Toxicology, Faculty of Veterinary Medicine, South Valley University, Qena, Egypt, ²Department of Histology, Faculty of Veterinary Medicine, South Valley University, Qena, Egypt

*Corresponding author: Aya A. Abbas,

E-mail: Ay.ali@vet.svu.edu.eg

Abstract:

Bile salts (BS) are toxic molecules that are secreted by hepatocytes into the bile canaliculi, and from there passed to the bile ducts and the gall bladder. During acute cholestasis, leakage of BS leads to damage of live parenchyma. However, in chronic cholestasis the liver adapts by several mechanisms including decreased BS uptake from the blood, which leads to critical elevation of BS concentrations in the blood on the expense of the kidney. Although a lot of literature focused on the impact of BS on the liver in cholestasis, little is known about the influence of the toxic BS on the kidney in chronic cholestasis. Therefore, we here studied the spatio-temporal effects of BS on the liver and kidney during acute and chronic cholestasis induced by common bile duct ligation (BDL) in mice. During acute cholestasis (days 1-3 post BDL), dead cell areas (also known as bile infarcts) of various sizes were observed in the liver. This was associated with elevation of the transaminases enzymes in the blood. In contrast, no apparent alterations were observed in the kidney. During chronic cholestasis (3 weeks and later after BDL) there was no bile infarcts in the liver, but periportal fibrosis. Furthermore, ductular reaction, as well as, elevation of blood alkaline phosphatase activity and BS concentrations was recorded. Interestingly, severe damage of the renal tubules was observed in chronic cholestasis. This includes cystic dilatation particularly of the distal tubules. This was accompanied with expression of bile pigments in the distal convoluted tubules. In conclusion, during acute cholestasis, the liver is the primary organ to be affected by the toxic effects of BS. In contrast, the kidney seems to be the target of BS-induced damage in chronic cholestasis.

Oral presentation D1

D1: Morphological analysis of spine dynamics in pyramidal cells of primary motor cortex

Hassan Ahmed^{1*}, Yoshiyuki Kubota²

¹Department of Physiology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Division of Cerebral Circuitry, National Institute for Physiological Sciences, Okazaki, Aichi 444-8787, Japan

*Corresponding author: Hasan Ahmed,

E-mail: hassan-younes@vet.svu.edu.eg

Abstract:

Spines of pyramidal cells dendrite become the focus of attention for their importance in learning and cortical neural microcircuit. Spines receive excitatory and inhibitory synaptic input from different neural sources and are thus a good indicator of synaptic connectivity. The current study is an *in vivo* investigation of newly formed individual or clustered dendritic spines after daily repetitive motor learning in primary motor cortex. For this, cranial window operation was carried out in the skull of THY-1 H YFP transgenic mice which exposed to motor learning followed by *in vivo* imaging using two-photon laser scanning microscope. After images processing and scoring of dendritic spines, spines dynamics were clear and there were obviously newly formed spines, disappeared and transient ones in layer II/III of pyramidal cells. Further advanced electronmicroscopy is required to compare these spines dynamics with that in layer V of pyramidal cells and to investigate the newly formed clusters dendritic spines receive common input by one or more axon fibers.

Oral presentation D2

D2: Phylogenetic study of *Cysticercus tenuicollis* of ruminants in Upper Egypt

Mosaab A. Omar^{1*}, Layla O. Elmajdoub²

¹Department of Parasitology, Faculty of Veterinary Medicine, SouthValley University, Qena, 83523 Egypt, ²Misurata University, Zoology department, Misurata, Libya

*Corresponding author: Mosaab A. Omar,

E-mail: mousaab.omr@vet.svu.edu.eg

Abstract:

The present study aimed to present the molecular characterization of *Cysticercus tenuicollis* (*C. tenuicollis*) of *Taenia hydatigena* (*T. hydatigena*) from livestock isolates in Egypt, and to introduce a detailed image of *C. tenuicollis* infection in ruminant animals in Upper Egypt. The prevalence rates of *C. tenuicollis* infections among the slaughtered animals from different organs were determined using the amplification of sequencing of the *MT-COI* gene. In the present study the infection rates of *C. tenuicollis* were found to be 16% and 19% in sheep and goat samples respectively. Firstly we report one larval stage of *T. hydatigena* detected in the camel liver in Egypt. *C. tenuicollis* infection manifested a higher prevalence in females than in males. Those above two years of age manifested a higher infection rate than younger animals. The preferred site for the infection was the omentum: 70% preference in sheep and 68% preference in goats. The molecular characterization using the *MT-COI* gene of isolates from sheep, goats and camels corresponded to *T. hydatigena*. For this study, molecular characterizations of *T. hydatigena* were done for the first time in Egypt. Molecular tools are of great assistance in characterizing the *C. tenuicollis* parasite especially when the morphological character cannot be detected, because the metacestodes are frequently confused with infection by the hydatid cyst, especially when these occur in the visceral organs. In the present study, *C. tenuicollis* manifested high identity in the goat and sheep samples, while differences were found more frequently in the camel samples (10 base pair). In conclusion, clearly molecular diagnosis for *C. tenuicollis* infection significantly helps to differentiate it from such other metacestodes as hydatidosis, which manifests a completely different pathogenicity and requires different control programs.

Oral presentation D3

D3: Clinical observations on some surgical udder and teat affections in cattle and buffaloes

Abd El-Nasser A. A. Abd-El-Hady^{1*}

¹Department of Surgery, Anaesthesiology and Radiology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Abd El-Nasser Abd El-Hady, E-mail: nasser_azab@vet.svu.edu.eg

Abstract:

This study was carried out on a total number of 360 dairy animals; 275 dairy cows, and 85 buffaloes during the period from January 2010 to March 2015. All these cases were examined in the villages of Damietta province or in South Valley University veterinary convoys that had been held in villages of Upper Egypt. In this study, the udder affections that had been detected included deep wounds; 5 cases (1.4%) , 1 case (0.3%), hematomas; 20 cases (5.6%), 7 cases (1.9%), abscesses; 21 cases (5.8%) , 0 case (0.0%), gangrenous mastitis; 36 case (10%), 0 case (0.0%) and ruptured suspensory ligaments; 10 cases (2.8%), 0 (0.0%), while the teat lesions that had be found included anomalies; 50 case (13.9%), 5 cases (1.4%), wounds; 18 cases (5.0%) , 0 (0.0%), stenosis; 50 cases (13.9%), 15 cases (4.2%) , Obstructions; 70 cases (19.4%), 15 cases (4.2%), ulcerative thelitis; 0 case (0.0%), 33 cases (9.5%) and teat cistern dilatation; 3 cases (0.8%), 9 cases (2.5%) in dairy cows and buffaloes, respectively. The appropriate medicinal and surgical managements were undertaken for each case with uneventful results. It was concluded that, udder and teat affections are relatively variable between dairy cows and buffaloes with less frequent occurrence in buffaloes, perhaps due to specific anatomical and physiological criteria of the buffalos' udder along with the special environmental peculiarities under Egyptian relations.

Keywords: dairy cows and buffaloes, deep wounds, udder haematoma, udder abscesses

Oral presentation D4

D4: The titer of immunity and signs of health due to changes in group size in two strains of Lohmann classic layers

Hesham H. Mohammed¹, Ibrahim F. Rehan^{2*}

¹Department of Veterinary Public Health, Faculty of Veterinary Medicine, Zagazig University, Egypt, ²Department of Animal Behavior and Management, Faculty of Veterinary Medicine, South Valley University, Qena, 83523, Egypt.

*Corresponding author: Ibrahim Rehan,

E-mail: Ibrahim.rehan@vet.svu.edu.eg

Abstract:

This study investigated the effect of the different group sizes on the titers of some immunological indicators and signs of health in two strains of Lohmann layers. The study was conducted in furnished cages with nest, plastic mat and perch on two batches of Lohmann brown and Lohmann selected leghorn in two different group sizes (33 and 60 birds). A total 558 layers (279 Lohmann brown, 279 Lohmann selected leghorn), aged 50 weeks were homogenously classified in to four groups, where 360 birds (180 Lohmann brown and 180 Lohmann selected leghorn) in 6 cages (60 layers/ cage “5 m²”) and 198 birds (99 Lohmann brown and 99 Lohmann selected leghorn) (33 layers/ cage “2.8 m²”) with the same floor space relatively. All data were recorded for all groups throughout the experimental period (12 weeks), where the antibody titers of avian encephalomyelitis, avian meta-pneumonia, infectious bronchitis, mycoplasma gallisepticum and mycoplasma synovia were assessed three times throughout experimental period (at 51, 55 and 59 week respectively) via enzyme-linked immunosorbent assay (ELISA), after collecting random blood samples from wing vein in 60 birds from each strain. Serum was separated from blood samples by centrifugation at 15,000 × g for 3 min and stored at -80°C until the day of analysis and all serum samples were read against positive and negative control antisera. Evaluation of the plumage and feet conditions were scored monthly for 15 birds per cage randomly by using Tauson scale, i.e. the scoring system assigned value of 1 to 4 for each part, where 4 was the best condition and 1 was the worst. The antibody titer of avian encephalomyelitis, avian meta-pneumonia, infectious bronchitis and mycoplasma synovia were higher in small group (33 birds) than large group size (60 birds), but the differences didn't reach the significance. Increase the susceptibility of birds to the mentioned diseases in large group may be due to high possibility of disease transmittion in large groups. In the other hand, the Lohmann brown was more susceptible to avian encephalomyelitis, infectious bronchitis and mycoplasma synovia due to the increase in its antibody titers, while the antibody titers of avian meta-pneumonia, infectious bronchitis, and mycoplasma synovia and mycoplasma gallisepticum were higher in Lohmann selected leghorn with no effect from group size. Perhaps the good performance of Lohmann brown in the most of previous references refers to high immunity with decreasing the disease susceptibility. In large group size (60 birds/ cage), the scores of Tauson scale in the most parts of birds were referred to the best, especially in Lohmann brown. These results may be due to the increase of allelomimetic, comfort behavior among birds in large group. Furthermore, the changes in feet condition in Lohmann brown were better than Lohmann selected leghorn, especially in large group. The good signs of health were in Lohmann brown may be due to decrease the susceptibility to diseases with good performance.

Oral presentation D5

D5: Expression of the γ - δ T-cell receptor and CD8+ in the intraepithelial lymphocyte in *Eimeria vermiformis*-infected mice and treated with garlic extracts

Atef Mohammed Hussein Khalil¹*

¹Department of Pathology and Clinical Pathology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Atef Khalil,

E-mail: atef-clpatho@vet.svu.edu.eg.com

Abstract:

This study investigated the immunomodulatory and proliferative activities of garlic extract on CD8⁺ and $\gamma\delta$ ⁺ T cells in *Eimeria vermiformis* infection in male ICR mice. Thirty mice were divided into two groups, one was received garlic extract (500 mg/kg body weight) daily by oral route started from 10 days before parasitic infection (*E. vermiformis*; given once as 300 sporulated oocysts orally) and continued up to the end of the experiment (infected-garlic⁺), while the other group was served as control positive with *E. vermiformis* infection alone (infected-garlic⁻) and both groups were injected with Bromodioxuryridin (BRDU) intraperitoneally 24 hours before scarification ileum tissues collected for flowcytometry and immunohistochemistry analyses. In the infected-garlic⁺ group a significant increase in the expression of CD8⁺ and $\gamma\delta$ ⁺ T cells was observed by flowcytometry. Immunohistochemical examination in the ileum tissue showed that garlic treatment increases the number of CD8⁺ intraepithelial lymphocytes (IELs). On the other hand, no double positive CD8⁺ T cells were expressed. Further studies exploring the origin of activated CD8⁺ T cells during *Eimeria* infection and garlic extract treatment are needed.

Oral presentation D6

D6: Phenotypic and genotypic aspects of *Pseudomonas putida* isolates from Nile Tilapia (*Oreochromis niloticus*).

Noureldin E.A¹, Waleed Younis^{2*}

¹Department of Fish Diseases, Faculty of Veterinary Medicine, South Valley University,
²Department of Microbiology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Waleed Younis,

E-mail: wkhrdr39@gmail.com

Abstract:

Pseudomonas putida is one of the most common and highly risky bacterial diseases in fish. It cause high morbidity and mortality rates in fish farms in addition to its zoonotic importance. The aim of the present study is the isolation and identification of *Pseudomonas putida* from Nile Tilapia (*Oreochromis niloticus*). Ninety eight isolates of *Pseudomonas putida* were recovered from 288 fish samples collected regularly from 2 private tilapia farms, during one year starting from January 2016 until December 2016. The isolates were identified using conventional and molecular methods. The conventional methods include confirmation of *P. putida* on *Pseudomonas* selective agar media supplemented by C-F-C (citrimide–Fucidine–Cephalosporin) supplement and API20E & API20NE identification system (Biomérieux). Molecularly, PCR using universal (27F and 1492R) and gene specific primer for *P. putida* (P734 and P1455r) were done, sequencing for both DNA targets and BLASTing of sequence results in GeneBank (NCBI) confirmed the identification of *P. putida* with 99 % similarity to *Pseudomonas putida* P6 16S ribosomal RNA and *Pseudomonas putida* strain PB4 respectively. Phylogenetic tree using the Molecular Evolutionary Genetics Analysis (MEGA) 6.0 software was also created. Experimental challenge was carried out by intraperitoneal injection of 0.4 ml of 4.7×10^7 cfu/ml in apparently healthy *O. niloticus* and was resulted in 67.5 % mortality in the challenged fish exhibiting septicemic picture. Antibiogram testing was also carried out and indicated sensitivity of isolates to Trimethoprim + Sulphamethoxazole (SXT25) and Nitrofurantoin (F300).

Oral presentation D7

D7: The synthetic lethality induced by the PRMT5 inhibitor EPZ015666 proving it as a novel therapy for the ATL leukemia

Obeid Shanab^{1*}, Tomonaga Ichikawa², Ahmed Y. Nassar³, Kazuhiro Morishita²

¹Department of Biochemistry, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Tumor and Cellular Biochemistry Department, Faculty of Medicine, University of Miyazaki, Japan, ³Department of Biochemistry, Faculty of Medicine, Assuit University, Assuit, Egypt

*Corresponding author: Obeid Shanab,

E-mail: shanab.bio@vet.svu.edu.eg

Abstract:

Adult T-cell leukemia (ATL) is an aggressive malignant disease of CD4+ T lymphocytes caused by infection with human T-cell leukaemia virus type 1 (HTLV-1), and there is no therapy available yet. We previously reported that downregulation of N-myc downstream-regulated gene-2 (NDRG2) expression by DNA methylation and genetic deletion presents one of the most common alterations in adult T-cell leukemia (ATL). We first identified protein arginine methyltransferase 5 (PRMT5) as a NDRG2/PP2A binding partner. Since the knockdown of PRMT5 induced apoptosis with degradation of various client proteins of HSP90, we characterized the novel protein network related to cell stress. A NDRG2/PP2A complex down-regulated arginine methyltransferase activity of PRMT5 through dephosphorylation of S335; however, PRMT5 was highly phosphorylated at S335 and localized in cytoplasm with binding to HSP90A in NDRG2-deficient ATL, resulting in enhanced arginine methylation (R345 and R386) at the middle domain to maintain HSP90A function. Since knockdown of PRMT5 expression or treatment with a PRMT5 inhibitor in NDRG2-deficient ATL induces HSP90-dependent apoptosis through the ubiquitin-proteasome degradation of client proteins with loss of arginine methylation of HSP90A and loss of binding ability to cochaperon AHA1 and p23, a PRMT5 inhibitor becomes an effective therapeutic agent as synthetic lethality for the treatment of NDRG2-deficient ATL through HSP90A dysfunction. The development of the PRMT5 inhibitor (EPZ015666) is now in progress for treatment of mantle cell lymphoma (MCL); however, overexpressed PRMT5 in MCL was mainly located in the nucleus to up-regulate PRC2 expression through inactivation of the several tumor suppressor proteins. Moreover, MCL cell lines were gradually suppressed in their growth four days after treatment with EPZ015666 but the global histone methylation levels were not significantly decreased. Thus, the concept of the molecular mechanism underlying effectiveness of PRMT5 inactivation in NDRG2-deficient ATL is completely different from that in MCL. Our data showing that EPZ015666 have a powerful effect in NDRG2-deficient ATL comparing to MCL. Thus, interfering with the PRMT5-mediated HSP90A arginine methylation might be a feasible and effective strategy in the treatment of NDRG2-deficient ATL and other cancers.

Keywords: ATL, PRMT5, HSP90, NDRG2, EPZ015666, PP2A.

Oral presentation D8

D8: Clinical and laboratory diagnosis of Fascioliasis in buffaloes in Sohag governorate

Adel E.A. Mohamed^{1*}, El-Sagher O. Ahmed¹, Azza M. Mosleh², Marwa F. Ali³, Doaa F. Hassan²

¹Department of Animal Medicine, Faculty of veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Animal Health Research Institute, Sohag, Egypt, ³Department of Pathology, Faculty of Veterinary Medicine, Assuit University, Assuit, Egypt.

*Corresponding author: Adel E. Mohamed, E-mail: adel.mohamed@vet.svu.edu.eg

Abstract:

This study was carried out on a total number of 137 buffaloes of both sexes, and aged between 6-months- to 5-years-old. All animals were located at different areas in Sohag governorate. The clinical signs, feeding offered and breeding system of these animals were recorded. All animals were examined clinically and using some laboratory investigations including fecal, hematological examination, liver function tests, oxidants and anti-oxidants activities. According to the clinical signs, animals were divided into two groups; clinically healthy buffaloes (group 1 “control group”, n=20), these 20 animals were considered as fasciola-free based on laboratory investigations, and administration of 2 doses of anti-fascioliasis drugs. The remained 117 animals showed the clinical signs of fascioliasis including different degrees of appetite to slight in-appetence, pale color mucous membranes, emaciation to complete dehydration, easily detachment to complete loss of hair, and submandibular edema in chronic infection of highly infected animals. Laboratory investigations of these clinically diseased animals using fecal examination revealed that 84 out of 117 animals were free from fasciola while 33 out of 117 animals were fasciola-infected. Fasciola-infected buffaloes (n=33) were considered as group 2. In the present study, biochemical and hematological analysis revealed a significant decrease in RBCs count, Hb content, and PCV in group 2 (fasciola-infected) when compared to group 1 (control). On the other hand, our findings showed a significant increase in WBCs count, neutrophils and eosinophils percent, and a significant decrease in lymphocytes percent. Regarding serum proteins⁷ levels, this study showed a significant decrease in serum albumin with a significant increase in ALT, AST, globulin and serum total protein in group 2 in comparison to control group. Moreover, for oxidant and anti-oxidant activities, there were a significant increase in catalase, and malonaldehyde and a significant decrease in superoxide dismutase in group 2.

Oral presentation D9

D9: Effect of bacterial Lipopolysaccharide on serum testosterone level and sperm vitality in mature albino rats

Abdelah Hassan Mahmoud Abdelkader^{1*}, Mohammed Yousef Saleh¹, Atef Mohammed Hussein², Hassan Ahmed Younis¹

¹Department of Physiology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt, ²Department of Pathology and Clinical Pathology, Faculty of Veterinary Medicine, South Valley University, Qena 83523, Egypt

*Corresponding author: Abdelah H. Abdelkader,

E-mail: a-hassan@vet.svu.edu.eg

Abstract:

In the last decades, the light had been shed on the importance of male reproduction and how to protect it from disease conditions and inflammation which may cause infertility. Accordingly, the mechanism underlying inflammation-mediated infertility must be well clarified. In the present study, an experimental model of acute inflammation in mature male albino rats was established by intraperitoneal injection of a single dose of Lipopolysaccharide (LPS) (1mg/k.g). Consequently, basic reproductive parameters were estimated after LPS administration. Blood samples were collected and assayed for serum testosterone levels. Semen was also analyzed for live sperm percent. Testes were removed for histopathological evaluation. The findings revealed that testosterone level in LPS-treated rats decreased significantly ($P<0.05$) compared to control rats at 6 and 12 hrs after injection. Meanwhile, serum testosterone recovered 72 hrs after injection. Moreover, live sperm percent decreased drastically in LPS-treated rats ($P<0.001$) compared with control rats at 6 and 12 hrs after LPS injection. Adverse effects of LPS on sperm vitality at 72 hrs after LPS injection were also found. Microscopic examination revealed that degenerative changes were observed in LPS-treated rats at 6 and 12 hrs. Most of histopathological findings returned to normal structure in LPS-treated rats at 72 hrs. The present study concluded that LPS-induced inflammation leading to testosterone production and semen life sperm percent. Serum testosterone level decreased significantly 6 and 12 hrs after LPS injection. However, its level recovered after 72 hrs. Microscopic examination revealed those more degenerative changes in Sertoli cells, primary & secondary spermatocytes, spermatids, spermatozoa and Leydig cells at 6 and 12 hrs. Most of histopathological parameters returned to normal structure in LPS-treated rats at 72 hrs.

Oral presentation D10

D10: Citrobacter Septicemia in African Sharptooth Catfish, an Emerging Infection

Karima Alaa-Eldin Bakry Hassan^{1*}, Ahmad Abd Elhady Elkamel², Walaa Fathy Aly Emeish¹

¹Department of Fish Diseases and Management, Faculty of Veterinary Medicine, South Valley University, 83523 Qena, Egypt, ²Department of Fish Diseases and Management, Faculty of Veterinary Medicine, Assuit University, Assuit, Egypt

*Corresponding author: Karima A.B. Hassan,

E-mail: karima-ala@vet.svu.edu.eg

Abstract:

This study aimed to investigate the emerging *Enterobacteriaceae* infections in African sharptooth catfish *Clarias gariepinus*. A total of 120 catfish were collected from small canal in Farshout, Qena Governorate, and were subjected to clinical and bacteriological examination. Catfish sampled showed signs of typical hemorrhagic septicemia on the skin and internal organs. Bacteriological investigations resulted in isolation of 240 isolates that belongs to *Enterobacteriaceae*. By conventional morphological and biochemical characters only 46 isolates were identified as potential pathogens to fish, out of which 16 isolates were suspected to be *Citrobacter* spp. Based on genetic sequence analysis of the 16S rDNA, only 8 (50%) of the suspected isolates were identified as *Citrobacter freundii*. Two PCR assays were used to detect the presence of two common virulence factors, the capsular polysaccharide virulence antigen (*viaB*) and hemolysin (*hlyA*) genes in the isolated *C. freundii*, and both genes were present in all strains isolated. To study the pathogenicity of *C. freundii* to catfish, an experimental challenged study with the isolated *C. freundii* strains were carried out, where infected fish showed signs and lesions of acute septicemia. The current study is the first to report *Citrobacter* infections in catfish in Upper Egypt which could represent a drastic risk to the aquatic life and have the potential to act as a zoonotic pathogen.

Oral presentation D11

D11: Isolation of Staphylococcus species from ice-cream samples

Hala Samir¹, Waleed Younis¹, Serageldeen Sultan¹, Mohamed Wael Abd El-Azeem^{1*}

¹Department of Microbiology, Faculty of Veterinary Medicine, South Valley University 83523 Qena, Egypt

*Corresponding author: Mohamed W. AbdEl-Azeem, E-mail: wael_2000uk@yahoo.co.uk

Abstract:

Milk and dairy products including ice cream are good media for growth of staphylococci, and dairy products are common sources of staphylococcal intoxication. The aim of this study is to detect the presence of *staphylococcus* species in ice-cream samples, which can be achieved by the following, 100 ice-cream samples were examined for presence of staphylococci on mannitol salt agar, and the suspected colonies were identified by Gram staining and biochemically through catalase, oxidase and coagulase tests. Molecular identification of staphylococci by polymerase chain reaction (PCR) through detection of 16SrRNA gene. Antimicrobial susceptibility testing was carried out through disc diffusion method to detect the susceptibility of all isolates to various antibiotics and molecular detection of *mecA* gene. This study showed that 22 out of 100 ice-cream samples were appearing positive staphylococci through conventional methods of isolation. 15 samples were positive staphylococci according PCR technique. Antimicrobial susceptibility testing showed that about 10 out of 15 (66.6%) isolates have *mecA* gene. Disc diffusion method showed that 12 out of 15 (80%) isolates were resistant to oxacillin, 14 out of 15 isolates (93.3%) were resistant to penicillin, 8 out of 15 isolates (53.3%) were resistant to rifampin, 9 out of 15 isolates (60%) were resistant to nalidixic acid but 14 out of 15 isolates (93.3%) were sensitive to chloramphenicol, 12 out of 15 isolates (80%) were sensitive to vancomycin and 11 out of 15 isolates (73.3%) were sensitive to tetracycline.

Oral presentation D12

D12: The effect of miR-1, Cisplatin and pemetrexed on mesothelioma cell lines.

Amany Sayed Mawas^{1*}, Vishwa Jeet Amatya², Kei Kushitani², Yukio Takeshima²

¹Department of Pathology and Clinical Pathology, Faculty of Veterinary Medicine, South Valley University, 83523 Qena, Egypt, ²Department of Pathology, Institute of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan.

*Corresponding Author: Amany Sayed Mowas, E-mail: Amany_Jaber@vet.svu.edu.eg

Abstract:

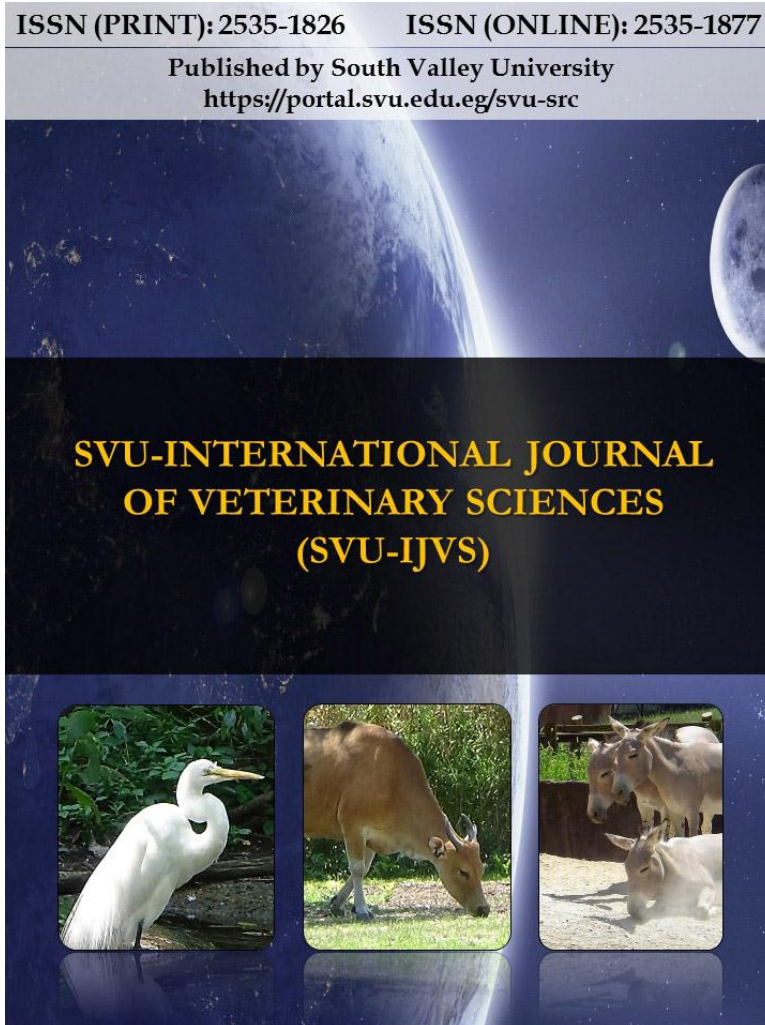
Malignant mesothelioma (MM) is a highly aggressive and poor prognostic cancer and not amenable to surgical resection and/or available anticancer therapy. Thus, development of novel effective therapeutic regimes is needed. Aberrant expression of microRNAs (miRNAs) has been proposed to contribute to carcinogenesis and aggressiveness of mesothelioma as miR-1 which is not expressed in mesothelioma cell lines. Transfection of mesothelioma cells (ACC-Meso-1 and CRL5915), with miRNA mimic (hsa-miR-1) mimic led to inhibition of cell growth, invasion and migration. Chemotherapy can be used in combination with surgery with curative intent or alone with palliative intent for inoperable MM. Currently; the standard first-line chemotherapy for MM is a combination of cisplatin and pemetrexed or raltitrexed. Our aims of this study were to measure the effect of pemetrexed and cisplatin on mesothelioma cells in addition to find the effect of the combination of miR-1 with pemetrexed and cisplatin on mesothelioma cells. In this study, we had transfected two mesothelioma cell lines; ACC-Meso-1, and CRL-5915 with pemetrexed and cisplatin, separately, then with a combination of miR-1. The results of this study found decreased proliferation rate of mesothelial cells in comparison to negative control in case of transfection of the cells with pemetrexed alone or miR-1 with pemetrexed. While the cells which transfected with cisplatin or miR-1 and Cisplatin have no effect in its proliferation rate.

INVITATION FOR SUBMISSION

SVU-IJVR is a peer-reviewed international open access official Veterinary Journal of the South Valley University, Egypt and publishes original research articles dealing with Veterinary sciences. SVU-IJVS is indexed in Directory of Open Access Scholarly Resources (ROAD), Google Scholar, Directory of Research Journal Indexing (DRJI) and Index Copernicus International. For more information visit journal website <https://portal.svu.edu.eg/svu-src/>

ISSN (PRINT): 2535-1826 ISSN (ONLINE): 2535-1877

Published by South Valley University
<https://portal.svu.edu.eg/svu-src>



**SVU-INTERNATIONAL JOURNAL
OF VETERINARY SCIENCES
(SVU-IJVS)**

48

المؤتمر برعاية شركة الدكتوراة للاستثمار والتنمية



المؤتمر الدولي الثالث للطب البيطري
الطب البيطري في خدمة المجتمع "أمال وتحديات"
ساني دايز البلاسيو -مدينة الغردقة - مصر
(4-7 أغسطس 2018)

تحت رعاية

أ.د/ خالد عاطف عبد الغفار

وزير التعليم العالي

أ.د/ ياسمين فؤاد

وزيرة البيئة

اللواء/ أحمد عبد الله

محافظ البحر الأحمر

أ.د/ عباس محمد منصور

رئيس جامعة جنوب الوادي

أ.د/ يوسف أحمد غرباوى

نائب رئيس جامعة جنوب الوادي لشئون البيئة وخدمة المجتمع

رئيس المؤتمر

عميد كلية الطب البيطري - جامعة جنوب الوادي

أ.د/ جيهان رجب داوود

مقرر المؤتمر

وكيل كلية الطب البيطري لشئون البيئة وخدمة المجتمع - جامعة جنوب الوادي

أ.د/ عادل السيد أحمد

أمين عام المؤتمر

رئيس قسم الهستولوجيا- كلية الطب البيطري - جامعة جنوب الوادي

أ.م.د/ ياسر عبد الجليل أحمد



المؤتمر برعاية شركة الدكتوراة للاستثمار والتنمية



شركة الدكتوراة للاستثمار والتنمية التابعة للهيئة العامة للاستثمار

(د/ حنان عبد الصبور)

- شركة متخصصة في كل ما يخص مجال تنمية الثروة الداجنة و الارنبية (بطاريات ارانب -اعلاف ارانب - سلالات ارانب)
- العنوان: قنا شارع المحطة بجوار كافيتريا نوفل
- التليفون: 01115719047
- البريد الالكتروني: Eldoctora2020@gmail.com