

# The Lesion

A Biannual Newsletter of Indian Association of Veterinary Pathologists

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## Editors

Dr. R. Somvanshi  
Dr. B.N. Tripathi

## From President Desk ...

- *The Lesion 2015 (Joint issue) is in your hand. It reflects activity of IAVP and its members. I know that your achievements are many more but due to cold response they could not reach to us. Hope next issue will have more achievements, news and activities of all corners/zones.*
- *It is requested to each life member of IAVP to think to do something for Association/ Profession. The office-bearers, EC members, ex office-bearers are our ambassadors and they should try to actively contribute in IAVP and professional activities.*
- *Newly created North-East Zone needs strengthening by membership drive and zonal scientific activities.*
- *It is requested that all colleagues of IAVP/ICVP should play pro-active role to promote goals of ICVP.*

## ICAR Sardar Patel Outstanding ICAR Institution Award 2014 to National Research Centre on Equines

National Research Centre on Equines (NRCE), Hisar, Haryana was conferred Sardar Patel Outstanding ICAR Institution Award 2014 for the Small Institute category. NRCE is the only institute in the country responsible for research on equine health, production and management for the welfare of the society. During last three decades, the institute has developed tremendously in terms of infrastructure, capacities and capabilities to take care of equine sector in the country. The institute capacity to handle all major diseases of equines and its role in preventing incursion of new diseases in the country led Govt. of India to recognize NRCE as National Referral Laboratory. The institute provides diagnostic services to all its stakeholders. During the last five years about 35,000 samples were tested for imparting diagnosis using various serological (recombinant antigens and mAb based) and molecular assays.



Dr. B.N. Tripathi receiving Award from Prime Minister of India, Shri Narendra Modi Ji

## Drs. B.N. Tripathi and Nitin Virmani visited Animals Health Trust, UK



Dr. B.N. Tripathi, Director, NRCE, Hisar, Dr. Nitin Virmani, Principal Scientist and others visited Animal Health Trust, New Market, Suffok, U.K. in July, 2015 under OIE twinning project on equine influenza. The purpose of the visit was to learn the latest techniques in the areas of diagnostics, immunoprophylactics and to validate an ELISA test developed by NRCE, Hisar.

The scientist and staff of the institute are continuously engaged in refinement and development of diagnostics and vaccines (updated E1 and EHV-1 vaccines) and production research through 13 institute and 11 external funded projects. The institute capacity on equine health was further recognized when three International Twining projects on equine piroplasmiasis, glanders and equine influenza were funded by OIE for developing Referral Laboratories for this region. All six recognized horse breeds (Marwari, Kathiawari, Spiti, Zanskari, Manipuri and Bhutia) have been phenotypically and genotypically characterized using microsatellite techniques. The institute is actively engaged in *in situ* and *ex-situ* conservation and propagation of important breeds of equines by perfecting artificial insemination and semen cryopreservation technology that has resulted in the increase of horse population by 2.3% and mule population by 4.3% over last five years. Our studies on utilization of donkeys' and mules' energy in agricultural operations for sustainable livelihood have become a baseline data for policy makers. The institute has reached to farmers and other stakeholders by organizing 12 vocational trainings, 81 health camps and *Kishan Gosthies*, 34 exhibitions and *melas*, and brought out 16 extension publications and has developed a unique Info-Equine Museum. The institute has published a total of 233 research articles, 24 reviews, 158 research abstracts and 105 technical and popular articles, developed 14 diagnostic technologies, 2 vaccines, 4 patents and has mobilized Rs10.70 crores from external project funding and generated a revenue of Rs. 2.3 crores in last 5 years from disease investigation and diagnostic services. **IAVP congratulates Dr. B.N. Tripathi, Director, NRCE who is also Secretary General, IAVP and his team for this great achievement.**

## 32nd Veterinary Pathology Congress, Gannavaram

### Vijayawada Welcomes IAVP Delegates

Vijayawada is a city on the banks of the Krishna river in the Andhra Pradesh. It is a municipal corporation and the headquarters of Vijayawada (urban) *mandal* in Krishna district of the state. It is also a part of Andhra Pradesh Capital Region and the headquarters of APCRDA. The city is one of the major trading and business center of the state and hence, it is also known as "The Business Capital of Andhra Pradesh". The city is one of the two metropolis in the state, with the other being Visakhapatnam. As of 2011 census, the city had a population of 1,048,240, making it the second largest city in the state in terms of population. Gandhi Hill is the first Gandhi Memorial in the country, constructed on a hill, located at an elevation of 150 m in the city. Victoria Jubilee Museum is an archaeological museum, which has preserved collections of ancient sculptures, paintings, idols, weapons and inscriptions. Many beautiful parks are located in the city to protect the environment such as Rajiv Gandhi, Dr. B.R. Ambedkar and Raghavaiah, Mahatma Gandhi Parks etc. Bhavani Island is one of the largest island, located in midst of the Krishna river. It is at the upstream of Prakasam Barrage of the city which is being developed by APTDC into a tourist spot and a Riverfront resort.

Nearby landmarks in the surrounding suburbs include Mogalarajapuram Caves (5th century A.D.), Undavalli Caves (7th century A.D. Buddhist landmark), Kondapalli Fort (7th century A.D.) in Kondapalli village etc. Lord Narasimha temple in Mangalagiri, located 14 km from the city, is the abode of Lord Narasimha. Kondapalli Forest, located 20 km from Vijayawada, is spread over 121.5 square kilometres (30,000 acres). The fauna of this forest include leopards, wild dogs, jackals, wild boar, wolves etc.

### Host of 32nd Veterinary Pathology Congress-2015: Department of Veterinary Pathology, Gannavaram, AP

The Department of Veterinary Pathology at NTR College of Veterinary Science, Gannavaram was established in the year 1998. Initially started to meet the needs of Under Graduate curriculum, the Department steadily developed to offer the Post Graduate and Doctoral programmes. The Department has a good collection of slides, transparencies and well organized museum with some rare specimens. The Department handles different types of diagnostic materials and plays an active role in disease diagnosis and research. Livestock and poultry farmers regularly visit the Department for advises on health issues.

### Meet Your Organizing Secretary: Dr. V. Rama Devi

Dr. V. Rama Devi, Ph.D., Organizing Secretary, Veterinary Pathology Congress 2015 is Professor & Head, Department of Veterinary Pathology, NTR College of Veterinary Science, Gannavaram, AP. After graduation from College of Veterinary Science, Hyderabad, she obtained Masters and Doctoral degrees in Veterinary Pathology from College of Veterinary Science, Tirupati. After an initial career in District Diagnostic Laboratory of State Animal Husbandry Department; Dr. Rama Devi took up teaching career at College of Veterinary Science, Tirupati. From here, she moved to NTR College of Veterinary Science, Gannavaram to establish the Department of Pathology which was developed to offer Post Graduate and Doctoral programmes. Dr. Rama Devi has guided several post graduate and doctoral students. She attended 10 national and 4 international conferences and presented several papers including one in ESVP, Edingburgh, UK and one in ASVP, Kuala Lumpur, Malaysia. She is recipient of Andhra Bank Gold Medal (1990), IAVP-Narmada Hatcheries Young Scientist Award (1999), Dr. Rajal Rao Memorial Gold Medal (2002) and two best poster awards (2012 and 2014). Dr. Rama Devi also received the prestigious INSA-DFG Fellowship twice (2005 and 2011) to work on collaborative research projects at Department of Pathology, University of Veterinary Medicine, Hannover, Germany. She has published 60 research papers in peer reviewed national and international journals and more than 40 popular articles in vernacular language. Currently, Dr. Rama Devi is handling one DST funded project on JSRV as Principal Investigator. Dr. Rama Devi is Organizing Secretary, 32nd Veterinary Pathology Congress 2015 which is to be held from 3-5th December, 2015 at Gannavaram.



Prof. V. Rama Devi

### Our Chief International Guest Speaker: Professor Matti Kiupel, MSU, Lansing, MS, US



Professor Matti Kiupel at work

Professor Matti Kiupel is DVM, Dr. Vet. Med., Dr. Habil, MVSc, PhD, DACVP, Fachtierarzt Für Veterinär Pathologieis, Professor and Section Chief, Anatomic Pathology, Diagnostic Center for Population and Animal Health 4125, Beaumont, Lansing, MS, US.

He did BS, Humboldt University, Berlin, Germany, 1993; DVM, Humbolt/Freie University, 1996; Dr. Vet. Med., Freie University, Berlin, Germany, University of Cambridge, UK, and University of Utrecht, NL, 1996; Dr. Habil, Veterinary Pathology, Ludwig-Maximillian-University, Munich, Germany, 2010; MVSc, Veterinary Pathology, Purdue University, 1999; Ph.D., Veterinary Pathology, Purdue University, 2001; DACVP; Fachtierarzt für Veterinär Pathologie. He is recipient of Heinrich Luessen Award, Freie University, Berlin, Germany, 2000; Ernst-Reuter Award, Freie University Berlin, Germany, 2000; Samuel W. Thompson Distinguished Lecturer Award, CL Davis Foundation, Salt Lake City, UT, 2001; Samuel W. Thompson Distinguished Lecturer Award, CL Davis Foundation, Banff, Canada, 2003; Barbara Jean Thompson Service Award, CL Davis Foundation, Boston, MA, 2005; Research Achievement Award, American Ferret Association, Phoenix, AZ, 2011; Samuel W. Thompson Distinguished Lecturer Award, CL Davis Foundation, Nashville, TN, 2011; FDA Honor Award, Silver Spring, MD, 2015.

Prof. Kiupel is having research interest in animal cancer, pathogenesis of emerging infectious diseases, development of molecular diagnostic techniques, ferret and coral diseases. He is actively engaged in diagnostic or pathology service. He is serving as Anatomic Pathology and Head of the DCPAH Histology and Immunohistochemistry Laboratory.



### The 7th Asian Society of Veterinary Pathologists (ASVP) Symposium held in Philippines

The 7th ASVP Symposium was organised by Philippines at the Institute of Biology, University of the Philippines, Diliman, Quezon City, Philippines from 9-10th November, 2015. The theme of the symposium was **Veterinary Pathology in Practice and Research**. For any information Dr. Veronica A. Matawaran <vamatawaran@yahoo.com> may be contacted.

## Congratulations

**Dr. C. Balachandran : New Dean of Madras Veterinary College, Chennai**



**Madras Veterinary College, Chennai**

**Dr. C. Balachandran**

Dr. C. Balachandran, Vice President of Indian Association of Veterinary Pathologists (IAVP) was appointed as new Dean of Madras Veterinary College, Chennai on 11-04-2015. Before this for short period he also served as acting Dean. He is formerly Registrar, Tamil Nadu Veterinary and Animal Sciences University (TANUVAS), Chennai. Dr. Balachandran was born on 28.07.1957. He graduated from Madras Veterinary College in 1980 and obtained his Master and Ph.D. degrees from the same college in Veterinary Pathology in the year 1983 and 1993, respectively. He is a Post Graduate Diploma holder in Agricultural Journalism (LLRUVAS, Hisar) and Ethno Veterinary Practices (TANUVAS).

He joined the University as Assistant Professor at Poultry Research and Development Centre, Namakkal in the year 1980 and was elevated as Associate Professor in 1988 and Professor in 1996. He was awarded FAO Fellowship in Avian Pathology in 2000. He received Dr. N.C. Jain Life Time Achievement Award of IAVP. He is also a Fellow of IAVP, National Academy of Veterinary Sciences (India) and Academy of Sciences for Animal Welfare. He is Chartered Member of Indian College of Veterinary Pathologists (ICVP) and became Diplomate of ICVP in 2008. He served as Chairman of the ICVP Examination Committee for four years. He has published about 325 research (60 International and 265 National) papers. He has prepared/ published one CD on shark, book chapter, three monographs and 18 manuals. He has handled 10 research projects. He served as Editor of TANUVAS Tamil magazine "*Kalnadaikkathir*". He is Editorial Board member of Indian Journal of Animal Research.

He has guided 8 Ph.D. and 11 M.V.Sc. students. His one student got the coveted ICAR Jawaharlal Nehru Award for the Best Ph.D. Thesis in 2005. He is responsible for establishment of cytological diagnosis at Madras Veterinary College. Nipple aspirate fluid cytology was developed as technology for early diagnosis of mammary tumour in dogs. His major thrust areas of research are avian pathology, clinical and experimental oncology. He has 60 awards to his credit including University Medal for Best Ph.D. Thesis and IAVP Dr. Nemi Chand Jain-Dr. J.L. Vegad Team Research Award and IAVP-Varsha Award for Outstanding Poultry Pathologist. He has organized one ICAR Summer School, one international conference, two international workshops (Toxicopathology and Avian Pathology), six national seminars including two IAVP Annual Conferences and two South Zone Conferences and 50 training programmes. He established facilities for UG and PG education at Veterinary College and Research Institute, Namakkal. He is life member of 13 professional societies of India. He served as Secretary General, Zonal Secretary (South) and EC member of IAVP. **IAVP congratulates Dr. C. Balachandran for this new prestigious assignment.**

## International Training

**Foreign Animal Disease Diagnostician (FADD) Course and Immunomicroscopy Training at USDA/ARS, Plum Island, New York, USA**

Dr. Rajeev Ranjan, Scientist (Veterinary Pathology) posted at Project Directorate on Foot and Mouth Disease, IVRI Campus, Mukteswar, Uttarakhand underwent Foreign Animal Disease Diagnostician (FADD) Course and Immunomicroscopy Training at Foreign Animal Disease Research Unit, USDA/ARS, Plum Island Animal Disease Centre, Greenport New York, USA during 1-19 June, 2015. The training was organized under the ICAR-USDA-ARS collaborative research programme on "Understanding Foot and Mouth Disease Viral Ecology in India and Landscape Epidemiology toward Control and Eradication". In this training foreign animal disease (for USA) of cattle, horse, pig, goat, sheep and poultry were included. This training was very useful because for each disease, experimentally induced clinical cases were followed by its necropsy, sample collection and processing. During last seven day trainers were provided exposure of immunomicroscopy (Immuno-histochemistry and immunofluorescence), specially use of multiple antibodies either in formalin fixed or cryo-sectioned tissue sections and its importance in pathogenesis. Trainees learnt a lot from this training which may help them in use of multiple antibodies. In future it may be also used in study of pathogenesis of FMD or other diseases.



**Dr. Rajeev Ranjan**

### Drs. R. Somvanshi and M.R. Gajendragad selected ICAR Scientist Emeritus

Dr. R. Somvanshi, Retired Principal Scientist, ICAR-IVRI and Dr. M.R. Gajendragad Retired Principal Scientist, ICAR-NIVEDI were selected Scientist Emeritus. This for first time that two ICAR Veterinary Pathology got this award.

### Women Scientists Scheme-Award (WOS-A) to Dr. Leishangthem Geeta Devi, GADVASU, Ludhiana

Women Scientists Scheme-Award (WOS-A) has been recommended to Dr. Leishangthem Geeta Devi. A research grant of Rs. 24.3 lakhs on the project entitled "An assessment of the role of mitochondria in bovine mastitis" under the Women Scientists Scheme-A (WOS-A) by Department of Science and Technology (DST) has been sanctioned.



**Dr. Leishangthem Geeta Devi**

The project will be carried out under the mentorship of Dr. Amarjit Singh, Professor and In-charge, Animal Disease Research Centre, GADVASU, Ludhiana. Dr. Leishangthem Geeta Devi has completed graduation from Central Agricultural University, Imphal and Post-graduation thesis work under the guidance of Dr. R. Somvanshi, Division of Pathology, IVRI, Izatnagar, UP. She further did her doctoral thesis under Prof. A.K. Dinda, Department of Pathology, AIIMS, New Delhi. She worked for some years in Department of Veterinary Pathology, GADVASU, Ludhiana, Punjab. She is a life-member of Indian Association of Veterinary Pathologists. Her husband Dr. N.D. Singh is also Asstt. Professor, at Department of Veterinary Pathology, GADVASU, Ludhiana.

## New Researches by Indian Veterinary Pathologists

### Role of chicken astrovirus as a causative agent of gout in commercial broilers in India

Several outbreaks of gout were reported in commercial broilers in India during 2011 and 2012, causing up to 40% mortality in the birds. Gross and histopathological observations confirmed gout. Quantitative reverse transcriptase polymerase chain reaction (qRT-PCR) analysis from kidney samples of gout-affected birds indicated the presence of chicken astrovirus (CAstV) in 41.7% of cases and a mixed infection of CAstV and avian nephritis virus (ANV) in 36.4% of cases. CAstV isolated from gout-affected kidneys by inoculating embryonated specific pathogen free (SPF) eggs showed dwarfing in embryos and a cytopathic effect in chicken embryo kidney cells. Inoculation of 1-day-old SPF and broiler chicks with CAstVs caused gout and mortality between 4 and 10 days post inoculation. Virus isolation and qRT-PCR analysis showed the presence of only CAstV in inoculated chicks. Sequence analysis of capsid genes indicated a major group of Indian CAstVs that displayed 92.0 to 99.2% intergroup amino acid identity and 83.9 to 90.4% identity with subgroup Bi CAstVs of UK origin. Authors designated this group Indian Bi. Analysis of the partial polymerase amino acid sequences of isolates indicated two groups of CAstVs (Indian 1 and 2) that displayed 90.2 to 95.5% amino acid identity between them. Authors claimed to report for the first time that, in addition to infectious bronchitis virus and ANV, CAstVs are a causative agent of gout.

Authors-Bulbule, N.R., Mandakhalikar, K.D., Kapgate, S.S., Deshmukh, V.V., Schat, K.A. and Chawak, M.M. (2013). Role of chicken astrovirus as a causative agent of gout in commercial broilers in India, *Avian Pathology*, 42(5): 464-473. DOI: 10.1080/03079457.2013.828194

### Experimental study of the pathogenicity of *Pasteurella multocida* capsular type B in rabbits

The increased frequency of isolation of *Pasteurella multocida* capsular type B from rabbitries in north-western India prompted this investigation into the role of this organism in inducing disease in rabbits. Ten rabbits were divided into two groups of five animals. Group I rabbits were infected intranasally (IN) with 1 ml of inoculum containing  $2 \times 10^5$  colony forming units/ml, while rabbits in group II were given 1ml phosphate buffered saline IN. The rabbits in group I developed respiratory distress, increased rectal temperature and severe dyspnoea, with death occurring in 24-48 h post infection. The main pathological findings were severe congestion and haemorrhage in the trachea, fibrinopurulent pneumonia, bacteraemia and septicaemia. The nasal secretions of all group I animals contained *P. multocida*. These observations indicate that in addition to *P. multocida* capsular types A and D, *P. multocida* capsular type B can also be highly pathogenic for rabbits.

Authors- Katoch, S., Verma, L., Sharma, M., Asrani, R.K., Kumar, S., Chahota, R. and Verma, S. (2015). Experimental study of the pathogenicity of *Pasteurella multocida* capsular type B in rabbits. *Journal of Comparative Pathology*, 153(2-3): 160-166. doi: 10.1016/j.jcpa.2015.06.005.

### Hepatoprotective effect of *Ginkgo biloba* leaf extract on lantadenes-induced hepatotoxicity in guinea pigs

The hepatoprotective effect of freeze-dried methanolic leaf extract of *Ginkgo biloba* was evaluated against lantadenes-induced hepatic damage in guinea pigs. The reversed-phase HPLC analysis of lantadenes confirmed the presence of 72.82% of lantadene A. UPLC-ESI-MS analysis showed the presence of ginkgolide B, C, bilobalide and traces of ginkgolide A and J in *G. biloba* extract. The concentration of ginkgolide B in the sample was found as 0.29%. The elevated levels of serum alanine aminotransferase, aspartate aminotransferase and alkaline phosphatase due to lantadenes were significantly restored towards normal values by *G. biloba* extract in a dose-dependent manner. The effects of lantadenes and *G. biloba* extract on lipid peroxidation (LPO), reduced glutathione (GSH), superoxide dismutase (SOD) and catalase were assayed in liver homogenates to evaluate the antioxidant activity. *G. biloba* extract in a dose-dependent manner produced significant decrease in lantadenes-induced increased levels of LPO. The lantadene-induced decreased levels of SOD, GSH and catalase were elevated by *G. biloba* extract. The findings of biochemical and antioxidant enzyme levels were supported by gross and histopathological observations. Moreover, liver sections of *G. biloba* group also showed a marked decrease in apoptosis in comparison to lantadenes group. This study suggested that *G. biloba* could be used as a promising hepatoprotectant against lantadenes-induced hepatic damage. Future studies are needed to elucidate the precise mechanism of hepatoprotection for practical application.

Authors- Parimoo, H.A., Sharma, R., Patil, R.D., Sharma, O.P., Kumar, P. and Kumar, N. (2014). Hepatoprotective effect of *Ginkgo biloba* leaf extract on lantadenes-induced hepatotoxicity in guinea pigs. *Toxicol. 81*: 1-12. doi: 10.1016/j.toxicol.2014.01.013.

Papers Selected By: Dr. M. Saminathan, Scientist, Division of Pathology, IVRI, Izatnagar, UP

## NEWS

### Additional Responsibilities

Dr. D.V. Joshi, Professor and Head, Department of Veterinary Pathology, College of Veterinary Science and Animal Husbandry, SDAU, Sardarkrushinagar, Gujarat joined as Associate Director of Research (Animal Science) from November 20, 2014 in addition to his duty as Professor and Head, Pathology. IAVP congratulates him on joining new assignment.

### New Appointment

Dr. T. Mohanapriya, M.V.Sc. joined as Assistant Professor on 12.03.2015 in Department of Veterinary Pathology at Veterinary College and Research Institute, Ramaiyanpatti, Tirunelveli-627 358, Tamilnadu Veterinary and Animal Sciences University, Chennai, TN.



Dr. T. Mohanapriya

### Awards

Drs. S.H. Raval and Colleagues, have won the Best Poster Award, 2014 (Second Prize) for the poster entitled "Metastatic cholangiocellular carcinoma in a Kankrej bullock" authored by Drs. S.H. Raval, D.V. Joshi, B.J. Patel and Jasmi Patel at XIII National Convention of Indian Association of Women Veterinarians (IAWV) held at Anand Agricultural University, Anand, Gujarat.

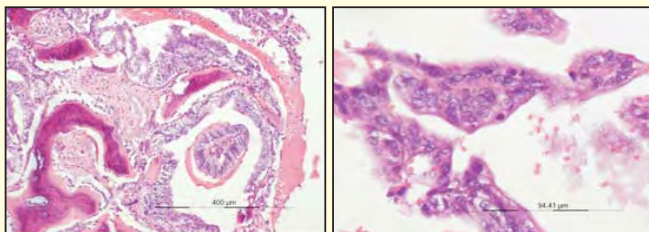
Dr. Jasmi Patel, Assistant Professor, Pathology and Nikita Bhatt, P.G.Scholar, Pathology received the Best Paper Presentation Award at XIII National Convention of Indian Association of Women Veterinarians (IAWV) held at Anand Agricultural University, Anand, Gujarat for their presentation on a success story of a progressive woman dairy Farmer.

## Osteoadenocarcinoma in the tail of a cow **Case Report**

Sreelekshmy Mohandas, Pawan Kumar, A.M. Pawde and R. Somvanshi

Division of Pathology, Indian Veterinary Research Institute, Izatnagar-243 122 (UP)

A 11 year old cow with a growth on the dorsal aspect of tail head was brought to Referral Veterinary Polyclinic, IVRI, Izatnagar, UP. The growth was about 5 cm in diameter, ulcerated and was surgically removed. The tumour mass was collected in 10 % formalin for histopathological examination. The microscopic examination revealed neoplastic epithelial cells showing papillary projections and forming glandular structures. The papillary projections were of varying sizes ranging from small projections to multiple branching papillae. The glandular lining epithelium was multilayered at most of the areas. The neoplastic epithelial cells were cuboidal to columnar in shape, showing vesiculated nuclei. Mitotic figures were few. The stroma near the glandular structures showed abundant fibrous connective tissue and osteoid tissue. The osteoid tissue was arranged as well formed anastomosing bony trabeculae with osteoblasts and showed numerous irregular islands of mineralization. The tumour mass had extensive necrotic and haemorrhagic areas and infiltrated with numerous haemosiderin laden macrophages and mononuclear cells. The case was diagnosed as osteoadenocarcinoma and considered rare.



**Fig.A.** Epithelial cells showing papillary projections and forming glandular structures with abundance of fibrous connective tissue and osteoid tissue.  
**B.** The glandular lining epithelium was multilayered with abundance of mitotic figures.

### CONGRATULATIONS

Dr. K.S. Prajapati, organised 31st Veterinary Pathology Congress at AAU, Anand during 13-15 Nov., 2014 in a befitting manner. IAVP congratulates and thanks him once again for this wonderful event.

### OBITUARY

#### Dr. S.M. Sakthivelan Passes Away

Dr. S.M. Sakthivelan, Assistant Professor (SS), Department of Veterinary Pathology, Madras Veterinary College, Chennai passed away on 09.09.2014 after a period of illness. He was known for his toxicopathological research work since he had earlier worked in a private toxicological research laboratory. He served TANUVAS for 15 years. **Indian Association of Veterinary Pathologists (IAVP) expresses deep condolence on sad demise of Dr. S.M. Sakthivelan.**



## Short Term Training Course on Anatomic Pathology and Molecular Diagnosis of Important Animal Diseases

Division of Pathology, ICAR-Indian Veterinary Research Institute, Izatnagar organized a Short-Term Training Course on "Anatomic Pathology and Molecular Diagnosis of Important Animal Diseases" w.e.f. 17th to 26th August, 2015. A total of 14, mostly local participants (Veterinary Pathologists) attended the course. The training involved theory and practical's in the area of anatomic pathology (necropsy, histopathology, immunohistochemistry and *in situ* hybridization), clinical pathology (body fluid examination and cytology) and PCR based diagnosis of livestock, poultry and important wild animal diseases, including rabies, CSF, PCV 2, MD, NDV, brucellosis, etc. The lectures were delivered by the eminent scientists of the institute and NRCE.



A Group Photo of Short Course

Winner Students Receiving Award in Foundation Day

## Division of Pathology, ICAR-IVRI, Izatnagar, Bareilly celebrated its 52nd Establishment Day

Division of Pathology at ICAR-IVRI, Izatnagar celebrated its 52nd year of establishment on 7th September 2015 jointly with local chapter of IAVP under the theme "In Quest of Understanding Pathology and Pathogenesis at Macro- and- Micro levels". The inauguration was done by planting trees and cleaning campaign in tune with *Swachh Bharat Abhiyan* in surrounding of Modular Laboratory Building by Drs. V.P Singh, Joint Director (A). B.P Mishra, Joint Director (R), V.K. Gupta, Joint Director (CADRAD) and Rajendra Singh, Head, Division of Pathology, Heads of Divisions, scientists, students and retired Joint Directors (CADRAD), Drs. M.L. Mehrotra, P. Dwivedi and others were present on the occasion. After inaugural / cleaning campaign, poster presentation, case and quiz competition on line with ICVP certification examination were conducted for students/researchers. Dr. Ravi Khanna, Paediatrician and President, IMA, Bareilly delivered a guest lecture on Japanese Encephalitis. Dr. R. Somvanshi, President, IAVP presented a detailed account of history of the Division of Pathology. Dr. Neerav Koharwal, Sr. Medical Officer, IVRI sensitized the audience about bio-safety issues. In the valedictory function, Dr. Rajendra Singh, Head, Division of Pathology welcomed Dr. B.P. Mishra, JD (R) and expressed his feelings to one and all for their team work. Dr. B.P. Mishra appreciated the programme as it was organized differently. He distributed prizes comprising of a certificate, memento and cash to Dr. Vineetha, S. and team (First prize), Dr. Shibani Panda and team (II prize) and Dr. Manu K. Mathew and team (III prize) for poster presentations; Quiz award was given to Dr. Vineetha, S. (First prize), Dr. Sreelekshmy Mohandas (II prize) and Dr. Venkataramireddy Balena (III prize) and case presentation award to Dr. Sreelekshmy Mohandas (First prize), Dr. Bupesh Kamadi (II prize) and Zahoor A. War (III prize). Vote of thanks was proposed by Dr. R.B. Rai, Principal Scientist of the Division.

## National Seminar and Workshop on Contemporary Toxicologic Pathology in India and IV South Zone Conference of Indian Association of Veterinary Pathologists

The Department of Veterinary Pathology, COVAS, Mannuthy organized a National Seminar on Contemporary Toxicologic Pathology in India and hosted the IV South Zone meeting of the Indian Association of Veterinary Pathologists (IAVP) at Pookode on 11th and 12th February, 2015 on the occasion of the inauguration of the Post Graduate Diploma Course in Toxicologic Pathology (PGDTP). Sixty three delegates representing Seemandhra, Telengana, Karnataka, Puducherry, Tamil Nadu and Kerala States registered for the national seminar and workshop. Interestingly, there was good response from students in attending conference and interacting in the sessions. In the inaugural function held at the Hotel Wayanad Gate, Pookode on 11th February 2015, Dr. K. Devada, Director of Academics and Research, KVASU welcomed the participants. In his introductory speech, Dr. T.V. Anilkumar, the Adjunct Professor of KVASU explained the course content of the "Post Graduate Diploma in Toxicologic Pathology" and highlighted the employment potential of the graduates. Dr. C. Gopinath, Visiting Professor cum Chief Advisor addressed briefly on the contents of the newly introduced course. Subsequently, Prof. Malcolm Alison, spoke on the scope of the course and its international relevance. They formally inaugurated the course by lighting the lamp.

In his Presidential address, Dr. Joseph Mathew, Registrar, KVASU, enlightened the active role played by the University in introducing new courses for the advancement of the Veterinary Science. In his felicitation address, Dr. T.P. Sethumadhavan, Director of Entrepreneurship explained about the various such online courses offered by the University. Dr. R. Somavanshi, President of IAVP emphasized the employment prospects of the young pathologists in the industry and need for updating themselves with this kind of super specialty courses. Dr. N. Vijayan, Professor and Head, Department of Veterinary Pathology, Mannuthy and Organizing Secretary, proposed vote of thanks. In symposium, six scientific sessions were conducted. In the first session, Dr. C. Gopinath delivered lecture on, "Stress response in toxicity studies in animal models" and subsequently, a keynote lecture was delivered by Prof. Malcolm Alison on the "Role of stem cells in the pathogenesis of gastrointestinal lesions". In the second session, Dr. C. Gopinath delivered a lecture on "Toxicologic pathology of alimentary canal, Part-I, Spontaneous and induced lesions in intestine" and discussed this topic in detail. Prof. Malcolm Alison discussed in depth on the "Molecular pathology of neoplasms: Pathogenesis and diagnosis" and interacted with participants.

On the second day, the scientific sessions were conducted in the College Campus. In Scientific Session III, Dr. C. Balachandran, Professor and Head, Department of Veterinary Pathology, Madras Veterinary College, Chennai delivered a lecture on "Toxicologic pathology of alimentary canal, Part-III, Spontaneous and induced lesions of organs other than stomach and intestine". Subsequently, Dr. Ch. Srilatha delivered a lecture on "Environmental neuro endocrine reproductive disruptive chemical toxicity studies" and Dr. R. Somavanshi, delivered a lecture on, "Fern toxin, ptaquiloside, in certain Indian ferns and their toxico-pathological effects". The lectures were followed by the slide review session (Scientific Session IV) in which the important histopathological alterations of alimentary canal were focused and discussed in detail by Dr. C. Gopinath and Dr. C. Balachandran. All the participants involved themselves individually and interacted with the resource persons. In the Session V, Poster Session on "Contemporary toxicologic pathology" was conducted. The delegates especially the post-graduate students representing various chapters displayed their posters on the theme of the seminar. The best three posters were selected and the certificates were issued to winners.



Inauguration of National Seminar



Slide show class by Dr. C. Gopinath, UK



A group photo of participants, Pukode

The Indian Association of Veterinary Pathologists (South Zone) General Body meeting was conducted. The President of IAVP, Dr. R. Somavanshi appreciated the organizers of the programme and the participants who had represented the various state chapters and made the programme very successful. Dr. C. Balachandran, Vice President, Dr. T.V. Anilkumar, former Secretary-General and Dr. G.A. Balasubramaniam, South Zone Secretary spoke on the occasion. In nutshell, the President was overwhelmed with the vibrant activities of the South Zone IAVP. To conclude the event, Dr. N. Vijayan, Organising Secretary, thanked everybody for having made it successful one.

### Recommendations of Seminar :

1. The members of IAVP and the delegates unanimously supported the initiative of starting the new Post Graduate Diploma Course in Toxicologic Pathology (PGDTP) and offered to act as ambassadors to disseminate the significance of the course among professionals.
2. The President, IAVP requested the University officials to support the course with additional teaching and secretarial assistance.
3. It was resolved to enroll more number of PG qualified Pathology professionals into IAVP and its activities.
4. It was decided to convene the next South Zone meeting of IAVP at College of Veterinary Science, Tirupati in February 2016. Dr. Ch. Srilatha will be the Organizing Secretary for the event.
5. Dr. H.D. Narayanaswamy of Bengaluru chapter offered to host the next International conference of the Asian Society of Veterinary Pathology with IAVP in the year 2017.

## New Educational Activities

### New Postgraduate Diploma Course in Toxicologic Pathology at Kerala Veterinary and Animal Sciences University

The Pharmaceutical Industry in India has recorded phenomenal growth in the recent past. A parallel growth has occurred in drug-research/development and safety evaluation sectors that involve animal-based experimental studies. Most of these animal experiments are conducted in contract research laboratories or exclusive research laboratories in public or corporate sector. The sector offers excellent career opportunity for veterinarians specialized in toxicology, pathology, pharmacology and laboratory animal medicine. Amongst these, there is a dearth of adequately trained toxicologic pathologist in the country. Therefore, the Kerala Veterinary and Animal Sciences University (KVASU) has developed a Postgraduate Diploma course in Toxicologic Pathology.

The course is primarily designed for veterinary graduates who wish to take up toxicologic pathology as a career option in Regulatory Toxicology and research/testing laboratories in Government/Corporate sector. Although B.V.Sc. & A.H. is the essential qualification for admission, special interest and expertise in pathology would be useful. The program is essentially non-residential offered through technology enabled distance learning mode with compulsory credit-adjusted contact classes (minimum 3 days x 6 sets) for additional lectures, demonstrations and slide reading sessions.

The registration fee is Rupees 30,000/- for every semester. Normally, the duration of the course shall be two years (four semesters). Post Graduate Diploma in Toxicologic Pathology shall be awarded on successful completion of the designated 50 credits through examinations. The course registration is now open. Please visit <http://application.kvasu.ac.in/>. Contact information for informal enquiries and course brochure may be done from: Drs. N. Vijayan (email, [vijayan@kvasu.ac.in](mailto:vijayan@kvasu.ac.in)), N. Divakaran Nair (email, [divakaran@kvasu.ac.in](mailto:divakaran@kvasu.ac.in)) and T.V. Anilkumar (email, [tvankumar@kvasu.ac.in](mailto:tvankumar@kvasu.ac.in); Phone: 09447017506).

## New IAVP Award: Professor B.L. Purohit Memorial Award for Outstanding Contribution in Environmental Toxicology and Toxicopathology Research

Dr. B.L. Purohit became Professor of Pathology at Bombay Veterinary College in 1956. He was promoted as Principal of Nagpur Veterinary College in 1962. Mrs. Shanta B. Purohit, wife of late Prof. B.L. Purohit and six Pathology students guided by late B.L. Purohit contributed Rs 50,000 for the inception of the aforementioned award. All contributors are Veterinary Pathologists including Dr. Mohan Bhagwat, Sarsangh Chalak RSS, Nagpur who completed course and research work under Dr. B.L. Purohit but did not write and submit thesis. Details of donations are as follows:



Dr. B.L. Purohit  
(1924-1980)

1. Mrs. Shanta Balkrishna Purohit, Pune, Rs. 20,000/-.
2. Dr. Madan Vasant Joshi, Head, Department of Veterinary Pathology, Nagpur Veterinary College, Nagpur, Rs. 10,000/-.
3. Dr. Ashok K. Thatoo, Head, Department of Veterinary Pathology, College of Veterinary Sciences, GBPUA&T, Pantnagar, Rs. 6,000/-.
4. Dr. A.G. Bhandarkar, Former Head, Department of Veterinary Pathology, Nagpur Veterinary College, Nagpur, Rs. 3,500/-.
5. Dr. Shrikant Gharote, Former Assistant Commissioner, Animal Husbandry, Wardha, Rs. 3,000/-.

The award will be commenced from 2015 onwards. **In honour of late Dr. B.L. Purohit, IAVP is organizing a Memorial Lecture in 32nd Veterinary Pathology Congress, Gannavarm, AP.**

## Dr. M.R. Gajendragad, Principal Scientist, Superannuated from ICAR-NIVEDI Services



Dr. M.R. Gajendragad

Born in the year 1953, Dr. M.R. Gajendragad had his primary education, graduation and post-graduation at Bengaluru. He served briefly at Veterinary College, Bengaluru before joining Agricultural Research Services in August, 1978. He served nearly five years at IVRI Campus Mukteswar-Kumaon, before posted to IVRI, Bengaluru. Initially, he worked with AICRP on FMD and later on in CADRAD at Bengaluru. He was posted to FMD Quality Control Laboratory at IVRI, Bengaluru. During the year 2006, he was transferred to National Institute of Veterinary Epidemiology and Disease Informatics or NIVEDI (earlier known as Project Directorate on Animal Disease Monitoring and Surveillance, PDADMAS) and was heading the Disease Informatics Laboratory till his retirement on 30th June, 2015.

Dr. Gajendragad has developed three diagnostic tests viz., detection of the viral antigen in the formalin fixed tissues; Sandwich ELISA protocol for the detection of antibodies of Infectious Bovine Rhinotracheitis and Immunobiosensor kit for FMD diagnosis. The last test has an Indian patent. Dr. Gajendragad has upgraded the epidemiology software, Epittrak Version 3 and has developed software for surveillance of diseases of aquatic animals and health status of cold water aquaculture. He has developed many databases required for epidemiological analysis. He has developed spreadsheet for estimation of economic loss due to animal diseases in India. Dr. Gajendragad was Principal Investigator of two DBT projects and was associate in the Indo-Swiss collaboration in Biotechnology and studied the vaccine immune response, carrier status and protection with regards to FMD in cattle in India.

Dr. Gajendragad has undergone a number of trainings such as Quantitative Epidemiological Analysis at The Netherlands, Epitope analysis for FMD Epidemiology at Mukteswar, GLP training at Hyderabad apart from routine agricultural research management training at NAARM, Hyderabad. He has conducted several training programmes for field veterinary officers, Veterinary College teachers through ICAR sponsored Winter School, ELISA training programmes, research methodology and epidemiology training programmes, basic epidemiology training programmes and Workshop cum training programme on ADMAS\_Epittrak and NADRES software to name a few. Dr. Gajendragad has published over 60 peer reviewed research papers in national and international journals. He was involved in the research programmes of Post Graduate students of IVRI, Veterinary College, Bengaluru, Tirupathi, Bidar and Pondicherry. Dr. Gajendragad has two sons who are at USA. After retirement he has settled in Bengaluru along with his wife.

**It is matter of immense pleasure that ICAR has selected him Scientist Emeritus in September, 2015.**

## Superannuation's

### Dr. R. Somvanshi, President IAVP Superannuated from ICAR-IVRI Services

Dr. R. Somvanshi (62) B.V.Sc.&A.H., M.V.Sc., Ph.D., F.R.C.V.S. (Sweden), Diplomat ICVP superannuated from ICAR-IVRI services on 30-06-2015. He served as Principal Scientist, Acting Joint Director, CADRAD, Head, Division of Pathology and National Fellow (ICAR), at Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh. He is President, Indian Association of Veterinary Pathologists and also served as *Upadhykcha, Sansthan Rakhbha Karyanvayan Samiti*. He is founder I/C National Museum of Veterinary and Animal Sciences at IVRI. Dr. R. Somvanshi was born in Lucknow, UP in 1953. After completing B.V.Sc. & A.H. degree from Veterinary College, Mathura in 1974 he came to IVRI as M.V.Sc. student in August, 1974. For a short span of 11 months, Dr. Somvanshi served as SRA, at College Veterinary Science, G.B.P.U.A. & T., Pantnagar during 1976-77. He was selected in ARS (Second batch) and joined IVRI as Scientist S-1 on 21 September, 1977. He served as Scientist S-2/Scientist Selection Grade/Sr. Scientist at LPR, IVRI, Mukteswar from 1984-1994. Dr. Somvanshi worked for his post graduation under eminent pathologists Prof. P.K.R. Iyer and doctoral under Dr. G.C. Mohanty. He was deputed to Sweden in 1988 for FRCVS and traveled to Scandinavian countries.

He was selected as National Fellow (ICAR) in 1994 to work on Enzootic Bovine Haematuria for 10 years. Under CAS he was promoted as Principal Scientist. He was selected as Head, Division of Pathology and served on this post during 2007-12 for 5½ years. He did not apply for second tenure and preferred to serve as Principal Scientist with an aim to concentrate in academic areas of his interest. During 2012-2013 for 9 months, he also served as Acting Joint Director, CADRAD. He possesses 3½ decades of vast research, disease investigation and post graduate teaching experience in Veterinary Pathology. Dr. R. Somvanshi has significantly contributed in advancement of pathogenesis, pathology and diagnosis of diseases of cattle, *Pashmina* goats and laboratory animals. He has conducted research on Bovine horn cancer, Bovine papillomatoses, Enzootic Bovine Hematuria, Infectious Bursal Disease-afatoxin interaction, Fern toxicity in laboratory animals and hill cattle. In research, he used advanced techniques-like TEM, SEM, FACS, immunohistochemistry, HPLC, Real Time PCR etc. Dr. Somvanshi is well versed in clinical pathology, necropsy techniques, histopathological and ultrastructural interpretations.

He has guided 10 M.V.Sc. and 7 Ph.D. students. Dr. Somvanshi has published more than 236 research papers (including 36 international) and 246 semi-technical/popular articles, 177 abstracts and 35 scientific books including biography and travel experiences. He has more than 42 gen bank submissions. He organized more than 12 National seminar, symposia, workshops and training programmes including ICAR Short Course and Winter Schools. He has been awarded with two dozen national awards including DST-Dr. Meghnad Saha Award (thrice), ICAR-Dr. Rajendra Prasad Award (twice), IVRI Merit Award, UPCST *Vigyan Ratna* Award, IAVP-Dr. N.C. Jain Lifetime Achievement Award, IVRI Deemed University Best Teacher Award and Fellowship of five National Scientific Societies including IAVP. Dr. Somvanshi is Founder Secretary of Dr. C.M. Singh Endowment Trust, Bareilly. He is Diplomat and Ex Registrar, ICVP and Life-Member of IAVP, since its foundation.

Dr. Somvanshi has special interest in History of Veterinary Science and Hindi writing and a key person in translation of ICAR Handbook of Animal Husbandry and published two special issues of *Rajbhasa Smarika* on 100 and 125 years of IVRI. He has professionally traveled to Sweden, Norway, Finland, Denmark, UK, USA and Canada. As Head, Division of Pathology, he modernized Division of Pathology and strengthened Post Graduate teaching and research by obtaining extra mural research funding. As Acting Joint Director, CADRAD for 9 months he has given dynamism to the activities of Centre of Animal Disease Research and Diagnosis. He concentrated his research on cancer biomarkers in cutaneous and mucosal BPV associated tumours and establishment of National Museum of Veterinary and Animal Sciences at IVRI. His contributions in Institute building activities specially in relation with promotion of *Rajbhasa* Hindi were well known and highly appreciated.

Dr. Somvanshi's family comprises of wife Mrs. Manju Somvanshi; sons Dr. Vishal Singh Somvanshi (Sr Scientist, IARI, New Delhi) and Dr. Rishi Kumar Somvanshi (Research Associate, University of British Columbia, Vancouver, Canada); daughter in laws Dr. (Mrs.) Shipra and Dr. (Mrs.) Rashmi. He is grand father of two lovely children Rizul and Mahi. **ICAR has selected him Scientist Emeritus in September, 2015.**



Dr. R. Somvanshi

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## OBITUARY

### Professor Balwant Singh Passes Away

Indian Association of Veterinary Pathologists (IAVP) expresses deep condolence on sad demise of Dr. Balwant Singh, 75, (27-01-1939 to 29-12-2014), an eminent Veterinary Pathologist who passed away on 29-12-14 in Australia. Dr. Balwant Singh started his professional journey as Veterinary Assistant Surgeon in 1959, Lecturer at Hisar, joined PAU as Associate Professor in 1969 and became Professor of Veterinary Pathology in 1971. He did his doctorate under the able guidance of Dr. C.M. Singh. He was founder Head, Department of Veterinary Pathology, Punjab Agricultural University (PAU) and served as Dean, College of Veterinary Science, PAU w.e.f. 1985-1993. After this he worked on several prestigious positions in PAU, Ludhiana like Registrar, Chairman of Human Resource Development Cell etc. He superannuated in 1999. Dr. Balwant Singh was an important pillar of Veterinary Education in India. He was an excellent teacher, researcher and administrator. He significantly contributed in advancement of Veterinary Pathology in India. He also served as President of IAVP from 1980-82. The Veterinary Pathology fraternity has lost a wonderful human being, great scholar and eminent Veterinary Pathologist. May Almighty grant peace to the departed soul. **In honour of late Dr. Balwant Singh, IAVP is organizing a Memorial Lecture at 32nd Veterinary Pathology Congress, Gannavarm, AP.**

