



The Lesion

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Editors

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

From President Desk ...



Since last issue of The Lesion was published in 2015; a lot of events have occurred in IAVP. We have seen successful Gannavaram Conference in December, 2015. South Zone, IAVP Conference was very well organized in July, 2016 at Tirupati, AP. Both lady Organizing Secretaries (Prof. V. Rama Devi and Prof. Ch. Srilatha) deserve heartiest congratulations for keeping up IAVP flag high. New issues of IJVP are in our hands. Chief Editor Dr R.V.S. Pawaiyya and his team deserve our high appreciation. This year IAVP Elections were due and process is completed and results are declared. All the office bearers were elected unopposed except for Vice Presidents, which were decided by ballots. We are meeting in Durg, CG for this year's Conference. Prof. Ratan Chand Ghosh is working hard for making the event a grand success. IAVP Constitution was revised and waiting for approval by the forth coming Executive Committee and General Body. Thanks to old EC for enormous contribution to IAVP and Welcome to new EC for taking the IAVP to future heights. Please find some time for the activities of IAVP and ICVP. Profession has given a lot to you and you are supposed to return it's; a fraction.

R. SOMVANSHI

33rd Veterinary Pathology Congress-2016, Durg

Chhattisgarh Welcomes IAVP Delegates

Chhattisgarh is a destination 'full of surprises' with some of the amazing sites. It has created a niche for itself on the tourist map of India. The climate in this part of India during November will be pleasant with temperature varying between 20 and 25°C. Few places of tourist attraction are- Dongargarh, Bastar, Chitrokot Water, Falls Sirpur, etc. Dongargarh is the main tourist and pilgrimage destination of Chhattisgarh about 75 Kms away from Durg. The famous Maa Bamleshwari temple is on a hilltop of 1600 ft. in Dongargarh town. Bastar is a tribal region in Chhattisgarh, blessed with an exceptional scenic beauty that embodies unexplored forests, waterfalls, wildlife, ancient temples, tribal dances and music. Located at a distance of about 270 Km from Durg, Bastar is one of the most significant eco-friendly destinations of the country. Chitrokot Water Falls are also called as mini Niagra Falls of India. They plunge down from a height of 95 ft. This majestic beauty is located about 300 Kms from Durg in Bastar on the river Indravati. Sirpur is a small town located about 124 Kms away from Durg. The 7th Century Laxman temple (dedicated to Lord Vishnu) is considered as one of the finest brick temples of India.

Host of 33rd Veterinary Pathology Congress, 2016: Department of Veterinary Pathology, Durg, CG

College of Veterinary Science and Animal Husbandry, Anjora, Durg, Chhattisgarh is located on Mumbai-Kolkata Highway (NH 6) and is about 8 Kms from Durg Railway Station. Durg is well connected to major cities in India by rail. The nearest airport Raipur, is 55 Km away from the College campus. College was established in the year 1985 under the Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur (MP). Later on it was included as one of the constituent Colleges after the formation of Indira Gandhi Krishi Vishwavidyalaya. Further, Chhattisgarh Kamdhenu Vishwavidyalaya (CGKV) was established on 11th April 2012 and the Veterinary College has become one of the part of the University. The College has a mandate to conduct undergraduate and post graduate education, research and extension activities in the form of transfer of technologies in the areas of animal health and production. The Post graduate programme leading to the award of MVSc degree programme was started in the year 1995-96. Doctoral degree programme (PhD) of 3 years duration was started from 2005-06. The Department Veterinary Pathology has a good collection of histopathological slides and a good museum. This Department handles different types of diagnostic materials and attends outbreak of diseases in different parts of Chhattisgarh. Livestock and poultry owners are in close contact with the Department for valuable advice on diagnosis and control of animal diseases.

Meet Your Organizing Secretary - Prof. R.C. Ghosh

Dr R.C. Ghosh, PhD (England), Organizing Secretary, 33rd Veterinary Pathology Congress is Professor and Head, Department of Veterinary Pathology, College of Veterinary Science and Animal Husbandry, Chhattisgarh Kamdhenu Vishwavidyalaya, Anjora, Durg, Chhattisgarh. He had a brilliant academic career throughout. He was awarded Vice Chancellor's Gold Medal and certificate of merit for meritorious performance in the final BVSc & AH examination. He earned Commonwealth Scholarship, 1995 for PhD which he completed from University of Surrey, Guildford, UK in 1999. He has visited USA and Turkey for academic purposes. His contribution to the study of Aflatoxicosis in Poultry is pioneering. Two of his Post graduate students received Dr BV Rao Poultry Research Foundation Research Grant for MVSc thesis work. He has guided 22 MVSc and 2 PhD students in Veterinary Pathology and has published more than 80 research papers in International and National journals. He has been awarded with the Fellowships of National Academy of Veterinary Sciences (India) and of Indian Association of Veterinary Pathologists. He is a Diplomat of ICVP and active member of EC and Vice President Elect of IAVP.



International Guest Speaker at Durg, CG: Dr Dodd Gray Sledge

Dr Dodd Gray Sledge, DVM, PhD, DACVP, Academic Specialist, Anatomic Pathology, Diagnostic Center for Population and Animal Health, Michigan State University, Lansing, MI 48910, US is a international guest speaker at Durg, CG. His research interests are in molecular pathology, comparative ocular pathology, infectious diseases of production animals, cancer diagnosis and prognostication. Dr Sledge's diagnostic interests are in ocular pathology, pathology of production animals, osteopathology and surgical pathology. He is invited to speak on Gross Pathology of Cattle Diseases and Ocular Pathology at Veterinary Pathology Congress-2016, Durg.



New Executive Committee, IAVP, 2016-19

Dr N.V. Kurkure, Returning Office, Nagpur called nominations for IAVP elections on 15th June, 2016 for the posts of President, Vice-Presidents (2), Secretary General, Treasurer, Chief Editor (IJVP), Editor (IJVP), Web Manager, Zonal Secretaries (6 Nos, One each for the North, East, South, West, Central and North-East), Executive Members (6 Nos) of IAVP. Except for the post of Vice Presidents, persons nominated were elected unopposed and for seven posts no one filed nominations. The election process for the post of Vice Presidents started on 16th August, 2016 and the results were declared on 20-9-2016. Details are as follows:

President - Dr R. Somvanshi*, Izatnagar, **Vice Presidents** - 1. Dr Naresh Kumar Sood, Ludhiana, 2. Dr R. C. Ghosh, Durg, **Secretary General** - Dr K.P. Singh*, Izatnagar, **Treasurer** - Vacant, **Chief Editor** - Dr R.V.S. Pawaiya*, Mathura, **Editor** - Dr A. Anand Kumar*, Proddatur, **Web Manager** - Vacant, **Zonal Secretary : North** - Dr R.P. Gupta*, Hisar, **East** - Dr Susen Kumar Panda*, Bhubaneswar, **South** - Vacant, **West** - Vacant, **Central** - Dr K. Rajukumar*, Bhopal, **North-East** - Vacant, **Executive Member (6)** - Dr Bhupinder Singh Sandhu*, Ludhiana, Dr Nem Chand Patra* Kolkata, Dr P. Krishnamoorthy*, Bangalore, Dr A.D. Ingle*, Mumbai and Vacant (2).

*Elected unopposed.

The vacant posts will be filled by consensus and keeping in view geographical balance. New EC will take over charge in valedictory function at Durg, CG on 11-11-2016.

Dr Rajeev Ranjan Attends Regional Workshop on the Application of the FAO Laboratory Mapping Tool (LMT) at Bangkok, Thailand

Dr Rajeev Ranjan, Scientist (Veterinary Pathology) and Assistant Bio-Safety Officer, ICAR-Directorate of Foot and Mouth Disease, IVRI Campus, Mukteswar, Uttarakhand attended the FAO Organized Regional Workshop on the Application of the FAO Laboratory Mapping Tool (LMT) at National Institute of Animal Health, Bangkok, Thailand during 1-5th August 2016. Participants from 14 countries belonged to reference/national laboratories engaged in transboundary animal diseases/zoonotic disease participated in this workshop. The main objective of this workshop was to know the laboratory mapping tool as an aid in the laboratory assessment. Participants were explained how to use this FAO-LMT module in different laboratories by determining the strengths and gaps in laboratory.



NEW RESEARCHES BY INDIAN VETERINARY PATHOLOGISTS

Pathology of Equine Influenza virus (H3N8) in Murine Model

Equine influenza viruses (EIV)-H3N8 continue to circulate in equine population throughout the world. They evolve by the process of antigenic drift that leads to substantial change in the antigenicity of the virus, thereby necessitating substitution of virus strain in the vaccines. This requires frequent testing of the new vaccines in the in vivo system; however, lack of an appropriate laboratory animal challenge model for testing protective efficacy of equine influenza vaccine candidates hinders the screening of new vaccines and other therapeutic approaches. In the present investigation, BALB/c mouse were explored for suitability for conducting pathogenicity studies for EIV. The BALB/c mice were inoculated intranasally @ $2 \times 10^6.24$ EID₅₀ with EIV (H3N8) belonging to Clade 2 of Florida sublineage and monitored for setting up of infection and associated parameters. All mice inoculated with EIV exhibited clinical signs viz. loss in body weights, lethargy, dyspnea etc, between 3 and 5 days which commensurate with lesions observed in the respiratory tract including rhinitis, tracheitis, bronchitis, bronchiolitis, alveolitis and diffuse interstitial pneumonia. Transmission electron microscopy, immunohistochemistry, virus quantification through titration and qRT-PCR demonstrated active viral infection in the upper and lower respiratory tract. Serology revealed rise in serum lactate dehydrogenase levels along with sero-conversion. The pattern of disease progression, pathological lesions and virus recovery from nasal washings and lungs in the present investigations in mice were comparable to natural and experimental EIV infection in equines. The findings establish BALB/c mice as small animal model for studying EIV (H3N8) infection and will have immense potential for dissecting viral pathogenesis, vaccine efficacy studies, preliminary screening of vaccine candidates and antiviral therapeutics against EIV.

Authors: **Pavulraj S.**, B.C. Bera, Alok Joshi, Taruna Anand, Meenakshi Virmani, R.K. Vaid, K. Shanmugasundaram, B.R. Gulati, K. Rajukumar, Rajendra Singh, Jyoti Misri, R.K.Singh, B.N. Tripathi and Nitin Virmani (2016). *PLoS ONE*: **10(11)**: e0143094. doi:10.1371/journal.pone.0143094, **Journals Impact Factor: 3.54**

Toxicopathological alterations induced by high dose dietary T-2 mycotoxin and its residue detection in Wistar rats

T-2 toxin is one of the most potent cytotoxic and food-borne mycotoxins. Most experimental studies on the T-2 toxin have been performed at extremely low doses (ppb level). However, several field reports of contaminated feed have shown concentration of T-2 toxin to be as high as 20 ppm. Therefore, the impact of high dose T-2 toxin (20 ppm) after subacute exposure was investigated in an experimental setup with respect to growth performance, oxidative stress and detailed pathomorphology in young male Wistar rats. Furthermore, to see the effect of such a high dose on the accumulation of T-2 toxin, its residues in various organs were quantified by high-performance thin-layer chromatography (HPTLC). Apart from obvious clinical toxicosis, rats in the toxin-fed group showed significant hemato-biochemical alterations and increased levels of biological markers of oxidative stress with concomitant decrease in levels of serum and tissue catalase and superoxide dismutase. These alterations were strongly supported by histopathological changes, such as hyperkeratosis and hyperplasia of the gastric squamous mucosa, oxidative damage to hepatocytes, atrophy of the thymus and spleen and overall decrease in the spermatogenic activity of testes. An economical, simple, reliable, and quick method for the detection and quantification of T-2 toxin residues by HPTLC was also developed. No residual T-2 toxin was detected in any of the organs tested, suggesting that T-2 toxin does not accumulate in tissues even at a high exposure level.

Authors: **Chandratre, G.A.**, Telang, A.G., Badgujar, P.C., Raut, S.S. and Sharma, A.K. (2014) *Archives of Environmental Contamination and Toxicology*, **67(1)**:124-38. doi: 10.1007/s 00 244-014-0006-x **Journals Impact Factor: 2.46**

ASSOCIATION ACTIVITIES

IAVP South Zone Conference-2016 : A Report By Prof. Ch. Srilatha, Tirupati, AP

The IAVP South Zone Conference-2016 and National Seminar on "Advances in diagnosis of emerging and re-emerging diseases of Avian Species" was held on 15th and 16th July, 2016 on the theme of emerging and re-emerging diseases of poultry and its diagnosis. The programme was organized by Department of Veterinary Pathology, College of Veterinary Science, SVVU, Tirupati, AP under leadership of Organizing Secretary Dr Ch. Srilatha, Professor and University Head. Associate Dean Dr Eswara Prasad was Chairman of the function. The Chief Guest of the inaugural session was Dr R.N. Chatterjee, Director, ICAR-DPR, Hyderabad, Telangana. Other dignitaries present in inaugural function were Dr K. Krishnamurthy, Additional Director of Health, Department of Animal Health, AP, IAVP President Dr R. Somvanshi, Vice President Dr. C. Balachandran, South Zone Secretary Dr G.A. Balsubramaniam and Dr N.R. Gopal Naidu, Retired Professor of Pathology. The occasion was graced by most of Professors of Pathology of South Zone of IAVP, senior faculty members, officers of SVVU, teaching staff and students. About 120 delegates participated in the conference. President, IAVP honoured Prof. N. Vijayan, Mannuthy and Prof. Ch. Srilatha, Tirupati for organizing South Zone, IAVP Conferences during 2015 and 2016.



Lighting of lamp by dignitaries



Release of Conference Compendium



Presidential Remarks by R. Somvanshi



A group photo of SZ IAVP Conference, Tirupati

The Inaugural Keynote address was delivered by Dr R. Somvanshi, President, IAVP on "History of certain infectious poultry diseases in India: An overview". Another Keynote lecture was delivered by Dr C. Balachandran, Vice President, IAVP on "Advances in diagnosis of emerging and re-emerging diseases of avian species". The conference had six technical sessions. Apart from these; a highly informative and unique lecture on "Amazing facts about Veterinarians" was delivered by Dr N.R. Gopal Naidu, Retired Professor and instrumental in Museum development of Department of Veterinary Pathology, College of Veterinary Science, Tirupati.

In total about 100 abstracts received pertaining to avian diseases were presented in various sessions. The best oral presenter of each session was presented with an appreciation certificate. In poster session about 45 posters were displayed and best three posters were awarded with the appreciation certificate. Valedictory session held on 16th July after completion of all technical sessions. The Chief Guest of this function was Dr P. Sudhakar Reddy, Registrar, SVVU (Former Professor, Department of Poultry Science). Zonal Secretary Dr G.A. Balasubramaniam and Organizing Secretary Prof. Ch. Srialatha presented report of different sessions and conference recommendations. President, IAVP Dr R Somvanshi hailed activities of South Zone and Tirupati Conference. He stated that keeping in view varying nature of avian species there should be a separate research institute on avian diseases.

ASSOCIATION ACTIVITIES**Veterinary Pathology Congress, Gannavaram, 2015 : A Brief Technical Report - By Dr V. Ramadevi, Gannavaram, AP**

32nd Annual Conference of Indian Association of Veterinary Pathologists, 6th Annual Meeting of Indian College of Veterinary Pathologists and National Symposium on "Challenges and Advances in Disease Diagnosis of Livestock, Poultry and Fish: Redefining the Role of Veterinary Pathologists" were held at NTR College of Veterinary Science, Gannavaram, Andhra Pradesh from December 3-5, 2015. Dr V. Rama Devi, Professor and Head, Department of Pathology was the Organizing Secretary for the above event.

The inaugural function was presided by. Dr R. Somvanshi, President, IAPV. Dr Manmohan Singh, Vice Chancellor, Sri Venkateswara Veterinary University, Tirupati and Principal Secretary, Animal Husbandry, Dairy Development and Fisheries Department, Govt. of AP was the Chief Guest. Dr V. Vamsi Mohan, MVSc, Hon'be MLA, Gannavaram, Dr G. Somasekharam, Head of the Department, Department of Animal Husbandry, Govt. of A.P. and Dr T.S. Chandrasekhara Rao, Dean of Veterinary Science, SVVU, Tirupati were the Guests of Honour. Dr Manmohan Singh, inaugurated the Congress by lighting the lamp. Dr K. Sadasiva Rao, Assoc. Dean, NTR College of Veterinary Science, Gannavaram welcomed the dignitaries. Dr B.N. Tripathi, Secretary General, IAPV, presented the IAPV Annual Report and the ICVP Annual Report was presented by Dr T.V. Anilkumar, Kerala. Addressing the delegates Dr Manmohan Singh lauded the significant contributions of eminent veterinary pathologists in the country and advised the young veterinary pathologists to strive hard for the betterment of the profession and farming community. On this occasion he also released the Congress Compendium and soft copy of "Gross and Histopathology of Pig Diseases" authored by Prof. Matti Kiupel. The occasion was also marked by presentation of IAPV Fellowship Awards to Dr A.K. Sharma, IVRI, Izatnagar, Dr D.V. Joshi, SDAU, SK Nagar and Dr C.K. Singh, GADVASU, Ludhiana. After the inaugural session, Prof. Matti Kiupel, College of Veterinary Medicine, Michigan State University, Lansing, MS, US delivered the theme paper of the symposium on 'Veterinary Molecular Pathology : Bridging the Gap Between Clinical Disease and Molecular Pathogenesis'. The three day conference was attended by 194 delegates from all over the country.



Lighting of lamp by Vice Chancellor



Release of CD of Compendium



FIAVP Award to Dr D.V. Joshi



IAPV Award to Young Pathologist

On first day post lunch two parallel sessions on diseases of livestock and poultry were arranged. In Diseases of Livestock Session, Dr P.R. Vanamayya delivered Dr P.P. Gupta Oration Lecture on "Role of Veterinary Pathologists in Combating Transboundary Animal Diseases". In diseases of Poultry Session, Dr Balawant Singh Memorial Lecture on "Cytokine Applications in Poultry" was delivered by Dr Amarjit Singh. Dr B.L. Purohit Memorial Lecture was arranged in toxicopathology session on "Emerging issues of toxicopathology through high water salinity on animal and poultry health" by Dr M.V. Joshi. The technical sessions on second and third day were held at NTR College of Veterinary Science, Gannavaram. On second day, Young Scientists Award and Prof. S. Ramachandran Memorial Award sessions were conducted. This was followed by one special session on "Gross and Histopathology of Pig Diseases" in which Prof. Matti Kiupel elaborately spoke on the topic for more than two hours. Dr R. Somvanshi, President chaired this session. Parallel Poster session was also conducted. In second day afternoon, two sessions on diseases of pet and pack animals and neoplasms were arranged. These sessions were followed by IAPV General Body Meeting. The second evening was marked by colorful cultural programme. The third and final day began with EC meeting and technical session of ICVP along with parallel sessions on toxicopathology, diseases of lab., wild animals, fish and aquatic animals. In the Valedictory function various awards were presented to the winners by President, IAPV. The Organizing Secretary presented her technical report and thanked the delegates, sponsors, officials and students for extending their cooperation and successful conduct of conference. The grand and successful event was completed with national anthem.

SAARC WORKSHOPS

International Workshop on Surveillance and Diagnostics for Equine Influenza at ICAR- National Research Centre on Equines, Hisar

An International Workshop on 'Surveillance and Diagnostics for Equine Influenza' for delegates of SAARC nations was organized under 'OIE Twinning Project on Equine Influenza' at ICAR-National Research Centre on Equines, Hisar with effect from 16-25th, February, 2016. The training was organized under the Chairmanship of Dr B.N. Tripathi, Director, ICAR-NRCE and organized by Drs Nitin Virmani, B.C. Bera, R.K.Vaid and Taruna Anand.

The workshop was attended by 16 delegates: one each from five SAARC countries viz. Sri Lanka, Bangladesh, Bhutan, Nepal, Afghanistan and 11 delegates from India including Jammu and Kashmir (1), Himachal Pradesh (1), Punjab (1), Rajasthan (1), Uttarakhand (2), Uttar Pradesh (2), Gujarat (1), Maharashtra (1) and Animal Quarantine Station, Mumbai (1). The training was given by experts from NRCE, India (Drs Nitin Virmani and B.C. Bera) and Animal Health Trust, UK (Drs Debra Elton and Elizabeth Medcalf). The training was strictly 'Hands On Training' with emphasis on learning on doing. Participants were trained in various laboratory techniques required for isolation of equine influenza viruses in embryonated eggs / MDCK cells, significance of biosafety and biosecurity, virus titration through haemagglutination, haemagglutination inhibition assay, antigenic characterization of EIV by HI assay using ferret anti sera, monoclonal antibody based Sandwich ELISA for EI antigen detection, Single step RT-PCR for diagnosis of EI infection, Two step sub typing RT-PCR for HA/NA genes of EIV (H3N8) and TaqMan Probe based qRT-PCR for diagnosis of EI infection.



A Group Photo of Participants and Trainers

International Workshop on Surveillance and Diagnosis of Glanders at ICAR- National Research Centre on Equines, Hisar

A 10 days International Workshop on 'Surveillance and Diagnosis of Glanders' was organized at ICAR-National Research Centre on Equines, Hisar. The training was organized under the Chairmanship of Dr B.N.Tripathi, Director, ICAR-NRCE and organized by Drs Hari Singha and Sandip Khurana. Seven International participants from various SAARC countries viz. Sri Lanka, Nepal, Pakistan, Bhutan, Bangladesh, Afghanistan and Iran participated in the workshop. The workshop was organized as per approved objectives of OIE Twinning Laboratories Project on glanders in association with Friedrich Loeffler Institut, Federal Research Institute for Animal Health, Institute of Bacterial Infections and Zoonoses, Jena, Germany (Parent Laboratory). Aim of the workshop was to provide 'Hands On Training' in the area of serological diagnosis of glanders-like complement fixation test and indirect ELISA and to build network among glanders endemic countries for surveillance of glanders. During the workshop three scientists from Parent Laboratory Prof. H. Neubauer, Drs Mandy Elschner and Falk Melzer visited NRCE, Hisar and expressed their satisfaction on the working and progress of the candidate laboratory. To apply for OIE-Reference Laboratory status future emphasis needs to be given for obtaining laboratory accreditation based on ISO17025:2005 and easy exchange system for sharing of biologicals between laboratories should be given due priority.



A Group Photo of Participants and Trainers

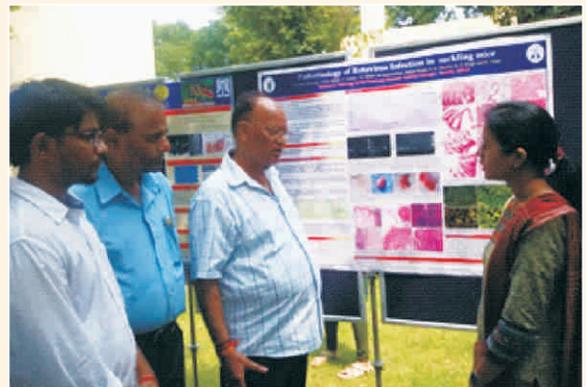
IAVP/ICVP ACTIVITIES

Division of Pathology, IVRI, Izatnagar Celebrated 53rd Establishment Day

Division of Pathology at IVRI, Izatnagar celebrated its 53rd year of establishment on 6th September, 2016 jointly with IAVP Izatnagar Chapter under the theme "In Quest of Understanding Pathology and Pathogenesis and Macro-and-Micro levels". The inauguration was done by planting trees in tune with *Swachh Bhart Abhiyan* in surrounding of Modular Laboratory Building by Chief Guest Dr R.K. Singh, Director IVRI, Dr Rajendra Singh, Head, Division of Pathology, Dr M.L. Mehrotra, Ex. Joint Director (CADRAD), R. Somvanshi, ICAR Emeritus Scientist, retired Principal Scientists Drs P. Dwivedi, I.V. Mogha, S.D. Singh and R.B. Rai graced this occasion. Heads of other divisions, students and staff of Division of Pathology also participated in function. The inaugural / cleaning and poster session were followed by invited talks delivered by guest speakers which included the Dr R.K. Singh, Director, IVRI, Dr Ranjan Agarwal, Professor of Pathology, Rohikhand Medical College, Bareilly, Dr R. Somvanshi, Emeritus Scientist, Dr A.K. Tiwari, JD(A), IVRI on the topic related to latest trend in clinical diagnosis. On this occasion a lunch was also organized for guests, staff and students. Other events like- case presentation and quiz contest on line with ICVP certification examination were also conducted for students/researchers. The cultural show was presented by the students. In the valedictory function, Dr. Rajendra Singh, Head, Division of Pathology welcomed the Chief Guest Dr R.K. Singh, Director, IVRI who expressed his feelings to one and all for their team work. Dr Singh appreciated the programme as it was conducted differently from the routine and had many creative activities for the students/ budding researchers vis-a vis sense of cleanliness in work places. He distributed prizes comprising of a certificate, memento and cash to Dr Kombiah, S. and team (Ist prize), Dr Rahul Kadam and team (IInd prize) and Dr Rahul Singh and team (IIIrd prize) for poster presentation; Quiz award to Dr Sreelakshmy Mohandas (First prize), Dr Jeny K. John (II prize) and Dr Vineetha, S. (III prize) and case presentation award to Dr Zahoor A. War (First prize), Dr Sreelakshmy Mohandas (II prize) and Dr Jeny K. John (III prize). Vote of thanks was given by Dr A.K. Sharma, Principal Scientist of the Division.



Inauguration By Director, IVRI Dr R.K. Singh



Poster Evaluation By Dr P. Dwivedi

ICVP Board Certification Examination 2016 held at IVRI, Izatnagar in September, 2016

The Indian College of Veterinary Pathologists (ICVP) was founded at Izatnagar in 2008 by the Indian Association of Veterinary Pathologists for optional accreditation of Veterinary Pathologists practicing in India. The College admits members through an examination system which identifies Veterinary Pathologists with sufficient competence as per the standards and guidelines set by the College. Successful candidates are recognized as Diplomate of the ICVP and eligible for membership status of the College through application with an appropriate fee. The examination is conducted once every year, usually in September on the Second Saturday and the following Sunday at a pre announced venue. This year the examination was held on the 10th and 11th September, 2016 at Division of Pathology, IVRI, Izatnagar, Bareilly (UP). As per the decision of the College in its GBM held at Gannavaram (AP) on 5th December-2015, this time examination for Senior Veterinary Pathologists was also held on 9th and 10th September, 2016 at IVRI, Izatnagar, UP. Dr V.K. Gupta, Chairman, Examination Committee and Drs Amarjit Singh, N.P. Kurade and A.K. Sharma, Members conducted examination smoothly. Dr Rajendra Singh, Registrar, ICVP and Head, Division of Pathology, IVRI was coordinator and Dr R. Somvanshi was observer. Dr R.K. Singh, Director cum Vice Chancellor, IVRI witness examination and hailed it and wished to have similar College for Veterinary Microbiology discipline.



ICVP Board Certification Examination

Establishment of International Independent Study Center, CL Davis Foundation, at Nagpur Veterinary College, Nagpur

CL Davis Foundation, USA has informed Dr M.V. Joshi, Head, Department of Veterinary Pathology, Nagpur Veterinary College, Nagpur to establish International Independent Study Center of CL Davis Foundation. The Center was established and inaugurated on 14th April, 2016 by Prof. A.K. Misra, Vice Chancellor, Maharashtra Animal & Fishery Sciences University, Nagpur on the eve of Dr Babasaheb Bhimrao Ambedkar Birth Anniversary function organized by the University. The Foundation has donated 150 DVDs to this Center as *gratis* and will be sending DVDs annually to strengthen the Center. Dr M.V. Joshi is the Director and Dr N.V. Kurkure, Department of Veterinary Pathology, NVC, Nagpur is Incharge of the Center. The Center will be of immense help being centrally located in the country and it will be useful to students, staff and scientists.

-Dr M.V. Joshi, Director, International Independent Study Center, CL Davis Foundation and Vice President, IAVP, Nagpur Veterinary College, Nagpur



Opening of Study Centre at Nagpur

CASE REPORT

Spontaneous Case of Acute Theileriosis in a Cross-Bred Bull Calf

M. Saminathan¹, R. Singh¹ and K.P. Singh² ¹Division of Pathology, ²Centre for Animal Disease Research and Diagnosis (CADRAD), ICAR-Indian Veterinary Research Institute, Izatnagar, Bareilly, UP

One year old, male cross-bred bovine bull calf from Division of Biological Standardization of this institute was presented to Post Mortem Facility of Division of Pathology, ICAR-IVRI, Izatnagar for conducting post-mortem examination and disease diagnosis. Carcass was emaciated and heavy tick infestation was noticed on external body surface. Conjunctiva was anaemic and gelatinization of subcutaneous fat was observed. Highly enlarged, oedematous and congested pre scapular lymph nodes were seen. Thoracic cavity was filled with approximately 500 ml straw coloured yellowish fluid. Lungs were markedly congested, emphysematous and oedematous and showed focal echymotic haemorrhages. Hydro pericardium and petechial haemorrhages were observed on epicardium and endocardium. Spleen was enlarged, oedematous and congested. Liver showed focal greyish white patches and markedly distended gall bladder. Gelatinization of perirenal fat and congested medulla of kidney was observed. Typical numerous punched out ulcers were seen on the abomasal mucosa surrounded by haemorrhagic zone (Fig.1). Small intestine showed acute catarrhal enteritis and mesenteric lymph nodes were enlarged and oedematous. Caecum showed numerous punched out ulcers surrounded by haemorrhagic zone (Fig. 2). Markedly congested meningeal blood vessels were also observed. Impression smear from lymph node stained with Giemsa method showed presence of typical Koch's blue bodies (schizonts) in the cytoplasm of lymphocytes (Fig. 3).



Fig.1: Abomasum showing several punched out ulcers surrounded by haemorrhagic zone.

Fig.2: Caecum showing several punched out ulcers surrounded by haemorrhagic zone.

Fig.3: Impression smear from lymph node stained with Giemsa stain showed presence of Koch's blue bodies (schizonts) in the cytoplasm of lymphocytes.

On the basis of typical necropsy findings and demonstration of Koch's blue bodies in lymph node impression smears, the case was diagnosed as Theileriosis. Typical punched out ulcers in caecum also seems to be uncommon finding and not frequently described by earlier workers.

BRILLIANT YOUNG INDIAN PATHOLOGISTS

Dr Priya D. Ghodasara Goes to Australia for Doctoral Studies

Dr Priya D. Ghodasara, MVSc, Veterinary Pathology, Life Member, IAVP and daughter of Dr D.J. Ghodasara, Professor, Department of Pathology, Veterinary College, Anand, Gujarat has been awarded two international scholarships (IPRS and UQ Centennial) for PhD study at the University of Queensland, Australia. The IPRS and UQ Centennial scholarships are awarded competitively based on merit to international students of exceptional research potential undertaking a higher research degree. The IPRS scholarship is a Commonwealth Funded Scholarship. The UQ Centennial Scholarship is a UQ Funded Scholarship which provides a living allowance (\$ 26,288 per annum). Both Scholarships are awarded together for the duration of three years. Dr Priya Ghodasara has joined PhD study from April 2015 at The University of Queensland, Australia. IAVP congratulates Dr Priya D. Ghodasara for her outstanding achievement.

**Graduate Assistantship to Dr Anamika Gupta for PhD Studies in USA**

Dr Anamika Gupta, a young pathologist and life member, IAVP has received graduate assistantship award for PhD program in the Department of Poultry Science, University of Arkansas, US at Fall Semester 2016. Dr Anamika completed her graduation from Rajasthan University of Veterinary and Animal Sciences, Bikaner and MVSc in Pathology from Department of Veterinary Pathology, College of Veterinary Science, GADVASU, Ludhiana, Punjab under the mentorship of Dr Amarjit Singh. During post-graduation, she worked on the research project entitled "Studies on correlation between cytopathology and Th1/Th2 cytokine expression in bovine lymphadenopathies." Her MVSc research has been published recently by Journal of Parasitic Diseases (Springer Publications). Dr Anamika has also presented her research work in National and International Conferences. She bagged travel grant and complimentary registration fee for attending International Conference on One Medicine One Science (ICOMOS 2016) at University of Minnesota, Minneapolis, USA. IAVP congratulates and wishes best of luck to Dr Anamika Gupta for her brilliant future and scientific career.



APPOINTMENTS

Dr Lal Krishna Joins as Senior Consultant (Livestock and Animal Science) in NER-BPMC (A Unit of DBT-GOI)

Dr Lal Krishna, Former, ADG (AH), ICAR, Ex, AHC, GOI and Former President, IAVP and presently President, ICVP has joined North-Eastern Region-Biotechnology Programme Management Cell (NER-BPMC) of Department of Biotechnology, Govt. of India on 1st April, 2016 as Senior Consultant (Animal and Aqua Biotechnology). He looks after the programmes related to livestock and fish development for North-East Region for the overall development of NER. He is a renowned Veterinary Pathologist and has experience of 40 years on the development of animal husbandry sector focusing on imparting research, education, training, policy issues and planning, research management and coordination, infrastructural development in scientific institutions, etc, at national and International level.

**Dr A.A. Kumar new Associate Dean College of Veterinary Science, SVVU, Proddatur (AP)**

Dr A.Anand Kumar is BVSc. & AH, MVSc. (OUAT, Bhubaneswar) and PhD from IVRI, Izatnagar. He worked in the diagnostic laboratory under Government of AP for more than 5 years and later joined the University (APAU/ ANGRAU/ SVVU) and working in various capacities for more than 17 years. He has published more than 50 research papers, presented around 45 lead and contributory research papers in symposia and conferences and published more than 12 popular articles. He has guided a dozen of PG and PhD students. He is serving as an Editorial Board Member for journals of repute. He is recipient of IAVP Best Poster Award, Best PhD Thesis Award, Best Poultry Pathologist Award and Dr CM Singh Award for publishing Best Research Article in Indian Journal Veterinary Pathology. He is awarded Diplomat, ICVP in 2011. Assumed charge as Associate Dean on 06-08-2016 at College of Veterinary Science, Prodaatur, Andhra Pradesh.



SUPERANNUATIONS

Dr S.D. Singh Superannuates in November, 2015

Dr S.D. Singh was born on 1st December, 1953 in village Awahin of District Varanasi, UP. After schooling he was awarded BVSc & AH degree from UP College of Veterinary Science and Animal Husbandry, Mathura in 1976 and MVSc and PhD degree in 1978 and 1990, respectively from Deemed University, IVRI, Izatnagar, UP in Veterinary Pathology discipline. He has more than 30 years of research and teaching experience in the field of Avian Pathology particularly in diagnosis and control of poultry diseases. Dr. Singh has worked on pathogenesis and pathology of Marek's disease, IBD, Respiratory diseases of poultry including IB, Mycoplasmosis, LP AI etc. He has handled nearly 15 research projects as Principal Investigator and Co-PI, and guided 12 MVSc and 10 PhD students in various aspects of poultry diseases. Dr Singh has in his credit nearly 400 publications in various National and International research journals, books, souvenirs and magazines of repute including 192 research/review articles, 25 technical writings (monographs/book chapters), 75 popular scientific articles; 05 radio talks; edited 02 laboratory manuals and 04 souvenir; acquired 159 avian viral gene sequences (NCBI); and presented 70 research papers including 35 lead/invited papers in various National and International conferences/seminars/trainings/workshops organized by different scientific institutions/societies. He has very significantly contributed in Post Graduate teaching in Veterinary Pathology particularly poultry pathology.



Dr Singh has been awarded Best Research Paper Awards including IAVP - Dr CM Singh Award, Best Poster Award, Best Review Paper Award and IAVP - Best Oral presentation Award for his Post Graduate student's research work. He has been awarded with prestigious IAVP - Best Poultry Pathologist Award during 2014. He is life member of 5 professional/scientific societies and served as DBT nominee for Biosafety Committee and Member of Institute Animal Ethics Committee (IAEC) of IVRI, Izatnagar. He is member of Editorial Board, Indian Journal of Veterinary Pathology and acted as referee of nearly 10 National and International journals of repute. Dr Singh has successfully organized two ICAR Sponsored Short Courses on "Emerging Poultry Diseases: Their Diagnosis and Control by using Molecular Biology Techniques" and National Symposium on "Emerging and Exotic Diseases of Poultry" sponsored by Department of Animal Husbandry and Dairying, Ministry of Agriculture, GOI, New Delhi, at Division of Avian Diseases, IVRI, Izatnagar, UP. After 35 years of active and fruitful service on various positions in ICAR-IVRI, he retired as Principal Scientist and Incharge, Avian Diseases Section, Division of Pathology, IVRI, Izatnagar, UP on 30.11.2015. His contact details are : sdsingh2005@rediffmail.com, 09411090374.

Dr R.B. Rai Superannuates in January, 2016

Dr R.B. Rai was born on 5th January, 1954 at Gorakhpur, UP. He was awarded BVSc & AH degree with honours (1977), MVSc (1979) and PhD (1983) degrees in Veterinary Pathology from GBPUA&T, Pantnagar. He started his career as Teaching Associate (1980-1981) and then served as Assistant Professor (1981-1983). In 1983 he joined Agricultural Research Services (ARS) and served as Scientist S-1 (1983-87) at Division of Fur Animal Breeding, CSWRI, Garsa, Kullu, Himachal Pradesh, Senior Scientist (1987-1999) and Principal Scientist (1999-2006) at CARI, Port Blair and at Division of Pathology, IVRI, Izatnagar, UP (2006-2016). During his services in ICAR he served on various posts viz. Director, Animal Husbandry and Veterinary Services (1997-2002) with additional charges of Director, Agriculture and Director, Fisheries for various periods in Andaman and Nicobar Islands, Head of Division, Animal Science Division and Acting Director, Central Agricultural Research Institute, Port Blair.



During his career he worked in 16 research projects as PI/ CPI/Co-PI. He guided 6 MVSc and 3 PhD students. His publications include 230 research papers, 52 invited/ lead papers, 172 abstracts in symposia/ seminars, 12 books, 23 bulletins. Besides, publishing more than 150 popular articles; he used E-Books to disseminate the technologies. His main emphasis has been to integrate research with development and developing low cost highly profitable technologies for maximum profitability and targeting the critical areas providing reasonable solutions for problems like - mastitis, anoestrous, endometritis, universal plant bio-growth enhancers, rural poultry production, etc.

Dr. Rai has made significant contributions in the control of calf mortality, mass control of infertility in bovines and oestrous synchronization and development of preventive and therapeutic measure against mastitis, treatment etc. He has claimed in contribution of development of varieties viz. Teressa goat (an unreported germ plasm), Nicobari fowl and its two crosses, two strains of dual purpose poultry i.e. Nishibari and Nicorock, high producing line of Nicobari fowl and Boer goat crosses (Boer semen x local female).

Dr R.B. Rai has been recipient of several national awards including ICAR Team Research Award (1991-93 and 2001-02), ICAR Fakhruddin Ali Ahmad Award (1994-95 and 2002-03), Fellowships of NAAS (2010), NAVS (2008) and BIOVED (2010), NAAS - L.C. Sikka Award (2011-12), DBT Biotechnology Award for Products and Processes (2013), ICAR/NAIP Certificate of Appreciation (2012), IAVP - Dr Patri Rama Rao Award (2014) and Dr Ram Raksha-Kiran Shukla Award (2014) to his PG students etc. He filed 4 patents which have been commercialized to 8 firms. He was a member of three member delegation of DARE, GOI to Maldives for greening the newly developed Island Halhumale. He superannuated from Councils services on 31st, January, 2016 as Principal Scientist after more than three decades fruitful applied services to Nation.

Dr M.V. Joshi Superannuates on July, 2016

Dr Madan Vasantrya Joshi was born on 29th July, 1956 at Nagpur, MS. He completed high school education in 1971 from Nutan Bharat Vidyalaya, Nagpur. After completing BVSc & AH from Nagpur Veterinary College, Nagpur in 1977, Dr Joshi did Post Graduation in Veterinary Pathology in 1979 with distinction. He was awarded Ph.D. degree in the year 1990 from PGIVAS, Akola. He cleared Diplomat Indian College of Veterinary Pathology (DICVP), certification examination in the year 2008.



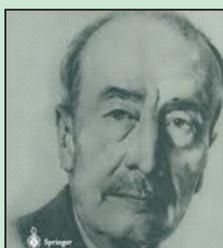
Dr Joshi started his career as Assistant Professor in March, 1980 and after thirteen years, promoted to Selection Grade in 1993 and regular Associate Professor and Sectional Head, Department of Pathology in 1994. He was promoted as Professor and Head, Department of Vety. Pathology, PGI, Dr PDKV Akola, from 1998 to 2000 and 2005 to 2012 in MAFSU. He has 36 years of experience in teaching, research and extension with administrative experience of working as Head, Department of Pathology since 1994 and as Associate Dean for 10 months at PGIVAS, Akola. In October, 2015 he was nominated as Director of Research, with additional charge of Dean, Faculty of Veterinary Science, MAFSU, Nagpur and he superannuated on 31st July, 2016. Dr Joshi guided 25 MVSc and 2 PhD students. He presented 17 articles/lead papers in conferences, seminar and symposium and received recognition and invitation for presentation of paper in International Conference held at Berlin, Budapest, Hague, Jerusalem and Beijing. During WVPA Congress, Beijing, China in 2007; he was invited to present paper and Chaired the Session on Immunopathology.

Dr Joshi was honored with 18 awards and recognition from various organizations including Fellowship of IAVP in 2011. His four MVSc students also received national awards which included best MVSc research award and IAVP-Young Scientist Award. Dr Joshi is associated with seven national and two international associations. He is Vice President of IAVP and Secretary General, Indian College of Veterinary Pathology (few months) and Corresponding Secretary of World Veterinary Poultry Association, (India- Branch) and Member of CL Davis Foundation, USA. He also worked as reviewer for several national and international journals. He is nominated as Director, Independent Study Center, CL Davis Foundation, NVC, Nagpur in April, 2016. He organized training programs for entrepreneurs on livestock health and control program of Government of Maharashtra and National Conference of IAVP in November, 2000, at Akola. He published 34 popular articles in news papers in English and vernacular. He worked as PI in one and Co-PI in two projects and also with a number of agencies for the development of Department of Pathology. He worked as Chairman and member of various administrative committees of Institute and Universities during various programs of MAFSU, Nagpur. His contact details are-Vasant Chhaya, 34 Post and Telegraph Colony, Rana Pratap Nagar, Nagpur 440022. E-mail: joshimadan31@gmail.com M+91 -9822744478.

ARCHIVES: OLD IS GOLD

FIRST REPORT OF MAREK'S DISEASE

Till 1963-64, Marek's disease was described along with Avian Leucosis Complex. After this it was described as a separate disease entity after name of Jozef Marek (1868-1952) a Hungarian veterinarian and scientist who published its first account in 1907 a manifestation in roosters that now bears the author's name. The thickening of sacral plexus and spinal routes that were infiltrated by mononuclear cells were documented and he termed the disease 'Neuritis interstitialis' or 'Polyneuritis gallinarium'. In India, Marek's disease was first of all reported by Dev Prakash and B.S. Rajya in 1969 at UP Veterinary College, Mathura, UP.



**Jozef Marek
(1868-1952)**

Swedish Veterinary Pathologist Prof. C. Rubarth Visited Tirupati, AP in 1970

Infectious Canine Hepatitis is also known as Rubarth Disease or Hepatitis Contagiosa Canis (HCC). It was Prof. C. Sven Rubarth who for the first time reported a new viral disease of dogs, in Sweden, where the disease was widely prevalent. Now the disease is prevalent in many countries of the world including India. He visited College of Veterinary Science, Tirupati, A.P. in 1970.

Reference: Rubarth, S. (1947). An acute virus disease with liver lesions in dogs (hepatitis contagiosa canis): A pathologico-anatomical and etiological investigation. *Acta. Pathol. Microbiol. Scand. Suppl.* 69: 1-207.

Photo: Professor C. Rubarth visiting Department of Pathology, Tirupati, AP in the year 1970. He is accompanied by Professor Ganti A. Sastri and Dr P. Rama Rao. (Photo: Courtesy Prof. Ch. Srilatha, Tirupati, AP). This picture is displayed in Department of Pathology, Tirupati, AP



NEW APPOINTMENTS/ TRANSFERS

IAVP expresses good wishes to all Scientists for their new assignments

Dr D.V. Joshi Joins as Dean, College of Veterinary Science and Animal Husbandry, SDAU, Sardarkrushinagar

Dr D.V. Joshi has joined as Dean, College of Veterinary Science and Animal Husbandry, SD Agricultural University, Sardarkrushinagar, Banaskantha, Gujarat in first week of January, 2016. Dr Joshi was born on October, 01, 1961 at Ranasan, Dist. Patan, Gujarat. He obtained BVSc & AH degree from Veterinary College, Anand in 1985, MVSc from Veterinary College, Sardarkrushinagar in 1989 and PhD from Veterinary College, GBPUA&T, Pantnagar in 1996. Dr Joshi has a vast experience of 32 years in teaching and research. He worked on canine parvo virus infection for his doctoral research at Pantnagar and isolated canine parvo virus from diarrheic dogs in India for the first time, for which he received Dr K.S. Nair Memorial Prize for the best article published in The Indian Veterinary Journal during the year 1998. He joined as Junior Lecturer in the College of Veterinary Science & Animal Husbandry, Sardarkrushinagar in 1985. Subsequently, he was selected Assistant Professor in the Department of Pathology, Veterinary College, Sardarkrushinagar in the year 1989, promoted to Associate Professor in 1998 and since then he continued in the same Department and reached up to the position of Professor in the year 2006. He is also holding the charge of Associate Director of Research (Animal Science) of the university since November, 2014.



Dr Joshi is popular among the students as an ideal teacher and a great motivator. He had significant contributions in the area of diagnostic and toxic pathology. He has published more than 79 research papers in journals of national and international repute. He has presented 110 research papers in national and international seminars/symposia. Dr Joshi was awarded ICAR merit scholarship during his UG studies (1980-85) and ICAR Senior Research Fellowship during doctoral programme (1993-96). Dr Joshi is recipient of many awards from IAVP viz., Young Scientist Award (1996), Varsha Award (2000), Best Poster Awards (2001, 2002 & 2011), Best Toxicopathologist Award (2012) and IAVP Fellowship (2014). He also received Prof. J.P. Trivedi Award in the year 2003 by Gujarat Association for Agricultural Sciences and SD Agricultural University Best Teacher Award for the year 2006-07. Dr Joshi has guided more than 24 MVSc and one PhD students in Veterinary Pathology. Most of his students worked on diagnostic aspect and toxicopathology. His three post graduate students received Chancellor's Gold medal for best post graduate research work in the veterinary faculty. Dr Joshi is a life member of several scientific societies and on the editorial board of three journals of repute. He organized three Gujarat State Chapter Conferences successfully as a Zonal Secretary, West Zone. He is very active life member and Executive Committee Member of IAVP.

Dr Vidya Singh, BVSc (2005) from TANUVAS; MVSc (2007) and PhD (Veterinary Pathology) (2014) from Deemed University, ICAR-IVRI, Izatnagar, UP who was posted as Scientist in ICAR-NRC on Mithun, Jharnapani, Medziphema, Nagaland w.e.f. 23.04.2014-20.06.2016 has been transferred and joined at Division of Pathology, IVRI, Izatnagar, UP on 23.06.2016.



Dr Chandrakanta Jana, BVSc (1999), MVSc (2002) and PhD (Veterinary Pathology) (2013) from West Bengal University of Animal and Fishery Sciences, Kolkata, West Bengal has joined as Senior Scientist at Division of Temperate Animal Husbandry, IVRI Campus Mukteswar, Nainital, Uttarakhand on 22.09.2015. He is life member of IAVP since 2000.



Dr P. Jalandhar, BVSc (2009) and MVSc (2012) (Veterinary Pathology) from Madras Veterinary College, Chennai has joined as Assistant Professor at Farmers Training Centre, TANUVAS, Kanchipuram on 07.12.2015.



Dr R. Bharathi, BVSc (2010) and MVSc (2013) (Veterinary Pathology) from Madras Veterinary College, Chennai has joined as Assistant Professor at Central University Laboratory, Directorate of Centre for Animal Health Studies, TANUVAS, Chennai on 18.11.2015.



Dr Tareni Das, BVSc (2010), MVSc (2012) and PhD (Veterinary Pathology) (2016) from College of Veterinary Sciences and Animal Husbandry, OUAT, Bhubaneswar, Odisha has joined as Scientist at Division of Pathology, IVRI, Izatnagar, UP on 01.07.2015.



Dr R. Barathidasan, MVSc (2010) and PhD (Veterinary Pathology) (2014) from Deemed University, IVRI, Izatnagar, UP has joined as Veterinary Scientist in a DBT Project entitled "Establishment of Pre-clinical Research Facility, Training and Services" at Central Inter-Disciplinary Research Facility (CIDRF), Mahatma Gandhi Medical College Campus, Sri Balaji Vidyapeeth University, Pondicherry on 06.06.2016.



Dr Sreelekshmy Mohandas, BVSc (2012), MVSc (2014) and PhD student (Veterinary Pathology) from Deemed University, IVRI has been selected by ICMR, New Delhi as Scientist B at National Institute of Virology, Pune. Her selection was based on screening, written examination and personal discussion. Soon she will join her new assignment at Pune.



IAVP Award: Dr Balwant Singh Memorial Young Scientist Award
Indian Association of Veterinary Pathologists has instituted Young Scientist Award in the memory of Late Prof. (Dr) Balwant Singh, an eminent Veterinary Pathologist who passed away on 29th December, 2014. 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. For this award, family members of Late Dr Singh donated Rs. 1.00 lakh to IAVP.

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