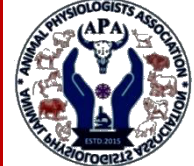




**A report on the Second Annual Meeting and  
National Conference of Animal Physiologists Association  
(APACON2019)  
October 14-15, 2019**



National conference on “*Issues and Strategies for Physiological Capacity Building in Animals*” and Second Annual Meeting of Animal Physiologists Association (APACON2019) was organized by Department of Veterinary Physiology, College of Veterinary Science, Sri Venkateswara Veterinary University, Tirupati (AP) during 14-15 October, 2019.

Agriculture and animal husbandry are two important segments of Indian economy in terms of employment and income generation for the marginal farmers and livestock owners. The agricultural production system in tropical countries like India is no exception to the prevailing global threats. so, the very aim of the conference was to decide strategies to enhance the capacity building by providing a platform to the researchers/ academicians of different parts of India to discuss/share their ideas regarding challenges for food and nutritional security, a major concern for a country like India. The areas were covered in 8 technical sessions including- Endocrinology, Reproduction and Neurophysiology; Climate Change, Stress & Bioenergetics; Systemic, Cardio-Respiratory and Digestive Physiology; Nutrigenomics & Livestock Production; Physiological Innovations for fish and Poultry Production; Gamete Biology and Assisted reproductive technology; Biotechnology and Nanotechnology; Teaching in Veterinary Physiology. Apart from this there were two special session for Young/Mid-Career Scientist Awards and poster sessions.



On 13.10.2019 at about 11.00AM curton raising ceremony was held. **Dr. Y. Haribabu**, VC, SVVU welcomed the delegates and briefed about the very aim of the conference and to this **Dr. G. Taru Sharma**, President APA added the mandates and objectives of the association and detailed about the conference importance. Conference flyer was released by the delegates. During the ceremony dean and associate dean CoVSc, Organizing secretary, core committee of APA, local press and media personals were also present.



The Inaugural session of the conference was held at SVVU auditorium at 10.00AM on October, 2019. The conference was inaugurated by the chief guest **Dr. Trilochan Mohapatra**, Secretary DARE and Director General, Indian Council of Agricultural Research, New Delhi. During his address he reiterated the need of disrupting technologies in agriculture research and he said that when we say agriculture research undoubtedly it includes animal husbandry as well. **Dr. R. K. Singh**, Director cum Vice-Chancellor of ICAR-Indian Veterinary Research Institute, Izatnagar and Guest of Honor said that in the current scenario, the goal of achieving sustainable livestock production means how efficiently we are tackling the hurdles inflicted by adverse environmental conditions, various epidemics reported over the nation, increasing cost of feed and

medicine, development and propagation of farmer friendly ameliorative packages etc. there is a great need to have clear cut strategies and policies designed on this aspect to safeguard the animal farming system in a sustainable manner. I think, in tackling all such issues animal physiology capacity building will play a crucial role. The presidential address was delivered by **Dr. Y. Haribabu**, honorable Vice-Chancellor of SVVU, Tirupati. **Dr. G. Taru Sharma**, President APA, gave brief note on the genesis of the division and Animal Physiologists Association. **Dr. V.P. Maurya**, General Secretary APA, briefed about the various activities of the association. On this occasion conference compendium and very first volume of Association News letter were formally released. **Dr. T. S. Chandrasekhara Rao**, Dean of Veterinary Science, SVVU, Tirupati welcomed the guests and delegates. **Dr. B. Rambabu Naik**, Professor and Head, Department of Veterinary Physiology, College of Veterinary Science, Tirupati and Organizing Secretary briefed about the conference activities and **Dr. K. Nalini Kumari**, Associate Dean, College of Veterinary Science, Tirupati delivered vote of thanks. During the inaugural function several national delegates, researchers, SVVU faculty, non-teaching staff and students were also present.

APA felt proud privilege to felicitate two stalwarts: **Prof. (Dr.) Colonel U.K. Mishra**, former Vice Chancellor, Chhattisgarh Kamdhenu Vishwavidyalaya, Durg with **Lifetime Achievement Award**, and **Dr. Sohanvir Singh**, Pri. Sci. NDRI Karnal as **APA Fellow**.

The scientific deliberations of the conference began with keynote address by **Dr. Subeer S. Majumdar**, Director, NIAB, Hyderabad. During his talk he emphasized about the pending issues where technology can help in uplifting physiological condition/makeup of animals for better health and productivity. The second key note address was given by **Dr. Pradeep G. Kumar**, RGCB, Trivandrum. He discussed on various possible ways of improving sperm membrane integrity during freeze thaw cycles and to improve the outcome of Artificial insemination. The session was chaired by **Dr. Thangaraju**, Former vice-Chancellor, TANUVAS.

**Session-I** “*Endocrinology, Reproduction and Neurophysiology*” was chaired by **Dr. Pradeep Kumar and Dr. M. Narayanaswamy**. In this session one lead paper and five oral presentations were presented. The session was concluded with the remark that non invasive pregnancy diagnosis techniques are very useful for wild as well as domestic animals and more work should be done in this area. Role of kisspeptin is being explored to enhance reproductive efficiency in farm animals. Several new molecules have been seen to play role during embryo-uterine cross talk, it needs further investigation. **Session-II** “*Climate Change, Stress & Bioenergetics*” was chaired by **Dr. S.M.K. Naqvi and Dr. G. Singh**. In this session three lead papers and one oral presentation were presented. Session concluded with remark that climate change is reality and adversely affecting the production and reproduction in farm animals, in this regard work done in the field of ameliorative measures to combat heat stress needs to be converted into package of practices and disseminated to the farmers. **Session-III** “*Systemic, Cardio respiratory and Digestive Physiology*” was chaired by **Dr. V.P. Maurya**. In this session a lead paper was presented by Dr. Kajal Sankar Roy. The session concluded that some molecular markers to access the heat stress (like HSP- 70 and HSP-1) and some ameliorative measures including managerial interventions have been worked out for bovine and poultry. **Session-IV** “*Nutrigenomics & Livestock Production*” was chaired by **Dr. V. Leela** and in this session one lead paper and one oral presentation were presented. Session concluded with remark that AI is still challenge in case of goat and sheep, more work is needed to be done for semen diluents and cryopreservation protocols. Phyto-genetic feed additives are being explored for swine but its safety measures are also to be taken care. **Session-V** “*Physiological Innovations for fish and Poultry Production*” was chaired by **Dr. V. Leela and Dr. P. Selvaraj**. A total of 2 lead papers were presented in this session. During the session it was discussed that different wavelengths of light (normal, red and green) impact on egg production and embryogenesis in poultry which needs to be further validated. It was discussed that “low SNF syndrome” in dairy cows mainly HF is common and while deciding breeding policy this may be taken in account. **Session- VI** “*Gamete Biology and Assisted reproductive technology*” was chaired by **Dr. G. Taru**

**Sharma and Dr. Ravi Gandham.** In this session four lead papers and two oral presentations were presented. During the session it was discussed that several markers have been identified for determination of bull fertility (like Osteopontin) and more work needs to be conducted for selection of good fertility bulls. For oocyte competence the size of the follicles at the time of oocyte retrieval is main determinant of its competence and some strategies have been worked out to further enhance the competence *in vitro*.

**Session- VII “Biotechnology and Nanotechnology”** was chaired by **Dr. Ashok Mohanty** and **Dr. K. Loganathaswamy.** In this session four lead papers and one oral presentation were presented. In this session some advanced techniques were discussed like stem cell therapy in livestock and pets, Aptamer based estrus detection in buffalo, proteomics of milk and urine, metabolomics and nutrition etc. It was emphasized that more work needs to be done in these fields. **Session- VIII “Teaching in Veterinary Physiology”** was chaired by **Dr. V. Girish Kumar** and **Dr. T.S. Chandrasekhara Rao.** In this session two lead papers were presented. Emphasis was given to improve the class room teaching to make it more interesting and impactful.

Session “*Young/Mid-Career Scientist Awards*” In this session two candidates for Young Scientist Awards and two for Mid-Career Scientist Awards presented their work and **Dr. Dharmendra Kumar,** Scientist, ICAR-CIRB Hisar and **Dr. Hari Abdul Samad,** Scientist, ICAR-IVRI Izatnagar; respectively won the awards.

**Session- “Poster Session”** in this session a total 29 posters were presented and session was very interesting and 8 posters were selected for best poster awards in different sessions.

General body meeting of APA was held on 15.10.2019 at about 3.30 PM in the SVVU auditorium. General Secretary, Dr. V.P. Maurya welcomed the life members and executive members of APA and request to all the members to support APA whole heartily for faster progress of the association. Dr. G. Taru Sharma, President APA thanked all the members for their generous help and special thanks were given to Dr.

Rambabu Naik for hosting 2<sup>nd</sup> annual conference at SVVU Tirupati. Dr. G. Singh, treasurer of the APA presented a brief financial report of accounts of APA. In the meeting some changes in the core committee were suggested and suggestions were welcomed by all the members present over the meeting. In the meeting it was decided that new core committee will be like following:

S.No.	Portfolio	New member to hold the portfolio
1.	President, APA	Dr. G. Taru Sharma, Head (by virtue of post)
2.	Vice-president(s), APA	Dr. V.P. Maurya, Pri. Scientist Dr. Mihir Sarkar, Pri. Scientist
3.	General secretary, APA	Dr. Gyanendra Singh, Pri. Scientist
4.	Treasurer, APA	Dr. Vikash Chandra, Sr. Scientist
5.	Joint Secretary, APA	Dr. Vikrant S. Chouhan, Sr. Scientist

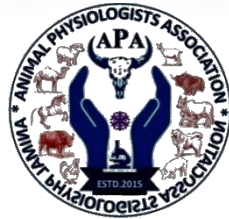
In the GBM it was decided that new APA Newsletter to be edited by Dr. Loganathswami K. Associate Professor and Head, Veterinary College and Research Institute, Tirunelveli.

#### Awardees of APACON 2019

S.No.	Name of Award	Awardees
1.	APA Lifetime Achievement Award	Prof. (Dr.) Colonel U.K. Mishra
2.	APA Fellow	Dr. Sohanvir Singh
3.	APA Mid-career Award	Dr. Dharmendra Kumar
4.	APA Young Scientist Award	Dr. Hari Abdul Samad
5.	APA Best Ph.D. thesis Awards	Dr. Hari Abdul Samad
6.	APA Best M.V.Sc. Thesis Awards	Dr. Yallappa Mallappa Somagond
7.	APA Best Published Paper Awards	Dr. Gulab Chandra



The conference concluded with the valedictory function held on October 15, 2019 at about 4.00PM. **Dr. U.K. Mishra**, former Vice-chancellor, Chhattishgarh Kamdhenu University and chief guest of the function congratulated the APA and organizers of the 2<sup>nd</sup> annual conference in a very befitting manner. He said that Physiology is very important subject and physiology scientists may work to design new strategies to deal with production and reproduction in farm animals in the scenario of climate change and greater demand of quality food, feed and fodder. **Dr. S.M.K. Naqvi**, former director, CSWRI Avikanagar and guest of honor congratulated and thanked president APA, Dr. G. Taru Sharma for taking initiative to have a new association and within a very little span of time growth of the association is really commendable. During the valedictory session various association awards were as also distributed to the respective awardees. **Dr. G. Taru Sharma**, president, APA thanked Vice-chancellor, SVVU, Dean and associate dean, College of Veterinary Science, organizing secretary APACON 2019 and all the delegates for their active participation and valuable contribution towards successful organization of APACON2019.



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