





Brainstorming Session on

Host-microbiome interaction in augmenting productivity of ruminants

24th August 2022

Organized By
Department of Veterinary Physiology
College of Veterinary Science and Animal Husbandry
U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan
Vishwavidyalaya Evam Go- Anusandhan Sansthan
Mathura (U.P.) 281001



Platinum Jubilee Celebration College of Veterinary Science and Animal Husbandry, Mathura

About the University, College and Department

Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura was established by Government of Uttar Pradesh through the Act No. 27 of 2001 on October 25, 2001, by carving out all the units of College of Veterinary Science and Animal Husbandry from C.S. Azad University of Agriculture & Technology, Kanpur. The College of Veterinary Science and Animal Husbandry, Mathura became its first constituent college. The parent institution of this University had the distinction of being the first Veterinary College set up in independent India in 1947. It was the first Veterinary College in Asia to start with degree programme in Veterinary Science and to start M.V.Sc/M.Sc degree programmes in various disciplines of Veterinary and Animal Sciences in 1951 and the Ph.D. degree programmes in 1953. The main campus appears impressive with the buildings of College of Veterinary Science & Animal Husbandry, College of Biotechnology, College of Fisheries Science, College of Livestock Products Technology, College of Dairy Technology and Institute of Para-Veterinary Sciences. The College of Veterinary and Animal Science is celebrating it's platinum jubilee year form July to December 2022.

The department of Veterinary Physiology imparts teaching to the students of B.V.Sc. & A.H. since the inception of the college in 1947. In 1956, M.V.Sc. in Physiology was started for the first time in the country. The department is also recognized for conducting research work leading to Ph.D., degree in the subject of Veterinary Physiology. The teachers of this department have been awarded with prestigious "Rafi Ahmed Kidwai Award" and "Jawharlal Nehru Award" for their research work. The staff members of this department have also contributed one chapter each in three scientific books and more than 300 original research articles have been published in various National and International research journals. Egg yolk coagulating enzyme in the semen and cowper's gland of the







goat was reported for the first time from this laboratory which was published in the most reputed journal "NATURE". Roy. A. (1957), 179: 318. Department had been pioneer in the research area of ruminant physiology, sheep, goat and buffalo reproduction, salivary physiology, environmental physiology and climatology. Since last few years, the department is slowly reviving its old glory. The department has established Professor M.D. Pandey Bio-Climatology Laboratory equipped with a state of art analytical and molecular laboratory, climate chamber for six adult cattle/buffalo, three calorimetric units, automatic weather station, continuous gas analysis monitoring system (methane, Carbondioxide) and infra-red camera. A state of art semen production, cryopreservation and analysis facility, knowledge dissemination center and machine milking facility for goats has been established. Semen from nine different goat breeds is being supplied to thirteen different states of the country, and the Veterinary Officers and AI are trained for profitable goat rearing.



The department also has sperm signaling laboratory which was established under DBT project which has Computer assisted semen analysis facility. In the last few years, department has been able to publish research papers in different international journals of repute; Theriogenology, Animal Reproduction Science, Cryobiology, Cell Stress and Chaperone, Journal of Thermal Biology, Scientific Reports, Small Ruminant Research and Journal of Animal Science and Technology, Journal of Cell Physiology etc.

Brainstorming Session

Department of Veterinary Physiology has a Bio-Climatology laboratory having state of art facility for conducting research related to climate change with special reference to animal production, health and environment. Recent research has confirmed that microbiome is fundamental to health function and affects almost every respect of animal's physiology. The department has initiated work on heat stress mediated changes in rumen microbiome/metabolome and fermentation pattern. A brainstorming session on the topic "Host-microbiome interaction in augmenting productivity of ruminants" encompassing experts from all over the country would be beneficial in deciding the fruitful research agenda. Organization of a brain storming session is aimed to (1) bring all the stake holders of the rumen microbiome researchers at single platform (2) getting a firsthand information on present research work being carried out (3) challenges in the area of rumen microbiome research (4) explore new frontier areas of rumen microbiome research.

Organizing Committee

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Prof. A. K. Srivastava, Vice Chancellor

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Prof. Arun Kumar Madan, Professor, Veterinary Physiology

Dr. Brijesh Yadav, Associate Prof., Veterinary Physiology

Dr. Mukul Anand, Asst. Prof., Veterinary Physiology

Dr. Dilip Kumar Swain, Asst. Prof., Veterinary Physiology

Details of Technical Program

Time Activity

10.30 am Introduction and Welcome of the delegates

10.45 am Opening Remark of Vice Chancellor, Prof. (Dr.) A.K. Srivastava

Session on "Theme Lectures"

(Co-chairs; Dr. A.K. Tyagi, ADG, Animal Nutrition and Physiology, ICAR, New Delhi and Dr. A. Sahoo, Director, ICAR-NRCC, Bikaner)

11.00 am Dr L.C. Chaudhary, Principal Scientist, ICAR-IVRI, Bareilly

11.40 am Dr. P.K. Malik, Principle Scientist, NIANP, Bengaluru

12.20 am Dr. Brijesh Yadav, Associate Professor, DUVASU, Mathura

1.00 pm Lunch

Panel Discussion

Moderator: Prof. (Dr.) A.K. Srivastava, Vice Chancellor

Panellists

2.00 pm Dr. A.K. Tyagi, ADG, Animal Nutrition and Physiology, ICAR, New Delhi

Dr. A. Sahoo, Director, ICAR-NRCC, Bikaner

Dr. L.C. Chaudhary, Principal Scientist, ICAR-IVRI, Bareilly

Dr. A.K. Punia, Principal Scientist, ICAR-NDRI, Karnal

Dr. R.V.S. Pawaiya, Principal Scientist, ICAR-CIRG, Mathura

Dr. S.S. Paul, Principal Scientist, DPR, Hyderabad

Dr. Ravindra Kumar, Principal Scientist, ICAR-CIRG, Mathura

Dr. P.K. Malik, Principal Scientist, ICAR-NIANP, Bengaluru

Dr. Nitin Tyagi, Principal Scientist, ICAR-NDRI, Karnal

Dr. Pradeep Vishnu Behare, Senior Scientist, ICAR-NDRI, Karnal

Dr. K. Gururaj, Senior Scientist, ICAR-CIRG, Mathura

Dr. A.P. Kolte, Scientist, ICAR-NIANP, Bengaluru

Dr. Anju Kala, Scientist, ICAR-IVRI, Bareilly

Dr. Avinash Kumar, Assistant Professor, DUVASU, Mathura

Faculty from DUVASU, Mathura

4.30 pm Remarks by Dr. A. Sahoo

4.40 pm Remarks by Dr. A.K. Tyagi

4.50 pm Distribution of Certificates

5.00 pm Concluding Remarks by Prof. (Dr.) A.K. Srivastava, Vice Chancellor

5.10 pm Vote of thanks by Dr. Brijesh Yadav, Organizing Secretary