

The Para Sight

17th December, 2024

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Concentrated efforts for novel methods to suppress parasites became an

Presidential Note

Dear Fellow Parasitologists,
Greetings!

The impact of parasites on livestock is insidious in nature and parasites are likened to blackmailers. The drain on resources due to parasitic infections is slow and steady, hence not dramatic like other bacterial and viral infections where fatality is common. The huge economic loss that can be incurred due to parasitic infections has been well known. Tackling parasites is always a problem since it is never easy to eliminate a parasite given its tenacity to survive. The advent of resistance to the drugs available to tackle both endo and ecto parasitic infections has become a global concern and concentrated efforts to find novel methods to suppress parasites have become an exigency.

Under the above scenario pertaining to animal parasites and parasitic diseases, the Indian Association for Advancement of Veterinary Parasitology (IAAVP), through conferences and workshops is doing a great work in communicating and sharing the knowledge on the recent developments in disease diagnosis and control. The news letter "The Para Sight" acts as a perfect platform to bridge the gap between budding researchers of Veterinary Parasitology as well as scientists of eminence through various information. It is also good to note that many of our members are quite active in teaching and research

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General Secretary's Message

Esteemed Colleagues and friends in IAAVP,

Greetings!

It is indeed a happy moment for me to be writing this as General Secretary of IAAVP that in the era when country is marching towards implementation of New Education Policy, our association is building on the principle of quality teaching, research, and extension of the same to the beneficiaries of our noble profession. The history of our association goes back to 1986, with the main objective to know the developments and advancement in the field of Veterinary Parasitology and for promoting

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Dr. Shrikanta Ghosh and Dr. Nirbhay Kumar Singh: Nominated as Expert Members of FAO



Ludhiana, Panjab
(Dr. Harkirat Singh / Dr. Chigure GM)

Dr. Srikanta Ghosh, Emeritus Scientist of IVRI, Izatnagar and Dr. Nirbhay Kumar Singh, Prof. and Head, Parasitology Division GADVASU, Ludhiana have joined FAO as a member of the expert team of forty members selected globally to revise guidelines on "sustainable tick control and acaricide resistance management in livestock". The

guidelines will be published in the year 2025. Dr. Shrikant Gosh has joined as Scientist Emeritus on 1st December 2022 after his retirement.



This is proud moment for IAAVP and all Indian parasitology fraternity. On behalf of IAAVP, Dr. A. Sangaran, the president, and Dr. Anish Yadav, General Secretary have appreciated their efforts for the research in the field of tick control.

Partoon! -Dr.Gopal Bharkad



Pirates of the GUT

Control of parasites is an essential practice to enhance the production of livestock- Dr. Rameshwar Singh



Left to Right: Dr. Ajit Kumar, Organizing Secretary, 32nd NCVP, Dr. J.K. Prasad, Dean, Bihar Veterinary College, Patna, Dr. Rameshwar Singh, Hon'ble Vice- Chancellor, Bihar Animal Sciences University, Patna, Dr. N. Vijaya Lakshmi, IAS, Hon'ble Principal Secretary, Dept. of Animal and Fisheries Resources, Govt. of Bihar, Dr. A. Sangaran, President, IAAVP and Dr. Anish Yadav, General Secretary, IAAVP while releasing Compendium of 32nd NCVP.

Patna (Bihar): Dr. Ajit Kumar / Dr. K.P. Shyma

“Integrated parasite control will be only strategy for their control in future”. Dr. Rameshwar Singh, Hon. Vice Chancellor of Bihar Animal Sciences University, Patna, opined during his speech as the chief guest of inaugural function of 32nd NCVP at Patna on 29th November, 2023.

The 32nd National Congress of Veterinary Parasitology and National Symposium on “Sustainable Control of Parasitic Diseases for Improved Productivity of Livestock in Current Scenario” was inaugurated by the chief guest, Hon'ble Principal Secretary, Dept. of Animal and Fisheries Resources, Govt. of Bihar, Dr. N. Vijaya Lakshmi, IAS in presence of Hon'ble Vice Chancellor, Bihar Animal Sciences University, at Sardar Patel Bhawan, Patna, Dean Bihar Veterinary College. Patna Dr. J.K. Prasad, Organising Secretary, Dr. Ajit Kumar, President, Indian Association for the advancement of Veterinary Parasitology (IAAVP) Dr. A. Sangaran and

General Secretary (IAAVP), Dr. Anish Yadav. The national congress initiated with Dr. S.C. Dutt memorial Keynote address by Dr. Bhaskaran Ravi Latha, in which she elaborated on the novel tick control measures including semiochemicals, entomopathogenic fungi, nematodes, botanicals, etc. The congress involved five technical sessions with lead papers, oral and poster presentations. 300 delegates from 20 different states including 20 state Agricultural and Veterinary Universities, 5 national institutes, State Animal Husbandry department, Sashastra Seema Bal participated in the 3 day national symposium. A total of ten lead papers, 81 oral presentations and 42 poster presentations were presented in the five technical sessions. The following recommendations emerged out of the deliberations.

1. There is need for advanced research on *Theileria orientalis* and *T. annulata* targeting molecular characterization, treatment and control measures. 2.

There is urgent need for epidemiological studies on the prevalence of parasitic diseases to generate data on a national level, based on which integrated control measures can be planned accordingly. 3. Molecular diagnosis for the early detection of the prevalent haemoparasitic diseases is the need of the hour. 4. To overcome the anthelmintic and acaricidal resistance, integrated control should be focussed. 5. Requirement for advanced techniques for the diagnosis and characterization of parasites affecting wildlife and poultry. 6. For the control of the zoonotic parasitic diseases, a one health approach should be undertaken. 7. To improve the Veterinary Parasitology education, there is requirement of innovative tools such as interactive text books, virtual microscopy platforms, artificial intelligence;

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IAAVP Institutes "Prof. Veer Singh Rathore Eminent Scientist Award" and Quiz Master Awards



Patna, Bihar (Dr. Shyama KP): The Indian Association for the Advancement of Veterinary Parasitology (IAAVP) has announced the introduction of a prestigious new award, the Prof. Veer

Singh Rathore Eminent Scientist Award, in honor of Prof. Veer Singh Rathore, a visionary academician, researcher, and administrator. Prof. Rathore, currently serving as the Director and Dean, BASU, Patna. This award aims to recognize and celebrate outstanding achievements in Veterinary Parasitology and allied fields. It will be conferred upon individuals who have demonstrated exemplary scientific innovation, leadership, and dedication to the field, inspiring generations of veterinarians and researchers. The IAAVP members warmly commend Dr. Rathore for his enduring contributions and believe this award will motivate excellence in the veterinary scientific community.

IAAVP also instituted Dr. P.P.S. Chauhan UG Quiz Master Award and Dr. B.B. Bhatia PG Quiz Master Award from this year 2024 to inspire UG and PG students and PhD Scholars.

21-day training program conducted by Nagpur Veterinary College, Nagpur on organic and natural livestock Farming



Nagpur, MS (Dr. Suresh Jadhav): A 21-day training program from dt. 29.07.2024 on organic and natural livestock farming conducted at Nagpur Veterinary College. The program was graced by the presence of Chief Guest, Dr. Ajay Singh Rajput, Regional Director, RCONF; Nagpur and Guest of Honour Dr. Anil U. Bhikane, Director of Extension, MAFSU, Nagpur who highlighted the importance of adopting sustainable and eco-friendly practices in livestock farming. The Programme was Co-ordinated by Dr. Suresh G. Jadhav and Dr. Swapnil Magar with Co-organizing secretary Dr. Sonali D. Borkar under guidance of the Associate Dean Dr. A.P. Somkunwar.

Glimpses of 32nd NCVP



Indian Association for the Advancement of Veterinary Parasitology

IAAVP

Welcome to WAAVP-2025, Curitiba - Prof. Marcelo

Curitiba, Brazil (Dr. Marcelo Molento)

The WAAVP 2025 is scheduled during 17th to 21st August 2025 at Curitiba, Brazil. Marcelo Beltrão Molento, Chair of the LOC for the WAAVP Curitiba 2025, invites all the professionals and researchers in the field of veterinary parasitology from around the world for this international event. The association aims to promote scientific advancement, research and collaboration in the field of veterinary parasitology to improve animal and human health.

At these conferences, participants share recent research,

discuss technological advances, exchange experiences, and collaborate on projects to address issues related to parasites in domestic, wild, and aquatic animals. WAAVP conferences typically cover a wide range of topics, including epidemiology, parasite control, diagnosis, treatment, and prevention of parasitic diseases in animals. The deadline for submission of abstracts is 30th March 2025.



WAAVP

30th Conference of the World Association for the Advancement of Veterinary Parasitology

CURITIBA - 2025

Heroes of Indian Parasitology: Prof. Jammi Raghavendra Rao



Prof. Jammi. R. Rao
(1948)

Dr. Rao had major research interests on immuno- and molecular-parasitology.

Dr. Rao created a comprehensive database on veterinary immunobiologicals, focusing on infectious & parasitic diseases at NAARM. It became a crucial resource for R&D policy, planning, & the commercialization of veterinary technologies.

He has completed roles in the Quinquennial Review Committee for ICAR institutes, including CIRG, Makhdoom; CSWRI, Avikanagar; NRC on Camel, Bikaner; and NRC on Mithun, Medziphema. Dr. Rao has also served on the Research Advisory Committees of ICAR institutes like IVRI, NRC on Equines, NIVEDI, and others.

Dr. B.R. Maharana
Senior Scientist
HPVK, LUVAS, Karnal

Dr. G. P. Bharkad
Professor & Head
COVAS, Udgir

Dr. Jammi Raghavendra Rao, was born on Born on the 5th July, 1948 in Vizianagram city of Andhra Pradesh. Dr. Rao graduated from Andhra Pradesh Agricultural University (APAU) at Tirupati campus, where he earned his Bachelor's degree in 1970. He completed his Master's degree in 1972 specializing in Veterinary Parasitology. In 1988, Dr. Rao earned his PhD from the prestigious Deemed University, Indian Veterinary Research Institute (IVRI).

He was an FAO Fellow at University of Illinois, Urbana-Champaign in the year 1990. Although Dr. Rao is a veterinary parasitologist by training, he served the twin faculties of veterinary parasitology and biotechnology at the deemed university of IVRI. He was the Editor-in-Chief of Journal of Veterinary Parasitology from 1988 to 2010. He is a recipient of many professional awards and recognitions including the 'Best Teacher Award' from the IVRI and 'Jawahar Lal Nehru Award for outstanding Ph.D. thesis' (student) from ICAR. He is a Fellow of National Academy of Veterinary Sciences and Indian Association for Advancement of Veterinary Parasitology.

He is an author of more than 150 research papers published in reputed national and international journals. Dr. Rao is a co-author of the NAAS-prized publication "100 Years of Agricultural Sciences in India", edited by Prof. R. B. Singh highlights the evolution of agricultural sciences in India, with Dr. Rao's expertise in veterinary parasitology and animal health making a crucial contribution to the field. He submitted four patent applications on the technologies generated by his research group to the Indian Patent Office for grant. Dr. Rao guided 3 MVSc students and 5 PhD students in veterinary parasitology and 5 MVSc students in veterinary biotechnology besides acting as a co-guide to a large number of PG students for research. Dr. Rao has held several prestigious positions throughout his distinguished career. He spent 12 years as a Professor, 16 years as an Associate Professor, and 6 years as an Assistant Professor, mentoring and guiding numerous students in veterinary parasitology and biotechnology.

From 2006 to 2010, he served as the Principal Scientist and Head of the Parasitology Division at ICAR-IVRI, Izatnagar, where he led innovative research in veterinary parasitology. His extensive experience in both research and teaching has shaped the next generation of veterinarians and researchers, contributing significantly to the development of the field. As the Scientific Secretary to the Director at IVRI (2001-2010), he played a pivotal role in research coordination, monitoring, and liaising with ICAR.

Dr. Rao also managed intellectual property and technology at IVRI as the Officer in Charge of the IPR Cell. His expertise extended beyond research as a Consultant for the Postgraduate Diploma in Technology Management in Agriculture (PGD-TMA) program at ICAR-NAARM, Hyderabad (2010-2011), and later as an Emeritus Scientist at the same institution from 2011 to 2013.

His deep understanding of intellectual property laws, technology management, and commercialization has helped bridge the gap between research and practical application, ensuring that innovations in veterinary science reach those who need them most. Besides his extensive contribution to veterinary parasitology, Dr. Rao has been an active member of several prestigious national committees, contributing to the development and evaluation of research initiatives in veterinary sciences. He has completed roles in the Quinquennial Review Committee for ICAR institutes, including CIRG, Makhdoom; CSWRI, Avikanagar; NRC on Camel, Bikaner; and NRC on Mithun, Medziphema. Dr. Rao has also served on the Research Advisory Committees of ICAR institutes like IVRI, NRC on Equines, NIVEDI, and others. He was a member of the Review Committee for ICAR/HRD Niche Area of Excellence projects at various universities. Currently, he continues to serve as a member of the Academic Council at ICAR-IVRI DU and on several research advisory committees, including those of ICAR-CIRC, ICAR-NRCC, and ICAR-NIVEDI, playing a key role in shaping the future of veterinary research in India. Dr. Rao now resides with his family in Madinaguda, Hyderabad while his son and daughter are settled in the USA. ***

Heroes of Indian Parasitology: Prof. Rengasamy Anandan

Dr. R. Anandan was born on March 6, 1936, in Chennai, as one of four siblings, to Rangasamy and Santhabhai.

After completing his school education, he pursued veterinary science at Madras Veterinary College, where he graduated in 1959 with a second-class. Dr. Anandan then went on to earn his Master's degree in Parasitology with first-class from Madras University in 1965. In 1985, he completed his Ph.D. in Parasitology at Tamil Nadu Agricultural University, achieving an OGPA of 3.86/4.00. His extensive teaching and research career spanned over 23 years, from 1972 to 1996, when he retired as Professor and Head of the Department of Veterinary Parasitology at Madras Veterinary College. Dr. Anandan specialized in Helminthology and Protozoology.

As a teacher, Dr. Anandan inspired countless students to pursue advanced studies in Parasitology with his captivating stories of research and dedication. I had the privilege of being his student during my doctoral studies from 1992 to 1995 at Madras Veterinary College. I recall his unwavering commitment to teaching, often holding classes late into the evening to ensure all content was covered to the highest academic standards.

Once after his class in the evening, being unsatisfied with a diagram of *Trypanosoma* drawn on the black board for the next day UG practical, he redrew it and clarified the structure of the parasite for my benefit along with other *Trypanosoma* species. These lessons have remained ingrained in me, and that was how I taught my students *T. evansi*, *T. vivax*, *T. congolense*, *T. cruzi* and *T. equiperdum*.

Dr. Anandan's deep knowledge of amphistomes and schistosomes, particularly their life-cycle stages, was invaluable to my teaching in later years. He worked on *Amphistome* cercariae for his M.V.Sc. research under the mentorship of Prof. (Dr.) M. Ana-

taman and he focused on *Schistosoma nasale* for his Ph.D. under Prof. (Dr.) Ebenezer Raja. His academic journey was greatly influenced by the teaching philosophies of eminent parasitologists such as Prof. (Dr.) V.S. Alwar, Prof. (Dr.) C.M. Lalitha, and Prof. (Dr.) M. Anantaraman, whose attributes and discipline left a lasting impact on him. The academic excellence followed by the then teachers along with their sternness so as to extract the best outcome from students was another distinctive feature of the Parasitology Department of Madras Veterinary College. This legacy of academic rigor and integrity continues to shape the Department till date and I have tried my best to carry forward this tradition in my own work and to my colleagues at Mannuthy.

Dr. Anandan's career was marked by several significant training milestones, including a three-month training on Theileriosis vaccines at the Razi Institute in Teh-



Dr. Anandan along with Prof. J.P. Dubey, Dr. Sarman Singh and Dr. K. Devada at a Toxoplasmosis conference at AIIMS, Delhi in 1995

ran, Iran, under the Colombo Plan in 1978. His research contributions include the development of the first sheep pox vaccine in India while working at IVPM, Ranipet, and the establishment of the TNAU Research Centre in Tirupur. He also played a pivotal role in setting up the Parasitology laboratory at VCRI, Namakkal, as well as a tissue culture lab and tick-proof stall at the Madras Veterinary College Department of Parasitology, providing invaluable resources for postgraduate students and researchers.

His honesty, dedication, and meticulous approach to research from sampling to result analysis were exemplary. Dr. Anandan was always willing to physically assist his students, even while serving as Head of the Department. His commitment to precise documentation and up to date record keeping set a standard for all who worked with him.

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Prof. R. Anandan
(1936)

Dr. Anandan's leadership in the ICAR All India Network Scheme on Blood Protozoa was instrumental in culturing the Madras isolate of *Theileria annulata* schizont-infected lymphoid cells up to 183 passages, proving the isolate to be mild and immunogenic. His research interests also encompassed the epidemiology and control of helminths and molluscs, tick-borne theileriosis, coccidiosis, and the development of serodiagnostics for parasites such as *Theileria*, *Hydatid*, *Ehrlichia* and *Toxoplasma*.

Dr. K. Devada
Emeritus Professor
Mannuthy

Dr. G. P. Bharkad
Professor & Head
COVAS, Udgir

From the Editor's Desk



Editor-in-Chief

Dr. Gopal P. Bharkad

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Esteemed members of IAAVP and dear friends, Greetings! We all are very excited for 33rd NCVP the 'Kumbhmela' of Veterinary Parasitologists in India.

Molecular biology has brought a revolution in every walk of life by providing powerful new tools and interventions which can be used for improvement of health. Access to genome information on model helminths and protozoa opens up new frontiers for advancing our knowledge of parasite biology and for im-



proving diagnosis and control. New techniques such as microarrays

and molecular beacons can be used to rapidly exploit the new knowledge of parasite genomes. As every year, this is also an occasion for the release of successive 12th issue of our news letter 'The ParaSight' at PVNRTVU, Hyderabad

This is again a very honest attempt to reach close to your expectations and try-

ing to incorporate the maximum information under various headings viz., Heroes of Indian Parasitology, The Para Sight at the height, Achievements / Awards of IAAVP members etc. The feedback, contributions and suggestions are welcome which will definitely be helpful to improve the standards of our news letter.

I'm also grateful to you all for your valuable suggestions and guidance and editorial team will try to bring further improvements in coming issues of 'The Para Sight'.

- Editor-in-Chief

EVOLUTION OF ANIMAL PARASITES: A GROWING CHALLENGE TO ANIMAL HEALTH

Ved Trivedi¹ and Bhupamani Das²

¹4th professional year and ²Assistant Professor, Department of Clinics (Parasitology), COVSAH, Kamdhenu University, Sararkrushiagar-385506 Email ID: bhupa67@kamdhenuuni.edu.in

In the annals of veterinary science, the study of parasites stands as one of the most crucial yet challenging fields. Parasites, the organisms that live on or in a host and derive nutrients at the host's expense have evolved over millions of years, adapting to their environments and hosts in ways that make them formidable adversaries in animal health. This short article delves into the evolution of veterinary parasites, examining how these organisms have adapted over time, the implications for animal health, and the ongoing battle to control them.

The Ancient Origins of Parasitism Parasitism is an ancient biological interaction, dating back to early multicellular life. Parasites and hosts evolved together through coevolution, with parasites adapting to overcome host defenses. Trypanosoma, a protozoan causing sleeping sickness, is among the oldest known parasites, existing for over 100 million years. Fossil records emphasize parasitism's deep evolutionary roots. Over time, parasites developed complex life cycles involving multiple hosts, enhancing their survival and propagation.

Adaptive Strategies: Survival of the

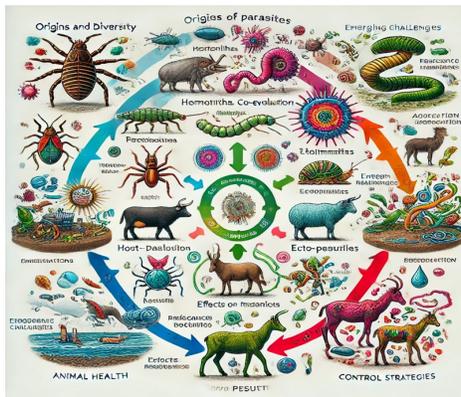


Fig 1: showing the evolutionary mechanism of parasites in special reference to animal health (Photo courts: Ved Trivedi)

Fittest The success of parasites largely depends on their ability to adapt to their host environments. This adaptability is evident in the various life cycles and survival strategies that parasites have developed. For instance, the nematode *Haemonchus contortus*, also known as the barber's pole worm, is a gastrointestinal parasite that affects sheep and goats. This parasite has evolved to survive in extreme conditions, such as desiccation and freezing, allowing it to persist in diverse environments. Moreover, parasites like *Toxoplasma gondii* have developed complex life cycles involving multiple hosts. *T. gondii* is known for its ability to infect a wide range of warm-

blooded animals, including humans. It completes its life cycle in felines, where sexual reproduction occurs, but can also survive in other hosts where it reproduces asexually. This flexibility has made *T. gondii* one of the most successful parasites in terms of geographic distribution and host range.

Host-Parasite Coevolution: An Arms Race: The relationship between parasites and hosts is an evolutionary arms race. Hosts evolve defenses, while parasites develop countermeasures. For example, *Plasmodium* spp., causing malaria, evades immune responses by altering surface proteins. In turn, hosts like humans develop traits like sickle cell for resistance. Yet, *Plasmodium* adapts, keeping malaria a persistent threat.

Drug Resistance: A Modern-Day Challenge: Drug-resistant parasites are a growing challenge in veterinary parasitology. Overuse of antiparasitic drugs has led to resistant strains, such as *Haemonchus contortus*, which resists multiple anthelmintic classes due to genetic mutations. This threatens livestock health and causes

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About the Department of Veterinary Parasitology, CVS, Hyderabad

Hyderabad, Telangana (Dr. B. Dasmabai).

The Department of Parasitology The Department of Veterinary Parasitology has been a part of Hyderabad Veterinary College, Osmania University that was established in 1946 Late Dr. Dinanath Kulakarni became the First Head of the Department and continued up to 1996, then given charge to Late Dr. P. Padmavathi and then she retired in 2000 and given the charge to Dr. M. Udaya Kumar as a Head of the Department up to 2012 subsequently he was elevated as Professor & Head to Korutla Veterinary college and given the charge to Dr GSS Murthy continued as Head up to 2017 then again Dr. M Udaya Kumar took the Charge of Head of the Department up to 2022 then got promoted as Associate Dean of College of Veterinary Science, Rajendranagar. Handed over the Charge of Head to Dr. B. Dasmabai presently working as Head of the Department.

The department offers 3+2 (Theory + Practical) course in the third year B.V.Sc & A.H Undergraduate Professional year programme. The Department is offering MVSc from 1984 and Ph. D

courses from 2018. The department is well equipped with latest equipments like Inverted Phase contrast Microscopes, Fluorescent microscopes, Binocular Microscopes, Laminar Air Flow



Prof. M. Udaya Kumar
Associate Dean

Dr. B. DASMABAI
Asstt Professor & Head



Dr. GS Sreenivasa Murthy
Professor

Dr. Sameta Ramesh
Assistant Professor

Cabinets, High Speed Centrifuge etc., for teaching U.G, M.V.Sc and Ph.D. courses and for imparting practical training of Veterinary Parasitology to Third Year B.V.Sc & A.H students as per the MSVE-2016 regulations

The Department provides technical services to various institutes such as Nehru Zoological Park, Indian Police Academy, Hyderabad Race Club, Indian Immuno-

logicals, National institute of Animal Biotechnology, Centre for molecular and cell biology and Private Live-stock farms etc. This Department has state of the art laboratory with immunodiagnostic and molecular facilities to conduct the studies on Parasitic diseases of livestock and zoonotic pathogens. The Department has developed immune diagnostic test-IFAT for Toxoplasmosis in backyard poultry, Sarcocystosis in Bovines & Sarcocystosis in ovines and Dot ELISA test for Schistosomosis in bovines, Sarcocystosis in Bovines and Oesophagostomosis in sheep.

At present Dr.GSS Murthy and Dr. B. Dasmabai are two faculties of the Department till now 03 students have completed the Ph.D. and 27 students have completed their M.V.Sc. Till to-day more than 200 papers of this department have been published in various National and International journals by the Faculty members

The Department has successfully completed the research project on Immunodiagnosis of Toxoplasmosis in backyard poultry of Andhra Pradesh (State Plan, 16.2 Lakhs, 2007-08).

Dr Anandan Continued from Pg No.5

Dr. Anandan has authored 73 research papers and 20 popular articles. He has presented at numerous national, international, and regional conferences and seminars, and has delivered lectures at various events. He also conducted and coordinated training sessions for veterinary surgeons, farmers, and other stakeholders. In 1995, he served as the Organizing Secretary for the 7th National Conference

of Veterinary Parasitology held at Madras Veterinary College.

In recognition of his outstanding contributions to Parasitology, Dr. Anandan was honored with the IAAVP Fellow Award in 2000. He also received the prestigious Prof. B.V. Rao Gold Medal for the best research article on Toxoplasmosis published in the Indian Veterinary Journal, which he co-authored with me in 2000.

Throughout his career, Dr. Anandan was deeply involved in student welfare, serving as hostel warden and assistant warden, as well as Vice President of the student associations at Madras Veterinary College. He was a member of several professional associations, including the Indian Society of Parasitology, Indian Association for the Advancement of Veterinary Parasitology, Tamil Nadu Veterinary
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Presidential Note

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and bringing lot of accomplishments to them and as well as the institutions they serve. Let us continue to do and give the best whatever we can to take the subject of Veterinary Parasitology to newer heights. I congratulate the team of "The Parasight" led by Dr.Gopal P Bharkad and his team members for their continued good work to disseminate such information across our fraternity.



**-Dr.A. Sangaran,
President, IAAVP**

Message from The General Secretary *Continued from page no. 1*

knowledge through the exchange of academic and research inputs among veterinary parasitologists across India as well as the world.

Animal Husbandry Sector plays a vital role in the back bone of Indian economy and fastest growing sectors with CAGR of 8.2% over the past 5 years. Parasites are considered as one of the major impediment in animal health apart from their impact on human beings due to zoonotic parasites. The current scenario where climate change and trans-boundary diseases contribute to an upsurge in causing parasitic diseases in livestock and human, forms the core reason for us to work and move forward under One Health .

The threats of anthelmintic and acaricide resistance against major parasitocidals have challenged us to look forward

for smart ecofriendly, cost effective and efficient control strategies against the parasites. The development of pen side diagnostic techniques of the most important and common parasites in India is another challenging area that we need to work and this will definitely provide a perfect solution in terms of treatment and control of parasites.

It's time that we need to concentrate more on the use of artificial intelligence, genetic and biological methods for sustainable parasite control and management. The 33rd NCVP at Hyderabad will bring a perfect platform for us to deliberate and have fruitful outcomes in tackling the parasites of veterinary and medical importance. Let us be together and strive hard to make ourselves to be well-equipped with adequate information and sharing of

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EVOLUTION OF ANIMAL PARASITES.....*Continued from pg No.6*

economic losses. Sustainable strategies like integrated parasite man-



Fig2: Harvest mite, *Trombicula autumnalis*, an emerging zoonotic agent where warmer temperatures and increased humidity have expanded the geographic range of *T. autumnalis*, exposing more humans and animals to their bites

agement (IPM) are essential to combat resistance effectively.

Climate Change and Parasite Distribution: Climate change is another factor influencing the evolution and distribution of veterinary parasites. Rising temperatures and changing precipitation patterns are altering the habitats and ranges of many parasites, poten-

tially exposing animals in previously unaffected areas to new parasitic threats. For instance, the tick *Ixodes scapularis*, a vector for Lyme disease, has expanded its range northward in North America due to warming temperatures. This shift not only increases the risk of Lyme disease in animals and humans but also facilitates the spread of other tick-borne diseases. Similarly, the liver fluke *Fasciola hepatica*, traditionally confined to temperate regions, is now being reported in areas previously considered too cold for its survival.

The Role of Genetics in Parasitic Evolution: Genetic research has revolutionized our understanding of parasitic evolution. Genome sequencing highlights genetic diversity and identifies genes linked to drug resistance,

virulence, and host specificity, aiding in developing diagnostics, vaccines, and treatments. For instance, studies on *Plasmodium falciparum* reveal genes that enable immune evasion and drug resistance, offering targets for malaria interventions.

In Conclusion, it can be inferred that Veterinary Parasitology faces ongoing challenges as parasites evolve, demanding innovative, multidisciplinary strategies. Advances in molecular diagnostics and precision medicine hold promise for targeted control, reducing reliance on broad-spectrum treatments. Through global collaboration and scientific innovation, we can address parasitic threats and safeguard animal health and productivity.

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problem based learning methods, etc. The 3 day national symposium ended with the Valedictory function with the chief guest, Shri Sumit Kumar Singh, Hon'ble Minister, Dept. of Science,

Technology and Technical Education, Govt. of Bihar. Best paper awards were distributed to the selected delegates. The delegates were given their feedback and everyone appreciated the

facilities in the congress like timely management of technical sessions, accommodation, transport and hospitality. The function ended with the National Anthem.

Parasitologists grabbed University Best Teacher Awards 2024

TANUVAS Best Teacher Award: Dr. Arunkumar



Chennai (Dr. S. Arunkumar):

Dr. S. Arunkumar, MVSc., Ph.D., Professor, Department of Veterinary Parasitology, Madras Veterinary College, Chennai, received university best teacher award from Thiru.R.N.Ravi, Hon'ble Governor of Tamil Nadu during 23rd convocation of Tamil Nadu Veterinary and Animal Sciences University held on 13.03.2024

SKUAST-Jammu Best Teacher Award: Prof. Anish Yadav

(Dr. Anish Yadav) Jammu:

Dr. Anish Yadav, Professor and Head, Division of Veterinary Parasitology has been conferred as Best Teacher Award 2024 by Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu. Dr. Yadav, a distinguished Fellow of the National Academy of Veterinary Sciences and Ex-ICAR National Fellow, brings with him over 25 years of exceptional experience in veterinary sciences, academic and research. His work as a visiting professor at University of Missouri, USA involved significant advancements in molecular detection and vaccine development against rickettsial infections. Dr. Yadav has guided 04 PhD and 06 master's students as major advisor. He has received 15 research projects grants amounting Rs. 7.50 crores from various organizations.



He has published 125 research articles in scientific journals of national and international repute, developed 3 technologies pertaining to diagnosis of parasitic diseases and has filed one patent

entitled "Diagnostic Kit for Goat Warble Fly Infection". He has been credited with authoring 02 books, 15 book chapters and 10 manuals on livestock parasites.

Dr Anandan Continued from Pg No.7

Council, and the Indian Veterinary Association (TN Chapter). As a member of the IAAVP Education Committee, he contributed to the preparation of model practicals for six undergraduate courses in Veterinary Parasitology. Additionally, he instituted the IAAVP Mrs. Saraswathy Anandan Memorial Award, in honor of his late wife, which is awarded annually for the best Ph.D. thesis in Veterinary Parasitology at the IAAVP conferences.

Dr. Anandan's leadership extended beyond teaching and research. He played a crucial role in shaping the growth of his alma mater, holding key positions in several statutory bodies within the university.

Dr. Anandan was fortunate to have a team of dedicated scientists and colleagues during his tenure as Professor and Head of the Department at Madras Veterinary College from 1990 to 1996, including Dr. S.A. Joseph, Dr. D.J. Chellappa, Dr. Dakshayani, Dr.

Balasundaram, Dr. T.A. Balraj, Dr. G. Rajavelu, Dr. Lalitha John, Dr. S. Abdul Basith, Dr. T.J. Harikrishnan, Dr. B.R. Latha and Dr. C. Sreekumar. I consider it a privilege to have had the opportunity to work under his guidance and thankful to be able to continue the link with him over these years.

Dr. Anandan now resides with his daughter and family in Thirumangalam, Chennai, while his son and family are settled in the USA.

The Para Sight at the Height

Dr. S. K. Gupta and Dr. L. D. Singla at key positions in NAVS

Ludhiana, Panjab (Dr. L.D.Singla):

Two eminent parasitologists and IAAVPians Dr. Surender Kumar Gupta, Former Director and Dean Faculty of LUVAS, Hisar and Former General Secretary of IAAVP, and Dr.



Dr. S.K. Gupta **Dr. L.D.Singla**

Lachman Das Singla, Professor and Head, GADVASU nominated on key positions in National Academy of Veterinary Sciences, India (NAVS). Dr Gupta as Treasurer and Dr. Singla as Editor of news letter of NAVS playing very crucial role in the progress of NAVS.

Dr. Singla visited to Kasetsart University, Bangkok

In a landmark academic exchange in July 2024, Dr L D Singla, Editor of NAAVS(I), visited Kasetsart University's Faculty of Veterinary Medicine in Bangkok, Thailand, marking a significant step in international veterinary collaboration. During his visit, he engaged in pivotal discussions with Dr.Khongsak Thiangtum, Dean of the Faculty and Acting Director of Veterinary Research and Academic Services.

The visit featured enriching interactions with key faculty, including Dr. Aksorn Saengtienchai Dean for Student Affairs and Inter national Relations and a team of distinguished parasitologists: Dr. Ketsarin Khamyngkerd, Dr. Wisanuwat Chimnoi, and Ms Chanya Kengradamkit.

Dr. Rajesh Katoch appointed as Dean, Faculty of Veterinary Science at SKUAST, Jammu



Jammu (Dr.Anish Yadav)

Dr. Rajesh Katoch, Professor, Veterinary Parasitology has joined as the new Dean of Faculty of Veterinary Sciences & Animal Husbandry, R.S.

Pura, SKUAST-Jammu.

Dr. Katoch, a distinguished fellow of the Indian Association for the Advancement of Veterinary Parasitology brings with him over 34 years of experience in veterinary sciences, research and academic administration. With 19 years in administrative roles, including 5 years in leadership position as Dean Student Welfare, SKUAST-Jammu.

He joined as Assistant Professor at Veterinary College Mathura in 1991 and then moved to Veterinary College Palampur in 1997, where he served up to 2005 as Associate Professor and later joined at SKUAST-Jammu. In 2008 he was selected as Professor. He served as Head, Veterinary Parasitology from October 2005 to June 2024.

Dr. Katoch has guided 08 PhD and 09 master's students as major advisor. He has received 15 research projects grants from various organizations like DBT, DST, ICAR, NABARD etc. He has published 170 research articles in scientific journals of national and in-

ternational reputation, developed 3 technologies pertaining to diagnosis of parasitic diseases and has filed one patent. He authored 4 books, 10 book chapters and 12 manuals. He is recipient of prestigious Dr. J. P. Dubey Young Scientist Award, Nishamani Pariija award and S.M. Ismail award by IAAVP. IAAVP extends heartiest congratulations to Dr. Rajesh Katoch for his great achievement.

General Secretary's Message...Contd. from pg. 8

knowledge for enhanced livestock production.

I am happy to share that with efforts of all IAAVP members our life membership has crossed 1200 nos. and this year only more than 100 new young professionals joined our association. From this year onward four new awards have been instituted under patronage of IAAVP to reward members doing excellence in teaching and research. Two quiz master awards have also been instituted with the objectives to inspire a zeal for Veterinary Parasitology among undergraduate students and to strive for advancement in Veterinary Parasitology by post graduate students for excelling in academia and research.

I humbly request all the IAAVP members to share their outstanding professional achievements (awards, achievements, important assignments etc.) accompanied by good quality photograph with high quality photograph for inclusion in upcoming issues of the newsletter.

- Dr. Anish Yadav



IAAVP at International Forums

IAAVP federated to IFTM

The Indian Association for the Advancement of Veterinary Parasitology (IAAVP), has been accredited and federated to the International Federation of Tropical Medicine (IFTM) during the 21st International Congress for Tropical Medicine and Malaria (ICTMM 2024) held from 19th to 23rd September 2024, at Kuching, Sarawak, Malaysia. Prof. A Sangaran, President of IAAVP signed the accreditation form. This accreditation has been given for the contributions made by the Veterinary Parasitologists across India in studies pertaining to animal parasites as well as under one health involving epidemiology, diagnosis and control of various parasitic diseases. It is indeed a proud



moment for IAAVP to be federated by IFTM, an international body with more than 100 associations in its fold.



IAAVP as a member of ACTMP

The Indian Association for the Advancement of Veterinary Parasitology (IAAVP), has become a part of the Asian Council for Tropical Medicine and Parasitology (ACTMP), which is a new council that has been started during the 21st International Congress for Tropical Medicine and Malaria (ICTMM 2024) held from 19th to 23rd September 2024, at Kuching, Sarawak, Malaysia. Prof. A. Sangaran, President, IAAVP signed the ACTMP accreditation. The ACTMP is the new version of ASEAN Parasitology, which was primarily Association of Parasitology for South East Asian Countries and now it has included all other Asian countries, hence ACTMP.

Launch of Asia Pacific Association (APAVP)



Dr Sangaran President IAAVP and Dr LD Singla during Launch of Asia Pacific Association of Veterinary Parasitology (APAVP)

IAAVP Signs MoU with 5 Asian Countries -Prof. A. Sangaran



Udgir, Maharashtra (Dr. Gopal Bharkad) : The Indian Association for the Advancement of Veterinary Parasitology (IAAVP), had signed MoU for the purpose of accelerating control and eradication of tropical diseases with Indonesia Parasitic diseases control association, Malaysian Society of Parasitology and tropical medicine, Sarawak Infectious disease Centre, Philippines society of Parasitology, Korean society of Parasitology and Tropical Medicine, Taiwan Society of Parasitology, Parasitology and Tropical Medicine Association of Thailand, Vietnam Society for Infectious diseases, Indonesian Association of Medical Specialist in Clinical Parasitology and the Indian Society of Parasitology. This MoU was signed during the 21st International Congress for Tropical Medicine and Malaria held from 19th to 23rd September 2024, at Kuching, Sarawak, Malaysia. Prof. A Sangaran, accompanied by Dr. B.R.Maharana signed MoUs with these countries.



Dr A SANGARAN, President- IAAVP participated in the 11th TTP conference at Havana, Cuba from September 1-6, 2024 and was an invited speaker to talk on "Tick borne diseases of dogs and cats in India"

IAAVP EXECUTIVE COMMITTEE**President**

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Newsletter: *The Para Sight* Team**Editor-in-Chief**

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The group photo of delegates participated in the 32nd National Congress of Veterinary Parasitology and National Symposium of The Indian Association for the Advancement of Veterinary Parasitology (IAAVP) organised at Bihar Animal Sciences University, Patna, Bihar during 29th Nov to 1st Dec 2023

