Curriculum vitae

1. Name : T. V. ARAVINDAKSHAN
2. Father's Name : Late. T. V. Velayudhan Nair
3.**Permanant Address** : House No. 8. Lenin Nagar,
Pattalomkunnu, Mannuthy (P.O),
Thrissur – 680 651, Kerala

4. Date of birth & Age : 01-05-1964. 61 years
5. E-mail : tvaraaction@gmail.com
6. Telephone : 91-09895268573

7. Current Designation : Professor, Animal Genetics and Breeding, Arawali Veterinary College, NH 52, Bajor, Jaipur Road, Sikar-332403, Rajasthan.

8. Previous Occupation: Retired as Senior Professor and HOUD and Director, Centre for Advanced Studies in Animal Genetics & Breeding, Kerala Veterinary & Animal Sciences University, Mannuthy -680651, Thrissur

9. Additional duties held

1. Member, Board of studies, School of Biotechnology, CUSAT, Kochi
2. Member, Academic Council, CUSAT, Kochi (2015-2019)
3. Head, Department of Animal Breeding, Genetics and Biostatistics, College of Veterinary and Animal Sciences, Mannuthy.
4. University Head of Department Animal Breeding, Genetics and Biostatistics, KVASU
5. Director, School of Applied Animal Production and Biotechnology, Kerala Veterinary & Animal Sciences University, Mannuthy -680651, Thrissur (2013-2022).
6. Member, Institutional Quality Assurance Cell (IQAC), KVASU (Term completed)
7. Course Director, M.Sc and M.V.Sc Animal Biotechnology, KVASU (2013-2022).
8. Course Director, Revolving Fund project on Training, School of Biotechnology, KVASAU (2013-2022).
9. Chairman, Biotechnology Project Co-ordination Group, KVASU
10. Member, Project Coordination Committee (PCC), KVASU
11. Member, Board of Studies, Veterinary Faculty, KVASU
12. Member, Board of Studies, Poultry Science, Faculty, KVASU
13. Member, IPR cell, KVASU (Term completed)
14. Editor, Journal of Veterinary and Animal Sciences, KVASU (2018-2022).
15. Member, Board of Studies, Engineering (UG), Calicut University (Term completed)
16. Chairman, University level Culling committee for dairy animals, KVASU

10. Academic Qualifications:

B. V. Sc.& A. H., Kerala Agricultural University (1987)- First Rank
M. Sc, NDRI, Karnal (1992)-Second rank
Ph.D.Tamil Nadu Veterinary and Animal Sciences University, Chennai (1997)

11. Professional Experience: 36 years 6 months

- Professor, Arawali Veterinary College (August 2024 -till date)
- Senior Professor, Animal Genetics & Breeding (July 2019 –April 2024)
- Professor, Animal Genetics & Breeding (July 2009 – July 2019)
- Associate Professor (Animal Genetics & Breeding (July 2001 – July 2009)
- Assistant Professor, Animal Genetics & Breeding (July 1992–July 2001)
- Junior Assistant Professor, Animal Genetics & Breeding (December 1988 –July 1992)

12. Important contributions

- Established a Molecular Genetics Laboratory in KVASU with state-of-the art facilities
- Established School of Applied Animal Production and Biotechnology with ICAR EFC grant.
- Course director of two PG programs in Animal Biotechnology (2013-2022).
- Course Director of 12 trainings in Molecular Biology and Bioinformatics (total 143 days and 146 beneficiaries)
- University Head of AGB and Director of CASAGB (2014-till-date)
- Editor of the Journal of Veterinary and Animal Sciences (2018-2022)
- Published over 170 research articles
- Implemented two ICAR network projects: AICRP on goats and Progeny Testing scheme

13. Research Interests:

- Livestock genomics, Proteomics and Conservation of native livestock resources
- Genetic characterization and evaluation of livestock species using molecular markers
- Cloning and sequence analysis of important genes related to production, reproduction and disease resistance
- Thermotolerance and disease resistance studies in native livestock species

14. Major Awards and Recognitions:

1. Appreciation by the Hon'ble Vice Chancellor, KVASU for the excellent contribution as the Editor, Journal of Veterinary and Animal Sciences, KVASU in the year 2021.
2. Rajib Goyal Prize for Young Scientist – 2001 in Veterinary Sciences – for outstanding contributions in the field of Veterinary Sciences by the Kurukshetra University, Kurukshetra, Haryana, India.

3. First position for the Poster in the National Conference on New Horizons in Animal Breeding Technologies for Accelerating Livestock production and Health- January 20-21, 2011 at IVRI Izethnagar, organized by the Indian Society of Animal Genetics & Breeding.
4. Certificate of Appreciation by Kerala Agricultural University for securing External funded projects for the period from 19-08-2000 to 31-12-2004.
5. Appreciation by the Department of Biotechnology, Govt. of India, New Delhi, for the good work done by the PI under the DBT funded project 'Molecular Genetic Characterisation and Genetic Improvement of Malabari Goat' in July 2003.
6. Honoured by the Vice–Chancellor and General Council of the Kerala Agricultural University for the outstanding research achievements by the applicant on 26th July, 2003.
7. **Second best paper"** published in *Indian. Journal of Dairy Science* in the year 1998.
8. **Senior Research Fellowship (CSIR)** for undergoing Ph.D programme in Animal Biotechnology in the year 1995. (Did not utilize the fellowship).
9. **Senior Research Fellowship (ICAR)** for undergoing PhD programme in the subject of Animal Biotechnology in the year 1994.
10. **Second Rank in M.Sc. (Animal Biotechnology**) from National Dairy Research Institute (Deemed University), Karnal in the year 1992.
11. **"ICAR Junior Fellowship**" in the discipline of Animal Breeding & Genetics in the year 1990 for undergoing M.V.Sc. programme (Did not utilize the fellowship).
12. **"Junior NDRI Fellowship**" for undergoing M.Sc. (Animal Biotechnology) programme at NDRI, Karnal, India for the period 1990- 1992
13. **Kerala Veterinary College Alumni Association Gold Medal** in 1987 for securing first rank in B.V.Sc. & A.H degree programme.
14. **First rank in B.V.Sc. & A.H** from Kerala Agricultural University in 1987
15. "**K.S. Nair Memorial Prize**" for the year 1986 for securing highest GPA in the group of courses in Animal Management, Animal Nutrition, Animal Breeding & Genetics and Dairy Science of B.V.Sc. & A.H.
16. **"Trivandrum Livestock Improvement Association Prize**" in the year 1986 for securing highest GPA in B.V.Sc. & A.H course.
17. **"Inauguration Souvenir Prize**" in the year 1986 for securing highest grade point average in group of courses in Microbiology, Parasitology and Pathology of B.V.Sc. & A.H.
18. **"T.V. Kochuvareed Memorial Prize**" in the year 1986 for securing the highest grade point average (GPA) in B.V.Sc. A.H.
19. "**M.O. Thomakutty Memorial prize**" in the year 1986 for securing highest GPA in the group of courses in Physiology and Biochemistry of B.V.Sc. & A.H degree programme.
20. **"Mrs. Devaky Nair Endowment Prize"** for the year 1984 for his having excelled himself in social service activities in the B.V. Sc. & A.H. degree programme.

15. Major Research Projects undertaken:

1. Project leader of Chancellor Award money-Project entitled "Multi –omic approach in elucidating the higher disease resistance, heat tolerance and robust reproductive health of indigenous cattle of Kerala". Duration three years. Outlay 99.9 lakhs
2. Strengthening of School of Applied Animal Production and Biotechnology, State Plan Project 2014-21.
3. Strengthening of Centre for Advanced Studies in Animal Genetics & Breeding State Plan Project 2014-23.
4. Establishment of a germplasm repository for domestic animal diversity of Kerala, Outlay 29.5 lakhs State Plan Project 2012-14
5. Augmenting biotechnology research in KVASU. State Plan Project 2014-17
6. Molecular Genetic Characterization and Genetic Improvement of Malabari goats. (2000-2003) Dept. of Biotechnology New Delhi. Outlay 19.57 lakhs

7. Molecular Characterisation of Vechur cattle of Kerala (2000-2003), ICAR, New Delhi, 43.00 lakhs
8. Microsatellite markers for the genetic improvement of cattle (2001-2004) NATP
9. Genetic Variability Analysis of Indian Elephants Using Microsatellite Markers (2005-2008), ICAR, New Delhi, 13.59 Lakhs
10. Development of one- step reverse transcriptase polymerase chain reaction to detect Duck hepatitis Virus type-I in Kerala. AHD, Govt. Of Kerala. 14.62 lakhs. 2 years. As Co-PI.
11. KAU Plan Project: "Centre for study of wildlife: DNA fingerprinting / bar coding - A tool for wild life forensic analysis". 4.5 lakhs 3years since 2007-2010 As Co-PI
12. Strengthening of Molecular Biology laboratory. 11 lakhs. KVASU Plan Project 2012-13
13. Establishments of Bioinformatics Centre. 10.5 lakhs. KVASU Plan Project 2012-13 As PI

16. Number of Publications:

- Research papers in refereed national and International journals: 191+
- Conference proceedings: 32
- Popular articles: 4
- Books/Book chapters/Manuals: 7
- GenBank submissions (RNA and DNA) : 167
- dbSNP database : 500

17. Selected Publications

1. Haritha B Pillai., Naicy Thomas., Elizabeth Kurien., **Aravindakshan, T.V**., Venkatachalapathy, R.T., Rojan, P.M., Babitha,B. and Sreeja R Nair. 2025. The Impact of DGAT1 K232A Mutation on Milk Production and Quality Traits in Vechur and Crossbred Cattle of Kerala, India. *Indian Journal of Animal Research*. DOI:10.18805/IJAR.B-5434. 1-7.
2. Sahana, V.N., Bindya Liz Abralham., Marykutty Thomas., **Aravindakshan T.V.** and Binoj Chacko. 2025. Morphometric characterization and growth hormone gene polymorphism (intron 2) in Kuttanad ducks of Kerala. *Journal of Livestock Biodiversity*. **12** (1): 20-24.
3. Sunilkumar, N.S., Sreeranjini, A.R., Ashok, N., May, S., **Aravindakshan, T.V**., Narayanan, M.M. and Safeer M Saifudeen. 2025. ELEMENTAL COMPOSITION OF DISTAL PHALANX IN CROSSBRED CATTLE OF KERALA AND ITS ASSOCIATION WITH CLAW HORN DISRUPTION LESIONS. *Journal of Indian Veterinary Associatio*n **23** (1): 68-74. https://doi.org/10.55296/JIVA/23.1.2025.
4. Chishi, K., Valsalan, J., Sadan, T., Anilkumar, T., **Aravindakshan,T.V.,** and Radha, H. 2024. Assessment of genetic parameters and breeding value of somatic cell score and first lactation 305 days milk yield in crossbred dairy cattle of Kerala. *The Indian Journal of Animal Genetics and Breeding* **43**(1,2):125-129. DOI:10.59317/ec57c375.
5. Vyshnav, B., Ajith, K.S., Ally, K., Jasmin Rani., and **Aravindakshan, T.V**. 2024. Metagenomic profiling of elephant dung using V3 – V4 amplicon sequencing of 16S rRNA. *Journal of Veterinary and Animal Sciences* **55** (1) :53-56. DOI:10.51966/jvas.2024.55.1.53-56
6. Jayalakshmi, J., Leena, C., Navitha, A., Lucy, K.M. and **Aravindakshan, T.V**. 2024. Gross anatomy, topography and histology of murine mammary fat pads with study of ductal architecture using whole mount technique. *Journal of Veterinary and Animal Sciences* 55(1):160-166 DOI:10.51966/jvas.2024.55.1.160-166.

7. Marykutty Thomas, Radhika, R, Stephy Thomas., Venkatachalapathy, R. T. and **Aravindakshan, T.V**. 2024. Development of Breed Traceability for Autochthonous Attappady Black Goats of South India. *Small Ruminant Research* **242**:107408 DOI:10.1016/j.smallrumres.2024.107408.
8. Marykutty Thomas., Radhika, R., Venkatachalapathy, R. T. and **Aravindakshan, T.V**. 2024. Genomic profiling of selective sweeps through haplotype differentiation unravelled genes associated with production and reproduction traits in Indian goat breeds. T*ropical Animal Health and Production* **56.** 296 DOI:10.1007/s11250-024-04136-2
9. Nimisha, T., Deepthy, K.B., Haseena Bhaskar., Mani Chellappan., Reshmy Vijayaraghavan and **Aravindakshan, T.V**. 2024. Tolerant native isolates of Beauveria bassiana with commonly used pesticides in Kerala. *Journal of Eco-friendly Agriculture* **19** (1) 82-87.
10. Valarmathi, R., Pramod, S., Marykutty Thomas., **Aravindakshan, T.V**., Justin Davis., Prasad, A. and Aslam, M.K. 2024. EVALUATION OF THE EFFICIENCY AND SPEED OF POLY-G TAIL TRIMMING BY DIFFERENT TOOLS FROM NEXT-GENERATION SEQUENCING DATA. *Journal of Indian Veterinary Association,* **22** (3): 88
11. Marykutty Thomas, Jinty Sukumaran, Rojan, P.M., Thirupathy Venkatachalapathy, R., **Aravindakshan, T.V**., Saalom King, J. and Akhila, M.R. 2024. Mitogenome based adaptations and phylogeny of Beetal goats in India. *Gene Reports,* **37**: 102094.
12. Michelle, E.R., Manoj, M., Sadan, T., Rojan, P.M., **Aravindakshan, T.V**., Usha, A.P. and Unnikrishnan. M.P. 2024. IDENTIFICATION OF GENOME-WIDE VARIANTS IN ANKAMALI PIGS OF KERALA BY WHOLE GENOME SEQUENCING. *Journal of Indian Veterinary Association* 22 (2).
13. Vandana, C. M., **Aravindakshan, T.V**., Shynu, M., Radhika, G., Bindu Lakshmanan., Naicy, T. and Priya, M. 2024. Comparative Expression of Interleukin 23A (IL-23A, Alpha Subunit) in Theileria Infected PBMCs of Crossbred and Vechur Cattle. *Innovations in Biological Science* **3**: 114-126.
14. Saifudeen, S.M., Anilkumar, K., **Aravindakshan, T.V**., Valsalan,J., Ally, K. and Gleeja, V.L. 2024. Gene prediction in rumen metagenomic reads of cattle using machine learning based approach. *New Delhi Publishers* **14** (2): 125-130.
15. Rojan, P.M., Venkatachalapathy, R.T., Marykutty Thomas, **Aravindakshan, T.V**., Radha, K. and Ramnath, V. High mobility group box containing 3 (HMGXB3) gene polymorphism and its association with body weight and morphometric traits in goat breeds of Kerala. *Indian Journal of Small Ruminants* **30** (2): 233-239.
16. Marykutty Thomas., Radhika, G., Thirupathy, V. and **Aravindakshan, T.V**. 2024. Population genomic and haplotype block structure in Attappady black and Malabari goats of South India. *Small Ruminant research* **233**: 107225.
17. Saranya, S.K., Marykutty Thomas, **Aravindakshan, T.V**., R. Thirupathy Venkatachalapathy, Jinty Sukumaran and Raji Kanakkaparambil. 2024. Discovery and computational exploration of SNPs in GNRHR gene and their influence on protein structure and function in Indian goat breeds. *Gene Reports* **37**:102014..
18. Saifudeen, S.M., Anilkumar, K., **Aravindakshan, T.V**., Valsalan,J., Ally, K. and Gleeja, V.L. 2024. Evaluation of Rumen Microbes for Milk Fat Yield in Cattle Based on 16S rRNA Amplicon Metagenomic Sequencing. *Journal of Dairying, Foods & Home Sciences* DOI:10.18805/ajdfr.DR-2176
19. Saranya, S.K., Marykutty Thomas., **Aravindakshan, T.V**. Thirupathy Venkatachalapathy., Jinty Sukumaran and Raji K. 2024. Diplotype-Based Assessment of GNRHR Gene Polymorphisms and Their Role in Determining Litter Size at Birth in the

Malabari Goat Population of South India. *Small Ruminant research* https://doi.org/10.1016/j.smallrumres.2024.107229

20. Katam Divya, Elizabeth Kurian, Naicy, T., **Aravindakshan, T.V**., Manoj, M., Hiron M Harshan, Potu Hemanth and Priya. M 2024. Expression profiling of candidate genes affecting post-thaw sperm parameters in Vechhur cattle of Kerala**.** *Journal of Experimental Zoology India* **27** (1) : 165-171.
21. Katam Divya., Elizabeth Kurian., Naicy, T., Manoj, M., Hiron M Harshan, Priya. M. and **Aravindakshan, T.V**. 2024. Single nucleotide polymorphism in the supe oxide dismutase 1 (SOD1) exon 2 of Vechur cattle of Kerala. *Journal of Experimental Zoology India* **27** (1) : 491-497.
22. Vandana, C.M., **Aravindakshan, T.V**., Shynu, M., Radhika, G., Bindu Lakshmanan, Thomas Naicy and M Priya, M. 2024. Differential expression of exosomal marker gene (CD63) in Theileria infected PBMCs of Vechur and crossbred cattle. *International Journal of Veterinary Sciences and Animal Husbandry* **9** (1): 725-727.
23. Marykutty Thomas., Radhika, G., Thirupathy, V. and **Aravindakshan, T.V**. 2023. Genome-wide runs of homozygosity in Indian goat breeds reared under small holder production systems. *Small Ruminant Research*. **229** :107116.
24. Divya, P.D., Shynu, M., Jayavardhanan, K.K., Uma, R., **Aravindakshan, T.V.,** Radhika G., Sameer kumar, V.B., Muhasin Asaf and Renjith Sebastian. 2023. Role of microRNA, bta-miR-375 in Immune Sturdiness of Vechur: The Native Cattle Breed of Kerala, India. Heliyon **9**: e22683
25. Charlotte, C.R., Bindu, K.A., Pramod, S., **Aravindakshan, T.V**. and Tresamol, P.V. 2023. Analyzing for the presence of BMP4 polymorphism and expression profile in Malabari and Attappady Black goats of Kerala. *Cattle Practice* 31(9):20
26. Radhika, G., **Aravindakshan, T.V.,** Anilkumar, K., Manoj, M. and Stephy Thomas. 2023. Genetic diversity analysis of cattle genetic groups of Kerala state using microsatellite data. *Animal Biotechnology* **34** (4): 1154-1162.
27. Marykutty Thomas., Radhika, G., Thirupathy, V. and **Aravindakshan, T.V**. 2023. Linkage disequilibrium and effective population size in Indian goat breeds. *Small Ruminant Research*. **226** (4) :107037.
28. Charlotte, C. R., Bindu, K.A., Pramod, S., Abhilash, R.S.,Tresamol, P.V. and **Aravindakshan, T.V.** 2023. BMP4 gene expression in native goat breeds in Kerala. *The Pharma Innovation Journal* SP-**12**(7): 1430-1435.
29. Michelle, E.R., Manoj, M., Sadan, T., Rojan, P.M., **Aravindakshan, T.V**., Usha A.P. and Unnikrishnan M.P. 2023. Genome-wide Scan for Selection Signatures Using Tajima's D and Pooled Heterozygosity in Ankamali Pigs of Kerala State, India. *Research Square* DOI: https://doi.org/10.21203/rs.3.rs-3161399/v1
30. Sankaralingam, S., Anitha, P., Chacko, B., Cyriac, S., **Aravindakshan, T.V**. and Vasudevan, V.N. 2023. Comparison of production performance of Pekin duck, control population and meat line of Kuttanad duck. *J. Vet. Anim. Sci*. **54**(3):663-669.
31. Sankaralingam, S., Anitha, P., Chacko, B., Cyriac, S., **Aravindakshan, T.V**. and Vasudevan, V.N. 2023. Effect of pre-incubation storage on hatchability and embryonic mortality in Kuttanad duck eggs. *Journal of Indian Veterinary Association*.**21**(1):110-115.
32. Niyas, E., Abhilash, R.S., Jayakumar, C., Unnikrishnan, M.P., **Aravindakshan, T.V**. and Syam Mohan, K.M. 2023. Seasonal influence on the luteal growth and regression characteristics of crossbred dairy cows of Kerala. *J. Vet. Anim. Sci*. **54**(3):778-785
33. Shyju, O., Abraham, B.L., Nair, S.N., Krishna, B.D., Asaf, M., **Aravindakshan, T.V**. 2023. In vitro cytotoxicity of Tinospora cordifolia stem extract in Daltons Lymphoma Ascites cell lines. *J. Vet. Anim. Sci*. **54**(3):755-762.
34. Sunilkumar, N.S., Sreeranjini,A.R., Ashok,N., Maya, S., **Aravindakshan, T.V.** and Narayanan, M.K.. 2023. Proximate composition of bovine digital cushion. *International Journal of Veterinary Sciences and Animal Husbandry*. **8** (5): 361-363.

35. Arya, G., Radhika, G**., Aravindakshan, T.V**., Naicy, T. and Devi, S.S. 2023. Differential expression of Tissue inhibitor of metalloproteinase 2 (TIMP2) gene in canine mammary tumour. *International Journal of Veterinary Sciences and Animal Husbandry*. **8** (3) : 19-24
36. Lali, F.A., Anilkumar, K., Hemanth Pottu., Thomas Naicy. and **Aravindakshan, T.V**. 2023. Two novel SNPs identified in *STAT1* gene adjoining a QTL for milk production in Holstein Friesian crossbreds of Kerala. *Animal Biotechnology*. DOI:10.1080/10495398.2023.2232662.
37. Michelle, E.R., Manoj, M., Rojan, P.M., Tina, S., **Aravindakshan, T.V**., Usha, A.P. and Unnikrishnan, M.P. 2023. Identification of genetic variants by whole genome sequencing in Ankamali pigs of Kerala. J. Vet. Anim. Sci. 54(2):524-531 DOI: https://doi.org/10.51966/jvas.2023.54.2.524-531
38. Asha Rajagopal., Lucy Sabu., R. Radhika., K. Devada., K. Jain Jose., Naicy Thomas. and **Aravindakshan, T.V**. 2023. Development of PCR-RFLP for the detection of benzimidazole resistance polymorphisms in isotype 1 β-tubulin gene of *Trichostrongylus colubriformis*. Small Ruminant Research. 222 https://doi.org/10.1016/j.smallrumres.2023.106954
39. Kiyevi, G.C., Jamuna,V., Tina,S., Anilkumar,K., **Aravindakshan,T.V**. and Radha,K. 2023. Polymorphism study of TLR4 gene in crossbred cattle of Kerala. J. Vet. Anim. Sci. 54(1):1-6 DOI: https://doi.org/10.51966/jvas.2023.54.1.1-6
40. Teenu Thomas, Marykutty Thomas, **Aravindakshan, T.V**., Bindya Liz Abraham and Syamala, K. 2023. Factors influencing gastro-intestinal parasitic infection in native goats of Kerala. *The Pharma Innovation Journal*. 12(5): 1741-1743
41. Ambily, V.R., Usha, N.P., Ajithkumar, S., Deepa, C., David, P.V., **Aravindakshan, T.V**., Maya, S. and Krishna, B.D. 2022. Occurrence of allergic dermatitis in dogs with special reference to canine atopic dermatitis in Kerala. *J. Vet. Anim. Sci*. 53 (4): 767-771 DOI: https://doi.org/10.51966/jvas.2022.53.4.767-771.
42. John Ambili., Harshan Hiron, M., Pawshe Mayur., Ghosh, K.N. Aravinda., Thirupathy R.V., and **Aravindakshan, T.V.** 2022. Physical characteristics of Malabari buck semen and sperm characteristics of semen with good and poor freezability. Journal of Krishi Vigyan. **11**: 80-85
43. Deepa, J., Sunil, B., Latha,C., Vrinda, K.M., Mini, M. and **Aravindakshan, T.V**. 2022. Prevalence of *Campilobacter* spp. In water bodies of central Kerala. *J. Ind. Vet. Assoc***. 20** (2) 25-35.
44. Akhila, M.R., K.A Bindu., Elizabeth Kurian., T. Naicy**., T.V. Aravindakshan.,** Siju Joseph and V.L Gleeja. 2022. Identification of SNPs in exon 1, 2 and 14 of ITGβ6 and its association with FMD infection in crossbred cattle of Kerala. *Pharma Innovations*. **11** (3). 1552-1555.
45. Ambily,V.R., Usha,N.P., Ajithkumar,S., Deepa,C., Vinu David, P., Maya,S., **Aravindakshan,T.V.** and Dhanush, K.B. 2022. A prospective study on haemato-biochemical aspects of atopic dermatitis in dogs. *J. Vet. Anim. Sci*. 53(4): 731-739 DOI: https://doi.org/10.51966/jvas.2022.53.4.731-739.
46. Aishwary, A., Thirupathy, V. R., Pramod, S., **Aravindakshan, T. V**. and Beena, V. 2022. Expression profiling of Ecto-NOX Disulfide-Thiol Exchanger 2 (ENOX2) gene during heat stress in Attappady black and Malabari goats. *J. Vet. Anim. Sci*. **53** (3): 363-367.
47. Arya Gopal, Radhika, G., **Aravindakshan T. V.,** Naicy Thomas and Devi, S. S. 2022. Association of A4304G in exon eleven of BRCA2 gene with canine mammary tumour. *J. Vet. Anim. Sci.* **53** (3): 401-406
48. Hemanth, P., Lali, F.A., Anilkumar, K., **Aravindakshan, T.V**. and Dipu, M.T. 2022. Association of Butyrophilin gene polymorphism (A465G) with milk production traits in Holstein Friesian crossbred cattle of Kerala. *J. Vet. Anim. Sci.* **53** (2): 315-321.

49. Jasmine Rani, K., Dildeep, V., Ally, K., Syam Mohan, K. M., **Aravindakshan, T. V**. and Anil, K. S. 2022. Effect of supplementation of biotin in total mixed ration of dairy cows on rumen fermentation characteristics by in vitro gas production technique. J. Vet. Anim. Sci. 53(2): 285-291.
50. Valsalan, J., Sadan, T., Anilkumar, K and **Aravindakshan T.V**. (2022). Estimation of co-variance components and genetic parameters of fertility and production traits in crossbred cattle of Kerala. *Theriogenology* **181** : 126-130 https://doi.org/10.1016 /j.theriogenology. 2022.01.004
51. Arun, G. Usha, N.P., Ajithkumar, S., **Aravindakshan, T. V**., Jayavardhanan, K. K., Madhavan, U. N. and Bindu, L. 2022. Molecular detection and control of non-regenerative anaemia associated with Babesia gibsoni and Anaplasma platys co-infection in a dog. *J. Vet. Anim. Sci*. 53 (1): 79-84. DOI: https://doi.org/10.51966/jvas.2022.53.1.79-84
52. Arun George., Usha N. P., Ajith Kumar S., **Aravindakshan T.V**., Jayavardhanan K.K., Madhavan Unny N. and Bindu Lakshmanan. 2022. Non-regenerative anaemia and thrombocytopenia in a case of Trypansoma evansi -Babesia gibsoni coinfection in a client owned dog. J. Indian Vet. Assoc. **20** (1): 87-92.
53. Sadan, T., Valsalan, J., Anilkumar, K and **Aravindakshan T.V**. 2022. Polymorphism of bovine STAT5A gene and its association with milk production traits in crossbred cattle of Kerala. Ind. J. Anim Sci. 92 (6) 746-750.
54. Jasmine Rani K., Dildeep V., Ally K., Syam Mohan, K.M., **Aravindakshan T.V**. and Anil K.S. 2022. In Vitro assessment of nutrient digestibility and microbial biomass production of total mixed ration supplemented with different levels of thermostable yeast in crossbred dairy cows. J. Indian Vet. Assoc. **20** (1): 23-32.
55. Saranya, S.K., Marykutty Thomas., R Thirupathy Venkatachalapathy., **Aravindakshan, T.V**. and K Raj. 2022. Design of a tetra-primer amplification refractory mutation system technique for cost effective genotyping of single nucleotide polymorphism of gonadotropin releasing hormone receptor gene in goats. The Pharma Innovation Journal 2022; SP-11(5): 491-494
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18. Courses taught:

1. Under Graduate	SAC 215	Animal Science 1+1	1989
2. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	1997
3. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	1999
4. Post Graduate	SAB 611	Molecular Genetics 2+0	1999
5. Post Graduate	SAB 612	Recombinant DNA Technology 1+0	1999
6. Doctorate	SAB703	Advanced Molecular Genetics 2+0	1999
7. Post Graduate	SAB 610	Microbial Genetics 1+1	2000
8. Doctorate	SAB705	Behavioural and Neurogenetics 2+0	2000
9. Post Graduate	SAB 612	Recombinant DNA Technology 1+0	2000
10 Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2001
11. Doctorate	SAB703	Advanced Molecular Genetics 2+0	2001
12. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2006
13. Post Graduate	SAB 614	Radiation Genetics 2+0	2006
14. Post Graduate	SAB 611	Molecular Genetics 2+0	2006
15. Post Graduate	SAB612	Recombinant DNA Technology 1+0	2006
16. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2007
17. Post Graduate	SAB 611	Molecular Genetics 2+0	2007
18. Post Graduate	SAB615	Immunogenetics 1+1	2007
19. Post Graduate	SAB 614	Radiation Genetics 2+0	2007
20. Post Graduate	SAB612	Recombinant DNA Technology 1+0	2007
21. Post Graduate	SAB 602	Basics in Biotechnology 2+0	2007
22. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2008
23. Post Graduate	SAB 606	Molecular Markers in Livestock improvement 2+1	2008
24. Post Graduate	SAB 608	Recombinant DNA Technology 2+1	2008
25. Doctorate	SAB 713	Molecular Research Techniques 2+1	2007
26. Doctorate	SAB 703	Advanced Molecular Genetics 2+0	2008
27. Doctorate	SAB 717	Molecular Markers in Animal Science 1+0	2008
28. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2009
29. Post Graduate	SAB 608	Recombinant DNA Technology 2+1 2	2009
30. Post Graduate	SAB 602	Basics in Biotechnology 2+0	2009
31. Post Graduate	SAB 606	Molecular markers in Livestock improvement 2+1	2009
32. Doctorate	SAB 713	Molecular Research Techniques 2+1	2009
33. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2010

34. Post Graduate	SAB 608	Recombinant DNA Technology 2+1	2010
35. Doctorate	SAB 713	Molecular Research Techniques 2+1	2010
36. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2011
37. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2011
38. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2011
39. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2012
40. Post Graduate	BSTAT 529	Bioinformatics 2+1	2012
41. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2012
42. Under Graduate	AGB 121	Principles of Genetics and Population Genetics 2+1	2013
43. Post Graduate	BSTAT 529	Bioinformatics 2+1	2013
44. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2013
45. Post Graduate	ABT 601	Basic and Applied Biotechnology 3+0	2013
46. Doctorate	AGB 705	Bioinformatics in Animal Genetics and Breeding	2013
47. Post Graduate	BSTAT 529	Bioinformatics 2+1	2014
48. Post Graduate	ABT 601	Basic and Applied Biotechnology 3+0	2014
49. Post Graduate	ABT 608	Fundamental of Bioinformatics 2+1	2014
50. Post Graduate	ABT 603	Recombinant DNA Technology 1+1	2014
51. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2014
52. Post Graduate	ABT 607	Animal Genomics 2+1	2015
53. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2015
54. Post Graduate	ABT 601	Basic and Applied Biotechnology 3+0	2015
55. Post Graduate	ASC 817	Food Biotechnology 2+0	2015
56. Post Graduate	ABT 603	Recombinant DNA Technology 1+1	2015
57. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2015
58. Under Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2016
59. Post Graduate	ABT 603	Recombinant DNA Technology 1+1	2016
60. Post Graduate	ABT 607	Animal Genomics 2+1	2016
61. Post Graduate	ABT 611	Molecular diagnostics 1+2	2016
62. Post Graduate	ABT 607	Animal Genomics 2+1	2017
63. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2017
64. Post Graduate	ABT 603	Recombinant DNA Technology 1+1	2017
65. Post Graduate	ASC 817	Food Biotechnology 2+0	2017
66. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2017
67. Doctorate	AGB 705	Bioinformatics in Anim.Genetics & Breeding 2+0	2017
68. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2018
69. Post Graduate	ABT 611	Techniques in Mo. Biol. & Genetic engineering 0+3	2018
70. Post Graduate	ABT 609	Animal Genomics 2+1	2018
71. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2018
72. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2019
73.Post Graduate	ABT 602	Fundamentals of cell and molecular biology 3+0	2019
74. Doctorate	BSAG 801	Molecular Biology-I 1+0	2019
75. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2019
76. Post Graduate	ABT 611	Techniques in Mol. Biol.& Genetic engineering0+3	2020
77. Post Graduate	ABT 609	Animal Genomics 2+1	2020
78. Post Graduate	ABT 602	Fundamentals of cell and molecular biology 3+0	2021
79. Post Graduate	AGB 602	Molecular Genetics in Animal Breeding 2+1	2021
80. Doctorate	AGB 701	Recent Advances in Animal Genetics 2+0	2021
81. Post Graduate	ABT 601	Basic and Applied Biotechnology 3+0	2022
82. Post Graduate	ABT 609	Animal Genomics 2+1	2022
83. Post Graduate	AGB 602	Molecular Genetics -I 2+1	2022
84. Doctorate	AGB 701	Molecular Genetics-II 2+0	2022
85. Post Graduate	ABT 601	Basic and Applied Biotechnology 3+0	2023

86. Post Graduate	ABT 611	Molecular diagnostics 0+3	2023
87. Post Graduate	AGB 602	Molecular Genetics-I 2+1	2023
88.Doctorate	AGB 701	Molecular Genetics-II 2+0	2023

19. Trainings attended

1. Exploitation of Biomolecules of Pathogens. 16-6-1997 to 6-7-1997 ICAR summer school G.B.Pant University, Pantnagar-Duration 21 days 1997.
2. Management Strategies for Cost Efficient Livestock Production in Rural Sector. 11th to 31st May 1999 Kerala Agricultural University Summer school 21 days duration 1999
3. Access to Biotechnology Information Tools and sources. 18th to 20th October, 2000 Conducted by the Bioinformatics centre, Central Training, Institute, Kerala Agricultural University, Thirssur, Kerala. Three days duration 2000

4. Bioinformatics: The Hand-Maiden of Future Biology. Feb 25 to March 10, 2001 Hands on residential course of 14 days duration conducted at CCMB, Hyderabad by the Association for the Promotion of DNA Fingerprinting and Associated Technologies (ADNAT), Hyderabad 2001

5. Workshop on Recombinant DNA Technology. 12-10-2002 to 19-10-2002 Conducted by the Centre Facility for Biotechnology Teaching and Research, Madurai. Duration : 8 days 2002

6. Safety Aspects in the Research Applications of Ionising Radiation. March 22-30, 2004 Conducted by the Babha Atomic Research Centre (BARC), Mumbai. Duration 9 days 2004

7. Refresher course in Bioinformatics. 17-01-2006 to 07-02-2006 Conducted by UGC Academic Staff College, Kerala University, Thiruvananthapuram, Duration: 22 days 2006

8. Implications of WTO agreements on Indian Agriculture. 4th to 24th October, 2005. Winter School conducted by NAARM, Hyderabad. Duration: 22 days 2005

9. Developing Winning Research proposals in Agricultural Research. 22-27 April, 2010. Conducted by NAARM, Hyderabad. Duration: 6 days 2010

10. Molecular Techniques in Gene Isolation and Characterization.8-28th November, 2010 ICAR winter school conducted by NRCPB, New Delhi. Duration: 21 days 2010

11. Computational Genome Analysis using ANVAYA. 22-24 June 2011. Conducted by IASRI, New Delhi. Duration: 3 days 2011

12. Academic Leadership for Excellence – Management Development programme. 09-11, August, 2011 Conducted by Indian Institute of Management (IIM), Kozhikkode. Duration: 3 days 2011

13. Advanced Molecular Biology Tools used in Animal Disease Diagnosis and Development of New Generation Vaccines. 3rd to 23rd October 2011 ICAR winter school conducted at School of Biotechnology, GADVASU, Ludhiana. Duration :21 days 2011

14. Information and Communication Technologies for Agricultural Knowledge Management. 3-17, October, 2012. Conducted by NAARM, Hyderabad. Duration: 15 days 2012

15. Training on Bioinformatics tools and techniques for gene and protein analysis. 7-11th January 2013. Conducted by Bioinformatics Centre, Madras Veterinary College, TANUAS. Duration: 5 days 2013

16. Metagenomics-Role of next generation sequencing and bioinformatics. 15-24th October, 2013 Conducted by Department of Animal Biotechnology, College of Veterinary and Animal Husbandry, AAU, Anand. Duration: 10 days 2013

17. Optimizing fertility in the livestock of hill ecosystem applying modern approaches. 22-31 August 2016 ICAR Short course conducted at NRC on Yak, Dirang, A.P. Duration: 10 days 2016

18. Basic and Advanced Proteomics Approaches- “Omics Technologies for Life Sciences” . 23rd Sept. to 4th Oct. 2019 DST sponsored training conducted by IIT, Mumbai. Duration: 12 days 2019

20. Memberships in Professional Societies

1. Life member**, Indian Society for Veterinary Immunology and Biotechnology (ISVIB),** Madras Veterinary College, Chennai.
2. Life member, **Association for the Promotion of DNA fingerprinting and other related Technologies (ADNAT),** CCMB, Hyderabad.
3. Life member, "**The Indian Society for the Study of Animal Reproduction"**
4. Member. "**Association of Food Scientists and Technologists, India (AFST-I)",** Mysore
5. Life member, Society for Biotechnologists (India), Head Quarters: Cochin University of Science and Technology, Kochi.

Mannuthy, (Dr.T.V. Aravindakshan)
27/09/2025.