

VIJAYARANI, K.



Designation and address

Professor and Head & Project Coordinator
Bioinformatics Centre and ARIS Cell
Madras Veterinary College, Chennai – 600 007.

Qualifications

M.Sc., (Biotech)
Ph.D. (Animal Biotechnology)

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Fields(s) of specialization

Majoring field : M.Sc., (Biotech), Ph.D. (Animal Biotechnology)

Specializing field : Rumen microbiology, Molecular biology

Current Projects

- Molecular diagnostics for emerging avian diseases and their immunopathogenesis.
- Manipulation of the rumen Ecosystem through modified rumen microbes
- Encoding novel fibrolytic enzymes using nucleic acid based technologies for the improved utilization of crop residues.
- Development of recombinant fusion protein vaccine for MAP.
- BBSRC partnership award – Collaborative project with IAH, UK.

Completed Projects

Project title	Role in the project	Fund outlay	Funding agency
Molecular characterization of Indian isolates of rabies virus	Co-Principal investigator	Rs.22.00 lakhs	ICAR
Production of recombinant rumen microbes with cellulase genes	Principal investigator	Rs.22.00 lakhs	Department of Biotechnology
Molecular characterization of Ranikhet disease viruses to differentiate vaccine viruses and epizootic viruses	Co-Principal investigator	Rs.21.24 lakhs	ICAR
Molecular characterization of E.coli 0157:H7 from animal and animal products and development of rapid diagnostic assay	Principal investigator	Rs.18.05 lakhs	ICAR
Development of recombinant vaccine for Leptospira	Co-Principal investigator	Rs.30.24 lakhs	ICAR

Recent Research Publications

Selvam, A., **Vijayarani, K.**, and Kumanan, K., 2009. Detection of Mycobacterium avium subsp paratuberculosis in milk of asymptomatic sheep by polymerase chain reaction. Indian J.Anim. Sci.79 (8): 784 – 785

Kumanan, K., **Vijayarani, K.**, McDonough.S, Chen. L, Park.S, Moreira, M.A.S, Akey.B, Huntley.J, Chang,L.F and Y.F.Chang.2009. Evaluation of immune responses and protective efficacy in a goat model following immunization with a cocktail of recombinant antigens and a polyprotein of Mycobacterium avium subsp paratuberculosis. Vaccine. 27 : 123-135

Vijayarani, K., Muthusamy.S, Tirumurugaan.K.G, Sakthivelan.S.M and Kumanan.K. 2010. Pathotyping of a Newcastle disease virus isolated from Peacock (Pavo Satus).Trop.Anim.Health Prod. 42: 415 - 419.

Vijayarani, K., Parthiban, M., Raja, M., and Kumanan, K.,. 2010. Occurrence and characterization of Escherichia coli O157:H7 and other serotypes in goat and sheep meat in India. Indian J.Anim. Sci. 80 : 1019-1021.

Despande Prachi Vijay, K.Vijayarani and K.Kumanan. 2012 . Cloning and expression of fusion protein gene of Newcastle disease virus (NDV) . Indian J.Anim. Sci.82 : 132-134

Vijayarani, K., K. Kumanan and R.Sridhar. 2012. Isolation and characterization of Newcastle disease virus from Fancy fantam bird. Indian Vet.J 89: 09-11

Saravana Perumal, **K. Vijayarani**, K. Kumanan and V.Ramaswamy. 2012. Cloning and expression of Apgc gene of Mycobacterium avium subsp. Paratuberculosis. Indian J.Anim. Sci. 82 : 348 – 350

Vijayarani, K., B. Abirami, K. Kumanan and C. Balachandran. 2012. Genotyping analysis of Mycoplasma gallispectum isolated from a macaw. Indian Vet. J . 89 : 133-135

Chandrasekhariah, M., A.Thulasi, **K.Vijayarani**, D.P. Kumar, S.S.Santhosh, C. Palanivel, V.L.Jose, and K.T Sampath. 2012 Expression and Biochemical characterization of two novel feruloyl esterases derived from fecal samples of Rusa Unicolor and Equus burcheli.. Gene 500. 134- 139

Honours & Awards

- Awarded "TAMIL NADU SCIENTISTS AWARD" for the year 1994-95 in the faculty of VETERINARY SCIENCES for the work on Newcastle disease virus by the TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY.
- Tamil Nadu Women Scientists Award for the work on Rumen Microbiology for the year 1999 by the TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY.
- Awarded "International Association for paratuberculosis Helping hand award" for attending 9th International Conference on Paratuberculosis at Tsukuba, Tokyo, Japan, 29.10.2007 to 02.11.2007.