
BIODATA

1. Name : **Dr. P. KANNAN**
2. Designation Scientist 'D'
3. Date of Birth 17.05.1975
4. Discipline Immunology
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6. Educational Qualifications

Educational Qualifications			
DEGREE	INSTITUTION AND LOCATION	YEAR(s)	FIELD OF STUDY
B.V.Sc	Madras Veterinary College	1992-98	Veterinary Science
M.V.Sc	Indian Veterinary Research Institute, Izatnagar, U.P	1998-2000	Veterinary Bacteriology
PhD	Indian Veterinary Research Institute, Izatnagar, U.P	2000-2004	Veterinary Bacteriology

7. Research experience

Institution	Position	From	To
National Institute for Research In Tuberculosis	Scientist 'B'	2004	2011
National Institute for Research In Tuberculosis	Scientist 'C'	2011	2015
National Institute for Research In Tuberculosis	Scientist 'D'	2015	Till Date

8. Membership/Fellowship of Professional Societies/Associations :

- I) Life member of Indian Veterinary Council of India.
- II) Member of Indian Society of Veterinary Immunology and bio-technology
- III) Member CPCSEA

9. Awards:

1. Awarded Indian council of Agricultural Research (ICAR) Junior Research Fellow for M.V.Sc degree programme (1998)
2. Awarded Indian Veterinary Research Institute (IVRI) Senior Research Fellow for PhD degree programme (2000).
3. Travel Award from Hebrew University, Israel and to attend the workshop on Oral BCG vaccines to Animal at Jerusalem in 2018
4. Travel Award from CDC to attend the World TB Conference at The Hague, Netherlands. Abstract has been selected for Oral Presentation

10 . Personal Statement:

I have a background in Veterinary Microbiology with more than 15 years of working experience in the broad area of Molecular biology and immunology of Infectious of diseases and have undertaken a number of research studies to understand the gene regulation in Mycobacterium sp. Earlier in my carrier I established myself as an expert in testing virulence of *Mycobacterium tuberculosis* in Animal models. I have collaborated with researchers and evaluated recombinant BCG as a improved vaccine candidate for tuberculosis. I have also evaluated virulence of several gene knockout mutants of Mtb in animal model of infection. I moved my research focus on understanding the gene regulation and protein transport in Mtb. This has remained the focus of my laboratory for past several years. Recently, I have initiated Zoonotic and Reverse Zoonotic transmission of Mycobacterium Sp at human animal interface. I have had a number of collaborations with researchers from within and outside the country and have successfully administered several projects funded by National agencies. In addition to my research, I have involved in lot of administrative activities at NIRT. I am a registered guide for Ph.D. program with the University of Madras and possess the expertise, training and motivation necessary to successfully carry out high quality research.

11. Publications (2014-18):

1. Balaji S*, **Kannan P***, Arunkumar V, Narayanan, S. Expression, Purification and functional Characterization of AmiA of acetamidase operon of *M.smegmatis*. Microbiological Research, 2014; 169, 873-880(* **These Authors contributed equally to this study**) (Impact factor-2.561)
2. Sujatha Jose, Savarimuthu Ignacimuthu, M. Ramakrishnan, Kavitha Srinivasan, George Thomas, **P. Kannan**, Narayanan S. Expression of GroES TB antigen in tobacco and potato. Plant Cell Tiss Organ Cult, 2014; 119(1):157-169 (Impact factor-2.612)
3. Arunkumar V, Sameer Hassan, **Kannan P**, Narayanan S. *In Silico* and experimental validation of Protein- Protein interactions between PknI and Rv2159 from *M.tuberculosis*. J of Mol Graphics and Modelling, 2015; 62, 283-293 (Impact factor- 2.223)
4. Sakthi S, **Kannan P**, Gupta UD, Gupta P, Narayanan S. Lipoprotein LpqS deficient *M.tuberculosis* mutant is attenuated for virulence in *in vivo* and shows protective efficacy better than BCG in guinea pigs. Vaccine 2016 Feb 3; 34(6):735-43 (Impact factor- 3.624)
5. Venkatesan A, **Kannan P**, Sharma D, Bisht D and Narayanan S (2016) Functional Characterization of PknI-Rv2159c Interaction in Redox Homeostasis of Mycobacterium tuberculosis. Front. Microbiol. 7:1654. doi: 10.3389/fmicb.2016.01654 (Impact factor -4.165)
6. Manson AL, Abeel T, Galagan , Sundaramurthi , Salazar A, Gehrman T, Shanmugam SK, **Kannan P**, Narayanan S, Swaminathan S, Earl AM. Mycobacterium tuberculosis Whole Genome Sequences From Southern India Suggest Novel resistance Mechanisms and the Need for Region-Specific Diagnostics. Clinical Infectious Diseases. 2017; 64(11):1494-1501. doi:10.1093/cid/cix169.(Impact factor 9.1)
7. N. Sweetline Anne., B.S.M. Ronald, T.M.A. Senthil Kumar, **P. Kannan**, A. Thangavelu, Molecular identification of Mycobacterium tuberculosis in cattle, Veterinary Microbiology, Volume 198, 2017, Pages 81-87, (impact factor 2.5)
8. Venkatesan A, **Kannan P**, Sharma D, Bisht D and Narayanan S (2018). Characterization of FtsY, its interaction with Ffh, and proteomic identification of their potential substrates in Mycobacterium tuberculosis. Canadian Journal of Microbiology, 2018, 64:243-251(impact factor 1.2)

9. Manson AL, Abeel T, Galagan J, Sundaramurthi JC, Shanmugam SK, Kannan P, Narayanan S, Swaminathan S, Earl AM. Reply to Lee and Howden. Clin Infect Dis. 2018 Jan 6; 66(1):160-161 .(Impact factor 9.1)
10. Venkatesan A, **Kannan P** and Narayanan S (2017). Molecular characterization of AmiC, a positive regulator in acetamidase operon of Mycobacterium smegmatis. Cell Stress Chaperones. Cell Stress Chaperones. 2018 Jul;23(4):539-550. (impact factor 2.5)
11. K. Arunmozhivarman, R. Radhika, **P. Kannan**, V. Maroudam, K. Vijayalakshmi, P. Valentina Claudet and G. Dhinakar Raj (2018). Isolation and Identification of M. tuberculosis from Sheep Tissue Samples and Sero-Diagnosis Study in an Organized Sheep Farm. Int.J.Curr.Microbiol.App.Sci (2018) 7(1): 2740-2744.
12. F. Mukherjee, V.S. Bahekar, S.Y. Pasha, **P. Kannan**, A. Prasad, S.K. Rana, A. Kanani, G.K.Sharma, D. Premalatha & V.A. Srinivasan. Isolation and molecular epidemiology of Mycobacterium tuberculosis in domestic and wildlife ruminants from three states in India and its zoonotic significance. OIE Scientific and Technical Review. Volume 37 (3), 2018(Accepted Paper) (impact factor 1.5)

9. Financial support received (from 2016):

A) From ICMR: One B) From other Sources-2

Project title	Funding agency	Amount [Rs in lakhs]	Project period	Status
Chief Principal Investigator				
Studies on epigenome wide alterations in alveolar macrophages during Mycobacterium tuberculosis infections in guinea pig pulmonary tuberculosis model.	DST-SERB	37.20 lakhs	4 years 2017-21	ongoing
Whole Genome Sequencing and Transcriptome Analysis of	DST-SERB	19.2 lakhs	2 years 2017-2019	ongoing

Mycobacterium tuberculosis Clinical Isolates from Bovine and Human Origin				
A multicenter study from a country where intestinal tuberculosis as well as Johne's Disease is endemic	ICMR - DHR	37.0 lakhs	3 years 2016- 2019	ongoing

10. Guideship:

1. Presently guiding two PhD students and One Post Doctoral fellow.
2. Provided training to several Post graduate and Medical college students in Molecular biology