



**Dr. NATARAJASEENIVASAN KALIMUTHUSAMY**  
**PROFESSOR**

**Contact**

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**Academic Qualifications: M.Sc., Ph.D.,**

**Teaching Experience: 19 Years**

**Research Experience: 26 Years**

**Additional Responsibilities**

1. Member Secretary of Institution Bio Safety Committee (IBSC)
2. Member Secretary of Institution Ethical Committee (IEC)
3. Passing Board Member, School of Life Sciences and Department of Microbiology, Bharathidasan University, India.
4. Purchase Committee Member, Department of Microbiology, Bharathidasan University
5. DRC member, Department of Microbiology, Bharathidasan University, India.
6. Selection Committee for the appointment of Assistant Professor, Urumu Dhanalakshmi College, Kattur, India.

7. Selection Committee constituted for the selection of various non-teaching positions, Thiruvalluvar University, Vellore, India.
8. Committee Meeting for Career Assessment Scheme for faculty promotion, Bharathiyar University, Coimbatore, India.
9. Subject Expert to grant permission towards performing research, Central Agricultural Research Institute, Port Blair, Andaman and Nicobar Islands, India.
10. Expert Committee towards the utilization of the grant sanctioned under the UGC XI Plan, Bharathidasan University, Tiruchirappalli, India.
11. Committee Member to inviting renowned Professors of Foreign Universities to the Universities of Tamil Nadu, Bharathidasan University, Tiruchirappalli, India.
12. Camp officer for UG (B.Lit., B.Ed.), PG & Diploma / Certificate courses Central Valuation, Bharathidasan University, Tiruchirappalli, India.
13. University Graduation Day Committee Member, Bharathidasan University, Tiruchirappalli, India.
14. Selection Committee meeting for the Faculty incentive award, Kendriya Vidyalaya Sangathan, Tiruchirappalli, India.

### Areas of Research

- ❖ Medical microbiology and Infectious disease biology
- ❖ Ca<sup>2+</sup> mediated signalling pathways and the role of mitochondrial Ca<sup>2+</sup> uniporter (MCU) during infection
- ❖ Identification of mitochondrial targeting proteins and its impact on bioenergetics
- ❖ Perseverance of macrophage migration inhibitory factor (MIF) during pulmonary leptospirosis
- ❖ Identification of microRNA biomarkers for early diagnosis of leptospirosis
- ❖ Role of HIV tat on astrocytes and its impact on neurodegeneration

### Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	PDF	02	00
	Ph.D.,	14	05
	M.Phil	22	00
Project	PG	25	03

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
97	08	19	02	07

<b>Cumulative Impact Factor (as per JCR) :</b>	<b>204.77</b>
<b>H-index</b>	<b>: 22</b>
<b>i10 index</b>	<b>: 48</b>
<b>Total Citations</b>	<b>: 1822</b>

## Funded Research Projects

### Completed Projects (Principal Investigator)

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DBT	2003	2006	Analysis of OmpL1 and LipL41 genes among <i>Leptospira interrogans</i> Serovars & development of systems for the expression of recombinant OmpL1 and LipL41 of <i>L. autumnalis</i> for their immuno protective potential	29.93
2	DST	2006	2009	Combinatorial analysis of Recombinant LipL32: Effective detection of Leptospire specific antibodies by Enzyme Linked Immunosorbent Assay (ELISA)	10.32
3	UGC	2007	2010	Prevalence and Molecular Characterization of Multidrug-resistant (MDR) Salmonellae in Tiruchirappalli District, Tamilnadu	9.92
4	ICMR	2009	2012	Investigation of risk factors and the prevalence of leptospirosis in a rural and urban community of Tiruchirappalli District, Tamilnadu	14.0
5	ICMR	2009	2012	Prevalence of high-risk human papillomavirus (HR-HPV) types in healthy adolescents and women with cervical carcinoma in Tamilnadu	29.0

6	DBT	2009	2012	Development of a monoclonal antibody based dot-blot ELISA for the detection of leptospiral antigens in human clinical samples	26.94
7	DBT	2010	2013	Construction of Genomic Library of <i>Leptospira interrogans</i> serovar Autumnalis for the identification of immunogenic proteins and development of DNA vaccine	45.65
8	DST	2011	2014	Evolution of RuBisCo hypermorphs for enhanced CO <sub>2</sub> sequestration and its utilization for polymer production	69.0
9	DST	2011	2014	Identification of molecular markers to establish the transmission dynamics of leptospirosis in rural and urban environments	46.37
15	ICMR	2013	2016	Potential antileptospiral drug from marine actinomycetes	29.00

#### Completed Projects (Co-Investigator)

S. No.	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DST	2007	2010	Molecular Characterization and transcriptional Regulation of the vitellogenin receptor from the cotton pest, <i>Spodoptera litura</i>	25.53
2	DST	2011	2013	Towards to clarify the appearance of the cataract-the study of new method of protein-protein interaction in the lens	4.46

#### Ongoing Projects (Principal Investigator)

S. No.	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	UGC	2015	2018	Differential expression and characterization of leptospiral proteins associated with pathogenesis	15.40
2	DBT	2016	2019	Construction of genomic library of <i>Edwardsiella tarda</i> and identification of <i>in vivo</i> expressed proteins for its immunoprotective potential in Indian common carp ( <i>L. rohita</i> )	52.74
3	DBT	2017	2020	Sero-surveillance of <i>Leptospira</i> infections in animals of Northeastern region of India	19.63

4	ICMR	2017	2020	Perseverance of Macrophage Migration Inhibitory Factor (MIF) in pulmonary leptospirosis	35.97
5	ICMR	2017	2020	Identification of microRNA biomarkers for early diagnosis of leptospirosis	39.27

#### Ongoing Projects (Co-Investigator)

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DBT	2017	2020	Designing and characterization of high antimicrobial peptide expression partner for the production of epinecidin-1 and its variant with insightful evaluation against fungal fungal pathogen causing eye diseases	28.59

#### Patents

**Natarajaseenivasan K**, Shanmughapriya S, Aishwarya KVL, Kanagavel M. B and T cell specific peptides of leptospiral protein LK90 for the diagnosis of leptospirosis (4438/CHE/2015). Ministry of Commerce and Industry, Department of Industrial Policy and Promotion, Govt. of India.

#### Distinctive Achievements / Awards

- Travel award** (2018) from FASEB to attend the FASEB Science Research Conference on Calcium and Cell Function, Tahoe City, California.
- Travel award** (2014) from Indian Council of Medical Research (ICMR), Department of Science and Technology (DST), Govt. of India to attend Interscience Conference on Antimicrobial Agents and Chemotherapy (ICCAC) ASM held at Washington DC, USA.
- Long Term Fellowship** (2012) from Department of Health Research (DHR), Indian Council of Medical Research (ICMR), Govt. of India.
- DBT Associateship for Specialized Training of Young Scientists** (2008) in Niche areas of Biotechnology, Department of Biotechnology, Govt. of India.
- Fast Track Proposals for Young Scientists Scheme** (2007) Science and Engineering Research Board, Department of Science and Technology (DST), Govt. of India.
- IAS-Summer Research Fellowship** (2002) from Indian Academy of Sciences, Bangalore.
- Research Fellowship** (1992) from Tamil Nadu Dr. MGR Medical University for PhD program.

#### AWARDS THROUGH TRAINEES

8. **DST-INSPIRE Faculty Award** (2017) to Dr. Shanmughapriya Santhanam from Science and Engineering Research Board, Department of Science and Technology (DST), Govt. of India – MENTOR
9. **CSIR-Senior Research Fellowship** to Shanmughapriya Santhanam (2011), Kanagavel Murugesan (2012), Raja Veerapandian (2013), – MENTOR
10. **UGC Kothari Postdoctoral Fellowship** (2011) to Dr. Thenmozhi Balachandar – MENTOR
11. **SERB-National Postdoctoral Fellowship** (2016) to Dr. Muthu Prasad from the Science and Engineering Research Board, Department of Science and Technology (DST), Govt. of India – MENTOR
12. **IAS- Summer Research Fellowship** to Abinaya (2011), Asif Mohammed (2012), Yesu Balan (2013), Anil Kiran (2014), Selva Mani and Nancy Catherine (2015), Veena Chavan and Dhevi (2016), Karthick G Shanbhag and Soumiya Sankari (2017) from Indian Academy of Sciences, Bangalore – MENTOR
13. **TNSCST-Student Research Grant** to Kalaiselvi (2001), V. Raja (2009), S. Nagalakshmi, S. Vanaroja and V. Karthick (2010), M. Arunkumar (2011) and S. Seethalakshmi (2017) – (Best Presentation award) - MENTOR

### Events organized in leading Roles

Number of Seminars / Conferences / Workshops / Events organized: 4

1. **Convener:** Workshop on **Hands on training for the diagnosis of Infectious diseases by advanced molecular biological methods using Leptospirosis as a model system held at Bharathidasan University, Tiruchirappalli** (2010).
2. **Organizing Secretary:** TNSCST sponsored State Level Orientation Workshop for PG Biology School Teachers on **'Let us Observe and Learn'** held at Bharathidasan University, Tiruchirappalli (2012).
3. **Organizing Secretary:** Workshop on **Molecular Cloning, Expression and Purification Techniques** held at Bharathidasan University, Tiruchirappalli, India (2015).
4. **Expert:** WHO sponsored workshop and cross sectoral meeting **zoonoses laboratory diagnosis, IDENTIFY 2014**, Institute for Vector and Reservoir Research and Development, Indonesia (2014).

### Events Participated

**Conferences / Seminars / Workshops: 33**

#### Poster Presentations

1. Prasad M and **Natarajaseenivasan K\***. Identification of novel virulence factors of *Leptospira interrogans* for development of good efficacy vaccine for leptospirosis- an immunoinformatics approach. 2<sup>nd</sup> National Post Doc Symposium (NPDS), Centre for Cellular and Molecular Biology (CCMB), Hyderabad, India. (October, 2018) (*Received Travel Grant*) – MENTOR

2. **Natarajaseenivasan K**, Cotto B, Shanmughapriya S, Lombardi AA, Datta PK, Madesh M, Elrod JW, Khalili K, Langford D. Astrocytic metabolic switch is a novel etiology for Cocaine and HIV-1 Tat-mediated neurotoxicity. 2018 FASEB Science Research Conference on Calcium and Cell Function, Tahoe City, California (June 2018) (*Obtained FASEB Travel Award*).
3. Shanmughapriya S, Nemani N, Carvalho E, **Natarajaseenivasan K**, Slovik K, Yang W, Madesh M. Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes with Remodeled Mitochondrial Ca<sup>2+</sup> Transients Develop Adult Cardiac Phenotype. 2018 FASEB Science Research Conference on Calcium and Cell Function, Tahoe City, California (June, 2018).
4. Prasad M. Customized Training on 'Principles of Downstream Techniques and Biacore' jointly organized by Centre for Cellular and Molecular Platforms (C-CAMP) and GE Healthcare, (April, 2018).
5. Cotto B, **Natarajaseenivasan K**, Ferrero K, Langford D. Effects of Cocaine and HIV on Astrocyte Cholesterol Synthesis: Implications for HIV-Associated Neurocognitive Disorders in Cocaine User Patients. Abstract for poster presentation. 15th International Symposium on NeuroVirology and 24<sup>th</sup> Scientific Conference of the Society on Neuroimmune Pharmacology. Chicago, Illinois (April, 2018).
6. Cotto B, **Natarajaseenivasan K**, Ferrero K, Langford D. Effects of Cocaine and HIV on Astrocyte Cholesterol Synthesis: Implications for HIV-Associated Neurocognitive Disorders in Cocaine User Patients. Abstract for poster presentation. 3rd Symposium on Neurovirology and Neuroimmunology, University of Pennsylvania, Philadelphia, Pennsylvania (September, 2017).
7. Cotto B, **Natarajaseenivasan K**, Ferrero K, Langford D. Effects of Cocaine and HIV on Astrocyte Cholesterol Synthesis: Implications for HIV-Associated Neurocognitive Disorders in Cocaine User Patients. Abstract for poster presentation. Fifth Annual Temple Translational Science Symposium, Temple University School of Medicine, Philadelphia, Pennsylvania (September, 2017).
8. Cotto B, **Natarajaseenivasan K**, Ferrero K, Langford D. Effects of Cocaine and HIV on Astrocyte Cholesterol Synthesis: Implications for HIV-Associated Neurocognitive Disorders in Cocaine User Patients. International Symposium on Molecular Medicine & Infectious Disease. Drexel University School of Medicine, Philadelphia, Pennsylvania (October, 2017).
9. Prasad M, Chellapandi P, **Natarajaseenivasan K**. Identification of pathogenesis associated Leptospiral Outer Membrane Proteins (OMPs) as Vaccine Candidates for Leptospirosis. 9th National Symposium cum workshop on Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" at Alagappa University, Karaikudi, (February, 2017).
10. Sivasankari K, Shanmughapriya S, and **Natarajaseenivasan K**. Impairment of MRSA biofilm by active principles of vulvo-vaginal commensal Actinomycetes strains. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) (*Best Poster Presentation Award – I Prize*)

11. Raja V, Sobana S, Shanmughapriya S, and **Natarajaseenivasan K**. Real time qPCR for detection of leptospiral recA and fliD in acute phase human clinical samples. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – *MENTOR*
12. Akino Mercy C and **Natarajaseenivasan K**. Differential expression of Leptospiral outer membrane proteins (OMPs) and their diagnostic potential by enzyme linked immunosorbant assay (ELISA). International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – *MENTOR*
13. Asha Parveen SM and **Natarajaseenivasan K**. Proteome analysis of low passaged *Leptospira interrogans* for *in vivo* expressed proteins. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – *MENTOR*
14. Jageetha R, Raja V and **Natarajaseenivasan K**. Nano-Gold blot immunoassay for the rapid diagnosis of leptospirosis with silver enhancer. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – *MENTOR*
15. Ganesh M and **Natarajaseenivasan K**. Poly (3-hydroxybutyrate) production by recombinant Escherichia coli strain JM 109 using crude glycerol as sole carbon source. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – *MENTOR*
16. Sathiamoorthi T and **Natarajaseenivasan K**. Prevalence of multi drug resistance *Campylobacter jejuni* from raw chicken meat in Erode district. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – *MENTOR*
17. Raja V, Shanmughapriya S, and **Natarajaseenivasan K**. *In Vivo* -expressed proteins of virulent *Leptospira interrogans* serovar Autumnalis N2 elicit strong IgM responses of value in conclusive diagnosis. 13th FIMSA Advanced Immunology Course, PGIMER, Chandigarh (March, 2016) (*Obtained Travel Grant from UGC unassigned grant*) - *MENTOR*
18. **Natarajaseenivasan K**, Shanmughapriya S, Lency A and Sornakumari H. Impairment of candida biofilm by Actinomycetes secreted factors and its therapeutic role in vulvo-vaginal candidiasis. ICAAC Washington DC (September, 2014) (*Obtained travel grant from ICMR, India*)
19. Abdul K, Ganesh M and **Natarajaseenivasan K**. Antioxidative and exopolysaccharide producing probiotics from fermented fish of Manipur. National conference on New opportunities and challenges in microbial research. Bharathidasan University, Tiruchirappalli (September, 2013) – *MENTOR*
20. Sivasankari K and **Natarajaseenivasan K**. Asymptomatic renal colonization of *Leptospira* among rural population of Tiruchirappalli district, Tamil Nadu, India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013) – *MENTOR*
21. Vanithamani S, Kanagavel M, Raja V, and **Natarajaseenivasan K**. Evaluation of Lipopolysaccharide (LPS) antigen based serodiagnosis of Leptospirosis in clinical sample. India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013) – *MENTOR*



22. Enthumathi K, Vinodhini K, Shanmughapriya S and **Natarajaseenivasan K**. Prevalence of HPV infection among women with normal cervical cytology from three different districts of Tiruchirappalli, Tamil Nadu, India. India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013) – *MENTOR*
23. Vinodhini K, Shanmughapriya S, Sumathy S, Balakrishnan K, Das B C and **Natarajaseenivasan K**. Human papillomavirus, cytomegalovirus and *Chlamydia trachomatis* infections in cervical cancer patients from Tiruchirappalli, Tamil Nadu. India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013)– *MENTOR*
24. Arun Kumar M and **Natarajaseenivasan K**. Carriage status of reservoir animals for pathogenic *Leptospira* in Tiruchirappalli. India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013) – *MENTOR*
25. Ganesh G and **Natarajaseenivasan K**. Invitro evolution and genetic selection of rubisco hypermorphs for *Synechococcus elongates* strain BDU 001. India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013) – *MENTOR*
26. Kanagavel M, Vanithamani S and **Natarajaseenivasan K**. Recombinant LIG A based ELISA and Dot-blot assay for the sero diagnosis of Leptospirosis from human clinical samples. India. National Seminar on Cutting Edge Microbial Research & Challenges (February, 2013) – *MENTOR*

### **Platform Presentations**

1. **Natarajaseenivasan K**, Cotto B, Shanmughapriya S, Lombardi AA, Datta PK, Madesh M, Elrod JW, Khalili K, Langford D. Astrocytic metabolic switch is a novel etiology for Cocaine and HIV-1 Tat-mediated neurotoxicity. 15th International Symposium on NeuroVirology and 2018 Conference on HIV in the Central Nervous System, Chicago, Illinois (April, 2018).
2. Cotto B, **Natarajaseenivasan K**, Ferrero K, Langford D. Cocaine and HIV Tat Alter Astrocyte Bioenergetics and Essential Neuronal Substrate Supply: Implications for HAND in Cocaine Users. Abstract for poster presentation. American Society of Neurochemistry. Riverside, California (March 2018).
3. Raja V, Shanmughapriya S, and **Natarajaseenivasan K**. Identification of in vivo - expressed proteins of virulent *Leptospira* using genomic library screening for accurate diagnosis. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) (*Best oral presentation award – II Prize*) - MENTOR.
4. Prabhakaran S G and **Natarajaseenivasan K**. Development and evaluation of rapid latex agglutination test (Lepto-LAT) for diagnosis of Leptospirosis. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – MENTOR
5. Abdul K and **Natarajaseenivasan K**. Isolation of exopolysaccharide producing *Enterococcus faecium* MML 4 from sorghium and their antioxidant properties.

International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (April, 2016) – MENTOR

6. Shanmughapriya S, **Natarajaseenivasan K** and Vasanthi N. Genetic and Molecular biomarkers for the early detection of ovarian carcinoma. National Conference on Biotechnology, Bioinformatics and Bioengineering. Society for Applied Biotechnology, India (December, 2010) – MENTOR
7. Shanmughapriya S, **Natarajaseenivasan K** and Vasanthi N. Blockage of cardiolipin synthesis by arsenic and its brunt on carbon dioxide sequestration-A hypothetical and bioinformatical approach. International Conference on Climate Change and Bioresource (ICCCB-2010), Bharathidasan University, Tiruchirappalli (February, 2010).

### **Training Programs**

1. **Training in Molecular Biology Techniques:** School of Life Science, Bharathidasan University, India; Department of Genetic Engineering, SRM University, India; Department of Veterinary Microbiology, College of Veterinary Science, Assam, India; Department of Industrial Biotechnology, Government College of Technology, Coimbatore, India; Regional Medical Research Centre, Port Blair, India; Amity Institute of Virology and Immunology, Amity University, Noida, India; Department of Chemistry, National Institute of Technology, Tiruchirappalli, India; Department of Biochemistry, K.A.P.V. Govt. Medical College, Tiruchirappalli, India; Department of Microbiology, SVIMS, Tirupathi, India; Department of Biotechnology, Tamil Nadu Agricultural University, Coimbatore, India; Bharathidasan college of Engineering and Technology, Tiruchirappalli, India; Department of Microbiology, Vivekananda College of Arts & Sciences for Women, Tiruchengode, India; Department of Microbiology, Periyar University, India; CAS in Crystallography & Biophysics, University of Madras, Chennai, India; Institute of Vector Control and Zoonoses, Hosur, India; Department of Microbiology, College of Veterinary Science, Tirupathi, India.
2. **Sharing of Human Cell Lines:** Department of Pharmaceutical Technology, Anna University, India.
3. **Sharing of *Leptospira* (bacteria) Culture:** Department of Microbiology, Chennai Medical College Hospital and Research Centre, SRM group, Tiruchirappalli; Amity Institute of Virology and Immunology, Noida; Gluck Equine Research Centre, University of Kentucky, KY, USA; Post Graduate & Research Department of Microbiology- Dr. N. G. P. Arts & Science College, Coimbatore; Department of Experimental Medicine, Tamil Nadu Dr. M.G.R Medical University, Chennai, India.
4. **Sharing of Recombinant Proteins:** Gluck Equine Research Centre, Department of Veterinary Science, University of Kentucky, KY, USA; Group de recherche 'immunopathologies et maladies infectieuses' (GRI), Universite de la Reunion, REUNION ISLAND.
5. **Sharing of Leptospiral DNA:** Department of Genetic Engineering, SRM University.

6. **Training** on Immunology course (13<sup>th</sup> FIMSA Advanced) PGIMER, Chandigarh, India (March, 2016)
7. **Training** on Expression analysis of various leptospiral genes, vaccine potential of leptospiral proteins, analysis of B cell and T cell mediated epitopes in the form of peptides, Gluck Equine Research Center, University of Kentucky, Lexington, USA (2012 –2013).
8. **Training** on 'RNAi mediated gene silencing using Confocal imaging system' Department of Biochemistry, Temple University, Philadelphia, Penselveniya, USA (2014).
9. **Training** on Radiological Safety Aspects in the Research Application of Ionising Radiation from Bhabha Atomic Research Centre (Government of India), Mumbai (May, 2012).
10. **Training** on Real-Time PCR, MALDI-TOF, 2D and Genomic DNA Library Construction, Gluck Equine Research Center, University of Kentucky, Lexington, USA (2008 –2009).
11. **Lecture Workshop** on Molecular Ecology, Indian Institute of Science, Bangalore (March, 2007).
12. **Training** on DNA sequencing (Applied Biosystems) at Tuberculosis Research Centre, (ICMR), Chennai (December, 2003).
13. **Training** on Basic Molecular Biological Techniques, Institute of Cytology and Preventive Oncology (ICMR), Maulana Azad Medical College Campus, New Delhi (June-July, 2002).

### Overseas Exposure / Visits

1. DBT-Overseas Associateship (2008-2009) University of Kentucky, Lexington, USA
2. ICMR-DHR Fellow (2012-2013) University of Kentucky, Lexington, USA
3. Visiting Scientist (2016-2018) Temple University, Philadelphia, USA

### Membership

#### Professional Bodies

1. 1999 – Present: International Leptospirosis Society
2. 2002 – Present: Indian Leptospirosis Society
3. 2009 – Present: American Society for Microbiology (ASM)
4. 2009 – Present: Indian Association of Medical Microbiologist (IAMM)
5. 2010 – Present: Indian Association for Radiation Protection (IARP)
6. 2011 – Present: International Society of Microbial Ecology
7. 2015 – Present: American Society for Tropical Medicine and Hygiene
8. 2017 – Present: American Heart Association (AHA)

## Editorial Board

2015 – Present: Academic Editor for **PLOS One**

## Advisory Board

- 2018–2021 **Member**, Board of Studies, BS and MS in Biotechnology, MS University, Tirunelveli, India
- 2015–2018 **Chairman**, Board of Studies, BS and MS in Microbiology, Bharathidasan University, India
- 2015–Present **Member**, Board of Studies in Biochemistry, Department of Biochemistry, Bharathidasan University, India
- 2015–Present **Member Secretary**, Institutional Biosafety Committee, Bharathidasan University, India
- 2014-2016 **University Representative** - Board of Studies in Microbiology, National College (Autonomous), India.
- 2014–Present **Member**, Board of Studies in Microbiology and Animal Health and Management, Alagappa University, India
- 2014 –Present **Project Review Committee Member**, Indian Council of Medical Research (ICMR), India
- 2012 – 2015 **Radiological Safety Officer Level-I**, Bharathidasan University, India
- 2011 – 2014 **Chairman**, Board of Studies, Department of Microbiology, Bharathidasan University, India
- 2007–Present **Member Secretary**, Institutional Ethical Committee (IEC) for human research, Bharathidasan University, India
- 2006 – 2008 **Member**, Board of Studies in Microbiology, Alagappa University, India
- 2005 – 2008 **Member**, Board of Studies in Microbiology (UG & PG) Bharathidasan University, India.

## Academic Bodies

1. **Senate Member**, Bharathidasan University (23-09-2011 to 22-09-2014)
2. **Head**, Department of Microbiology, Bharathidasan University (2011 to 2016)
3. **Chairman, Board of Studies**, Dept. of Microbiology, Bharathidasan University (211-Till date)
4. **Member, Board of Studies**, Department of Biotechnology, Alagappa University (2007-2010), Department of Microbiology, University of Mysore (2013-2017).

## Resource persons in various capacities

### Number of Invited / Special Lectures delivered: 18

1. **Resource person** - CME & Hands on Training in PCR technique, Department of Biochemistry, KAPV Government Medical College, Tiruchirappalli, India (2015).
2. **Resource Person** – WHO sponsored Hands-on Training Workshop on Laboratory Methods in Leptospirosis and mapping of diagnostic laboratories for Zoonoses, Port Blair, Andaman and Nicobar Islands, India (2013).
3. Invited talk organized by Madras Veterinary College, Chennai-7 on “Diagnostic Advance in Leptospirosis” (2016).

4. Invited Talk organized by Bharathidasan University, Tiruchirappalli on “Infectious disease” (2016).
5. Invited Talk on ‘Newer diagnostic modalities of Leptospirosis’. International Conference on Recent Trends in Biosciences (ICRTB 2016), Alagappa University, Karaikudi (2016).
6. Invited Talk organized by Karpagam Academy of Higher Education, Coimbatore on “Infectious Disease” (2016).
7. Invited Talk organized by Madurai Kamaraj University, Madurai on “Infectious disease” (2016).
8. Invited Talk organized by Periyar University, Salem on “Recent Research modalities associated with the diagnosis of leptospirosis” (2016).
9. Invited Talk organized by ASTRA, BDU College, Perambalur on “Zoonotic Diseases” (2015).
10. Invited Talk organized by Hindusthan College of Arts and sciences, Coimbatore on “Emerging trends in bioprospecting” (2015).
11. Invited Talk organized by M.R. Government College of Arts and Sciences, Mannargudi on “Contemporary Molecular Techniques & their Potential Application in Current Applied Biology Research” (2015).
12. Invited Talk organized by Muthayammal College, Rasipuram on “Recent advances in biological Sciences towards Sustainable development” (2015).
13. Invited Talk organized by M.R. Government College of Arts and sciences, Mannargudi on “Recent transformation for the diagnosis of leptospirosis” (2015).
14. Invited Talk organized by Bharathiyar University, Coimbatore, “Recent advances in Leptospiral Research” (2014).
15. Invited Talk organized by Bharathidasan University, Tiruchirappalli on “Recent Advances in Leptospiral Research” (2014).
16. Invited Talk organized by Manonmanium Sundaranar University, Tirunelveli. “Computational Approaches in Microbial Biotechnology” (2014).
17. Invited Talk organized by Periyar University Salem on “Molecular Biological Approach of Leptospirosis” (2014).
18. Invited Talk organized by Bharathidasan University Tiruchirappalli on “QUEST 2013, Hands on training in Basic Molecular Biological Techniques” (2013).

## Others

1. Articles published in Newspapers / Magazines: 21
2. Products developed: 01
3. No. of PhD Thesis evaluated: 18
4. No. of PhD Public Viva Voce Examination conducted: 10
5. Sequences submitted in GenBank: 130

1. Raja V, Prasad M, Bothammal P, Saranya P, Sumaiya K, Akino Mercy CS, **Natarajaseenivasan K\*** (2018) Silver enhanced nano-gold dot blot immunoassay for leptospirosis. *J Microbiological Methods* 156, 20-22 (IF: 1.9).
2. Shanmughapriya S, Tomar D, Dong Z, Slovik K, Nemani N, **Natarajaseenivasan K**, Carvalho E, Lu C, Corrigan K, Garikipati VNS, Ibetti J, Rajan S, Barrero C, Chuprun K, Kishore R, Merali S, Tian Y, Yan W, Madesh M (2018) FOXD1-dependent MICU1 regulation determines mitochondrial activity and cell lineage. *Nature Communications*, 9: 3449. DOI: 10.1038/s41467-018-05856-4 (IF: 12.353).
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