

## **ANAND SETTY BALAKRISHNAN PhD**

Email: settyanand@gmail.com

**(1) Current Affiliations: Associate Professor, Department of Epidemiology and Public Health Central University of Tamil Nadu, Thiruvavur**

### **(2) Education and Training:**

Ph.D. in Biotechnology : Anna University, Tamilnadu, India (2008)

M.Sc. in Biochemistry : Madurai Kamaraj University, India (2000)

B.Sc. in Biochemistry : Madurai Kamaraj University (1998)

### **(3) Research Experience**

- Assistant Professor- Department of Genetic Engineering, School of Biotechnology, Madurai Kamaraj University (2009- 2024)
- Post-Doctoral Research Associate, Department of Biomedical Sciences, University of Illinois at Chicago, College of Medicine, Rockford, IL , USA
- Assistant Professor [2009-21] : Madurai Kamaraj University, India
- UGC-Raman Post-Doctoral Fellow [2013-14] : New York blood center, New York, USA
- Post-doctoral researcher [2008-09] : Indian Institute of Technology (IIT Madras), India
- Visiting Scholar [2006-07] : University of Illinois, College of Medicine, Rockford, USA.
- ICMR – Senior Research Fellow [2004-06] : Centre for Biotechnology, Anna University, India
- Research Fellow [2000-04] : Centre for Biotechnology, Anna University, India

### **(4) Academic/Professional Positions**

- 2009-10 : Lecturer, School of Biological Sciences, Madurai Kamaraj University, Madurai, India
- 2010-21 : Assistant Professor, School of Biotechnology, Madurai Kamaraj University (MKU), Madurai, India
- 2021- 2023 : Post-Doctoral Research Associate, Department of Biomedical Sciences, University of Illinois at Chicago, College of Medicine, Rockford, IL , USA
- 2021-Present : Assistant Professor, School of Biotechnology, Madurai Kamaraj University (MKU), Madurai, India

### **(5) Grant Support**

#### **Ongoing Project:**

- MHRD-RUSA, Government of India, PI- 2021-2023

Project title: Biomarkers for Lymphatic Filariasis

This project is to develop diagnosis tool for lymphatic Filariasis.

**Completed projects:**

- I. Department of Biotechnology (DBT), Government of India, BT/PR13179/GBD/27/213/2009 PI– 2009-2012
  - a. Project title: Identification of microRNA for potential biomarker in prostate cancer
  - b. This project is on using microRNA as diagnostic tool for prostate cancer
- II. University Grants Commission (UGC), Government of India, F.No.39-289/2010 (SR), PI-2010-2013
  - a. Project title: To evaluate the cytotoxic effect and proinflammatory cytokine response of Curcumin against lymphatic Filariasis.
  - b. This project is to evaluate Curcumin (natural Indian herb) as therapeutic drug for Filariasis.
- III. Tamilnadu State council for Science and Technology (TNSCST): Government of Tamilnadu, TNSCST/S&T Projects/VR/MS/2010-11, PI – 2011-2013
  - a. Project title: Tetraspanin as potential vaccine target antigen for human lymphatic Filariasis.
  - b. This project is to evaluate the efficacy of tetraspanin as potential vaccine for lymphatic Filariasis.
- IV. Tamilnadu State council for Science and Technology (TNSCST): Government of Tamilnadu, PI- 2017-2019
  - a. Project title: Profiling of circulating microRNA in Serum – Plasma of the filarial infected secondary lymphedema subject for identification of potential biomarkers
  - b. This project is to develop diagnosis for lymphatic Filariasis using serum samples.
- V. Department of Biotechnology (DBT), Government of India, No. BT/IN/Indo-US/Foldscope/39/2015 PI– 2018-2019
  - a. Project title: Identification of filarial infection causing nematodes using foldscopes and propagation its importance in rural community
  - b. This project is community oriented project in providing hands on training to school children's in using foldscope for filarial detection.

**(6) Teaching Experience:**

2002-2006: Teaching Assistant, Centre for Biotechnology, Anna University, India

2009-2010: Lecturer, School of Biological Sciences, Madurai Kamaraj University, India

2010-2021: Assistant Professor, School of Biotechnology, Madurai Kamaraj University, India

2022- Present: Course on Immunology, Department of Biomedical Sciences, UICOM/R, USA

**(7) Students supervised/mentorship:**

- PhD Thesis (Completed)
- 2018 Abel Arul Nathan, Madurai Kamaraj University, India  
PhD title: Enumeration and functional characterization of circulating progenitor cells  
Role: Sole Guide/Supervisor
- 2018 Dhanamjayam, Madurai Kamaraj University, India  
PhD title: Bioprospecting of L-Asparaginase enzyme producing *Streptomyces* isolated from different soil sources.  
Role: Co –Guide
- 2018 AM Nizzy, Madurai Kamaraj University, India  
PhD title: Identification and characterization of bacteria isolated from sago industrial effluent  
Role: Co –Guide
- 2018 Manikandan, Madurai Kamaraj University, India  
PhD title: Protein expression profiling of nanoparticles with living cells  
Role: Co –Guide
- 2021 Venkatesan, Madurai Kamaraj University, India  
PhD title: Whole genome analysis of Multidrug Resistant Uropathogenic *Escherichia coli* (UPEC) Clinical Isolate XA31 and Exploring Virulence Gene Profile of UPEC  
Role: Co –Guide
- MPhil Thesis (Completed)
- 2014 Alok Misra, Madurai Kamaraj University, India  
MPhil title: Expression profiles of lymphatic endothelial markers in secondary lymphedema  
Role: Guide
- 2015 Bhagyalakshmi, Madurai Kamaraj University, India  
MPhil title: Characterization and Invitro studies of thymol: A major compound in *Trachyspermum ammi*  
Role: Guide
- 2016 Sudharsan, Madurai Kamaraj University, India  
MPhil title: Invitro antibacterial activity of *Withania somnifera* against *Bacillus cereus* caused secondary infection of lymphatic filariasis: and invitro cytotoxicity effect of *Withania somnifera* using skin cell line  
Role: Guide
- Master's Thesis (Completed)
- 2015 Ishitha Baral, Madurai Kamaraj University, India  
M.Sc title: Effect of maghemite nanoparticles in the induction of apoptosis on human hepatocellular carcinoma (Hep G2) cell line  
Role: Guide
- 2016 Mukesh Saini, Madurai Kamaraj University, India  
M.Sc title: *Withania somnifera* targets interleukin-8 and cyclooxygenase-2

- in human prostate cancer progression  
Role: Guide
- 2020 Girija, Madurai Kamaraj University, India  
M.Sc title: Adolase and lactate dehydrogenase of *Brugia malayi* as a biomarker for lymphatic filarisis  
Role: Guide
- 2021 Eniya Muruganantham, Madurai Kamaraj University, India  
M.Sc title: Identification of *Setaria digitata* Selenium-dependent Glutathione Peroxidase and its structure prediction  
Role: Guide
- 2021 Sobia, Madurai Kamaraj University, India  
M.Sc title: Cloning of Brugiamalayi Tetraspanin (BmTSP) and prediction of its antibody epitopes  
Role: Guide
- 2021 Mageshwari, Madurai Kamaraj University, India  
M.Sc title: Cloning of *Brugia malayi* sheath protein (Bmshp1a) and in silico prediction of B cell epitopes  
Role: Guide
- 2022 Sheerin Banu, Madurai Kamaraj University, India  
M.Sc title: *Mithrafilis* is potential therapeutic agents for lymphatic filarisis  
Role: Guide
- 2023 Anup Chaudry, Madurai Kamaraj University, India  
M.Sc title: Overexpression of WbNPA  
Role: Guide
- 2023 Abi Prakashii, Madurai Kamaraj University, India  
M.Sc title: Mithephylline promising therapeutic agent for the treatment of LF  
Role: Guide
- 2023 Abishek, Madurai Kamaraj University, India  
M.Sc title: Cloning of WbNPA and in silico prediction of B cell epitopes  
Role: Guide
- PhD Thesis (Ongoing)  
Present Jefrillah, Madurai Kamaraj University, India  
PhD title: Developing diagnostic tool for vector born disease  
Role: Sole Guide/Supervisor
- Master's Thesis (Ongoing)
- 2022 Uma Maheswari Madurai Kamaraj University, India  
M.Sc title: *Nanogel formulation of mithephylline* is potential therapeutic agents for lymphatic filariasis  
Role: Guide

### (8) Departmental & Administrative Services

- 2012-2013 University Nominee: Board of Studies, M.Phil Biotechnology- Periyar University, Salem, India
- 2014-2015 Hostel Warden/Committee Member, Madurai Kamaraj University, India

- 2015-2016 Deputy Coordinator – M.Sc. Biotechnology programme, Madurai Kamaraj University, India
- 2015-2018 Coordinator – M.Sc. Computational Biology Programme, Madurai Kamaraj University, India
- 2019-Present University Nominee: Board of Studies, M.Sc. Biotechnology- Madurai Kamaraj University, India

### (9) Editorial Tasks

#### Journal reviewer:

- MB International Media and publishing house
- Applied Biochemistry and Biotechnology
- Anti-Cancer Agents in Medicinal Chemistry
- Aquaculture
- Current Cancer Drug Targets.
- Letters in Drug Design & Discovery.
- Journal of Oncological Sciences
- Current Trends in OMICS
- Parasitology Research
- SCIENCE JOURNAL OF BIOTECHNOLOGY

#### Thesis Examiner:

- 2017: M.S thesis external examiner: Indian Institute of Technology Madras (IITM), India
- 2021: PhD thesis external examiner: VIT University, Tamilnadu, INDIA

### (10) Professional Memberships

#### (11) Publications

1. **S B Anand**, M Gnanasekar, M Thangadurai, PR Prabhu, P Kaliraj, K Ramaswamy(2007) Immune response studies with WuchereriabancroftiVespid allergen homologue (WbVAH) in human lymphatic Filariasis **101(4):981-8 Parasitology Research** ISSN: 1432-1955 (electronic version) **Impact Factor: 2.098 Citations: 39**
2. M Gnanasekar, **S B Anand** (Equal Contribution), K Ramaswamy Identification and cloning of a novel tetraspanin (TSP) homologue from *Brugia malayi*.(2008) 19 (2), 151-156 DNA sequence: the journal of DNA sequencing and mapping ISSN 1042-5179 (Print)**Impact Factor:1.20 Citations:12**
3. **S B Anand**, V Murugan, PR Prabhu, V Anandharaman, MV Reddy, P Kaliraj(2008)Comparison of Immunogenicity, protective efficacy of Single and Cocktail DNA vaccine of *Brugia malayi* Abundant Larval Transcript(ALT-2) and Thioredoxin peroxidase (TPX) in Mice ActaTropica107 (2), 106-112 ISSN: **0001-706X Impact Factor: 2.270 Citations:56**
4. M Ganasekar, Vanandharaman, **S B Anand**, T B Nutman, K Ramaswamy(2008) A novel small heat shock protein 12.6 (HSP12.6) from *Brugia malayi* functions as a human IL-10 receptor binding protein MolBiochemParasitol. 159 (2), 98-103 ISSN: **0166-6851 Impact Factor: 2.23 Citations:15**
5. **S B Anand**, KN Kodumudi, MV Reddy, P Kaliraj (2011)A combination of two *Brugia malayi* filarial vaccine candidate antigens (BmALT-2 and BmVAH)

- enhances immune responses and protection in jirds. Journal of Helminthology **85**: 442–452 ISSN: 0022-149X EISSN: 1475-2697 **Impact Factor: 1.421 Citations: 33**
6. V Thangaviji, M Michael Babu, S Velmurugan, **S B Anand**, (2011) Virulence Factor and Molecular cloning of Outer membrane protein (OMP) gene from virulent *Aeromonas hydrophila* isolated from infected gold fish *Carassius auratus* Bangladesh J Microbiol, Volume 28, Number 2, December 2011, pp 70-75 SSN 1011-9981 (Print) 2408-8374 (Online) P Gunasekaran, T Citarasu IF: 0 **Citations: 13**
  7. **S B Anand**, V Rajagopal, P Kaliraj (2012) *Brugia malayi* Thioredoxin Peroxidase as a Potential Vaccine Candidate Antigen for lymphatic Filariasis) J Applied Biochem Biotech 167 (5), 1351-1364, ISSN: 1559-0291 (electronic version) Impact Factor: 1.735 **Citations: 7**
  8. Sara Lustigman, Elena Melnikow, **Setty Balakrishnan Anand**, Aroha Contreras, Vijay Nandi, Jing Liu, Aaron Bell, Thomas R Unnasch, Mathew B Rogers, Elodie Ghedin (2014) Potential involvement of *Brugia malayi* cysteine proteases in the maintenance of the end symbiotic relationship with wolbachia International Journal for parasitology: Drugs and drug resistance 4 (3), 267-277, 2014 ISSN: **2211-3207** Impact Factor: 3.5 **Citations: 17**
  9. Abel Arul Nathan, Mallu Abhiram Charan Tej, Maneka Chitiprolu, Shreyas Rangan, Viswanathan Mohan, Ranjani Harish, **Anand S.B** and Madhulika Dixi (2014) Impaired glucose tolerance alters functional ability of Peripheral blood derived mononuclear cells in Asian Indian men Diabetics and vascular disease research 1479164114551745, 2014 eISSN: 1752-8984 ISSN: 1479-1641 t Impact Factor: 2.357 **Citations: 3**
  10. Ruchi Jha; Mamta Gangwar; Dhanvantri Chahar; **Setty Balakrishnan Anand**; Shailja Misra-Bhattacharya (2017) Humans from Wuchereria bancrofti endemic area elicit substantial immune response to proteins of Brugia malayi filarial parasite and its endosymbiont Wolbachia Parasites & Vectors 10:40 Impact Factor: 3.342 **Citations: 6**
  11. **Anand Setty Balakrishnan**, Abel Arul Nathan, Mukesh Kumar, Sathish Kumar R M, Sudhakar (2017) *Withania somnifera* targets Interleukin-8 and Cyclooxygenase-2 in human prostate cancer progression Prostate International. IF: 0.6 **Citations: 14**
  12. Abel Arul Nathan, Madhulika Dixit, Subash Babu, **Anand Setty Balakrishnan** (2017) Comparison and functional characterization of peripheral blood mononuclear cells isolated from filarial lymphedema and endemic normal of South Indian population Volume 22, Issue 11 November 2017 Pages 1414-1427 Tropical Medicine & International Health Impact factor: 2.423 **Citations: 0**
  13. Abel Arul Nathan, **Anand Setty Balakrishnan** (2018) *In-vitro* evaluation of thymol derived from *Trachyspermum ammi* against acetaminophen-induced hepatotoxicity and its therapeutic applications for lymphatic Filariasis Current Topics in Pharmacology IF: 0 **Citations: 0**
  14. Karthikeyan Manikandan, Amutha Santhanam, and **Setty Balakrishnan Anand** (2018) Maghemite Nanoparticle Induced DNA Damage and Oxidative Stress Mediated Apoptosis of CRL-1739 Adenogastric Carcinoma Cell, Current Nanomedicine 8 (1), 58-68, 2018. IF: 0 **Citations: 1**
  15. K Manikandan, Ishita Baral, **S B Anand** and Amutha Santhanam Effect of maghemite nanoparticles in the induction of apoptosis on human hepatocellular carcinoma (Hep G2) cell line (2018) Indian Journal of Biotechnology Vol 16, April 2017, pp 176-181 IF: 0.343 **Citations: 0**
  16. T Citarasu, C Lelin, MM Babu, **SB Anand**, AA Nathan, VN Vakharia (2019) Impact Factor Oral vaccination of *Macrobrachium rosenbergii* with baculovirus-expressed *M. rosenbergii* nodavirus (MrNV) capsid protein induces protective immunity against

MrNV challenge Fish & shellfish immunology Volume 86 Pages1123-1129):Imapct factor:3.387**Citations: 0**

17. VijayaragavanThangaviji, MariavincentMichaelbabu, **Setty Balakrishnan Anand**, ParamasamyGunasekaran and ThavasimuthuCitarasu (2012) Immunization with the Aeromonas OMP Provides Protection against Aeromonas hydrophila in Goldfish ( Carassiusauratus ) Bangladesh J -Microbial BiochemTechnol ISSN:1948-5948 JMBT, an open access journal Volume 4(2): 045-049 Impact Factor: 2.82**Citations: 0**
18. AM, Nizzy; Kannan, S; **Anand, SB** June 2019Identification and characterization of bacteria isolated from sago industrial effluentIndian Journal of Experimental Biology Vol 57 pp 427-434ISSN: 00195189, 09751009Impact Factor: 0.78 Citations: 4
19. Identification of Hydrogen Gas Producing Anaerobic Bacteria Isolated from Sago Industrial Effluent Albert MariathankamNizzy, SuruliKannan & **Setty Balakrishnan Anand** (2019):*Current Microbiology* Impact Factor: 2.1 Citations:6
20. EswaramoorthyThirumalaikumar , ChinnaduraiLelin, RamamoorthySathishkumar, SugumarVimal , **Setty Balakrishnan Anand** , Mariavincent Michael Babu , ThavasimuthuCitarasu (2021)Oral delivery of pVAX-OMP and pVAX-hly DNA vaccine using chitosan-tripolyphosphate (Cs-TPP) nanoparticles in Rohu, (Labeorohita) for protection against Aeromonashydrophila infectionFish & Shellfish ImmunologyVolume 115, August 2021, Pages 189-197Impact Factor: 3.3 Citations:0
21. Venkatesan Ramakrishnan, Xavier Alexander Marialouis, JagadesanSankarasubramanian, AmuthaSanthanam, **Anand Setty Balakrishnan**Whole Genomic analysis of a clinical isolate of Uropathogenic Escherichia coli strain of Sequence Type - 101 carrying the drug resistance NDM-7 in IncX3 plasmid Bioinformation 17(1): 126-131 2021Impact Factor: 0 Citations:0
22. A. M. Nizzy, S. Kannan &**S. B. Anand**(2022)Feasibility study of biohydrogen production using Clostridium sartagoforme NASGE 01 from cassava industry effluentInternational Journal of Environmental Science and Technology <https://doi.org/10.1007/s13762-022-03995-2>Impact Factor: 2.86 Citations:0
23. Samuel Christopher Katru; **Anand Setty Balakrishnan**; GnanasekarMunirathinam; AzadehHadadianpour; Scott A Smith; Ramaswamy Kalyanasundaram"Identification and Characterization of a Novel Nematode Pan Allergen (NPA) from Wuchereriabancrofti and their Potential Role in Human Filarial Tropical Pulmonary Eosinophilia (TPE),"
24. **Anand Setty Balakrishnan** and Ramaswamy KalyanasundaramPhage screening identified antigenic allergens potentially responsible for human filarialTropical Pulmonary Eosinophilia (TPE)ImmuneCONNECT (In press)
25. Jefrillah and **Anand Setty Balakrishnan**Mitragyna parvifolia as a potential therapeutic agent for Lymphatic Filariasis, Journal of Parasitic diseases (In press)

**Google Scholar:**

**Citations 380**

**h-index 12**

**i10-index 14**

**(12) Book Chapters**

1	Bionanosciences	A potential Approach of nanoparticle based Diagnosis/Therapeutics/Drugs for Helminth infection	<b>S.B.Anand,A</b> .K.V.Sama, A.Arul Nathan, ...P.Kaliraj	Write & Print Publications , New Delhi/2015
2	Advances in Medico-Veterinary Parasitology – An Indian Perspective	Development of nanoparticles based on traditional medicines for parasitic diseases	Abel arul Nathan..... <b>Anand Setty Balakrishnan</b>	Panima Publishing Corporation : ISBN <b>978-81-86535-80-6</b>
3	Molecular Biology of cancers and its therapeutics	microRNA as a diagnostic tool for detection of cancer	Jefrillah, and <b>Anand Setty Balakrishnan</b>	MJP publishers, Chennai, ISBN 9789355275363

**(13) Conference Proceedings**

1. Comparison of immuno prophylactic efficacy of Bm R ALT2 or BmrVAH or rALT plus VAH by single and multiple antigen vaccination mode 75 (5), 295-295 AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, USA 2006/11/1 ISSN 0002-9637 **Setty Balakrishnan Anand**, KN Krithika, VadivelMurugan, MV Reddy, PerumalKaliraj
2. Immunoprophylactic evaluation of filarial infective larval antigens ALT-2 & VAH in jird model by prime-boost and multiple antigen vaccination approaches Volume51 Pages A170-A170 American association for CLINICAL CHEMISTRY 2005/1/1 0009-9147 (print)1530-8561 (web) MVR Reddy, KN Krithika, **SB Anand**, S Thirugnanam, V Murugan, P Kaliraj
3. Defining the role of BmIL5 in Tropical Pulmonary eosinophilia (Abstract No. B110) (2007) The Journal of Immunology (Supplement Issue 178) 2007/12/31S Kwon, M Gnanasekar, **S B Anand**, K Ramaswamy ISSN: 0271-9142 (print version) ISSN: 1573-2592 (electronic version)
4. **Anand S B**, International conference on New Horizons & 8<sup>th</sup> Annual convention of BRSI , Trivandrum NIIIST , Trivandrum & BRSI,India 21-24, November 2011 BrugiamalayiThioredoxin peroxidase as a potential vaccine candidate antigen for lymphatic filarisis
5. **Anand S B**, 39<sup>th</sup> Annual conference of Indian Immunological Society (Immunocon 2012) Banaras Hindu University and Indian immunological society, Varnasi, UP Banaras Hindu university, Varnasi & Indian Immunological Society, INDIA November 9<sup>th</sup> to 11<sup>th</sup>, 2012 Codon Optimization for Filarial DNA vaccines
6. **Anand S B**, 5<sup>th</sup> International symposium on drug development for orphan / neglected diseases (CTDDR 2013), Lucknow Organized by CSIR-Central Drug Research Institute, Lucknow & Indian Parasitology Society, India: 26-28 February 2013.



7. **Anand S B**, 25<sup>th</sup> National Congress of Parasitology on Global Challenges in the management of Parasitic Diseases, CDRI, Lucknow: The Indian Society of Parasitology & CDRI, Lucknow, India 16<sup>th</sup>-18<sup>th</sup> October,2014 Filarial infection alters the functional properties of circulating lymphatic progenitors in lymphedema subjects
  8. **Anand S B**, 6<sup>th</sup> Federation of Immunological Societies of Asia-Oceania (FIMSA 2015) Congress at Singapore,,Federation of Immunological Societies of Asia-Oceania & Singapore society for Immunology, 30<sup>th</sup> Jun. – 3<sup>rd</sup> July 2015: Role of Lymphatic progenitors in the treatment of filarial induced lymphedema”.
  9. **Anand S B**, 29<sup>th</sup> scientific meeting of Malaysian society of pharmacology and physiology, Malayasia Organized by Malaysian society of Pharmacology & Physiology: Analytical & Biochemical characterization of Thymol. August 24-25, 2015
  10. “Therapeutic potential of lymphatic endothelial progenitors for the treatment of filarial induced secondary lymphedema” Abel Arul Nathan, SubashBabu, Madhulika Dixit, **Anand Setty Balakrishnan**. 64<sup>th</sup> American Society of Tropical Medicine and Hygiene (ASTMH 2015) Annual Meeting at Philadelphia, USA, 2015 (Poster No: LB-5223)
  11. **Anand S B**, 9<sup>th</sup> NABS National conference on New Biological Researches: Opportunities and challenges for sustainable Development National Academy of Biological Sciences & Madurai Kamaraj University: Evaluation of Thymol derived from T ammi : August 11<sup>th</sup>-12<sup>th</sup> 2016
  12. **Anand S B**, 2016 World Life Science Conference, Beijing, China, China Union of Life Science Societies & Chinese academy of Sciences Therapeutic potential of *Withania somnifera* in filarial induced secondary lymphedema [S25-0003] Nov 1<sup>st</sup>-3<sup>rd</sup> ,2016
  13. **Anand S B**, International Conference on Current Trends in Biotechnology 2016, VIT University, Vellore & Biotech Research Society of India, Evaluation of Thymol Derived from *Trachyspermum Ammi* for its Hepatoprotective activity in WRL-68 liver cells, 8<sup>th</sup>-10<sup>th</sup> December 2016
  14. **Anand S B**, Tropical Medicine 4.0: Effective Collaboration for an Impact on Global Health", Joint International Tropical Medicine Meeting (JITMM 2017) at the Amari Watergate, in Bangkok :Therapeutic Potential of Lymphatic Endothelial Progenitors As Alternative Treatment For Filarial Lymphedema: 6 – 8 December 2017
  15. **Anand S B**, Young Scientist Conference, India International Science Festival-2018, Indira Gandhi Pratisthan in Lucknow: *Withania somnifera* targets Interleukin-8 and Cyclooxygenase-2 in human prostate cancer progression October 05-06, 2018
  16. **Setty Balakrishnan Anand** paper presented entitled *Withania somnifera* targets Interleukin-8 and Cyclooxygenase-2 in human prostate cancer progressionheld at 2018 World Science Life Conference(Oct.27-29) in Beijing, China
- (14) **Invited talks**
1. National seminar on Panoramas in Bionanotechnology, Saveetha University, chennai , Novel Biomarkers for Human Lymphatic Filariasis: 26<sup>th</sup> February 2010
  2. Resource person in Refresher course in Zoology, UGC-ASC-Bharathiar University, Coimbatore, New Strategies on the development of vaccines for LF. 23<sup>rd</sup> January 2012
  3. DST Sponsored-10 Day National Training Programme on Eco-Media &WaSH Science communication, MKU, Madurai, Dept of Science and Technology &Dept of Communication, Madurai Kamaraj University, Water Born Diseases, 14<sup>th</sup> to 23<sup>rd</sup> September 2016

4. Special Lecture, ANJAC College, Sivakasi, India, Development of Vaccines for NTD, 15<sup>th</sup> October 2016
5. DST Sponsored-10 Day National Training Programme on Eco-Media &WaSH Science communication, MKU, Madurai, Dept of Science and Technology & Dept of Communication, Madurai Kamaraj University Water & Hygiene 31st March 2017
6. Continuing medical education (CME), VIT, Vellore, Immunoprophylactic and therapeutic potential agents for LF, 24-25<sup>th</sup> March 2017
7. Resource person in Refresher course, K R College of Arts and Science, Kovilpatti, Vaccines for LF, 29<sup>th</sup> May 2017
8. Invited Lecture, Immunocon 2018, THSTI, Faridabad, Withania somnifera targets Interleukin-8 and Cyclooxygenase-2 in human prostate cancer progression, November 01-03, 2018
9. Chaired session, Immunocon 2017, GITAM University, Visakhapatnam, Young scientists session, 9<sup>th</sup> - 1<sup>st</sup> February 2017
10. Inspire Science Camp, Organized by Amity University, Noida, 16<sup>th</sup> - 20<sup>th</sup> Nov' 2010.
11. DST Inspire Internship Science Camp, Organized by Trident Academy of Technology, Bhubaneswar, Odisha from 23<sup>rd</sup> - 27<sup>th</sup> Jun' 2014.
12. DST SPONSORED INSPIRE Programme, Organized by Department of Chemistry, MepcoSchlenk Engineering College, Sivakasi on 02<sup>nd</sup> Oct' 2012.
13. National seminar on medical Biotechnology, Organized by Department of Biotechnology, MepcoSchlenk Engineering College, Sivakasi on 29<sup>th</sup> Sept' 2012.
14. DST Sponsored INSPIRE Science Camp, Organized by MepcoSchlenk Engineering College, Sivakasi on 16 July 2014.
15. Inspire Internship Science Camp, Department of Chemistry, VHNSN College, Virudhunagar from 16<sup>th</sup> - 20<sup>th</sup> Aug' 2013.
16. DST-INSPIRE Student Camp on 5-9 November 2012, Dept. of Biotechnology, Selvam Arts and Science College, Salem Namakkal.
17. DST Inspire camp July 2012, P.K.R ARTS COLLEGE FOR WOMEN
18. DST Inspire camp Noor Islam University, during 2-6 February 2012.
19. INSPIRE SCIENCE CAMP - P.K.R.ARTS COLLEGE FOR WOMEN- GOBI- 26<sup>th</sup> to 30<sup>th</sup> Dec. 2011.
20. DST-INSPIRE program, during 28.11.2011 to 02.12.2011, V.O.Chidambaram College, Thoothukudi.
21. DST-INSPIRE PROGRAMME during 23<sup>rd</sup>- 27<sup>th</sup> December 2015 at Yadava College, Madurai, Tamil Nadu
22. Resource Person - Refresher Course in Zoology, ASC Bharathiar University
23. Invited talk – ICRABC 2023, Kerala University, 21 Dec 2023
24. Invited talk - Phage screening identified antigenic allergens potentially responsible for human filarial Tropical Pulmonary Eosinophilia (TPE) IMMUNOCON-50, the Golden Jubilee Conference of the Indian Immunology Society, scheduled from 5<sup>th</sup> to 8<sup>th</sup> October 2023 at JL Auditorium, AIIMS New Delhi.

**(15) Honors/awards**

- 1 Council of Scientific and Industrial Research - CSIR Research Associateship 2008-10-01
- 2 Department of Biotechnology - IIT Madras Research Associateship 2008-05-01
- 3 University of Illinois, College of Medicine, Rockford, USA Post-Doctoral Fellowship 2021-03-01

- 4 University of Illinois, USA Visiting scholar 2006-11-01
- 6 Congress Award 2022-10-24  
: 20th International Congress for Tropical Medicine and Malaria (ICTMM2020), held on 24-28 October 2022 at the Bangkok International Trade and Exhibition Centre (BITEC), in Bangkok, Thailand.
- 7 UIC, USA Post Doc Small Scholarship award 2022-09-02
- 8 UIC, USA Post Doc travel award 2022-09-02
- 9 UGC- Raman Fellowship Postdoctoral Fellowship, USA 2013-05-14
- 10 Tamilnadu state council TNSCST Young scientist fellowship 2011-12-05
- 11 Travel Award 2019-03-13 “2nd Human & Translational Immunology Conference”, May 29-June 3, 2019 on Kos island, Greece
- 12 JITMM, Thailand Travel Award 2017-10-16
- 13 FIMSA Travel Award 2015-07-03
- 14 Chinese Union of Life Science societies Travel Bursary 2018-10-27
- 15 Chinese Union of Life Science societies Travel Award 2016-11-01
- 16 Indian Immunology society Travel Bursary, 2018

**Students Award:**

- 2015 : Abel Arul Nathan Madurai Kamaraj University, India - ACMCIP Travel Award for Low and Low-Middle Income (LMIC) Trainees
- 2016: Welcome- Burroughs Award

**(16) Patent**

- U.S.Patent filed on August 14, 2018 entitled “**Oral Vaccine Composition for Immunoprotection of Shellfish Against Viral Pathogens**” (Application number 201811030568) Inventors: Vikram.N.Vakhira, University of Maryland, USA, Thavasimuthu Citarasu, M.S. University, Nagercoil and Setty Balakrishnan Anand, MKU, Madurai.

**(17) Course development and teaching**

**Course developed:**

- Diploma in recombinant DNA technology for directorate of Distance Education , Madurai Kamaraj University, Madurai, Tamilnadu, India
- Introduced Elective course in Epidemiology & Public Health for M.Sc. Biotechnology Programme, Madurai Kamaraj University, Madurai, Tamilnadu, India
- Introduced Elective course in Parasitology for M.Sc. Biotechnology Programme, Madurai Kamaraj University, Madurai, Tamilnadu, India

**Teaching:**

2009-2010	Hands on training in recombinant DNA technology, M.Sc Dissertation
2011-2013	Immunotechnology – M.Sc Biotechnology
2014-2015	Biochemistry (CB1012C) – M.Sc Computational Biology
2014-2015	Analytical methods in Biotechnology (CB1015C) - M.Sc Comp. Biology
2014-2015	Practical I Analytical methods in Biotechnology (CB1018C) –
2015-2016	Sequence analysis (CBI14022C) - M.Sc Computational Biology
2015-2016	CBI1431C- Immunology & Pharmacology - M.Sc Computational Biology
2010 - Present	Immunology – M.Sc Biotechnology

2010 - Present	Lab in immunology & Animal cell culture – M.Sc Biotechnology
2010 - Present	Lab in rDNA technology – M.Sc Biotechnology
2015 - Present	SSS course - M.Sc Biotechnology
2015 – Present	Cell Biology-M.Sc Zoology – MKU DDE
2010 - Present	Immunotechnology- Research methodology- (Mphil)
2016 - Present	Genetic Manipulations in Biotechnology - (M.Phil)
2015 - Present	Recombinant DNA technology (for PhD course work)
2015 - Present	Environmental Biotechnology (For PhD course work)
2010 - Present	M.Sc Biotechnology/Computational Biology Dissertation
2019 - Present	Epidemiology & Public Health

**(18) Membership**

- Life Member- Indian Immunological Society & Elected Executive committee member
- Life Member- Indian Society of parasitology
- Life Member- Biotech Research Society of India
- American Society of Tropical Medicine & Hygiene

**(19) Collaborations:**

**International:**

1. Prof. Ramaswamy, University of Illinois, USA –
2. Dr. Sara Lustigman, , New York Bolldcentre, USA

**National:**

1. Prof.P.Kaliraj – PhD Supervisor, Emeritus Professor, CBT, Anna University
2. Dr. Shailaja Bhattacharya – Chief Scientist- CSIR- CDRI, Lucknow
3. Dr. Suresh Babu – Scientist, ICMR-NIH Lab, Chennai
4. Dr. Citarasu – CMST, M.S. University, Kanyakumari
5. Dr. Madhulika Dixit- Dept of Biotechnology, IIT Madras
6. Dr. AmuthaSanthanam- University of Madras, Chennai
7. Dr. R.M.Sathish Kumar, Dept of Urology, Velammal Medical College and Research Institute, Madurai
- 8.

**(20) Conference Organized:**

1. Organized CME programme in Immunology October 11 & 12, 2012 at School of Biotechnology, MKU
2. Organized National conference on Immunocon 2014