
BIOGRAPHICAL SKETCH

Name	Position Title
Dr. Vanaja Kumar	Scientist "F" & HOD

Education/ Training

Institution and Location	Degree	Year	Field of Study
Seethalakshmi Achi College, Pallathur, Tamil Nadu	B. Sc	1967-70	Zoology, Chemistry, Botany
JIPMER, Pondicherry	M. Sc	1970-73	Medical Microbiology
MB Station, Porto Novo, Tamil Nadu	Ph. D	1975- 79	Marine Biology (Microbiology)

Research and / or Professional Experience

Designation	Period		Institution
	From	To	
Tutor	1974	1974	Magadh Medical college, Gaya
Research Assistant	1979	1982	Tuberculosis Research Centre, Chennai
Research Officer	1982	1988	Tuberculosis Research Centre, Chennai
Senior Research Officer	1988	1993	Tuberculosis Research Centre, Chennai
Assistant Director	1993	1998	Tuberculosis Research Centre, Chennai
Deputy Director	1998	2006	Tuberculosis Research Centre, Chennai
Scientist "F"	2006	Till date	Tuberculosis Research Centre, Chennai
Head Of Department Bacteriology	2011	Till date	Tuberculosis Research Centre, Chennai

Membership on Committees

Indian association of Pathologists and Microbiologists

Indian Association of Medical Microbiologists

Luminescence Society Of India

Member of Association of Microbiologists of India.

Member- Editorial Board- Asian Pacific Journal of Tropical Medicine

Training abroad

1. WHO fellow at Albert Einstein College of Medicine, New York for a 9-month period from Sep.1997 to June 1998, on Molecular Biology of *Mycobacterium tuberculosis*.
2. Visiting scientist at Albert Einstein College of Medicine, New York for a 4-month period from July 2001 to November 2001 under AITRP grant funded by FIC, NIH.
3. Visiting scientist at Albert Einstein College of Medicine, New York for a 3-month period from April 5th to July 9th, 2004 under AITRP grant.

Special assignments

1. Coordinated with Central TB Division for laboratory accreditation of Hinduja Hospitals, Mumbai for rapid TB culture and Drug Sensitivity Testing using MGIT960 system on 10th August, 2009.
 2. Participated in the "First Technical Advisory Committee Meeting" for Tuberculosis Prevalence Survey- Gujarat 2010-11 held in STDC, Ahmedabad on 16th April, 2010.
 3. Coordinated with Shri R.R. Abhyankar, Adviser, DSIR, visiting R&D center of M/s Ravindranath (Global Hospitals & Health City, Chennai) on Sunday 20th February 2011 to assess the infrastructure for DSIR recognition and certification.
 4. Coordinated with Central TB Division for laboratory accreditation of Damien Tuberculosis Research Centre, Nellore for conventional TB culture and Drug Sensitivity Testing on 1st March, 2011.
 5. Attended DBT Project Proposal meeting at ICMR, New Delhi on 8th March 2011
 6. Attended and gave a Guest Lecture at SOZOCON 2011 at Manakula Vinayagar Medical College, Puducherry on 11th March 2011.
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7. Coordinated Lab Accreditation of RMRC, Port Blair for TB Culture and DST at Port Blair, from 11th to 16th March 2011.
8. Attended Task force meeting organized by ICMR for finalization of proposal for multi-centric study on female genital tuberculosis on 18th may, 2011 at ICMR Head quarters, New Delhi.
9. Conducted Tamil Nadu DR Survey training of RNTCP personnel of Cuddalore, Kanchipuram, Perambalur, Pudukkottai, Dindigul and Kanyakumari, districts from 2nd to 4th June 2011.

List of Publications

1. Manavalan S, Devendran K, **Vanajakumar** and Selvakumar N. **1977**. *Vibrio oarahaemolvticus* in the marine environment at Porto Novo. **Current Science.**; **46**: 821.
 2. **Vanajakumar**. **1979**. Antagonistic actinomycetes associated with molluscs of Porto Novo region. **Ph. D. Thesis**. Annamalai Univeristy. Tamil Nadu, India.
 3. Vanaja Kumar. **1986**. A controlled clinical trial of 3 and 5 month regimens in treatment of sputum- positive pulmonary tuberculosis in South India, Tuberculosis Research Centre and national Tuberculosis Institute. Bangalore. American Review of Respiratory Diseases. **134**: 27.
 4. Selvakumar N, **Vanaja Kumar**, Paramasivan CN, Prabhakar R. **1987**. Mycobacteriocin typing of mycobacteria isolated in patients from South India, Hong Kong and Britan. **Indian Journal of Medical Research**. **86**: 162.
 5. Paramasivan CN, **Vanaja Kumar** Alexander C, Venkatesan P, Somasundaram PR and Prabhakar R. **1987**. Use of multiple media for the cultivation of mycobacteria from specimens other than sputum. **Indian Journal of Medical Research**. **86**: 290.
 6. Jawahar MS, Sivasubramaniam S, Vijayan VK, Ramakrishnan CV, Paramasivan CN, **Vanaja Kumar**, Tripathy SP and Prabhakar R. **1990**. Short Course Chemotherapy for tuberculous lymphadenitis in children. **British Medical Journal**. **301**: 359.
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7. Selvakumar N, **Vanaja Kumar**, Duraipandian M, Thilothammal N and Prabhakar R. **1991**. Cerebrospinal fluid Adenosine Deaminase and Lysozyme levels in the diagnosis of tuberculous meningitis (CTBM). **Indian Journal of Tuberculosis. 38:** 217.
 8. Selvakumar N, **Vanaja Kumar**, Acharyulu GS, Fathima Rehman, Paramasivan CN and Prabhakar R. **1992**. Susceptibility of South Indian strains of *M. tuberculosis* to Tuberactinomycin. **Indian Journal of Medical Research. 95:** 101-104.
 9. Selvakumar N, **Vanaja Kumar**, Narayana ASL, Suryanarayanan D, Umapathy KC, Paramasivan CN and Prabhakar R. **1993**. Use of cetylpyridium chloride for storage of sputum specimens and isolation of *M. tuberculosis*. **Indian Journal of Tuberculosis. 40:**95.
 10. Selvakumar N, Reetha AM, **Vanaja Kumar**, Tripathy SP, Sivasubramanian S, Paramasivan CN and Prabhakar R. **1994**. Mycobacteriuria in pulmonary tuberculosis patients in Madras, South India. **Indian Journal of Tuberculosis. 41:** 43-45.
 11. Selvakumar N, **Vanaja Kumar** Gopi PG, Paramasivam CV, Manjula Dutta and Prabhakar R. **1995**. Isolation of *M. tuberculosis* from sputum samples of patients in the field studies by the cetylpyridinium chloride-sodium chloride and sodium hydroxide methods. **Indian Journal of Medical Research. 102:** 149-151.
 12. Tuberculosis Research Centre, Madras. **1995**. Interim findings on the evaluation of split drug regimens for pulmonary tuberculosis - A randomised controlled clinical trial. **Indian Journal of Tuberculosis. 42:** 201-206.
 13. Selvakumar N, **Vanaja Kumar**, Thilothammal N and Paramasivam CN. **1996**. Isolation of *Mycobacterium tuberculosis* from cerebrospinal fluid by the centrifugation and filtration methods. **Indian Journal of Medical Research. 103:** 250-252.
 14. Tuberculosis Research Centre, Chennai. **1996**. Seven year findings of short course chemotherapy in 18 districts in India under District Tuberculosis Programme. **Indian Journal of Tuberculosis. 43:** 131-142.
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15. **Vanaja Kumar**, Selvakumar N, Jawahar MS, Rajaram K and Paramasivan CN. **1997**. Transportation of lymphnode biopsy specimens in selective Kirchner's medium for culture of tubercle bacilli. **Journal of Medical Microbiology**. **46**: 260- 262.
 16. Selvakumar N, **Vanaja Kumar** and Paramasivam CN. **1997**. In vitro susceptibility of clinical isolates of *M. tuberculosis* to cefadroxil- a cephalosporin antibiotic. **Indian Journal of Medical Research**. **105**: 58-60.
 17. Selvakumar N, **Vanaja Kumar**, Krishnamurthy PV, Prabhakar R and Murthy PS. **1997**. In vitro susceptibility of *Mycobacterium tuberculosis* to trifluoperazine. **Current Science**. **73**: 79-80.
 18. **Vanaja Kumar**, Selvakumar N, Venkatesan P, Chandrasekaran V, Paramasivan CN and Prabhakar R. **1998**. Bioluminescence assay of ATP In drug susceptibility testing of *Mycobacterium tuberculosis*. **Indian Journal of Medical Research**. **107**: 75-77.
 19. Paul F.Riska, Ya Su, Svetoslav Bardarov, Laurence Freundlich, Gary Sarkis, Graham HatfuU, Christian Carriere, **Vanaja Kumar**, John Chan and William R Jacobs Jr. **1999**. Rapid film-based determination of antibiotic susceptibilities of *Mycobacterium tuberculosis* strains by using a luciferase reporter phage and the Bronx Box. **Journal of Clinical Microbiology**. **37**: 1144-1149.
 20. Ramanathan VD, Jawahar MS, Paramasivan CN, Rajaram K, Chandrasekar K, **Vanaja Kumar**, Palanimurugan K and Prabhakar R. **1999**. A histological spectrum of host responses in tuberculous lymphadenitis. **Indian Journal of Medical Research**. **109**: 212-220.
 21. Mani C, Selvakumar N, **Vanaja Kumar**, Sujatha Narayanan and Narayanan PR. **2003**. Comparison of DNA sequencing, PCR-SSCP, and PhaB assays with indirect sensitivity test for detection of rifampicin resistance in *Mycobacterium tuberculosis*. **Int J Tuberc Lung Dis**. **7**: 652-659.
 22. Marisa L. Pedulla, Michael E. Ford, Jennifer M. Houtz, Tharun Karthikeyan, Curtis Wadsworth, John A. Lewis, Debbie Jacobs-Sera, Jacob Falbo, Joseph Gross, Nicholas R. Pannunzio, William Brucker, **Vanaja Kumar**, Jayasankar Kandasamy, Lauren Keenan, Svetoslov Bardarov, Jordan Kriakov, Jeffrey G.
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- Lawrence, William R. Jacobs Jr., Roger W. Hendrix and Graham F. Hatfull. **2003**. Origins of highly mosaic mycobacteriophage genomes. **Cell. 113**: 171-182.
- 23.** Alok Dube, K.Jayasankar, L.Prabakaran, **Vanaja Kumar**, PK Gupta. **2004**. Nitrogen laser irradiation (337nm) causes temporary inactivation of clinical isolates of Mycobacterium tuberculosis. **Lasers in Medical Science. 9**: 52-56.
- 24.** Selvakumar N, **Vanaja Kumar**, P.G. Gopi, S. Sivagamasundari, E. Prabhakaran, Samuel Vasanthan and P.R. Narayanan. **2005**. Proficiency to read Sputum AFB smears by Senior Laboratory Treatment Supervisors under training at a reference laboratory in India. **Ind J Tub. 52**: 11-14.
- 25.** Graham F. Hatfull, Marisa L. Pedulla, Deborah Jacobs-Sera, Pauline M. Cichon, Amy Foley, Michael E. Ford, Rebecca M. Gonda, Jennifer M. Houtz, Andrew J. Hryckowian, Vanessa A. Kelchner, Swathi Namburi, Kostandin V. Pajcini, Mark G. Popovich, Donald T. Schleicher, Brian Z. Simanek, Alexis L. Smith, Gina M. Zdanowicz, **Vanaja Kumar**, Craig L. Peebles, William R. Jacobs Jr., Jeffrey G. Lawrence, and Roger W. Hendrix. **2006**. Exploring the mycobacteriophage metaproteome: phage genomics as an educational platform. **PloS Genetics. 2(6)**: e92.
- 26.** Selvakumar N, M. Gomathi Sekar, **Vanaja Kumar**, D. Vijaya Bhaskar Rao, Fathima Rahman, P.R. Narayanan. **2006**. Sensitivity of Ziehl-Neelsen method for centrifuged deposit smears of sputum samples transported in cetylpyridinium chloride. **Indian J Med Res. 124**: 439-442.
- 27.** Selvakumar N, **Vanaja Kumar**, S. Sivagamasundari, and P.R. Narayanan. **2006**. Contamination of stored sputum AFB smears with environmental mycobacteria. **Int J Tuberc Lung Dis. 10**: 1299-1301.
- 28.** **Vanaja Kumar**, S. Balaji, N. S. Gomathi, P. Venkatesan, Gomathi Sekar, K. Jayasankar, and P. R. Narayanan. 2007. Phagebiotics to control the exponential growth of normal flora in processed sputum specimens grown overnight in liquid medium for rapid TB diagnosis. **Journal of Microbiological methods. 68**: 536-542.
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29. Gomathi, N. S., H. Sameer, **Vanaja Kumar**, S. Balaji, V. N. Azger Dustackeer and P. R. Narayanan. **2007**. *In silico* analysis of mycobacteriophage Che12 genome: characterization of genes required to lysogenise *Mycobacterium tuberculosis*. **Computational Biology and Chemistry**. **31(2)**:82-91.
 30. Sivakumar, P. M. S. Prabu Seenivasan, **Vanaja Kumar** and Mukesh Doble. **2007**. Synthesis, antimycobacterial activity evaluation, and QSAR studies of chalcone derivatives. **Bioorganic Medicinal Chemistry Letters**.**17**:1695-1700.
 31. Vinoth Kumar, T.S., Kavitha S., Lakshmi Narayanan L., Gomathi, N. S., **Vanaja Kumar**. **2007**. Influence of irrigating needle tip design in removing bacteria from instrumented root canal using single tube luminometer. **Journal of Endodontics** **33**: 746-8.
 32. Selvakumar N, Michel Premkumar, **Vanaja Kumar**, Gopi PG, Sivagamasundari S, Prabhakaran E, *et al.* **2008**. Staining by phenol ammonium sulphate basic fuchsin of sputum in pot for detection of acid-fast bacilli. **Indian J Med Res**. **128**:194-197.
 33. Azger Dusthacker, **Vanaja Kumar**, Selvakumar Subbian, Gomathi Sivaramakrishnan, Guofang Zhu, Balaji Subramanyam, Sameer Hassan, Selvakumar Nagamaiah, John Chan and Narayanan Paranj Rama. **2008**. Construction and evaluation of luciferase reporter phages for the detection of active and non replicating bacilli. **J Microbiological Methods**. **73**: 18–25.
 34. **Vanaja Kumar**, Prabakaran Loganathan, Gomathi Sivaramakrishnan, Jordan Kriakov, Azger Dusthacker, Balaji Subramanyam, John Chan, William R. Jacobs Jr., Narayanan Paranj Rama. **2008**. Characterization of temperate phage Che12: construction of a new tool for diagnosis of tuberculosis. **Tuberculosis**. **88**: 616-623.
 35. Azger Dusthacker, V.N. Sameer Hassan, **Vanaja Kumar**. **2008**. Tape measure protein having MT3 motif facilitates phage entry into stationary phase cells of *Mycobacterium tuberculosis*. **Computational Biology and Chemistry**. **32**: 367-369.
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36. N. Selvakumar, **Vanaja Kumar**, P. G. Gopi, S.Sivagamasundari and P. R. Narayanan. **2008**. Pot method for storage and detection of acid-fast bacilli from sputum samples. **Indian J Med Res.** **128**:765-768.
 37. **Vanaja Kumar**, Raghavan, R., Nagamiah, S., and Chauhan, L.S. **2009**. External quality assessment of smear microscopy by the National Reference Laboratory in nine states of India. **Int J Tuberc Lung Dis.** **13**: 1183-1185.
 38. Raparti, V., Chitre, T., Bothara, K., **Vanaja Kumar**, Dangre, S., Khachane, C., Gore, S., and Deshmane, B. **2009**. Novel 4-(morpholin-4-yl)-N'-(arylidene)benzohydrazides: synthesis, antimycobacterial activity and QSAR investigations. **Eur J Med Chem.** **44**: 3954-3960.
 39. Sameer Hassan, Vasantha Mahalingam and **Vanaja Kumar**. **2009**. Synonymous Codon Usage Analysis of Thirty Two Mycobacteriophage Genomes. **Advances in Bioinformatics**. Article ID 316936, 11 pages.
 40. Balaji Subramanyam, Azger Dusthacker, Fathima Rehman, Gomathi Sekar, Gomathi N. Sivaramakrishnan, **Vanaja Kumar**. **2010**. An alternative sputum processing method using chitin for the isolation of Mycobacterium tuberculosis. **World J Microbiol Biotechnol.** **26**:523–526.
 41. Manikkam Radhakrishnan, S. Suganya, Ramasamy Balagurunathan, **Vanaja Kumar**. **2010**. Preliminary screening for antibacterial and antimycobacterial activity of actinomycetes from less explored ecosystems. **World J Microbiol Biotechnol.** **26**:561–566.
 42. Jerrine Joseph, Sameer Hassan, Vasanthi Rajendran and **Vanaja Kumar**. 2010. Microbial genome databases: a user's perspective, **Int. J. P.B.S** V1(2).
 43. Sivakumar PM, Vanaja Kumar, Prabu Seenivasan, Mohanapriya and Mukesh Doble. **2010**. Experimental and Theoretical approaches to enhance Anti tubercular Activity of Chalcones. *Wseas Transactions on Biology and Biomedicine.* **7**: 51-61.
 44. Balaji Subramanyam, Vanaja Kumar, Venkatesan Perumal and Selvakumar Nagamiah. 2010. Phage lysin to supplement phagebiotics to decontaminate processed sputum specimens. *Eur J Clin Microbiol Infect Dis.* **29**: 1407-1412
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45. M. Radhakrishnan, **Vanaja Kumar**, N. Selvakumar. 2010. Mycobacteria in environmental clean up. ENVIS NEWSLETTER, **8:2-5**.
46. Balaji Subramanyam, Vanaja Kumar. 2011. Effect of bacteriophage lysin on lysogens Asian Pacific Journal of Tropical Biomedicine, 306-308

List of Conferences / Symposium / Workshop attended and papers presented

1. International symposium on "Current developments in drug discovery for TB" from 14th to 17th January, 2002, organized by Astra Zeneca, Bangalore and held at IISC Campus, Bangalore.
 2. Workshop on Scientific writing conducted from 1-4 March, 2002 at Tuberculosis Research Centre, Chennai.
 3. Indo-French symposium on "Tuberculosis and AIDS" from 7th to 9th March, 2002 held at Hotel Radha Park Inn, Chennai.
 4. PATESTATE- Patent Information for Drug Research, workshop conducted from 11-12th September, 2002 at URDIP, Pune.
 5. Refresher Course for Professors/ Assistant Professors of Madras University at University of Madras, Guindy campus, Chennai on 9th September, 2003. **Title of the talk:** Molecular methods in diagnosis and drug sensitivity testing of *M.tuberculosis*.
 6. Seminar on Recent trends in Medical Technology organized by Dept of Microbiology, Sri Sankara Arts College, Kancheepuram on 30th December, 2003. **Title of the talk:** Phage based assays and molecular methods in TB diagnosis and drug sensitivity testing.
 7. Attended 104th General meeting of American Society for Microbiology (ASM) meeting during May 23-27, 2004 at New Orleans, **Lousiana, USA**.
 8. AIDS in India: A Regional Symposium-Workshop on Research Trials and Treatment from July 31st to August 6th, 2004. Title of the talk: New mycobacteriophage constructs to improve the sensitivity of LRP assay for TB diagnosis in AIDS patients.
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9. National science congress/Children Science Congress held at Ahmedabad from 3rd to 7th January 2005 at Nirma University, Ahmedabad. Participated as facilitator in ICMR stall at Pride of India Expo on behalf of TRC.
 10. National Conference on Luminescence Applications (NCLA 2005) held at Bangalore University Campus from 2-4th Feb. 2005. Invited talk titled "Bioluminescence as a molecular tool" presented.
 11. Participated in WHO sponsored "Regional Consultation on Expanding Laboratory Services for TB control" at Tuberculosis Research Centre, Chennai, 11-13 July, 2006.
 12. Chaired an oral presentation session in 5th National conference of Indian Association of Applied Microbiologists on "Emerging Trends and Evolving Technologies in Applied Microbiology with Special Reference to Microbial Nanotechnology" organized by Sri Sankara Arts and Science College, Kanchipuram, 11-12 January 2007.
 13. Organised a symposium on "Newer antituberculosis drugs: antibiotics from untapped sources and from synthesized compounds" and delivered guest lecture on "XDR-TB: the need for new anti tuberculosis drugs" during a one day conference and CME program jointly conducted by the L&T Microbiology Research Centre, Vision Research Foundation, Sankara Nethralaya, Chennai and Indian Association of Medical Microbiologists, on 24th February, 2007.
 14. Organized hands on training and gave an introductory lecture on phage based assays in "Aids in India – 2007" jointly organized by AECOM, New York, USA, AITRP, USA, and JNCASR, Bangalore, 8-13 July 2007.
 15. Participated in "Consultative meeting – India response plan for the diagnosis and management of MDR/XDR TB in Chennai", organized by Tuberculosis Research Centre, Chennai, September 14-15, 2007.
 16. Participated and delivered a lecture in the conference "Glacial overview of tuberculosis" held at St. James college, Chalakudi on 20-21 March 2009.
 17. Participated in workshop on preparation of SOP's on Culture and DST testing for IRL on 6th November 2009 at NTI, Bangalore.
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18. Research dissemination workshop on 15-16 December 2009 organized by WHO and TRC.
 19. Participated in APCON 2009. Drug susceptibility testing-Past, Present and Future. December 22-23 2009.
 20. Participated and presented a paper on "Mycobacteriophages-a journey to the unknown" in IAAM conference at SRM college on 11th December 2009.
 21. Participated and chaired a session in AP chapter of IAMM held at Tirupati on February 6th 2010.
 22. Participated in a symposium on Best practices in Mycobacteriology held at TRC, Chennai on 30th March 2010 organized by Becton Dickinson.
 23. Participated and delivered guest lecture in National Symposium on Molecular Diagnosis of Communicable Diseases organized by Adhiparasakthi College of Arts and Science, Kalavai on 11th October 2010.
 24. Participated and delivered guest lecture in National Seminar on Recent Trends in Microbial Technology with Reference to Extremophiles organized by Periyar University, Salem from 21st to 22nd October 2010.
 25. Organized a National Symposium on "Antituberculosis Drug Discovery: Current Status and Future prospects" at Tuberculosis Research Centre, Chennai on 30th October 2010.
 26. Attended Workshop titled "***Tuberculosis Diagnostic Research: Beyond the Basic***" from December 13th -15th 2010 as part of ICMR centenary celebrations. This course organized with support from TDR, European Commission, EDCTP, McGill University, Stop TB Partnership's New Diagnostics Working Group and the Foundation for Innovative New Diagnostics (FIND).
 27. Participated in World Health Organization (WHO) National Consultative Meeting held at Taj Mahal Hotel New Delhi on 18th December 2010 organized by WHO (SEARO).
 28. Participated in consultative meeting titled "Galvanizing evidence for HIV management" held at NARI Pune between 27th-29th January 2011.
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29. Participated in “ICMR-ELSEVIER Workshop on Information and Analytical Tools for the Medical Science Researchers” held at Tuberculosis Research Centre, Chennai on 17th February, 2011.
30. Participated in the workshop on “Facing the Reality of Multidrug resistant Tuberculosis: Challenges and Potential Solutions in India” organized by US National Academy of Sciences, Institute of Medicine (IOM), Indian Council of Medical Research (ICMR) and National Science Academy (INSA) in April 18-19, 2011 held at Indian National Science Academy, New Delhi.
31. Presented a poster titled “Transitmycin, a novel brominated antibiotic from a marine Streptomyces sp. R2 effective against *Mycobacterium tuberculosis* and HIV” in Joint NIAID – India Forum on “TB Drug Discovery Research: Exploring Opportunities for Collaboration” organized jointly by DBT, DHR, New Delhi and NIAID/NIH, USA in April 20-21, 2011 held at Oberoi Hotels, New Delhi.

Papers presented by students

1. 5th National conference of Indian Association of Applied Microbiologists on “Emerging Trends and Evolving Technologies in Applied Microbiology with Special Reference to Microbial Nanotechnology” organized by Sri Sankara Arts and Science College, Kanchipuram, 11-12 January 2007.
 - a. Phage cocktail supplemented with phage lysin to control the growth of normal flora in processed sputum specimens grown overnight in liquid medium for rapid TB diagnosis. S. Balaji, **Vanaja Kumar**, N. S. Gomathi, K. Suryapriya, K Jayasankar and P. R. Narayanan.
 - b. Phage based assay for rapid detection of tubercle bacilli in pulmonary specimens and application in drug susceptibility testing of clinical isolates. N. S. Gomathi, **Vanaja Kumar**, K. Jayasankar and P. R. Narayanan.
 - c. Development of Luciferase reporter phages for rapid diagnosis of tuberculosis. V.N.Azger, **Vanaja Kumar**, S. Selvakumar, N.S.Gomathi and P.R. Narayanan
 2. 61st National Conference on Tuberculosis and Chest Diseases – NATCON, 2006 organized by Tuberculosis Association of India, at RNT Medical College, Udaipur, between February 23rd and 25th, 2007.
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- a. Optimization of Luciferase Reporter Phage Assay to improve its sensitivity for diagnosis of tuberculosis. N. S. Gomathi, **Vanaja Kumar**, Balaji S, Azger Dusthakeer and P.R. Narayanan.
 - b. Development of Luciferase reporter phages aiding diagnosis of latent Tuberculosis. Azger, V.N., **Vanaja Kumar**., Selvakumar., S., Gomathi, N.S., Narayanan, P.R.
 3. One day CME program of Indian Association of Medical Microbiologist organized by Vision Research Foundation, Sankara Nethralaya, Chennai, 24th February, 2007.
 - a. Phagebiotics to control the overgrowth of normal flora in sputum samples and its evaluation on the growth and survival of *Mycobacterium tuberculosis* for rapid TB diagnosis. S. Balaji, **Vanaja Kumar**, Gomathi Sekar, Fathima Rehman and P. R. Narayanan.
 4. 64th National Conference on Tuberculosis and Chest Diseases (NATCON 2009) organized by Bengal Tuberculosis Association under the Auspices of Tuberculosis Association of India at Science City Auditorium on 26th – 29th December 2009.
 - a. Experiences with Mycobacterium Growth Indicator Tube System (MGIT-960) in a reference laboratory. Gomathi, N.S., R. Lakshmi, M. Baskaran, Fathima Rehman, Ranjani Ramachandran, N. Selvakumar and **Vanaja Kumar**.
 - b. Early diagnosis of tuberculosis by Luciferase Reporter Phages. Azger Dusthakeer and **Vanaja Kumar**.
 - c. Supplementation of phagebiotics with lysin for processing sputum samples. Balaji Subramanyam, Venkatesan P, and **Vanaja Kumar**.
 - d. Isolation of active fraction from selected medicinal plants *Mycobacterium tuberculosis*. S. Prabu Seenivasan and **Vanaja Kumar**.
 - e. Isolation of antimycobacterial compounds from marine derived actinomycetes. Radhakrishnan, M., R. Balagurunathan, Mukesh Doble, Suresh and **Vanaja Kumar**.
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- f. Lytic efficiency of mycobacteriophages. Sameer Hassan, Azger Dusthacker, Balaji Subramanyam and **Vanaja Kumar**.
 - g. Resistance to ethionamide could be cross-resistance mediated by Isoniazid. Lakshmi Rajagopalan., **Vanaja Kumar**, M. Baskaran, A. Syam Sundar, Fathima Rehman and Ranjani Ramachandran.
5. 65th National Conference on Tuberculosis and Chest Diseases – NATCON, 2010 organized by Tuberculosis Association of India, at NIMHANS, Bengaluru, between January 10th and 12th, 2011.
- a. Comparison of panel slides prepared by Phenol Ammonium Sulphate Sediment and acetyl-L-Cysteine methods for proficiency testing. N. Selvakumar, M. Michel Premkumar, S. Prabu Seenivasan, R. Radhakrishnan, S. Anbarasu, P. Nagarajan, M. Devi Sangamithrai, S. Sivagamasundari and **Vanaja Kumar**.
 - b. Development of an electronic system for monitoring proficiency test results of drug susceptibility testing (DST) of *M. tuberculosis*. Prabu Seenivasan, **Vanaja Kumar** and Selvakumar.
 - c. Evaluation of phage lysin to decontaminate sputum samples for the detection of *Mycobacterium tuberculosis* using BACTEC MGIT 960 system. Balaji Subramanyam, N. S. Gomathi, N. Selvakumar and **Vanaja Kumar**.
 - d. *Mycobacterium tuberculosis* proteasome – a novel drug target. Jerrine Joseph, Sameer Hassan and **Vanaja Kumar**.
 - e. Standardization of DST for ethionamide by phenotypic methods. R. Lakshmi, Ranjani Ramachandran, N. Selvakumar, A. Syam Sundar, M. Baskaran, G. Radhika and **Vanaja Kumar**.

Publications in Proceedings and Books

1. Selvakumar N, **Vanaja Kumar** and Natarajan R. Partial purification, characterization and Anti-tumour properties of L-asparaginase (antileukaemic agent) from a marine vibrio. (1991) p.289-300. In Bioactive compounds from marine organisms. Ed by Mary- Frances Thompson, Rachakunda Sarojini and
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Rachakunda Nagabushanam. Oxford and IBH Publishing Co. Pvt. Ltd., Bombay, India.

2. **Vanaja Kumar**, Selvakumar N and Natarajan R. Antagonistic properties of Actinomycetes isolated from molluscs of Porto-Novo coastal region South India. (1991) In Bioactive compounds from marine organisms. Ed by Mary- Frances Thompson, Rachakunda Sarojini and Rachakunda Nagabushanam. Oxford and IBH Publishing Co. Pvt. Ltd., Bombay, India. Page 267-274.
 3. Selvakumar N and **Vanaja Kumar**. Inhibitory activity of Trifluoperazine against Mycobacterium tuberculosis. (in) Non antibiotics. Ed. By AN Chakrabarty, J Molnar GS Dastidar, N. Motohashi. NISCOM. New Delhi. India. 1998. pp. 176-182.
 4. **Vanaja Kumar**. Bioluminescence and luciferase reporter phage assay. In proceedings of international symposium on luminescence and its applications. Vol I MS university of Baroda and Luminescence society of India, Feb 2000, pp 183-185.
 5. Jayasankar K, Cheruvu Mani and **Vanaja Kumar**. Biomedical application of luminescence:luciferase reporter phage assay for drug susceptibility testing of Mycobacterium tuberculosis isolates. In proceedings of international symposium on luminescence and its applications. Vol II MS university of Baroda and Luminescence society of India, Feb 2000, pp 9&10.
 6. Cheruvu Mani, N.Selvakumarn, Vanaja Kumar and PR Narayanan. Comparison of Luciferase reporter Phage and Phage amplified biologically assays with indirect sensitivity test to detect rifampicin resistance in Mycobacterium tuberculosis. Proceedings of the National Seminar on Luminescence and its Applications. Osmania University Hyderabad. 2001. pp. 232-234.
 7. Cheruvu Mani, N. Selvakumar, **Vanaja Kumar**, Sujatha Narayanan and P.R. Narayanan. Rapid identification of multi-drug resistant tuberculosis. Proceedings of Golden Jubilee Celebrations of DNA Discovery. Ethiraj College. Chennai. 2003.
 8. Balaji, S., Gomathi Sekar, Sachin Chandraker, **Vanaja Kumar**, N. S. Gomathi, Fathima Rehman and P. R. Narayanan. 2005. An alternative method of sputum
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processing to detect *Mycobacterium tuberculosis*. Proceedings of the DST, Govt. of. India, Sponsored National Symposium on Recent Trends in Microbial Biotechnology, department of Microbiology, Sri Sankara Arts and Science College, Kanchipuram, India. 89-95.

9. Selvakumar N, Michel Premkumar, **Vanaja Kumar**. Gopi PG, Sivagamasundari S, Prabhakaran E, *et al.* 2007. Pot staining of sputum for detection of acid-fast bacilli. Tuberculosis Surveillance Research Unit Progress Report. Amsterdam: KNCV.
10. Sergio Luis Yzquierdo, Vanaja Kumar, Dihadenys Lemus, Ernesto Montoro and Ruth Mc Nerney. MYCOBACTERIOPHAGE AND CONTROL OF TUBERCULOSIS. Contemporary Trends in Bacteriophage Research. Editor: Horace T. Adams, pp 1-21.

Awards Received

“**Life time achievement award**” presented by Indian Association of Medical Microbiologists at SRM University on December 11th 2009.

Details of projects handled:

S. No	Title	Organisation	Role
1	Potential Tuberculosis Drugs from Marine Actinomycetes	Department of Science and Technology	Principal Investigator
2	Protocol development for “Sensitivity and Specificity of <i>Mycobacterium tuberculosis</i> Screening and Diagnostics in HIV-Infected Individuals Initiating or Re-Initiating Antiretroviral Therapy”	The National Institute of Allergy and Infectious Diseases (NIAID)	Core team member- Mycobacteriologist
3	Establishment of National data base for tuberculosis	Department of Biotechnology	Principal Investigator
4	Awarding of Short term studentship (STS)	ICMR	Reviewer
5	Expert panel Committee	Department of Biotechnology	Member

Details of patents:

S.No	Title	File No
1	Pot Method for Detection of AFB	630/DEL/2008
2	Sputum processing method for mycobacteria	2819/DEL/2008 Filing Date: 12/12/2008
3	Improved luciferase reporter phage assay for rapid detection of dormant and active tubercle bacilli from clinical samples	2530/DEL/2010 Filing date: 22/10/2010
4	New antituberculous antibiotic from marine actinomycete strain R2	247/DEL/2011 Filing date:02/02.2011

Member- Journal Editorial Board

Member- Editorial Board- Asian Pacific Journal of Tropical Bio Medicine-2010
