



### **BIO-DATA**

**Name** RUPENDRA S. JADHAV  
**DATE OF BIRTH** 06-09-1965  
**SEX** Male  
**NATIONALITY** Indian  
**DESIGNATION** Associate Professor

### **EDUCATIONAL QUALIFICATIONS:**

**Ph.D. (Microbiology):** 1995 Department of Microbiology and Biotechnology, M.S. University, Baroda, Gujarat

**NET (JRF):** 1988 UGC

**M.Sc. (Microbiology):** 1988 YCCS, Karad, Shivaji University, Kolhapur, Maharashtra

**B.Sc. (Microbiology):** 1986 YCCS, Karad, Shivaji University, Kolhapur, Maharashtra

**H.S.C.:** 1983 H.S.C.Board, Pune, Maharashtra

**S.S.C. :** 1981 S.S.C.Board, Pune, Maharashtra

### **SCHOLARSHIPS / AWARDS:**

1. Maharashtra State Government's High School Scholarship from 1978 to 1981.
2. National Merit Scholarship from 1981 to 1986.
3. University Special Scholarship from 1986 to 1988.
4. NET Qualified: University Grants Commission's Research Fellowship from 1989 to 1994.
5. Selection for the award of Research Associateship of Council for Scientific and Industrial Research to carry out Post-doctoral research on 'Plant Growth Promoting Activity of Siderophores' in the year 1995.
6. Selection for the post-doctoral fellowship of DRDO (Defence Research and Development Organization) at Centre for Cellular and Molecular Biology, Hyderabad from 1995 to 1997.
7. Selection for the post-doctoral fellowship of INCO-DC Programme of European Commission from 1997 to 2000

### **RESEARCH EXPERIENCE:**

1. Worked as a **Junior Research Fellow** (University Grants Commission, India) in Department of Microbiology and Biotechnology Centre, M.S.University, Baroda, India from February 1989 to January 1991.

2. Worked as a **Senior Research Fellow** (University Grants Commission, India) in Department of Microbiology and Biotechnology Centre, M.S.University, Baroda, India from February 1991 to January 1994.
3. Worked as a **Temporary Lecturer** in Biological Nitrogen Fixation Programme of Indian Council for Agricultural Research in Department of Microbiology and Biotechnology Centre, Baroda India, from July 1994 to December 1994.
4. Worked as a **Research Associate** (Council for Scientific and Industrial Research, India) in Department of Microbiology and Biotechnology Centre, M.S.University, Baroda, India from January 1995 to August 1995.
5. Worked as a **Post-doctoral fellow** in Centre for Cellular and Molecular Biology, Hyderabad, India from September 1995 to August 1997.
6. Worked as **Post-doctoral fellow** in Stanley Browne Laboratory, Richardson Leprosy Hospital, Miraj, India from September 1997 to February 2000.
7. Worked as **Senior Scientist In-charge and Head of the Stanley Browne Lab**, from March 2000 to May 2008.
8. Worked as **Senior Scientist In-charge and Head of the Stanley Browne Lab**, from June 2008 to September 2011.
9. Worked as **Expert Scientific Writer and Team Lead** at Novartis Healthcare Pvt Ltd, Hyderabad from October 2011 to March 2012.
10. Working as **Associate Professor in Microbiology** at Institute of Science, Mumbai since April 2012.

#### **TEACHING / ACADEMIC EXPERIENCE:**

- January 1989 to December 1994: Teaching for post graduate students (M.Sc.) in Microbiology and Biotechnology.
- Guided six post graduate students as an intermediate for M.Sc. Dissertation work.
- Recognized Ph.D. guide in Microbiology by Shivaji University, Kolhapur
- Recognized as a Ph.D. guide in Biotechnology by Jawaharlal Nehru Technological University, Hyderabad
- Recognized as Ph.D. Guide in Microbiology by Mumbai University.
- Ph.D. students: 3 (2 Degree awarded, 1 pursuing)
- Guided 21 M.Sc. (Microbiology), 7 B.Tech (Biotechnology) and 5 M.Sc. (Biotechnology) students as Supervisor for their project work.
- Given lectures and talks on different areas of Molecular Biology in colleges and Institutes.
- Given orientation to many graduate and post graduate students from different colleges and Universities in various molecular, immunological and microbiological techniques.
- Worked as a resource person in conference
- Chaired scientific sessions at international and national conferences.
- Invited as judge for different scientific exhibitions and poster presentations

## **REVIEW EXPERIENCE:**

- **Reviewed manuscripts for following journals**
  1. Indian Journal of Medical Research
  2. Leprosy Review
  3. Future Medicine
  4. PLoS ntds
  5. European Journal of Clinical Microbiology & Infectious Diseases
  6. Future Investigation
  7. Asia Pacific Journal of Tropical Diseases
  8. Journal of Ancient Diseases and Preventive Remedies
  9. Biomed Research International
  10. ISRN Bacteriology
  11. BMC Infectious Diseases
  12. Journal of Dermatology Research and Therapy
  13. Infectious Disorders - Drug Targets
  14. Current Bioactive Compounds
  15. International Journal of Vaccine Research
  16. Journal of Clinical Immunology and Immunopathology
  17. Clinical Research in Infectious Diseases
  18. Journal of Microbial & Biochemical Technology
  
- **Reviewed research grant applications for Health, Welfare and Food Bureau (HWFB) of the Hong Kong Government for the funding for the research on Control of Infectious Disease (RFCID) and the Health and Health Services Research Fund (HHSRF).**
- **Member of Editorial Board of an international journal 'ISRN Bacteriology' (Hindawi Publications).**
- Co-chaired Molecular Biology session at Asian Leprosy Congress held at Agra in 2000.
- Co-chaired session at the meeting of 'Initiative for Diagnostic and Epidemiological Assays in Leprosy' (IDEAL) at Addis Ababa, Ethiopia held in 2004.
- Was invited as a resource` person to deliver a lecture on 'Recent advances in molecular diagnostics in leprosy' meeting of Tamil Nadu state chapter of dermatologists (CUTICON TN) held at Christian Medical College and Hospital, Vellore in 2011.
- Chaired a session at 'National Seminar on recent trends in Science and Technology for sustainable Developments 2018' held at Mumbai organized by The Institute of Science, Mumbai and National Gallery of Modern Arts, Mumbai on 22nd and 23rd March 2018

## **COUNTRIES VISITED FOR SCIENTIFIC MEETINGS / TRAINING / CONFERENCES:**

BEIJING, CHINA

AMSTERDAM, THE NETHERLANDS

SALVADOR & RIO DE JANEIRO, BRAZIL

KATHMANDU, NEPAL

ADDIS ABABA, ETHIOPIA

LONDON, UK  
BANGKOK, THAILAND  
HANOI, VIETNAM  
CEBU, PHILIPPINES  
PARIS, FRANCE  
TOKYO, JAPAN

### **SCIENTIFIC ADVISORY PANELS/BOARDS/STEERING COMMITTEES:**

2000-2003: Member of Indian INFIR-1 Advisory Committee  
2002 to 2011: Member of The Leprosy Mission's South Asia Research Committee.

### **MEMBERSHIP:**

1. Member of American Society for Microbiology
2. Life member of Christian Medical Association of India.
3. Member of Institutional Animal Ethics Committees of Foundation for Medical Research, Mumbai and The Institute of Science, Mumbai.

### **RESEARCH PROJECTS AND GRANTS RECEIVED AS INVESTIGATOR:**

1. **'EPIDEMIOLOGICAL STUDY OF RESETTLEMENT VILLAGE OF CURED LEPROSY PATIENTS' funded by Heiser Program for research in leprosy and tuberculosis, USA.** (Role: Principal Investigator). Transmission of leprosy using molecular tools was studied. Mucosal immune responses, systemic humoral responses and T-cells responses using *in vitro* assays were studied.
2. **'STUDY OF VIABILITY OF *Mycobacterium leprae* IN CLINICAL SAMPLES AND POSSIBILITY OF ITS PRESENCE IN THE ENVIRONMENT USING NUCLEIC ACID AMPLIFICATION TECHNIQUES' funded by Indian Council of Medical Research (Role: Principal Investigator).** In this study we developed nucleic acid amplification based protocols (conventional and real time RT-PCR) for qualitative and quantitative study of *Mycobacterium leprae*. This study was carried out in collaboration with Central JALMA Institute of Leprosy (Agra), Centre for DNA Fingerprinting and Diagnostics (Hyderabad) and Blue Peter Research Centre (Hyderabad)
3. **'NERVE FUNCTION IMPAIRMENT STUDIES IN REACTIONS IN LEPROSY (INFIR-1)' funded by International Federation of Leprosy Associations (ILEP). (Role: Project Manager / Investigator).** This study was a longitudinal cohort study to look at the nerve function impairment in leprosy during reactions. The laboratory part of research included serological and immunohistochemical testing for various markers to understand pathogenesis of reactions and predictive markers if any.
4. **'STABILITY OF HIV ANTIBODIES IN FILTER PAPER SPOTTED SERUM IN CONTEXT WITH TLM SET UP' funded by The Leprosy Mission. (Role: Principal Investigator).** This study was to establish the stability of antibodies reactive to various HIV diagnostic antigens on filter paper.

5. **‘MOLECULAR EPIDEMIOLOGY OF LEPROSY’ funded by National Institute of Health (NIH), USA. This is a collaborative project in association with Colorado State University. (Role: Principal Investigator at Foreign site).** This study was aimed to find out any strain differences and associations in relation to geographic distribution, disease prevalence, transmission links etc. in *Mycobacterium leprae* using VNTR analysis
6. **‘ASSESSMENT OF VIABLE *Mycobacterium leprae* FROM ENVIRONMENTAL SAMPLES AS A POSSIBLE SOURCE OF LEPROSY INFECTION’ funded by The Leprosy Mission. (Role: Principal Investigator).** This study was aimed at looking for the reservoir for *M. leprae* and establish transmission links.
7. **‘STUDY OF SEASONAL EFFECT ON NASAL CARRIAGE AND MUCOSAL IMMUNITY IN LEPROSY’ funded by The Leprosy Mission. (Role: Principal Investigator).** In this study we investigated sub-clinical infection of leprosy and exposure risks in association to environmental factors.
8. **‘PATHOGENESIS OF LEPROSY REACTIONS’ funded by The Leprosy Mission. (Role: Principal Investigator).** In this study we studied pathogenesis of inflammatory reactions, indigenous mechanisms to overcome such changes and susceptibility of patients to various leprosy reactions.
9. **‘SURVEILLANCE OF DRUG RESISTANCE IN LEPROSY USING MOLECULAR TECHNIQUES’ funded by The Leprosy Mission in partnership with World Health Organisation. (Role: Investigator).** This was surveillance study to see if there is any secondary drug resistance in *Mycobacterium leprae*.
10. **‘INITIATIVE FOR DIAGNOSTIC AND EPIDEMIOLOGICAL ASSAYS FOR LEPROSY (IDEAL)’ funded by Heiser Program for research in leprosy and tuberculosis, USA. This is a part of global consortium involving all major labs from Europe, USA, Africa and Asia working in the field of leprosy. (Role: Project Investigator at Foreign site).** This was a consortium study looking at the development of T-cell based assays for early diagnosis of leprosy and Molecular Epidemiology of the disease.
11. **‘STUDY OF ENVIRONMENTAL *Mycobacterium Leprae* AND TRANSMISSION LINK IN LEPROSY’ funded by Indian Council of Medical Research (Role: Principal Investigator).** Project transferred to Dr.U. Sengupta.
12. **‘A LONGITUDINAL COHORT STUDY TO IDENTIFY IMMUNOLOGICAL BIOMARKER FOR LEPROSY’ funded by Indian Council of Medical Research (Role: Co-Principal Investigator).** Project transferred to Dr.U. Sengupta.
13. **‘STUDY OF ANTI INFLAMMATORY MECHANISM THAT COULD HELP TO IDENTIFY PREDICTORS FOR NERVE FUNCTION IMPAIRMENT DURING LEPROSY REACTIONS’ funded by Indian Council of Medical Research (Role: Principal Investigator).** Project transferred to Dr. Ilse Horo.
14. **‘STUDY OF EFFECT OF SALT STRESS ON PLANT GROWTH PROMOTING FACTORS OF *Rhizobium* ISOLATED FROM FENUGREEK’ funded by University Grants Commission (Major Research Project) (Role: Principal Investigator).**
15. **‘PRELIMINARY STUDY OF IRON HOMEOSTASIS UNDER SALT STRESS IN *Rhizobium* ISOLATED FROM FENUGREEK’ funded by Mumbai University under BCUD Minor Research Grant (Role: Principal Investigator).**

### **TITLE OF THE PH.D. THESIS:**

A study on siderophore mediated iron transport system in cowpea *Rhizobium* (peanut isolate).

### **POST-DOCTORAL RESEARCH PROJECTS:**

**1. Plant growth promoting activity of siderophore from *Rhizobium*:** This was a project for Research Associateship from Council for Scientific and Industrial Research (CSIR). The study was done to look at the role of siderophore from *Rhizobium* in promotion of plant growth.

**2. Mechanism of cold adaptation in psychrotrophic bacteria from Antarctica:** Worked on this project in Centre for Cellular and Molecular Biology, Hyderabad, India as a Post-doctoral Research Fellow from 1995 to 1997. I worked on a psychrotrophic strain of *Pseudomonas syringae* isolated from Antarctica. The project deals with transcriptional regulation at low temperature. We found that RNA polymerase from this organism is capable of carrying out transcription at very low temperatures even under *in vitro* conditions. This enzyme was purified to almost homogeneity to characterise its structural and functional properties. The possibility of cold specific sigma factors is also being looked into. The N-terminal sequences of the alpha subunit of the enzyme and one approximately 94 KDa polypeptide (co-purifying with RNA polymerase) have been determined. Biochemical characterisation of the enzyme was done partially by studying *in vitro* transcription.

**3. Mucosal immunity in Leprosy:** This project was undertaken by Stanley Browne Laboratory, Richardson Leprosy Hospital, Miraj, India. The role of mucosal immunity in Leprosy was studied. This project was funded by European Commission. Project involved whole population study to detect presence of *M.leprae* on the nasal mucosa, characterisation of salivary antibodies, cell mediated immune response and mechanism of spread of the disease. Strategies and tests were developed for early detection of leprosy (sub-clinical) cases and prevention of the disease. Though the multi-drug therapy has been very much successful in decreasing the prevalence of leprosy it has not been able to decrease the incidence. Hence it is very much essential to know the mechanism of the spread of the disease. This project was coordinated by Prof. W.C.S. Smith from University of Aberdeen, UK.

**4. HIV Seroprevalence in Leprosy:** This project dealt with co-infection of HIV and leprosy. Leprosy patients from two centers of The Leprosy Mission are studied. The factors affecting the coinfection were evaluated. Immunophenotyping of the subsets of T-lymphocytes was carried out to look at any abnormalities.

### **PAPERS PUBLISHED:**

1. **JADHAV RS** and Desai AJ (1992) Isolation and partial characterisation of siderophore from cowpea *Rhizobium* (peanut isolate). *Current Microbiology*, **24**: 137-141. (ISSN 0343-8651, Impact Factor 1.815)

2. **JADHAV RS** and Desai AJ (1994) Siderophore mediated iron uptake in cowpea *Rhizobium* GN1 (peanut isolate): possible involvement of iron repressible outer membrane proteins. *FEMS Microbiology Letters*, **115**: 185-190. (ISSN 0378-1097, Impact Factor 2.044)

3. **JADHAV RS**, Thaker NV, and Desai AJ (1994) Involvement of siderophore of cowpea *Rhizobium* in iron nutrition by peanut. *World Journal of Microbiology and Biotechnology*, **10 (3)**: 360-361. (ISSN 0959-3993, Impact Factor 1.532)

4. **JADHAV RS**, Thaker NV and Desai AJ (1993) Isolation of outer membrane proteins by Triton X-100 treatment and detection of iron repressible outer membrane proteins from cowpea *Rhizobium*

(peanut isolate). *Advances in Plant Biotechnology and Biochemistry* (Eds. Lodha ML, Mehta SL, Ramgopal S and Srivastava GP), Indian Society for Agricultural Biochemists, Kanpur, India, pp.117-121. (ISSN, Impact Factor)

5. **JADHAV RS** and Desai AJ (1996) Effect of nutritional and environmental factors on siderophore production by cowpea *Rhizobium* (peanut isolate). *Indian Journal of Experimental Biology*, **34**: 436-439. (ISSN 0019-5189, Impact Factor 1.295)
6. **JADHAV RS** and Desai AJ (1997) Iron reductase activity in cowpea *Rhizobium* (peanut isolate). *World Journal of Microbiology and Biotechnology*, **13 (3)**:347-348. (ISSN 0959-3993, Impact Factor 1.532)
7. **JADHAV RS**, Uma S, Sheshukumar G., Shivaji S and Ray MK (1999) A RNA polymerase with transcriptional activity at 0°C from the Antarctic bacterium *Pseudomonas syringae*. *FEBS Letters* **453**: 313-317. (ISSN 0014-5793, Impact Factor 3.538)
8. **JADHAV RS**, Macdonald M, Bjune G, Oskam L on behalf of MILEP-2 study group (2001). Simplified PCR detection method for nasal *Mycobacterium leprae*. *International Journal of Leprosy and other Mycobacterial Diseases*, **69 (4)**:299-307. (ISSN 0148-916X, Impact Factor 0.22)
9. Smith WCS, Smith CM, Cree IA, **JADHAV RS**, Macdonald M, Edward VK, Oskam L, Klatser P on behalf of the MILEP Study Group (2004). An Approach to Understanding the Transmission of *Mycobacterium leprae* Using Molecular and Immunological Methods: Results from the MILEP2 Study. *International Journal of Leprosy and other Mycobacterial Diseases*, **72 (3)**: 269-277. (ISSN 0148-916X, Impact Factor 0.22)
10. Brakel WH, Nicholls PG, Das L, Barkataki P, Suneetha SK, **JADHAV RS**, Maddali P, Lockwood DNJ, Wilder Smith E and Desikan KV (2005). The INFIR Cohort Study: investigating prediction, detection and pathogenesis of neuropathy and reactions in leprosy. Methods and baseline results of a cohort of multibacillary leprosy patients in North India. *Leprosy Review*, **76 (1)**: 14-34. (ISSN 0305-7518, Impact Factor 1.037)
11. **JADHAV RS**, Shinde VS, Kamble RR, Edward S, Rao JR and Edward VK (2005). Use of reverse transcription polymerase chain reaction (RT-PCR) for the detection of *Mycobacterium leprae* in the slit skin smears of leprosy patients. *Indian Journal of leprosy*, **77 (2)**: 116-127. (ISSN 0254-9395, Impact Factor )
12. Lavania M, Katoch K, Sachan P, Dubey A, Kapoor S, Kashyap M, Chauhan DS, Singh HB, Sharma VD, **JADHAV RS** and Katoch VM (2006). Detection of *Mycobacterium leprae* DNA from soil samples by PCR targeting RLEP sequences. *J Commun Dis*, **38(3)**:269-73. (ISSN 0019-5138, Impact Factor )
13. Lavania M, Katoch K, Katoch VM, Gupta AK, Chauhan DS, Sharma R, Gandhi R, Chauhan V, Bansal G, Sachan P, Sachan S, Yadav VS, **JADHAV R**. Detection of viable *Mycobacterium leprae* in soil samples: Insights into possible sources of transmission of leprosy. *Infect Genet Evol*. 2008 Jun 11. (ISSN 1567-1348, Impact Factor 3.128)
14. van Brakel WH, Nicholls PG, Wilder-Smith EP, Das L, Barkataki P, Lockwood DN; INFIR Study Group (2008). Early diagnosis of neuropathy in leprosy--comparing diagnostic tests in a large prospective study (the INFIR cohort study). *PLoS neglected tropical diseases* Apr 2;2(4):e212 (ISSN 1935-2727, Impact Factor 4.716)
15. Smith WCS, Nicholls PG, Das L, Barkataki P, Suneetha S, Suneetha L, **JADHAV R**, Rao PSSS, Wilder-Smith E, Lockwood DNJ, Brakel WV (2009). Predictive neuropathy and reactions in leprosy at diagnosis and before incident events- results from the INFIR Cohort study. *PLoS neglected tropical diseases*. Aug 11, 3(8):e500. (ISSN 1935-2727, Impact Factor 4.716)

16. Kamble RR, Shinde VS, Madhale SP and **JADHAV RS** (2009). Stability of HIV antibodies in filter paper spotted serum. *Indian Journal of Dermatology, Venereology and Leprology*. Nov-Dec, 75(6):616-617. (ISSN 0378-6323, Impact Factor 0.979)
17. Kamble RR, Shinde VS, Madhale SP and **JADHAV RS** (2009). Study of cross reactivity of *Mycobacterium leprae* reactive salivary IgA with other environmental mycobacteria. *Indian J Leprosy*. 81:63-68. (ISSN 0254-9395, Impact Factor)
18. Lavania M, Lal R, Joseph G and **JADHAV RS** (2009). Genotypic Analysis of *Mycobacterium leprae* Strains from Different Regions of India on the Basis of rpoT. *Indian J Leprosy*. 81(3): 119-24. (ISSN 0254-9395, Impact Factor)
19. Kamble RR, Shinde VS, Madhale SP, Kamble A, Ravikumar BP and **JADHAV RS** (2010). Extraction and detection of *Mycobacterium leprae* DNA from ZNCF stained slit skin smear. *Indian Journal of Medical Microbiology*, 28(1):57-59. (ISSN 0255-0857, Impact Factor 0.988)
20. Kamble RR, Shinde VS and Madhale SP and **JADHAV RS** (2010). Study of cytokine response against panel of purified *Mycobacterium leprae* antigens by using whole blood assay in subjects residing in a resettlement village of cured leprosy patients. *Indian J Leprosy*. *Indian J Lepr*, 82(1):23-31. (ISSN 0254-9395, Impact Factor)
21. Kamble RD, **JADHAV RS** and Jadhav AR (2010). Production of Alkaline Cellulase-free Xylanase by an Alkalothermophilic *Bacillus vallismortis*. *International Journal of Biotechnology and Bioengineering Research*. 1(2): 195-202. (ISSN, Impact Factor )
22. **JADHAV RS**, Suneetha L, Kamble R, Shinde V, Devi K, et al. (2011) Analysis of Antibody and Cytokine Markers for Leprosy Nerve Damage and Reactions in the INFIR Cohort in India. *PLoS Negl Trop Dis* 5(3): e977. doi:10.1371/journal.pntd.0000977 (ISSN 1935-2727, Impact Factor 4.716)
23. Vaidya S, Shinde V, Jadhav R, Mulye S, Chowdhary A, Kulkarni M et al (2011). Relationship between rpoB mutations and minimum inhibitory concentrations of rifampicin in multi-drug resistant strains of *Mycobacterium tuberculosis*. *European Respiratory Journal* 38 (Suppl 55), p1824. (ISSN 1399-3003, Impact Factor 5.895)
24. Turankar RP, Lavania M, Singh M, Siva Sai KSR and **JADHAV RS** (2012). Dynamics of *Mycobacterium leprae* transmission in environmental context: deciphering the role of environment as a potential reservoir. *Infect Genet Evol*. 12(1): 121-126. doi: 10.1016/j.meegid.2011.10.023. Epub 2011 Nov 11. (ISSN 1567-1348, Impact Factor 3.128)
25. Lavania M, Karri SR, Turankar R, Chaitanya S, Sengupta U and **JADHAV RS** (2013). Cohort study of seasonal effect on nasal carriage and presence of *Mycobacterium leprae* in endemic area on general population. **Clin Microbiol Infect**. 19(10):970-4. doi: 10.1111/1469-0691.12087. Epub 2013 Jan 18. (ISSN 1198-743X, Impact Factor 5.179)
26. Lavania M, **JADHAV RS**, Turankar RP, Chaitanya VS, Singh M, Sengupta U (2013). Single nucleotide polymorphism typing of *Mycobacterium leprae* reveals focal transmission of leprosy in high endemic regions of India. **Clin Microbiol Infect**. 2013 Jan 18. doi: 10.1111/1469-0691.12125. Epub 2013 Jan 18. (Impact factor 5.179, ISSN: 1469-0691, H-Index: 70).
27. Chaitanya S, **JADHAV RS**, Lavania M, Singh M, Valluri VL and Sengupta U (2013). Interleukin-17F Single Nucleotide Polymorphism (7488T>C) and its association with susceptibility to Leprosy. *International Journal of Immunogenetics*, 41(2):131-7. doi: 10.1111/iji.12097. Epub 2013 Oct 25. ( Impact factor: 1.355, ISSN 1744-313X).
28. Chaitanya S, Lavania M, Nigam A, Turankar RP, Singh I, Horo I, Sengupta U and **JADHAV RS** (2013). Cortisol and proinflammatory cytokine profiles in Type 1 (reversal) reactions of



- leprosy. *Immunology Letters*, 156 (1-2) 159-67. doi: 10.1016/j.imlet.2013.10.008. Epub 2013 Nov 1. (Impact factor 2.337)
29. Turankar RP, Lavania M, Chaitanya VS, Sengupta U, Darlong J, Darlong F, Siva Sai KS, **JADHAV RS** (2014). Single nucleotide polymorphism-based molecular typing of *M. leprae* from multicase families of leprosy patients and their surroundings to understand the transmission of leprosy. *Clin Microbiol Infect*. 2014 Mar;20(3):O142-9. doi: 10.1111/1469-0691.12365. Epub 2013 Oct 30. (Impact Factor 5.179, ISSN: 1469-0691).
30. Raju R, Suneetha S, **JADHAV RS**, Chaduvula M, Atkinson S, Jain S, Visser LH, Das L, Panhalkar R, Shinde V, Reddy PP, Barkataki P, Lockwood DN, Van Brakel WH, Suneetha LM (2014). Serological responses to prednisolone treatment in leprosy reactions: study of TNF- $\alpha$ , antibodies to phenolic glycolipid-1, lipoarabinomannan, ceramide and S100-B. *Lipids Health Dis*. 2014 Jul 28;13(1):119. (Impact Factor 2.31, ISSN 1476-511X).
31. Lavania M, **JADHAV RS**, Chaitanya VS, Turankar R, Selvasekhar A, Das L, Darlong F, Hambroom UK, Kumar S & Sengupta U (2014). Drug resistance patterns in *Mycobacterium leprae* isolates from relapsed leprosy patients attending The Leprosy Mission (TLM) Hospitals in India. *Lepr Rev* 85, 177– 185 (ISSN 0305-7518, Impact Factor 1.037).
32. Lavania M, **JADHAV R**, Turankar RP, Singh I, Nigam A, Sengupta U (2015). Genotyping of *Mycobacterium leprae* strains from a region of high endemic leprosy prevalence in India. *Infection, Genetics and Evolution*;36:256-61. doi: 10.1016/j.meegid.2015.10.001. (ISSN 1567-1348, Impact Factor 3.128)
33. Turankar RP, Lavania M, Singh M, Sengupta U, Siva Sai K, **JADHAV RS** (2016). Presence of viable *Mycobacterium leprae* in environmental specimens around houses of leprosy patients. *Indian Journal of Medical Microbiology*; 34(3):315-21. (ISSN 0255-0857, Impact Factor 0.988)
34. Suneetha LM, Marsakatla P, Ravi GV, Sykam A, Raju R, Reddy PP, Hara Gopal VV, **JADHAV R**, Suneetha S (2016). Phenotypic characterization of a pair of molecules in tissues confer to classical Mendelian or non Mendelian ratios. *Medical Hypotheses*; 94:112-7. doi: 10.1016/j.mehy.2016.07.008. (ISSN 0306-9877, Impact Factor 1.136)
35. Cambau E, Saunderson P, Matsuoka M, Cole ST, Kai M, Suffys P, Rosa PS, Williams D, Gupta UD, Lavania M, Cordona N, Miyamoto Y, Hagge D, Srikantam A, Hongseng W, Indropo A, Vissa V, Johnson RC, Cauchoix B, Pannikar VK, Cooreman EA, Pemmaraju VR, Gillini L; WHO surveillance network of antimicrobial resistance in leprosy. Antimicrobial resistance in leprosy: results of the first prospective open survey conducted by a WHO surveillance network for the period 2009-2015. *Clin Microbiol Infect*. 2018 Feb 26. pii: S1198-743X(18)30197-6. doi: 10.1016/j.cmi.2018.02.022.

#### **PAPERS PRESENTED IN NATIONAL / INTERNATIONAL CONFERENCES:**

1. **JADHAV RS**, Shah SS and Desai AJ (1989) Production of siderophores by cowpea *Rhizobium* isolate and a strain of *Azospirillum lipoferum*. National Symposium on Biological Nitrogen Fixation, Hissar, India.
2. **JADHAV RS** and Desai AJ (1992) Isolation and partial characterisation of siderophore negative mutants of cowpea *Rhizobium* GN1. DAE Symposium on Molecular Biology of Microorganisms, Pune, India.
3. **JADHAV RS** and Desai AJ (1992) Siderophore mediated iron transport in cowpea *Rhizobium* (peanut isolate). 32nd Annual Conference of Association of Microbiologists of India, Madurai India.

4. **JADHAV RS** and Desai AJ (1992) Iron reductase activity in cowpea *Rhizobium* (peanut isolate). 61st Annual General Body Meeting of Society of Biological Chemists of India, Hyderabad, India.
5. **JADHAV RS**, Thaker NV and Desai AJ (1993) Isolation of outer membrane proteins by Triton X-100 treatment and detection of iron repressible outer membrane proteins from cowpea *Rhizobium* (peanut isolate). International Conference on Biotechnology in Agriculture and Forestry, New Delhi, India.
6. **JADHAV RS** and Desai AJ (1993) Localisation and characterisation of ferrisiderophore reductase activity in cowpea *Rhizobium* GN1 (peanut isolate). 62nd Annual General Body Meeting of Society of Biological Chemists of India, Madurai, India.
7. **JADHAV RS** and Desai AJ (1994) Effect of iron chelators and siderophore of cowpea *Rhizobium* on iron nutrition of peanut. 34th Annual Conference of Association of Microbiologists of India, Ludhiana, India.
8. **JADHAV RS** and Desai AJ (1994) Effect of nutritional and environmental conditions on siderophore production by cowpea *Rhizobium* GN1 (peanut isolate). DAE Symposium, Baroda, India.
9. **JADHAV RS** and Desai AJ (1994) Energy dependent, inducible high-affinity iron transport system in cowpea *Rhizobium* GN1 (peanut isolate). 16th International Congress of Biochemistry and Molecular Biology (XVIth IUBMB), New Delhi, India.
10. **JADHAV RS** and Desai AJ (1994) Metal regulation of siderophore mediated iron assimilation in cowpea *Rhizobium* GN1 (peanut isolate). MICON International '94 and 35th Annual Conference of Association of Microbiologists of India, Mysore, India.
11. Edward VK, Rao JR, **JADHAV RS** and Smith WCS (1998) Spatial distribution of *Mycobacterium leprae* PCR positive individuals in an Indian community. 15th International Leprosy Congress held at Beijing in September 1998.
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33. **JADHAV RS**. Meeting on sentinel surveillance for drug resistance in leprosy: An update of the work done at The Leprosy Mission, India. WHO workshop on sentinel surveillance of drug resistance in leprosy held at Hanoi, Vietnam in October 2008.
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37. **JADHAV RS**. "Molecular diagnostics & Leprosy – Where are we?" Invited as a speaker at CUTICON TN 2011 held at CMC Vellore on 28<sup>th</sup> October 2011.
38. Turankar R, Chaitanya S, Lavania M, Karri S and **JADHAV RS**. Seasonal impact on the nasal carriage of *Mycobacterium leprae* in an endemic Cohort. 1<sup>st</sup> Biennial national conference of Indian Academy of Science and Nature held at Agra, India in November-December 2011.
39. Chaitanya S, Lavania M, Singh M, Sengupta U and **JADHAV RS**. Interleukin-17F Single Nucleotide Polymorphism (7488 T>C) and its association with susceptibility to Leprosy. 1<sup>st</sup> Biennial national conference of Indian Academy of Science and Nature held at Agra, India in November-December 2011. **Best paper (oral presentation)award.**
40. Lavania M. **JADHAV RS**, Turankar R and Jadoun GPS. Distribution of *Mycobacterium leprae* genotypes in a region of high leprosy prevalence in India. Indian Association of Leprologists conference held at Mumbai in January 2012.
41. Turankar R, Lavania M, Singh M, and **JADHAV RS**. Detection of viable *Mycobacterium leprae* from soil samples and its genotyping on the basis of rpoT. Indian Association of Leprologists conference held at Mumbai in January 2012.
42. Chaitanya S, Lavania M, Singh M, Sengupta U and **JADHAV RS**. Study of Polymorphism and in-vitro Expression levels of Interleukin 17F in Leprosy. . Indian Association of Leprologists conference held at Mumbai in January 2012.
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44. **JADHAV RS**. Development of quantitative PCR technology for *Mycobacterium leprae* using 16S ribosomal RNA. UGC Sponsored second National Symposium on ‘Modern Research Trends And Applications in Life Sciences’ organised by Government of Maharashtra’s Elphinstone College, Mumbai in February 2013.
45. Ravindra P Turankar, Mallika Lavania, Sundeep Chaitanya, Utpal Sengupta and **RUPENDRA S JADHAV**. Molecular typing based on single nucleotide polymorphism of *M. leprae* from multi-case families of leprosy patients and their surroundings. National conference on Zoonotic

Mycobacterial Infection and their Impact on Public Health held at Jawaharlal Nehru Auditorium, All India Institute of Medical Sciences, New Delhi from 25th-27th February 2013.

46. Ravindra P Turankar, Mallika Lavania, Sundeep Chaitanya Utpal Sengupta KSR Siva Sai and **RUPENDRA S JADHAV**. Reverse transcription-PCR based detection of viable *M. leprae* from environmental samples in the inhabitant areas of active leprosy cases: a cross sectional study from endemic pockets of Purulia, west Bengal. Oral presentation-18th International Leprosy Congress Hidden challenges held at Brussels-Belgium from 16th to 19th September 2013.

47. Ravindra P Turankar, Mallika Lavania, Sundeep Chaitanya, Utpal Sengupta, KSR Siva Sai, and **RUPENDRA S JADHAV**. Single nucleotide polymorphism based molecular typing of *M. leprae* from multi-case families of leprosy patients and their surroundings to understand the transmission of leprosy. Poster presentation-18th International Leprosy Congress Hidden challenges held at Brussels-Belgium from 16th to 19th September 2013.

48. Mallika Lavania , R. P. Turankar , V. S. Chaitanya , U. Sengupta , **R. S. JADHAV** , S. S. Abraham, L. Das , F. Darlong (2013). Determination of transmission patterns of circulating *Mycobacterium leprae* strains among leprosy patients in areas of high leprosy prevalence in India using VNTR and SNP typing. 18th International Leprosy Congress, Brussels: 16th Sept – 19th Sept 2013.

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50. **JADAV RS**. Use of 16S ribosomal RNA based detection and viability testing of *Mycobacterium leprae*. DBT sponsored National Conference on ‘Modern analytical techniques in Microbiology, MATM 2014’ held at Fergusson College, Pune on 17<sup>th</sup> and 18<sup>th</sup> January 2014.

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52. Posam M, Chavan N, Kanwar A and **JADHAV RS**. Isolation of *Rhizobium* from fenugreek and evaluation of its siderophore production under salt stress. National conference on " Recent trends and innovations in Microbial world" held on 15-16th January, 2015 at Smt. C.H.M. College, Ulhasnagar, India.

53. Posam M, Fernandes R and **JADHAV RS**. Evaluation of Indole Acetic Acid production and its role in osmo-protection in *Rhizobium* isolated from Fenugreek. National. “**The Sajjan Group Konark Memorial Award,**” a Research Scholars’ meet held on 18<sup>th</sup> January 2017 at V.E.S College of Arts, Science and Commerce, Chembur, Mumbai (Organised by The Konark group & Vivekanand Education Society's College).

54. **JADHAV RS**. Epidemiological study of resettlement village of cured leprosy patients from a low endemic area in Maharashtra (India). National Seminar on recent trends in Science and Technology for sustainable Developments 2018 held at Mumbai organized by The Institute of Science, Mumbai and National Gallery of Modern Arts, Mumbai on 22<sup>nd</sup> and 23<sup>rd</sup> March 2018.