


Scientist Profile

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| 1. Name | Dr D. SULOCHANA |  |
| 2. Designation | Scientist 'E' (Deputy Director) | |
| 3. Date of Birth | 11-10-1951 | |
| 4. Date of Joining | 16-04-1987 | |
| 5. Date of joining present post | 01-09-2008 | |
| 6. Discipline | IMMUNOLOGY | |
| 7. Address (off.) | DEPT OF IMMUNOLOGY
NATIONAL INSTITUTE FOR
RESEARCH IN TUBERCULOSIS
(FORMERLY TRC)
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| 12. Educational Qualifications | M.Phil; Ph.D. (Biochemistry)
(University of Madras, India) | |
| 13. Research Experience | More than 25 years of research
experience in the field of tuberculosis | |

CURRENT RESEARCH INTERESTS:

- Immune responses in tuberculosis. Th1/Th2 paradigm in TB Pleuritis.
- Chemokines and their cognate receptors in tuberculous immunity
- Human monocyte / macrophage apoptosis.
- Role of Neutrophils and Dendritic cells in innate immunity.
- Modulation of Immune responses by clinical *M. tuberculosis* strains
- DNA fingerprinting of *M. tuberculosis* bacilli.

RESEARCH GUIDANCE:

Four Ph.D. and 35 Post graduate students were guided for their theses/dissertations.

14. Membership/Fellowship of Professional Societies/Associations :

- Life member of Indian Immunology Society
- Society of Immunology and Immunopathology
- Awarded Fellowship during 1990-1991 under British ODA/TCTP program at National Institute for Medical Research (NIMR), Mill Hill, LONDON, U.K.
- Awarded fellowship under British ODA/TCTP Program at NIMR, LONDON during April '96 – Sept. '96.
- Reviewer for many reputed International and National journals and Funding projects
- Examiner for of ICMR & CSIR Fellowships, Doctoral committee Member for Ph.D students and Viva Voce examiner
- Extramural/Intramural projects handled - INDO-US, INDO-GERMAN, MODEL DOTS and ICMR TASK FORCE

15. Workshops/Conferences/Symposiums - Attended various National and International Conferences/symposia and presented 35 posters/ papers.

16. Awards

- Two best poster presentation awards in 2000 at Indian Immunology Society and International Symposium in Molecular Biology, Allergy and Immunology.

17. Miscellaneous

- The observation of high percentage (40%) of IS6110 single copy strains of *M. tuberculosis* in S.India (Das S et al 1995), **is highly cited (112 times)** in the literature including Handbooks on Tuberculosis. This made an impact by showing the limitations of IS6110 based fingerprinting and its diagnostic potential of tuberculosis in endemic country like India.

18. Publications - In peer reviewed Journals: 37; In Conferences: 30

Select Publications

1. P. Rajvelu, **SD Das** Kinetics of chemokines secretion in human macrophages infected with various strains of *Mycobacterium tuberculosis* Indian J Med Microbiol. 2010, 28(3):201-6.
2. Supriya Pokkali, Priya Rajavelu, R. Sudhakar and **Sulochana D. Das** Phenotypic modulation in *Mycobacterium tuberculosis* strains infected neutrophil during tuberculosis Indian J Med Res. 2009; 130: 185-192

3. Prabha C, Supriya P, **Sulochana D. Das**, Sukumar B and Balaji S. Leptin response in patients with tuberculous pleuritis. Indian J Med Res. 2008; 128:721-27
4. Priya Rajavelu and **Sulochana D. Das** Expression of co-stimulatory molecules (B7.1 and B7.2) on macrophages infected with various strains of *Mycobacterium tuberculosis* and its influence on T-cell apoptosis Indian J Med Res. 2008;127:388-94
5. Rajashree P, Gokula Krishnan, **Sulochana D. Das**. Impaired phenotype and function of monocyte derived dendritic cells in pulmonary tuberculosis. Tuberculosis. 2009, 89(1):77-83.
6. Supriya Pokkali, **Sulochana D. Das** & Anbalagan Selvaraj. Differential upregulation of chemokine receptors on CD56 NK cells and their transmigration to the site of infection in tuberculous pleurisy. FEMS Immunol Med Microbiol 2009, 55: 352–360
7. Supriya Pokkali and **Sulochana D. Das**. Augmented chemokines levels and its receptor expression on immune cells during pulmonary tuberculosis. Human Immunology. 2009;70:110-115.
8. Pokkali S, Rajavelu P, Sudhakar R, **Das SD**. Phenotypic modulation in *Mycobacterium tuberculosis* infected neutrophil during tuberculosis. Indian J Med Res. 2009;130(2):185-92.
9. Prabha C, Supriya P, **Sulochana D. Das**, Sukumar B and Balaji S. Leptin response in patients with tuberculous pleuritis. Indian J Med Res. 2008, 128:721-27.
10. Rajashree P and **Das SD**. Infection with prevalent clinical strains of *Mycobacterium tuberculosis* leads to differential maturation of monocyte derived dendritic cells. Immunol Lett. 2008;117: 174-80.
11. Priya Rajavelu, Supriya Pokkali, Umashankar P, Kamlesh Bhatt, P.R. Narayanan, Padmini Salgame, **Sulochana D. Das**. Comparative Evaluation of Cytokines, T-Cell Apoptosis, and Costimulatory Molecule Expression in Tuberculous and Nontuberculous Pleurisy. Clinical and Translational Science 2008; 1 (3): 209 – 14
12. Supriya Pokkali, Prabha C and **Sulochana D. Das**. Diagnostic utility of interferon- γ induced protein of 10kDa (IP-10) in tuberculous pleurisy. Diagnostic Microbiology and Infectious Diseases (2008), 2:186-192.
13. Priya Rajavelu and **Sulochana D. Das**. Expression of co-stimulatory molecules (B7.1 and B7.2) on macrophages infected with various strains of *Mycobacterium tuberculosis* and its influence on T-cell apoptosis. Indian J Med Research 2008; 127: 388-94.
14. Rajashree P, Supriya P, **Sulochana D. Das** Differential migration of human monocyte derived dendritic cells after infection with prevalent clinical strains of *Mycobacterium tuberculosis* Immunobiology-2008; 213(7):567-75.
15. Prabha C, Rajashree P and **Sulochana D. Das** TLR2 and TLR4 Expression on the Immune Cells of Tuberculous Pleural Fluid Immunology letters 2008; 117(1):26-34.

16. Supriya Pokkali, **Sulochana D. Das** and Logamurthy R Expression of CXC and CC type of chemokines and its receptors in tuberculous and non tuberculous effusions. Cytokine 2008; 41:307- 314
17. Prabha C, Jalapathy KV, Matsa RP, **Das SD**. Differential T helper cell response in tuberculous pleuritis. Indian J Med Microbiol. 2007 Jan;25(1):18-23.
18. Rajavelu P, **Das SD**. A correlation between phagocytosis and apoptosis in THP-1 cells infected with prevalent strains of Mycobacterium tuberculosis. Microbiol Immunol. 2007;51(2):201-10.
19. Rajavelu P, Madhumathi J and **Das SD**. Humoral immune responses of normals and tuberculosis patients to multiple sonicate antigens prepared from the most prevalent strains of *Mycobacterium tuberculosis* harbouring single copy of IS6110 from South India. Current Science. 2006; 91(7): 918-22.
20. Prabha. C, Kripa V. Jalapathy and **Sulochana D. Das** Humoral Immune Response in Tuberculous Pleuritis. American Journal of Immunology 2005;1(2):68-73.
21. The Lancet's tsunamis coverage-India—A P Dash, S Raja Sabapathy, **Sulochana D Das**, Lalitha Hari, Oommen John. The Lancet 2005;365,
22. Rajavelu P, **Das SD**. Th2-type immune response observed in healthy individuals to sonicate antigen prepared from the most prevalent *Mycobacterium tuberculosis* strain with single copy of IS6110. FEMS Immunol Med Microbiol. 2005 Jul 1;45(1):95-102.
23. Prabha C, Karthic S, **Das SD**, Swaminathan S, Subramaniam S, Sukumar B. Impact of tuberculosis on serum leptin levels in patients with HIV infection. Horm Res. 2005;63(5):228-33. Epub 2005 May 9.
24. **Das SD**, Narayanan S, Hari L, Hoti SL, Thangathurai RK, Charles N, Jaggarajamma K, Narayanan PR. Differentiation of highly prevalent IS6110 single-copy strains of Mycobacterium tuberculosis from a rural community in South India with an ongoing DOTS programme. Infect Genet Evol. 2005 Jan;5(1):67-77.
25. **Das S**, Narayanan S, Hari L, Mohan NS, Somasundaram S, Selvakumar N, Narayanan PR. Simultaneous infection with multiple strains of Mycobacterium tuberculosis identified by restriction fragment length polymorphism analysis. Int J Tuberc Lung Dis. 2004 Feb;8(2):267-70.
26. C Prabha, KSA Khadar and **SD Das**. In vitro cytokine response to tuberculosis. J. Immunol. Immunopathol. 2004. 6(S-1): 62-63
27. **Das SD**, Subramanian D, Prabha C. Cell proliferation and apoptosis: dual-signal hypothesis tested in tuberculous pleuritis using mycobacterial antigens. FEMS Immunol Med Microbiol. 2004 May 1;41(1):85-92.
28. Jalapathy KV, Prabha C, **Das SD**. Correlates of protective immune response in tuberculous pleuritis. FEMS Immunol Med Microbiol. 2004 Mar 8;40(2):139-45.
29. Rajavelu P, **Das SD**. Cell-mediated immune responses of healthy laboratory volunteers to sonicate antigens prepared from the most prevalent strains of Mycobacterium tuberculosis from South India harboring a single copy of IS6110. Clin Diagn Lab Immunol. 2003; 10(6):1149-52.

30. C. Prabha, Kripa V. Jalapathy, Ram Prasad Matsa and **Sulochana D. Das** Role of TNF- α in host immune response in tuberculous pleuritis. Current Science 2003; 85(5),639-642.
31. Narayanan S, **Das S**, Garg R, Hari L, Rao VB, Frieden TR, Narayanan PR. Molecular epidemiology of tuberculosis in a rural area of high prevalence in South India: implications for disease control and prevention. J Clin Microbiol. 2002 Dec; 40(12):4785-8.
32. Aravindhan Vivekanandhan and **Sulochana Das** *In vivo* study on dual-signal hypothesis and its correlation to immune response using mycobacterial antigen. Current Science. 2001; 81(3):301-304.
33. **Das SD**, Narayanan PR, Kolappan C, Colston MJ. The cytokine response to bacille Calmette Guerin vaccination in South India. Int J Tuberc Lung Dis. 1998 Oct;2(10):836-43.
34. **Das S**, Paramasivan CN, Lowrie DB, Prabhakar R, Narayanan PR. IS6110 restriction fragment length polymorphism typing of clinical isolates of Mycobacterium tuberculosis from patients with pulmonary tuberculosis in Madras, south India. Tuber Lung Dis. 1995 Dec;76(6):550-4.
35. **Das S**, Chan SL, Allen BW, Mitchison DA, Lowrie DB. Application of DNA fingerprinting with IS986 to sequential mycobacterial isolates obtained from pulmonary tuberculosis patients in Hong Kong before, during and after short-course chemotherapy. Tuber Lung Dis. 1993 Feb;74(1):47-51.
36. **Das S**, Cheng SH, Lowrie DB, Walker KB, Mitchison DA, Vallishayee RS, Narayanan PR. The pattern of mycobacterial antigen recognition in sera from Mantoux-negative individuals is essentially unaffected by bacille Calmette-Guerin (BCG) vaccination in either south India or London. Clin Exp Immunol. 1992 Sep;89(3):402-6.
37. **Das S**, Narayanan S, Paramasivan CN, Lowrie DB, Narayanan PR. Human tuberculosis sera show prominent antibody responses to particulate fractions of Mycobacterium tuberculosis. J Clin Immunol. 1991 Mar;11(2):74-7.