

## BIOGRAPHICAL SKETCH

NAME : DR.P.SELVARAJ		POSITION TITLE: SCIENTIST 'E' (DEPUTY DIRECTOR)	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
N.M.S.S.V.N.college, Madurai-625019	B.SC	1975	ZOOLOGY
Thiagarajar College, Madurai-625009	M.SC	1977	ZOOLOGY
School of Biological Sciences, Madurai Kamaraj University, Madurai-600021	PH.D	1983	IMMUNOLOGY

### **A. Research and/or Professional Experience**

#### **Research Interest:**

- i) Host Genetic susceptibility or Resistance to Tuberculosis, HIV and HIV-TB.
- ii) Immunology and Immunogenetics of Tuberculosis, HIV and HIV-TB.

#### **Current Research Activities:**

- i) Regulatory role of HLA-DR Alleles and Vitamin D Receptor gene variants on immune functions in pulmonary tuberculosis.
- ii) Cytokine gene polymorphisms and cytokine levels in pulmonary tuberculosis.
- iii) Human Leucocyte Antigen (HLA) and non-HLA gene polymorphism studies in HIV and HIV-TB.

#### **Research / Teaching experience:**

- i) Research Experience in Immunology and Immunogenetics from- 1978 -to date-30 years
- ii) Recognised Guide/Supervisor for: Produced Three PH.Ds.  
Five Ph.D Students are working currently.

## **Visits abroad**

- i. 26<sup>th</sup> October, 1988 to October, 1989 – LONDON, UK – 1 year Training in Molecular Biology of HLA Expression – BRITISH ODA PROGRAMME – At the Laboratory of Dr.D.B. LOWRIE / Dr.M.J. COLSTON, Division of Mycobacterial Diseases, National Institute of Medical Research, Mill Hill, London.
- ii. 28<sup>th</sup> November, 1996 to May, 1997 – OXFORD, UK – 6 months Training in Non-MHC gene polymorphism studies in tuberculosis – BRITISH ODA PROGRAMME – At the Laboratory of Prof. Adrian V.S. Hill, Wellcome Trust Centre for Human Genetics, Oxford, UK.
- iii) 2<sup>nd</sup> October,2005 to December,2005- National Institute of Health , Bethesda, USA- (three months)- visiting Scientist to establish collaboration with Dr. Steven M. Holland, Chief, Laboratory of Clinical Infectious Diseases, NIAID/NIH, USA.

## **Honours/Awards:**

R.C. Garg Memorial Award for the best article published in the Indian Journal of Tuberculosis in 1999.

## **Membership on Committees**

- i) Life Member of Indian Immunology Society.
- ii) Executive Council Member, Indian society for Histocompatibility and Immunogenetics, New Delhi.

## **B. Selected Publications**

1. Influence of HLA-DR and –DQ phenotypes on tuberculin reactive status in pulmonary tuberculosis patients. *P. Selvaraj*; A.M. Reetha; H. Uma, T. Xavier; B. Janardhanam; R. Prabhakar, P.R. Narayanan. *Tubercle and Lung Disease*, 1996; 77; 369-373.
2. Influence of HLA-DR2 phenotype on humoral immunity and lymphocyte response to *Mycobacterium tuberculosis* culture filtrate antigens in pulmonary tuberculosis. *P. Selvaraj*; H. Uma; A.M. Reetha; Theresa Xavier; R. Prabhakar and P.R. Narayanan. *Indian J Med Res*, 1998; 107; 208-217.
3. Antibody and lymphocyte responses to *Mycobacterium tuberculosis* culture filtrate antigens in active and quiescent (cured) pulmonary tuberculosis. H. Uma; *P. Selvaraj*; A.M. Reetha; Theresa Xavier; R. Prabhakar; P.R. Narayanan. *Ind J Tub*, 1999; 46, 21-28.

4. Influence of HLA-DR antigens on lymphocyte response to *Mycobacterium tuberculosis* culture filtrate antigens and mitogens in pulmonary tuberculosis. H. Uma; P. Selvaraj; A.M. Reetha; T. Xavier; R. Prabhakar, P.R. Narayanan. *Tubercle and Lung Disease*; 1999; 79; 199-206.
5. Association of functional mutant homozygotes of the mannose binding protein gene with susceptibility to pulmonary tuberculosis in India. P. Selvaraj; P.R.Narayanan;A.M. Reetha.*Tubercle and Lung Disease*, 1999; 79; 221-227.
6. Association of vitamin D receptor genotypes with the susceptibility to pulmonary tuberculosis in female patients and resistance in female contacts. P. Selvaraj; P.R. Narayanan; A.M. Reetha. *Indian J Med Res*, 2000; 111; 172-179.
7. Tumour necrosis factor alpha (-238 and -308) and beta gene polymorphisms in pulmonary tuberculosis : haplotype analysis with HLA-A, B and DR genes. Selvaraj, P.; Sriram, U.; Mathan Kurian, S.; Reetha, A.M.; Narayanan, P.R. *Tuberculosis*; 2001; 81; 335-341.
8. Association of vitamin D receptor gene variants of *Bsm1*, *Apal* and *FokI* polymorphisms with susceptibility or resistance to pulmonary tuberculosis. Selvaraj, P.; Chandra, G.; Sunil Mathan Kurian; Reetha, A.M.; Narayanan, P.R. *Current Science*; 2003; 84; 1564-1568.
9. Vitamin D receptor gene variants of *Bsm1*, *Apal*, *TaqI* and *FokI* polymorphisms in spinal tuberculosis. Selvaraj, P.; Kurian, S.M.; Chandra, G.; Reetha, A.M.; Charles, N., Narayanan, P.R. *Clinical Genetics*, 2004; 65; 73-76.
10. Effect of vitamin D<sub>3</sub> on phagocytic potential of macrophages with live *Mycobacterium tuberculosis* and lymphoproliferative response in pulmonary tuberculosis. Chandra, G.; Selvaraj, P.; Jawahar, M.S.; Banurekha, V.V.; Narayanan, P.R. *Journal of Clinical Immunology*, 2004; 24; 249-257.
11. Effect of vitamin D<sub>3</sub> on phagocytic potential of macrophages with live *Mycobacterium tuberculosis* and lymphoproliferative response in pulmonary tuberculosis. Chandra, G.; Selvaraj, P.; Jawahar, M.S.; Banurekha, V.V.; Narayanan, P.R. *Journal of Clinical Immunology*, 2004; 24; 248-256.
12. Regulatory role of vitamin D receptor gene variants of *Bsm1*, *Apal*, *TaqI*, and *FokI*

polymorphisms on macrophage phagocytosis and lymphoproliferative response to Mycobacterium tuberculosis antigen in Pulmonary tuberculosis .Selvaraj,P.; Chandra,G.;Jawahar,M.S.;Vidyarani,M.;Nisha Rajeswari,D.;and Narayanan, P.R. Journal of Clinical Immunology,2004;24;523

13. Role of mannose binding lectin gene variants on its protein levels and macrophage phagocytosis with live Mycobacterium tuberculosis in pulmonary tuberculosis. Selvaraj P,Jawahar M.S, Rajeswari D.N, Alagarasu K,Vidyarani M, Narayanan P.R. FEMS Immunol Med Microbiol,2006,46:433-437.

14. Elevated percentage of perforin positive cells in active pulmonary tuberculosis. Nisha Rajeswari D, Selvaraj P, Jawahar MS,Adhilakshmi AR, Vidyarani M, Narayanan PR. Indian J Med Res 2006,123;687-690.

15. Interferon gamma (IFN $\gamma$ )& interleukin-4 (IL-4) gene variants7 cytokine levels in pulmonary tuberculosis. Vidyarani M, Selvaraj P, Prabhu Anand S, Jawahar MS, Adhilakshimi AR, Narayanan PR. Indian J Med Res 2006,124;403 – 410.

16. Association of Human Leukocyte antigen-A11 with resistance and- B40 and -DR2 with susceptibility to HIV-1 infection in south India. Selvaraj P, Swaminathan S, Alagarasu K, Raghavan S, Narendran G, Narayanan PR. J Acquir Immune Defic Syndr 2006, 43:497-499.

17. Rajeswari DN, Selvaraj P, Raghavan S, Jawahar MS, Narayanan PR (2007) Influence of HLA-DR2 on perforin-positive cells in pulmonary tuberculosis. Int J Immunogenet 34:379-84.

18. Selvaraj P, Nisha Rajeswari D, Jawahar MS, Narayanan PR (2007) Influence of HLA-DRB1 alleles on Th1 and Th2 cytokine response to Mycobacterium tuberculosis antigens in pulmonary tuberculosis. Tuberculosis (Edinb) 87:544-550.

19. Alagarasu K, Selvaraj P, Swaminathan S, Raghavan S, Narendran G, Narayanan PR (2007) Mannose binding lectin gene variants and susceptibility to tuberculosis in HIV-1 infected patients of South India. Tuberculosis (Edinb) 87:535-543.

20. Vidyarani M, Selvaraj P, Jawahar MS, Narayanan PR (2007) 1, 25 Dihydroxyvitamin D3 modulated cytokine response in pulmonary tuberculosis. Cytokine 40:128-34

### **C. Research Support**

#### **Projects funded:**

i)ICMR funded Task Force Project on “Human Leucocyte Antigen (HLA) and non-HLA gene polymorphism studies in HIV and HIV-TB patients”.