

Scientist Profile

Name	DR. NANCY HILDA J
Designation	SCIENTIST B
Date of Birth	10-09-1986
Date of Joining :	28-08-2018
Date of joining present post :	28-08-2018
Discipline	Immunology, tuberculosis, CD4 cell response in HIV/ AIDS
Address (off.) including Contact Number*	ICMR- National Institute for Research in Tuberculosis, #1, Mayor Satyamoorthy Road, Chetpet, Chennai 600031 Ph No: 044-2836-9714
Email address*	Nancyhilda.j@nirt.res.in

* **Mandatory**

Educational Qualifications <i>(begin with descending order)</i>			
DEGREE	INSTITUTION AND LOCATION	YEAR(s)	FIELD OF STUDY
Doctor of Philosophy	National Institute for Research in Tuberculosis/ University of Madras, Chennai, India	2011- 2016	Immunology
Master of Science	Loyola College, University of Madras, Chennai, India	2007-2009	Biotechnology
Bachelor of Science	Indira Gandhi CAS, Pondicherry University, Pondicherry, India	2004- 2007	Biotechnology

Research Experience

Principal Investigator

- 1) Role of Neutrophils and Neutrophil Extracellular Traps in the pathogenesis of Pulmonary Tuberculosis and Corona Virus Disease 19 Co- infection
- 2) Differences in the role of neutrophil responses during the course of anti-tuberculosis treatment- A pilot study
- 3) Important complement proteins and their circulation in blood during pulmonary tuberculosis

Co- Principal Investigator

1) Population-based serosurvey for SARS-CoV-2 infection transmission in Greater Chennai Corporation, Tamil Nadu – Fourth round, June-July 2021

Co- Investigator

1) A Phase III, Randomized, Double-blind, Placebo-controlled Trial to Evaluate the Efficacy and Safety of VPM1002 and Immunovac Vaccines in Preventing Tuberculosis (TB) in Healthy Household Contacts of Newly Diagnosed Sputum Positive Pulmonary TB Patients

Membership/Fellowship of Professional Societies/Associations:

Network Associate of VALIDATE network- Vaccine development for complex intracellular neglected pathogens

Workshops/Conferences/Symposiums:

1. Poster presentation at the International Science Symposium on HIV & Infectious Diseases (ISSHID 2019) held at Sri Ramachandra Institute of Higher Education and Research, Chennai, India on October 12-14, 2019. 'Complement proteins as surrogate markers for diagnosis of active tuberculosis and monitoring of treatment response'. **Nancy Hilda J**, Jayakrishna Pamarthi, Bharat G Venkataratna, Veronika Thulasingam, Srikanth P Tripathy and Luke Elizabeth Hanna.
2. Oral presentation at the 39th Annual Conference of Indian Society of Immunology (Immunocon 2012) held at Institute of Medical Sciences, BHU, Varanasi, November 9-11, 2012. 'In vitro modulation of signaling receptors on neutrophils infected with Mycobacterium tuberculosis strains'. **Nancy Hilda J** and Sulochana D. Das.
3. Poster presentation at the 40th Annual Conference of Indian Society of Immunology (Immunocon 2013) held at University of Delhi, North Campus, New Delhi, November 15-17, 2013. 'In vitro modulation of signaling receptors on Mycobacterium tuberculosis infected neutrophils from pulmonary tuberculosis patients'. **Nancy Hilda J** and Sulochana D. Das.
4. Poster presentation at 38th Annual conference of Indian Association of Medical microbiologists (Microcon 2014) held at B. M. Birla Auditorium, Jaipur, October 15-19, 2014. 'In vitro modulation of toll like receptors on mycobacterium tuberculosis infected neutrophils from healthy individuals & pulmonary tuberculosis patients'. **Nancy Hilda J** and Sulochana D. Das.

Awards/Achievements:

- Received 2nd prize for BEST POSTER AWARD at the International Science Symposium on HIV and Infectious Diseases (ISSHID 2019): Infectious diseases held at SIRRH, Chennai from Oct 12-14, 2019
- Obtained ICMR- PDF in 2017
- Obtained ICMR-SRF in 2013
- Qualified CSIR-NET with JRF in 2010
- Received Prof. Wilson Medal for securing 1st rank in M. Sc Biotechnology (2007- 2009), Loyola College, Chennai 600034

Publications

1. J NH, K LP, Selvaraj A, Chinnaraj S, Luke Elizabeth H. Toll like receptor (2 and 4) expression and cytokine release by human neutrophils during tuberculosis treatment-A longitudinal study. *Mol Immunol.* 2021;140:136-143. doi: 10.1016/j.molimm.2021.10.009. Epub 2021 Oct 26.
2. Ponnan SM, Vidyavijayan KK, Thiruvengadam K, Hilda J N, Mathayan M, Murugavel KG, Hanna LE. Role of Circulating T Follicular Helper Cells and Stem-Like Memory CD4⁺ T Cells in the Pathogenesis of HIV-2 Infection and Disease Progression. *Front Immunol.* 2021 Apr 16;12:666388. doi: 10.3389/fimmu.2021.666388. PMID: 33936106; PMCID: PMC8085399.
3. Nancy Hilda J, Jayakrishna P, Bharat GV, Veronika T, Srikanth P Tripathy SP, Luke Elizabeth Hanna. Abstracts from the International Science Symposium on HIV and Infectious Diseases (ISSHID 2019): Infectious diseases : Chennai, India. 12-14 October 2019. *BMC Infect Dis.* 2020;20(Suppl 1):324. doi: 10.1186/s12879-020-05038-y.
4. Hilda JN, Das S, Tripathy SP, Hanna LE. Role of neutrophils in tuberculosis: A bird's eye view. *Innate Immun.* 2020;26:240-247. doi: 10.1177/1753425919881176. Epub 2019 Nov 17.
5. Nancy Hilda J, Das S. Neutrophil CD64, TLR2 and TLR4 expression increases but phagocytic potential decreases during tuberculosis. *Tuberculosis (Edinb).* 2018;111:135-142. doi: 10.1016/j.tube.2018.06.010. Epub 2018 Jun 9.
6. Hilda JN, Das SD. TLR stimulation of human neutrophils lead to increased release of MCP-1, MIP-1 α , IL-1 β , IL-8 and TNF during tuberculosis. *Hum Immunol.* 2016 Jan;77(1):63-7. doi: 10.1016/j.humimm.2015.10.005. Epub 2015 Oct 16.
7. Hilda JN, Narasimhan M, Das SD. Mycobacterium tuberculosis strains modify granular enzyme secretion and apoptosis of human neutrophils. *Mol Immunol.* 2015 Dec;68(2 Pt A):325-32. doi: 10.1016/j.molimm.2015.09.019. Epub 2015 Oct 9.
8. Hilda JN, Narasimhan M, Das SD. Neutrophils from pulmonary tuberculosis patients show augmented levels of chemokines MIP-1 α , IL-8 and MCP-1 which further increase upon in vitro infection with

mycobacterial strains. Hum Immunol. 2014 Aug;75(8):914-22. doi: 10.1016/j.humimm.2014.06.020. Epub 2014 Jun 30.

9. Hilda JN, Selvaraj A, Das SD. Mycobacterium tuberculosis H37Rv is more effective compared to vaccine strains in modulating neutrophil functions: an in vitro study. FEMS Immunol Med Microbiol. 2012 Dec;66(3):372-81. doi: 10.1111/j.1574-695X.2012.01025.x. Epub 2012 Sep 12.
10. Senbagavalli P, Hilda JN, Ramanathan VD, Kumaraswami V, Nutman TB, Babu S. Immune complexes isolated from patients with pulmonary tuberculosis modulate the activation and function of normal granulocytes. Clin Vaccine Immunol. 2012 Dec;19(12):1965-71. doi: 10.1128/CVI.00437-12. Epub 2012 Oct 24.