

Scientist Profile



Name	Dr.N.SUDHAKAR
Designation	Scientist 'B'
Date of Birth	20-05-1979
Date of Joining	23-01-2018
Date of joining present post	23-01-2018
Discipline	Molecular Biology & Genomics
Address (off.) including Contact Number*	Department of HIV/AIDS & Bioinformatics Centre No.1, Mayor Sathiyamoorthy Road, Chetpet, Chennai – 600031.
Email address	sudhakar.n@nirt.res.in nsudha79@gmail.com

Educational Qualifications (begin with descending order)

DEGREE	INSTITUTION	UNIVERSITY	YEAR(s)
Ph.D. (Molecular Biology & Molecular Oncology)	Cancer Institute (WIA), Adyar, Chennai – 600020.	University of Madras	2003-2007
M.Phil. Biochemistry	University of Madras Guindy Campus	University of Madras	2001-2002
M.Sc. (Molecular Biology)	University of Madras Guindy Campus	University of Madras	1999-2001
B.Sc. (Biochemistry)	Islamiah College, Vaniyambadi. Vellore District. T.N.	University of Madras	1996-1999

Research Experience:

Worked as an **Associate Professor** in the Department of Biotechnology, Dr. M.G.R. Educational & Research Institute (Deemed University), Maduravoyal, Chennai, since Sep 2008 till November 2017 (July 2010 till November 2017 – Associate Professor; Sep 2008 to June 2010 – Assistant Professor)

Postdoctoral Visiting Fellow in in the Laboratory of Experimental Immunology at National Cancer Institute (NCI), Frederick, MD, USA (Period 2007-2008)

Worked as a **Senior Research Fellow (SRF)** at Cancer Institute (WIA), Chennai

Worked as a **Junior Research (JRF)** at Cancer Institute (WIA), Chennai in a DST funded project during the period 2002-2004.

Funded Projects

Principal Investigator of a Research Project on “Development and validation of an affordable diagnostic kit for early detection of Human Papilloma Virus (HPV) infection in Cervical cancer” funded by Department of Science & Technology (DST) under Scheme for Young Scientists & Technologists (SYST), Period 2017-2019, Grant sanctioned: 20.5 Lakhs (**Ongoing project**)

Principal Investigator of a Research Project on ‘ To Investigate the Toll-like Receptor (TLR) Signalling in Breast Cancer’ funded by Science & Engineering Research Board (SERB) under FAST TRACK scheme for Young Scientists (Grant awarded : 20 Lakhs), Period July 2012- July 2015 (**Completed**)

Membership of Professional Societies :

Society of Biological Chemists (SBC) – Life member

Indian Association of Cancer Research (IACR) – Life member

Indian Immunology Society - Life member

Workshops/Conferences/Symposiums

Delivered a Talk as a **Resource person** in the CME program sponsored by Ministry of AYUSH, Govt. of India on “Current Trends in Drug Development of AYUSH system” organized by Captain Srinivasa Murthy Regional Ayurveda Drug Development System, Chennai held on April 24-29, 2017

Invited as a Resource Person for International Seminar on ‘Molecular Basis of Diseases’ organized by Islamiah College (Autonomous), Vaniyambadi, Vellore district on 4th December 2017 and delivered a talk on ‘Biology of Cancer’

Publication of Abstracts in Journals/Conference Proceedings

International : 5 National : 3

Participation in Workshops

'Advanced School on Biomedical Nanotechnology' sponsored by DST-Nanomission held on March 25-29, 2013 at SASTRA University, Thanjavur.

'Next Generation Sequencing Technologies for a panel of cancer Markers' organized by Genotypic Technologies, Bangalore on Oct 5-6, 2012

Course on 'The Biology of Disease Paradigm' with a focus on Leukemias held at National Centre for Biological Sciences (NCBS), TIFR, Bangalore from 25th October to 3rd November, 2011.

Recent trends in Molecular modeling and Advances in Computer Aided Drug design" held on 30th July to 4th Aug 2010 organized by Bioinformatics Infrastructure facility and CAS in Crystallography & Biophysics, University of Madras, Guindy campus

Awards

Qualified in State Eligibility Test (SET) - Life sciences conducted by Mother Teresa women's University, Tamil Nadu in February 2016

Travel Grants awarded by the Department of Science and Technology (DST), Govt. of India & Sir Dorabji Tata Memorial Trust, Mumbai, India to present a poster in UICC-World Cancer Congress 2006 held at Washington, D.C

Senior Research Fellowship (SRF) awarded by Lady Tata Memorial Trust, Mumbai during the period 2004-2006

Qualified in National Level Graduate Aptitude Test in Engineering (GATE - Life Sciences) in the year 2002

Honour

Reviewed project proposals from Science and Engineering Research Board (SERB), Govt. Of India (2014-2016)

Based on expertise in Leukemia, International Atomic Energy Agency (IAEA) invited for a Brain storming meeting at Vienna during Oct 7-10, 2008. The meeting was held to draft a multi-centre project proposal on Acute Lymphoblastic Leukemia.

Miscellaneous

Expert Committee Member for evaluation of PhD thesis and Member of Doctoral Committee in the School of Biosciences and Technology, VIT University, Vellore (2014 till date)

Member – Board of Studies in the Department of Biochemistry, Islamiah College (Autonomous), Vaniyambadi, Vellore District (2017-2018)

Publications

1. Jayalalitha S, **Sudhakar N.** *In vitro* Cytotoxicity and Apoptotic Assay in HT-29 Cell Line Using *Ficus hispida* Linn. Leaves Extract. *Pharmacognosy magazine* 2018; Jan; 13(Suppl 4): S756–S761.
2. **N Sudhakar**, T Rajkumar, KR Rajalekshmy, NK Nancy. Characterization of clonal immunoglobulin heavy (IGH) V-D-J gene rearrangements and the complementarity-determining region in South Indian patients with precursor B-cell acute lymphoblastic Leukemia. *Blood Research* 2017; 52 (1), 55-61.
3. Suresh M, Sumantran VN, **Sudhakar N.** Amphotericin B abolishes the cytotoxic effect of Toll-like receptor 9 agonist cytosine-guanosine in breast cancer cell line MCF-7. *Natl J Physiol Pharm Pharmacol* 2017; 7(6): 654-657.
4. Madheswaran Suresh, Malarvizhi Gurusamy, **Natarajan Sudhakar.** Masking anti-phagocytic signal of tumor by pro-phagocytic signal – A key to immurement of cancer cell. *International Journal of Pharmacy and Pharmaceutical Sciences* 2016; 8(9) : 323-328.
5. Sumantran VN, Mishra P, Bera R, **Sudhakar N.** Microarray Analysis of Differentially-Expressed Genes Encoding CYP450 and Phase II Drug Metabolizing Enzymes in Psoriasis and Melanoma. *Pharmaceutics*. 2016 Feb 17;8(1)
6. Venil N Sumantran, Pratik Mishra and **N Sudhakar.** Microarray analysis of differentially expressed genes regulating lipid metabolism during melanoma progression. *Indian Journal of Biochemistry & Biophysics* 2015; Vol.52: PP 125-131.
7. **Sudhakar, N.**, George Priya Doss, C., Thirumal Kumar, D., Chakraborty, C., Anand, K.,& Suresh, M., (2015). Deciphering the impact of somatic mutations in exon 20 and exon 9 of *PIK3CA* gene in breast tumors among Indian women through molecular dynamics Approach. *J Biomol Struct Dyn*. 2016; 34(1):29-41.
8. Madeswaran Suresh., Venil N Sumantran & **Sudhakar, N.** (2015) Differential gene expression profiling in MCF7 vs. MDA-MB-231 cell lines and identifying the molecular markers and drug targets for Triple Negative Breast Cancer (TNBC). *J Carcinogenesis*. 2015; 14 (Suppl 1): S21– S38. S48.
9. **Sudhakar.N.** (2014) Whether Molecular Genetic Analysis is Sufficient Enough in Prediction of an Amino Acid Substitution in a Protein as a Variant or Deleterious Mutation? *Applied Immunohistochemistry and Molecular Morphology* 2015 Mar;23(3):236-7.
10. **Sudhakar N**, Theivanai Vidhya RM. (2014) Potential Medicinal properties of *Carica papaya* Linn - A mini review. *International Journal of Pharmacy and Pharmaceutical Sciences* 2014; Vol 6 (Issue 2): 1-4.

11. **Natarajan Sudhakar**, Kamalalayam Raghavan Rajalekshmy, Thangarajan Rajkumar, Karunakaran Nirmala Nancy. RT-PCR and Real-time PCR Analysis of *E2A-PBX1*, *TEL-AML1*, *mBCR-ABL* and *MLL-AF4* Fusion Gene Transcripts in *de novo* B-Lineage Acute Lymphoblastic Leukemia Patients in South India. *Journal of Genetics*. 2011 Aug; 90(2):349-53.
12. **Natarajan Sudhakar**, Nirmala Karunakaran Nancy, Kamalalayam Raghavan Rajalekshmy, Thangarajan Rajkumar. Diversity of T-cell Receptor Gene rearrangements in South Indian patients with Common Acute Lymphoblastic Leukemia. *Iranian Journal of Immunology* 2009; 6(3): 141-146.
13. **N Sudhakar**, K Nirmala, K R Rajalekshmy, T Rajkumar. Does *TAL-1* deletion contribute to the high incidence of T-cell Acute Lymphoblastic Leukemia in South Indian patients? *Asian Pacific Journal of cancer prevention*, 2008; 9(1): 127-130
14. **Natarajan Sudhakar**, Nirmala K Nancy, Rajalekshmy K R, Raman S G, Rajkumar T. T-cell receptor Gamma and Delta gene rearrangements and Junctional region characteristics in South Indian patients with T-cell Acute Lymphoblastic Leukemia. *American Journal of Hematology* 2007; 82(3): 215-221.

Book Chapter

Shyamla Singh, Hemant Prabhat Suman, Farhat Fathima, Smaranika Patel, **Natarajan Sudhakar** 2011. To examine the presence of Human Papilloma Virus (HPV) DNA in Breast cancer samples among Indian – A pilot study. Book chapter In *Molecular Diagnostics for Sustainable Health in Biosciences and Technology*, pp 61-66. Edited by Jibu Thomas, Excel India Publishers, New Delhi. (ISBN 978-93-81361-14-6).