



**Dr. SWATI SHARMA**

डॉ. स्वाति शर्मा

**Present position:** Scientist वैज्ञानिक

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**Education:** M.Sc. (Biotechnology), Ph. D.

**Research Interest/ area:**

**Major:** Metal toxicology, Pharmacogenomics & Toxicoinformatics, Poisoning awareness & outreach.

**Other Specializations:** Technology Foresight and assessment in the areas of Medical Sciences & Health Care; Biotechnology & allied areas of Life Sciences and Climate Change.

**Ongoing Project (as PI):**

1. "Identification of potential biomarkers associated with lead toxicity due to occupational exposure using in-silico methods", funded by AIIMS Early Career Intramural Research Projects (Amount = Rs. 10 Lakh)
2. "Assessment of awareness, perception and KAP (Knowledge, Attitude & Practices) related to common poisons and development of scientific communication modules for lifestyle modulation & year-round strategy for public awareness towards prevention of poisoning", funded by DST (Amount = Rs. 42.57 Lakh)

### **As Co-PI:**

1. “Exploratory analysis of the association between pyrethroid exposure and parkinson’s disease: a cross-sectional study”, funded by AIIMS Early Career Intramural Research Projects (Amount = Rs. 10 Lakh).

**Past Position:** Scientist-B (Dec. 20, 2010- March 28, 2019)

Technology Information, Forecasting and Assessment Council (TIFAC), Department of Science and Technology, Govt. of India, New Delhi.

*Involved in:*

#### I. NATIONAL LEVEL TECHNOLOGY VISION 2035 EXERCISE

a) National Document- “Technology Vision 2035” released by Hon’ble Prime Minister on 3<sup>rd</sup> Jan. 2016.

b) “Technology Roadmap of “Medical Sciences & Health Care: Technology Vision 2035” released by Dr. Y. S. Chowdhary, Hon’ble Minister of Science & Technology on 29th Sept., 2016.

#### II. TECHNOLOGY NEEDS ASSESSMENT- CLIMATE CHANGE PROJECT

Biennial Update Reports (BURs: BUR-I & II) and Technology Needs Assessment for Climate Change in Health sector.

### **Achievements**

#### ***Author in Chapter of National Documents***

1. Core team member of National level “Technology Vision 2035” Document.
2. Chapter on “Health Awareness” in Technology Roadmap on Medical Sciences & Health Care sector, 2016.
3. HEALTH SCENARIOS: Future of Medical Sciences and Healthcare, 2016.
4. Chapter on “Finance, Technology and Capacity Building Needs and Support Received: Technology needs and support received” India Second Biennial Update Report (BUR-II) to the United Nations Framework Convention on Climate Change (UNFCCC).

### **Important Publications**

1. **Sharma S**, Kalpdev D, Ankit. Transcriptomic profiling-based identification of predictive and prognostic biomarkers of stem cells. Computational Biology for Stem Cell Research,

Academic Press, 2024, Pages 203-214, ISBN 9780443132223, <https://doi.org/10.1016/B978-0-443-13222-3.00034-4>.

2. **Sharma S**, Kumar VL, Bhardwaj A. Identification of critical genes associated with lead exposure based on *in-silico* analysis. *Toxicol Ind Health*. 2023;39(7):356-363. doi:10.1177/07482337231175970. PMID: 37178329.
3. **Sharma S**, Kumar VL. Hand sanitizer-related calls at the National Poisons Information Centre, India during the lockdown period of the Covid-19 pandemic. *Natl Med J India* 2022;35:159–61. doi: 10.25259/NMJI-35-3-159.
4. Bhardwaj A, **Sharma S**, Singh SK. Molecular Docking Studies to Identify Promising Natural Inhibitors Targeting SARS-CoV-2 Nsp10-Nsp16 Protein Complex. *Turk J Pharm Sci*. 2022 Feb 28;19(1):93-100. doi: 10.4274/tjps.galenos.2021.56957. PMID: 35227055; PMCID: PMC8892556.
5. **Sharma S**, Gurudutta GU and Singh U. Regulation of Hematopoietic Activity Involving New Interacting Partners (RRAGC & PSMC2, CKAP4 & MANF and CTR9 & CNTNAP2). *CellBio*, 2020;9(3):123-141. <https://doi.org/10.4236/cellbio.2020.93007>.
6. **Sharma S**, Gurudutta GU and Singh U. Stem Cells Origins of Cytokine Interactions. *Series: Stem Cells – Laboratory and Clinical Research*. 2019. Chapter-16.
7. **Sharma S**, Gurudutta GU and Singh U. Stem Cell genes synergism: Elucidation of the mechanistic basis of response induced by cytokine combination (IL-3, FLT-3 and SCF). *Journal of Stem Cells*. 2017; 12(4):143-160.
8. **Sharma S**. People’s Attitude towards Healthcare Technologies. *International Journal of HealthCare & Medical Informatics* 2017 (ISSN 2455–9199); 4(2): 24-27. Doi <https://doi.org/10.24321/2455.9199.201710>.
9. **Sharma S**, Goswami G. A perspective on Medical Sciences & Healthcare. *Healthy India Chronicle*. July, 2017. 1(1): 66-71 [www.healthyindiachronicle.in](http://www.healthyindiachronicle.in).
10. **Sharma S**, Jancy A & Kishore J. Technology Driven Healthcare; Advanced Techniques in Biology & Medicine (ISSN 2379-1764); 3 (3), Nov. 2015. doi 10.4172/2379-1764.