

Neera Tewari-Singh

Assistant Professor of Pharmacology and Toxicology at Michigan State University

East Lansing, MI, US

Neera Tewari-Singh has an extensive background in molecular biology, toxicology, and medical countermeasures against chemical exposures.

Biography

With an extensive background in molecular biology and toxicology, the long-term goal of Dr. Neera Tewari-Singh's research is to pursue both basic and translational research to develop countermeasures/targeted therapies against the chemical threat agents and environmental exposures (including vesicating agents, urticants and corrosive agents, and polycyclic aromatic hydrocarbons) that can cause harmful effects/mass casualties as well as long-term illness to the human population. This is an important issue in the current world scenario for both civilian and military populations. Her research focus is on understanding mechanisms of toxicity and inflammation from mainly dermal and ocular exposures to chemical threat agents employing state-of-the-art molecular techniques and systems toxicology approaches. With increasing levels of technology, industrialization that could lead to occupational or accidental exposure, and possible use of chemical agents in warfare and terrorism, her work is highly significant. Additionally, she also is elucidating the mechanisms of skin and ocular wounding and inflammatory diseases, which can exacerbate due to environmental exposures and diseases like diabetes, to identify better-targeted therapies for effective treatment. Dr. Tewari-Singh is an Assistant Professor in the Department of Pharmacology and Toxicology and an affiliated faculty at the Institute of Integrative Toxicology at Michigan State University. She received her doctorate in molecular biology and biotechnology from the School of Life Sciences, Jawaharlal Nehru University, New Delhi, and carried out her graduate research under the German Academic Exchange Service (DAAD) fellowship at the Institute of Molecular Genetics, Leibniz University Hannover, Germany. She was a postdoctoral fellow at Colorado State University and then a Research Associate, Instructor and Research Assistant Professor at the University of Colorado Denver. Tewari-Singh has an international recognition in the field of Medical Chemical Defense and is a principal investigator in National Institutes of Health's Countermeasures Against Chemical Threats (CounterACT) program. She has extensively published her work, received numerous honors and awards including Society of Toxicology-Association of Scientists of Indian Origin Young Investigator Award in 2016, developed strong collaborations, and demonstrated leadership and service in professional societies and academic institutions.

Areas of Expertise

Environmental Toxicology, Inflammation, Dermal Toxicology, Medical Chemical Defense, Molecular Biology, Toxicology, Ocular Toxicology, Mechanistic Toxicology

Affiliations

Michigan State University College of Osteopathic Medicine, Michigan State University Institute for Integrative Toxicology, National Institutes of Health Countermeasures Against Chemical Threats Program

Education

University of Colorado Denver
Research Associate Toxicology

Colorado State University
Postdoctoral Fellow Molecular Biology

Jawaharlal Nehru University
PhD Molecular Biology

Jawaharlal Nehru University
MS Life Sciences

Lucknow University
BS Botany, Chemistry and Zoology

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