



The toxicity of everyday life: understanding the environmental risks to human health

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Published online: 5 May 2023

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We are pleased to present this special issue featuring articles presented at the National Conference on Environmental Toxicology: Impact on Human Health (Environ Tox 2021), held on 25th–26th November 2021 at Vivekananda Global University, Jaipur, Rajasthan, India. The conference aimed to raise awareness about the changing environment with reference to human health. Environ Tox 2021 was a highly anticipated event that brought together experts from various fields and provided a platform for eminent scientists, researchers, and students to discuss current issues related to environmental health. The conference emphasized the need for a multidisciplinary approach to address the challenges of environmental toxicity and its impact on human health. This special issue intends to disseminate knowledge further and exchange ideas among academicians, scientists, and industry professionals. The conference covered a wide range of topics, including exposure assessment, environmental monitoring, biomonitoring, risk assessment, and management of environmental toxins. The experts discussed the latest research on the impact of toxins on human health and explored new approaches to mitigate the risks associated with environmental toxicity.

As we reflect on the discussions and insights shared at the recent conference to create a more sustainable future, it is clear that the theme of hazardous chemical exposure and its impact on animals, humans, and the environment were at the forefront of many of the discussions. The conference covered a broad range of topics, including environmental impact

assessment, food and agricultural toxicology, bioremediation approaches, and environmental regulation, all of which are essential to achieving a more sustainable future. One of the key takeaways from the conference was the importance of adopting a system-thinking approach to addressing these complex and interconnected issues. Therefore, solutions to environmental problems require an understanding of the interdependencies between these components and the need for a holistic approach to address the root causes of environmental degradation. Another important topic that was discussed at the conference was the role of environmental forensic toxicology in identifying the sources and causes of pollution. Environmental forensic toxicology is a valuable tool in determining the environmental impact of hazardous chemicals and can aid in developing effective abatement methods and environmental regulation. In addition to these discussions, the conference covered a wide range of topics related to environmental sustainability, including global warming, green chemistry, natural hazards and disaster management, environmental protection, epidemiology, and biostatistics, among others. These discussions highlight the importance of adopting a multi-disciplinary approach to address environmental problems and the need for collaboration between scientists, policymakers, and stakeholders to develop effective solutions.

Overall, the National Conference on Environmental Toxicology: Impact on Human Health (Environ Tox 2021) was a successful event that brought together experts from various fields to discuss the challenges of environmental toxicity and its impact on human health. The conference provided a platform for researchers, policymakers, and industry leaders to share their knowledge and expertise and explore new approaches to mitigate the risks associated with environmental toxins. The conference was a great success, with 15 invited speakers and 200 participants from different geographical regions of India covering every aspect of Environmental Toxicology. We are deeply indebted to the numerous reviewers for the detailed review of the papers, and we thank all the contributing authors for their valuable contributions.

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We also appreciate the time-to-time assistance provided by the entire editorial, publishing, and production teams of Environmental Science and Pollution Research (ESPR) for their considerable efforts in bringing out this special issue. The conference provided an excellent platform for sharing knowledge and ideas, promoting collaboration, and fostering a greater understanding of the complex interdependencies that underlie environmental problems.

We hope that this special issue on Environmental Toxicology: Impact on Human Health provides valuable insights to the researchers working in nanobiotechnology. We firmly believe that this special issue will be of immense value to researchers, academicians, and professionals working in the field of Environmental Toxicology. Once again, we thank all the contributors, reviewers, and publishers for their significant contributions to the success of the conference and this special issue. It is our hope that the discussions and insights shared at this conference will inspire continued efforts to address environmental challenges and lead to the development of effective solutions that will enable us to create a more sustainable and resilient future.

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Dr. Kumud Kant Awasthi is currently working as an Associate Professor and Head at the Department of Life Sciences, Vivekananda Global University (VGU), Jaipur India. Prior to this position, he worked at the National Institute of Animal Welfare (NIAW) Faridabad, India, the unique and only institute in Asia governed by Ministry of Environment, Forest and Climate Change, Government of India. Dr. Awasthi is a nanotoxicology expert who received his B.Sc. from CSJM University,

Kanpur India in year 2002 and then M.Sc. in Zoology and his Ph.D. from the University of Rajasthan, Jaipur, India. Dr. Awasthi's research focuses on environmental toxicology in relation to nanoparticles. He has extensive experience in toxicity assessment for various nanomaterials in different in vivo and in vitro models, with a focus on their safe use for drug development. He is also guiding Ph.D. scholars in their studies. He also authored/edited books in his field; got copyright; German and Indian patents for the innovative works. He is an active member of Institute Innovation Council (IIC), Nodal Officer of Intellectual Property Rights (IPR) Cell. Dr. Awasthi is also a member of the sectional committee that organizes international courses for Global Initiative for Academic Networks (GIAN), and has served as the course coordinator for Animal Welfare courses offered by Jawaharlal Nehru University (JNU), New Delhi, India. Dr. Awasthi was invited to debate the ethics of fur at Oxford Centre for Animal Ethics, UK.

Dr. Awasthi is a lifetime member of several prestigious national and international scientific societies, including STOX: Society of Toxicology (India); ISCA: Indian Science Congress Association; SMRS:

Soft Materials Research Society; MRSI: Materials Research Society of India; ISLS: International Society of Life Sciences; ESTIV: European Society of Toxicology In Vitro and many more. He is also a nominated member of the committee for ethical use of laboratory animals in research by CPCSEA, Government of India. Dr. Awasthi remains actively engaged in research activities, serving as a member of editorial boards and a reviewer for various scientific journals including Springer and Elsevier, as well as participating in organizing committees for many national and international conferences.



Dr. Chandra Shekhar Yadav is currently working as Assistant Professor at School of Forensic Sciences, National Forensic Science University, Gandhinagar, Gujarat. Previously, he worked at the Department of Life Sciences, Vivekananda Global University (VGU), Jaipur India as an Assistant Professor. His area of research interest is environmental toxicology with reference to chemical exposure assessment and their impact on human health. He has earned his Ph.D. in Medical Biochemistry from

University of Delhi, India. He has been awarded with prestigious Dr. DS Kothari Postdoctoral Fellowship from UGC, New Delhi. He is having more than 10 years of teaching and research experience. He has published 22 research papers in peer review national and international journal of high repute. He has also presented papers in various national and international conferences. He is member of international and national professional bodies. He is an active board member and reviewer of national and international Journals.

Dr. Yadav worked in various collaborative projects in with Central Pollution Control board (CPCB), New Delhi. viz., Environmental health- POPs estimation in Delhi Population. He is also a nominated member of the committee for the ethical use of laboratory animals in research by CPCSEA, Ministry of Environment Forest and Climate Change, Govt of India. He has been invited as Guest Speaker in many National and International conferences. More than 14 plus students have completed their master's dissertation and doctoral work under his exemplary guidance in area of environmental toxicity and remediation.



Mr. Mahipal Singh Sankhla is a highly accomplished Assistant Professor in the Department of Forensic Science, University Centre for Research and Development (UCRD), Chandigarh University, Mohali, Punjab, India. With extensive experience in the field of Forensic Science, he previously served as an Assistant Professor in the Department of Forensic Science at Vivekananda Global University in

Jaipur, Rajasthan, Mr. Sankhla earned a Bachelor of Science (Hons.) degree in Forensic Science and a Master of Science degree in Forensic Science. He is currently pursuing his Ph.D. in Forensic Science from Galgotias University in Greater Noida, U.P. Mr. Sankhla has received training from several renowned laboratories, including the Forensic Science Laboratory (FSL) Lucknow, CBI (CFSL) New Delhi, Codon Institute of Biotechnology Noida, and Rajasthan State Mines and Minerals Limited (R&D Division) Udaipur. He has received several awards and accolades for his outstanding work, including a “Junior Research Fellowship-JRF” from the DST-Funded Project at “Malaviya National

Institute of Technology—MNIT,” Jaipur, a “Young Scientists Award,” a “Young Researcher Award,” and a “Forensic Researcher Award.” He has also been credited with one Indian Copyright and one German Patent.

Mr. Sankhla has edited five books and published over 30 book chapters in various national and international publishers. His research work has been published in more than 160 peer-reviewed international and national journals. His primary research areas include Heavy Metals Toxicity, Forensic Toxicology, Environmental Toxicology, Nanotechnology, and Fingerprint analysis.