MANAV RACHNA UNIVERSITY, FARIDABAD

Sector 43, Aravalli Hills, Manav Rachna Campus Rd, Faridabad, Haryana 121004

Dr. Megha Bansal

Designation: Associate Professor
Qualifications :M.Sc (Organic Chemistry), PhD (Toxicology) from DRDE
Email :megha@mru.edu.in
Experience: 15+ Years
Google Scholar Profile: https://scholar.google.com/citations?hl=en&user=-PaP5V4AAAAJ

Research Interest : Green Chemistry & Sustainability, Water Detoxification by Nano- Green and Biochemical Approach and mechanism of bio-molecules generation under stress conditions, Development of Portland Limestone Cement in Indian Scenario

+ **Journal Publication Details:**

1. Effects of individual and combined exposure to sodium arsenite and sodium fluoride on tissue oxidative stress, arsenic and fluoride levels in male mice. Megha Mittal and S.J.S.Flora Chemico Biological Interaction, 162 , 2006: 128-139. https://doi.org/10.1016/j.cbi.2006.05.018
2. Vitamin E Supplementation Protects Oxidative Stress during Arsenic and Fluoride antagonism in Male Mice. Megha Mittal and S.J.S. Flora. Drug and Chemical Toxicology, 30, 2007: 263-281. https://doi.org/10.1080/01480540701380075
3. Combined administration of selenium and meso-2,3 dimercaptosuccinic acid on arsenic mobilization and tissue oxidative stress in chronic arsenic-exposed male rats. Manoj Modi, Megha Mittal, S.J.S. Flora. Indian Journal of Pharmacology, 39(2), 2007: 107-114. 10.4103/0253-7613.32530
4. Combined administration of taurine and monoisoamyl DMSA protects arsenic induced oxidative injury in rats. S.J.S. Flora, Swapnila Chouhan, G.M. Kannan, Megha Mittal and H. Swarnkar. Oxidative Medicine and Cellular Longevity, 1:1, 39-45, 2008. 10.4161/oxim.1.1.6481
5. Beneficial role of zinc and iron co-administration during gallium arsenide exposure in rats. Kapil Bhatt, Megha Mittal, R.K. Kaul, Sameer S. Bhagyawant, S.J.S. Flora. Current Trends in Biotechnology & Pharmacy, 2(1), 217-225, 2008.
6. Heavy metal induced oxidative stress and its possible reversal by chelation therapy. S.J.S. Flora, Ashish Mehta, Megha Mittal. Indian Journal of Medical Research,128, 221-224, 2008. PMID: 19106443
7. Co-exposure to arsenic and fluoride on oxidative stress, glutathione linked enzymes, biogenic amines, and DNA damage in mouse brain. Megha Mittal and S.J.S. Flora. Journal of Neurological Sciences, 285, 198-205, 2009. 10.1016/j.jns.2009.07.001
8. Removal of Cr (VI) by adsorption on the activated carbon. Praveen Bansal, Megha Mittal, Dhiraj Kumar. Journal of Applied Chemistry 1, 2010, 13-19.
9. Interactive effect of arsenic and fluoride on cardio respiratory disorders in male rats: possible relation of reactive oxygen species. S.J.S. Flora, Vidhu Pachouri, Megha Mittal, Dev Kumar. Biometals, 24, 615-628, 2011. 10.1007/s10534-011-9412-y
10. Possible Mechanism for Combined Arsenic and Fluoride Induced Cellular and DNA Damage in mice.

Swaran J.S. Flora, Megha Mittal and Nidhi Dwivedi. Metallomics, 2011, 4(1):78-90. 10.1039/c1mt00118c

11. Comparative efficacy of Amberlite IR-120 and activated charcoal against cadmium removal from water. Megha Mittal, Anju Makkar, Meena Kapahi. MRCE Technical Reporter 1(1), 2012
12. Cadmium removal from ground water by activated charcoal: effect of pH, temperature and contact time. Megha Mittal, Anju Makkar, Meena Kapahi. Indian Journal of Applied Chemistry. 3 (1), 2012, 13-17.
13. Chemistry and Pharmacological Properties of Some Natural and Synthetic Antioxidants for Heavy Metal Toxicity. Swaran J.S. Flora, Megha Mittal and Rupal Srivastava. Current Medicinal Chemistry 2013, 20(36), 4540-4574. 10.2174/09298673113209990146
14. A Green Synthesis of iron nano particles using clove extract. Neha Bhatt, Megha Mittal, Anju Manchanda and A.K. Gupta. MRCE Technical Reporter 2 (3), 2014.
15. Neha Bhatt, H S Bahati, Megha Mittal and A K Gupta, Effect of HaNPV on mortality rate of Helicoverpa armigera at different larval stage during incubation period. Indian Journal of Applied Chemistry. 2014, 5(2), 71-75.
16. Decolourization of Textile Azo Dyes by Using Low Cost Activated Tea Waste. Neha Bhatt, Megha Mittal, and A.K. Gupta. International Journal of Advanced Technology in Engineering and Science, 2015, 3, 1, 1297-1302.
17. Green Synthesis of Nanosized Iron Nano Particles Using Clove Extract and Their Stability: An Oxidative Green Catalyst. Neha Bhatt, Megha Mital, Anju Manchanda and A.K. Gupta. Indian Journal of Applied Chemistry 2015, 6(1), 29-33.
18. Antifungal Potential of Benzal Derivatives Synthesized From C-(4-Hydroxyphenyl) - N-Phenyl Nitrone and their QSAR Studies. Anju Makkar, Megha Mittal, Sonal Agnihotri, Veena Nathani, Kishor Arora. Indo American Journal of Pharmaceutical Research., 2015, 5 (4), 1330-1342. 10.1044/1980-iajpr.150352
19. Combination therapy with vitamin C and DMSA for arsenic–fluoride co-exposure in rats. Megha Mittal, Sreemoyee Chatterjeec and S. J. S. Flora. Metallomics, 2018, 10, 1291. PMC2715192
20. Megha Bansal, Prem Kishore Patnala, Tom Dugmore. Adsorption of Eriochrome Black-T(EBT) using tea waste as a low cost adsorbent by batch studies: A green approach for dye effluent treatments. Current Research in Green and Sustainable Chemistry 3 (2020) 100036.
21. Sandeep Gupta, B.N. Mohapatra, Megha Bansal. A review on development of Portland limestone cement: A step towards low carbon economy for Indian cement industry. Current Research in Green and Sustainable Chemistry 3 (2020) 100019. 10.1016/j.crgsc.2020.100019
22. Tanya Sharma, Vinika Tyagi, Megha Bansal. Determination of Sun Protection Factor of vegetable and fruit extracts using UV-Visible spectroscopy: A Green Approach. Sustainable Chemistry and Pharmacy. 18, 2020, 100347. https://doi.org/10.1016/j.scp.2020.100347

+ **Research Supervised(PhD):**

1. Punam Rani on "Optimization of Experimental Conditions for Improvement of Bio-Methane Production by De-Polymerization of Agro Waste: A Waste to Energy Approach". Ongoing; Jan 2018.
2. Sandeep Gupta on "Development Of Portland Limestone Cement (Plc) In Indian Scenario". Ongoing; Jan 2019

+ Book/Chapter Publications:

1. Arsenic toxicity: Biochemical Effects, Mechanism of Action and Startegies for the prevention and Treatment by chelating Agents and Herbal Extarcts. S.J.S. Flora, Megha Mittal, Richa Gupta, S.C. Pant. Herbal Medicine for health and Diseases (Ray A Ed), 2008.
2. Preventing fluoride toxicity with selenium. Swaran J.S. Flora, Megha Mittal. In: Fluoride: Chemistry, Analysis, Function and Effects (Ed. Prof. Victor Preedy). Royal Society of Chemistry , 2015, pp 308-326.
3. Medical countermeasures-chelation therapy. Govinder Flora, Megha Mittal, S.J.S. Flora. In: Handbook of Arsenic Toxicology (Ed. S.J.S. Flora). Elsevier, pp 589, Jan 2015.
4. Lipid induction in algal biomass for sustainable bioenergy productio" "Megha Bansal, Shamshad Ahmad, Sakshi Gupta, Vinayak V. Pathak" In: Bioenergy: Technologies and Future Sustainability" (Eds. Richa Kothari, Vineet V. Tyagi, Vinayak V. Pathak) TERI, INDIA, 2019.

+ Administrative Responsibilities:

PhD Coordinator for MRU from 01-11-2015 to Till date

+ Professional Affiliation:

Society of Toxicology (STOX) (Life Member), Indian Pharmacological Society (IPS) (Life Member), Intellectual Society of Socio Techno Welfare (ISST) (Life Member), Indian Society of Analytical Scientist (ISAS) (Life Member), Green Chemistry Network Centre (GCNC)

+ Event Organized(Conference/Seminar/FDP/Workshops

1. Convener of International Conference on "Green Initiatives in Science and Technology" sponsored by RSC, London and Indian Oil R&D Faridabad in association with GCNC and ISST on Jan 15, 2015.
2. Convener of International Workshop on "Chemistry for Tomorrow's World" sponsored by RSC, London and Indian Oil R&D Faridabad in association with GCNC, New Delhi and Shiv Nadar University, Greater Noida on Dec 2-3, 2015.
3. Organizing secretary of International Conference on "Sustainable Initiatives in Water Management" organized at Manav Rachna University, Faridabad in association with the Royal Society of Chemistry, London and Green Chemistry Network Centre (GCNC), Delhi University on 6th March 2018, sponsored by Indian Oil Research & Development Center, Faridabad.
4. Convener of One Week Educational Course on "Recent Advances in Green Chemistry & Technology" (from Jan7-11, 2019) and two days International Conference on "Green Initiatives in Science & Technology" (GIST-2019) from Jan 10-11, 2019 at Manav Rachna University, Faridabad, in association with Green Chemistry Centre of Excellence, University of York, U.K. sponsored by Royal Society of Chemistry, London, North India Section and Indian Oil Corporation Limited, R&D Centre, Faridabad.
5. Green & Sustainable Chemistry Conference" from Nov 7-8, 2019, organized at Manav Rachna University, Faridabad and sponsored by Science & Engineering Research Board (SERB) Department of Science and Technology India, Indian Oil R&D Center Faridabad, DRDO and Royal Society of Chemistry, North Indian Section.
6. Workshop on Green Chemistry for Sustainable Solutions on May 29, 2018.
7. Workshop on Green Chemistry on November 30, 2016.
8. Course Coordinator of two days National Workshop on "Innovative Technologies for Water Detoxification" From January 14-15, 2013.
9. Workshop on Green Chemistry on July 9, 2012.

+ Awards

1. CSIR Senior Research Fellow: Project entitled “Molecular mechanism of arsenic fluoride interaction”
2. Mission 10X Learning Approach Practitioner Certificate.
3. Silver Partner faculty under Inspire Infosys Campus Connect Program