

CURRICULUM VITAE



Sudhakar Srivastava
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Laboratory (work)

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ACADEMIC QUALIFICATION

Ph.D. (Botany)	University of Lucknow, Lucknow-226 007		
	“Biochemical Responses of Selected Plant(s) under Arsenic Stress” (2008)		
Master’s (Botany)	University of Lucknow, Lucknow-226 007	(2002)	Ist Class
Bachelor’s (Science)	J.N.P.G. College (University of Lucknow),	(1999)	Ist Class

OTHER QUALIFICATION

- Diploma in Computer Management 2001

PRESENT AND PAST AFFILIATIONS

Institute	Post Held	Period of Employment		Nature of Duties/Work
		From	To	
CSIR-National Botanical Research Institute, Lucknow, U.P.	CSIR-NET-JRF	25.02.2003	24.02.2005	Research
CSIR-National Botanical Research Institute, Lucknow, U.P.	CSIR-NET-SRF	25.02.2005	17.02.2005	Research
Bhabha Atomic Research Centre, Mumbai, Maharashtra	K.S. Krishnan Research Associate	18.02.2008	01.06.2009	Research
Bhabha Atomic Research Centre, Mumbai, Maharashtra	Scientific Officer D	02.06.2009	30.06.2012	Research
Bhabha Atomic Research Centre, Mumbai, Maharashtra	Scientific Officer E	01.07.2012	15.04.2014	Research

Institute of Environment & Sustainable Development, Banaras Hindu University, Varanasi, U.P.	Assistant Professor	17.04.2014	Till Date	Teaching and Research
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AWARDS/HONOURS

- **International Travel Grant** from Department of Science & Technology, 2014.
- Awarded Best Research Paper Award by CSIR-NBRI in 2013.
- Selected for IAEA/RCA Regional Training Course (C7-RAS-5.055-002) on the **Use of Compound Specific Isotope Analysis (CSIA)** for the Identification of Hot Spots of Land Degradation in the Landscape, at **Beijing, China, from 8 to 19 July 2013**
- **Platinum Jubilee Young Scientist Award, 2011** of **National Academy of Sciences in India (NASI)**, Allahabad in Plant Sciences.
- **International Travel Grant** from Department of Science & Technology in 2010.
- **International Travel Support** from **Centre for International Co-operation in Science (CICS)** in 2010.
- **International Travel Support** from Department of Biotechnology in 2010.
- Awarded post-doctoral fellowships from DAAD, Germany, CSIC, Spain, and BRNS, India (availed KSKRA of BRNS, India).
- JRF (Junior Research Fellowship) in Life Sciences twice in June, 2002 and December, 2002 from Council of Scientific and Industrial Research (CSIR), New Delhi, India.
- Young Scientist award in the First Science Awareness program held at Barhalganj, Gorakhpur during Dec. 27-29, 2004 for poster presentation.
- Second prize for the “Quality Publication” for Hindi article entitled “Arsenic vishaktata: samasya avam jaivic samadhan” published in “Vigyan Vani” in 2007 published by NBRI, India.
- First prize in “Hindi Crossword” and second prize in “Hindi knowledge” in Hindi competitions held at NBRI, Lucknow in 2005.

MEMBER OF SOCIETIES

- Life member of The Indian Science Congress Association, Kolkata.
- Life member of International Society of Environmental Botanist (ISEB), National Botanical Research Institute, India.

RESEARCH INTERESTS

Arsenic contamination issue of West Bengal, Uttar Pradesh, Bihar and other parts of India. The research interests include understanding the interaction of arsenic with rice plants to understand arsenic accumulation and transport dynamics. Further, to devise agronomic practices and strategies for tackling the arsenic accumulation in rice grains. Phytoremediation prospects of arsenic contamination in natural waters and soils are also of particular interest.

TEACHING ACTIVITIES

Teaching topics: Environmental issues and policies, Research methodologies, Sustainable Agriculture, Soil Conservation and Management, Advanced Instrumentation and Mining Environment & Management

TRAINING COURSES ATTENDED

1. **69th Orientation Course** from **UGC-Academic Staff College, BHU, Varanasi**, from August 29th August 2014 to 25th September 2014
2. IAEA/RCA Regional Training Course (C7-RAS-5.055-002) on the **Use of Compound Specific Isotope Analysis (CSIA)** for the Identification of Hot Spots of Land Degradation in the Landscape, at **Beijing, China, from 8 to 19 July 2013**
3. **First Interaction Meeting on Synchrotron Utilization** organized by Raja Ramanna Centre for Advanced Technology, **Indore, India during 19-20 March, 2013**
4. **Fire Prevention and Fire Fighting Training** organized by Bhabha Atomic Research Centre, Mumbai on 14/3/2012.

M.SC. / M. TECH. STUDENTS GUIDED

Completed:

1. **Ms. Sneha Baburajan Pilliyil:** Topic: “Studies on signaling components involved in Arsenic stress perception in *Brassica juncea*” during December, 2009 to June, 2010 at BARC, Mumbai
2. **Ms. Nisha Unnikrishnan:** Topic: “Studies on novel ways to increase arsenic tolerance in plants” during , May, 2011 to October, 2011 at BARC, Mumbai
3. **Ms. Ankita Naval:** Topic: “Studies of effect of arsenic on *Oryza sativa* in altered nitrate conditions” during April, 2013 to June, 2013 at BARC, Mumbai
4. **Ms. Sneha Pathak:** Topic: Kinetics of arsenic uptake and transport and its impact on redox homeostasis, during October, 2013 to February, 2014 at BARC, Mumbai

M.PHIL. STUDENTS GUIDED

Completed:

1. **Mr. Munish Kumar Upadhyay:** Topic: “Arsenic uptake and transport pathways in plants and effect on nutrient homeostasis” November, 2014 at IESD, BHU, Varanasi

PUBLICATIONS

RESEARCH ARTICLES

S.N.	Details of research / review articles published	Impact factor	Citations
	Research Articles		

1.	Siddiqui, F, Tandon, PK, Srivastava, S (2015). Analysis of arsenic induced physiological and biochemical responses in a medicinal plant, <i>Withania somnifera</i> . Physiology and Molecular Biology of Plants, in press.	-	0
2.	Srivastava, S , Sounderajan, S, Udas, A, Suprasanna, P (2014). Effect of combinations of aquatic plants (<i>Hydrilla</i> , <i>Ceratophyllum</i> , <i>Eichhornia</i> , <i>Lemna</i> and <i>Wolffia</i>) on arsenic removal in field conditions. Ecological Engineering, 73, 297-301.	3.041	0
3.	Srivastava, AK, Srivastava, S , Mishra, S, Suprasanna, P, D'Souza, SF (2014). Identification of redox-regulated components of arsenate (AsV) tolerance through thiourea supplementation in rice. Metallomics, 6, 1718-1730.	3.978	0
4.	Pathare, V, Srivastava, S , Suprasanna, P (2013). Evaluation of effects of arsenic on carbon, nitrogen and sulfur metabolism in two contrasting varieties of <i>Brassica juncea</i> . Acta Physiologiae Plantarum, 35, 3377-3389.	1.524	0
5.	Mishra, S, Srivastava, S , Dwivedi, S, Tripathi, RD (2013). Investigation of biochemical responses of <i>Bacopa monnieri</i> L. upon exposure to arsenate. Environmental Toxicology, 28, 419-430.	2.562	6
6.	Srivastava, S , Srivastava, AK, Suprasanna, P, D'Souza, SF (2013). Quantitative real-time expression profiling of aquaporin-isoforms and growth response of <i>Brassica juncea</i> under arsenite stress. Molecular Biology Reports, 40, 2879-2886.	1.958	1
7.	Srivastava, S , Srivastava, AK, Suprasanna, P, D'Souza, SF (2013). Identification and profiling of arsenic stress-induced microRNAs in <i>Brassica juncea</i> . Journal of Experimental Botany, 64, 303-315.	5.794	16
8.	Srivastava, S , Srivastava, AK, Singh, B, Suprasanna, P, D'Souza, SF (2013). The effect of arsenic on pigment composition and photosynthesis in <i>Hydrilla verticillata</i> (L.f.) Royle. Biologia Plantarum, 57, 385-389.	1.74	5
9.	Siddiqui, F, Krishna, SK, Tandon, PK, Srivastava, S (2013). Arsenic accumulation in <i>Ocimum</i> spp. and its effect on growth and oil constituents. Acta Physiologiae Plantarum, 35, 1071-1079.	1.524	0
10.	Srivastava, S , Akkarakaran, JJ, Suprasanna, P, D'Souza, SF (2013). Response of adenine and pyridine metabolism during germination and early seedling growth under arsenic stress in <i>Brassica juncea</i> . Acta Physiologiae Plantarum, 35, 1081-1091.	1.524	1
11.	Dwivedi, S, Mishra, A, Tripathi, P, Dave, R, Kumar, A, Srivastava, S , Chakrabarty, D, Trivedi, PK, Adhikari, B, Norton, GJ, Nautiyal, CS, Tripathi, RD (2012). Arsenic affects essential and non-essential amino acids differentially in rice grains: Inadequacy of amino acids in rice based diet. Environment International, 46, 16-22.	5.664	11
12.	Dwivedi, S, Mishra, A, Kumar, A, Tripathi, P, Dave, R, Dixit, G, Tiwari, KK, Srivastava, S , Shukla, MK, Tripathi, RD (2012). Bioremediation potential of	1.671	4

	genus <i>Portulaca</i> L. collected from industrial areas in Vadodra, Gujrat, India. Clean Technologies and Environmental Policy, 14, 223-228.		
13.	Rai, AN, Srivastava, S , Paladi, R, Suprasanna, P (2012). Calcium supplementation modulates arsenic-induced alterations and augments arsenic accumulation in callus cultures of Indian mustard (<i>Brassica juncea</i> (L.) Czern.). Protoplasma, 249, 725-736.	3.171	4
14.	Tripathi, P, Dwivedi, S, Kumar, A, Tripathi, RD, Tripathi, PK, Srivastava, S , Shukla, MK, Srivastava, PK, Chakrabarty, D, Trivedi, PK (2012). Arsenic accumulation in native plants of West Bengal: Prospects for phytoremediation but concerns with the use of medicinal plants. Environmental Monitoring and Assessment, 184, 2617-2631.	1.679	8
15.	Srivastava, S , Shrivastava, M, Suprasanna, P, D'Souza, SF (2011). Phytofiltration of arsenic from simulated contaminated water using <i>Hydrilla verticillata</i> in field conditions. Ecological Engineering, 37, 1937-1941.	3.041	14
16.	Lokhande, VH, Srivastava, AK, Srivastava, S , Nikam, TD, Suprasanna, P (2011). Regulated alterations in redox and energetic status are the key mediators of salinity tolerance in the halophyte <i>Sesuvium portulacastrum</i> (L.) L. Plant Growth Regulation, 65, 287-298.	2.058	4
17.	Srivastava, S , Suprasanna, P, D'Souza, SF (2011). Redox state and energetic equilibrium determine the magnitude of stress in <i>Hydrilla verticillata</i> upon exposure to arsenate. Protoplasma, 248, 805-815.	3.171	15
18.	Srivastava, AK, Srivastava, S , Suprasanna, P, D'Souza, SF (2011). Thiourea orchestrates regulation of redox state and antioxidant responses to reduce the NaCl-induced oxidative damage in Indian mustard (<i>Brassica juncea</i> (L.) Czern.). Plant Physiology and Biochemistry, 49, 676-686.	2.352	6
19.	Gupta, DK, Nicoloso, FT, Schetinger, MR, Rossato, LV, Huang, HG, Srivastava, S , Yang, XE (2011). Lead induced responses of <i>Pfaffia glomerata</i> , an economically important Brazilian medicinal plant, under in vitro culture conditions. Bulletin of Environmental Contamination and Toxicology, 86, 272-277.	1.216	10
20.	Lokhande, VH, Srivastava, S , Patade, VY, Dwivedi, S, Tripathi, RD, Nikam, TD, Suprasanna, S (2011). Investigation of arsenic accumulation and tolerance potential of <i>Sesuvium portulacastrum</i> (L.) L. Chemosphere, 82, 529-534.	3.499	15
21.	Sharma, A, Sainger, M, Dwivedi, S, Srivastava, S , Tripathi, RD, Singh, RP (2010). Genotypic variation in <i>Brassica juncea</i> (L.) Czern cultivars in growth, nitrate assimilation, antioxidant responses and phytoremediation potential during cadmium stress. Journal of Environmental Biology, 31, 773-780.	0.553	14
22.	Dwivedi, S, Tripathi, RD, Srivastava, S , Singh, R, Kumar, A, Tripathi, P, Dave, R, Rai, UN, Chakrabarty, D, Trivedi, PK, Tuli, R, Adhikari, B, Bag, MK (2010). Arsenic affects mineral nutrients in grains of various Indian rice (<i>Oryza sativa</i> L.) genotypes grown on arsenic-contaminated soils of West Bengal. Protoplasma, 245, 113-124.	3.171	31

23.	Srivastava, S , Mishra, S, Dwivedi, S, Tripathi, RD (2010). Role of thiol metabolism in arsenic detoxification in <i>Hydrilla verticillata</i> (L.f.) Royle. Water Air & Soil Pollution, 212, 155-165.	1.685	9
24.	Srivastava, S , D'Souza, SF (2010). Effect of variable sulfur supply on arsenic tolerance and antioxidant responses in <i>Hydrilla verticillata</i> (L.f.) Royle. Ecotoxicology and Environmental Safety, 73, 1314-1322.	2.482	21
25.	Srivastava, S , Srivastava, AK, Suprasanna, P, D'Souza, SF (2010). Comparative antioxidant profiling of tolerant and sensitive varieties of <i>Brassica juncea</i> L. to arsenate and arsenite exposure. Bulletin of Environmental Contamination and Toxicology, 84, 342-346.	1.216	6
26.	Srivastava, S , Bhainsa, KC, D'Souza, SF (2010). Investigation of uranium accumulation potential and biochemical responses of an aquatic weed <i>Hydrilla verticillata</i> (L.f.) Royle. Bioresource Technology, 101, 2573-2579.	5.039	21
27.	Dwivedi, S, Srivastava, S , Mishra, S, Kumar, A, Tripathi, RD, Rai, UN, Dave, R, Tripathi, P, Chakrabarty, D, Trivedi, PK (2010). Characterization of native microalgal strains for their chromium bioaccumulation potential: phytoplankton response in polluted habitats. Journal of Hazardous Materials, 173, 95-101.	4.331	13
28.	Srivastava, S , D'Souza, SF (2009). Increasing sulfur supply enhances tolerance to arsenic and its accumulation in <i>Hydrilla verticillata</i> (L.f.) Royle. Environmental Science & Technology, 43, 6308-6313.	5481	27
29.	Srivastava, S , Srivastava, AK, Suprasanna, P, D'Souza, SF (2009). Comparative biochemical and transcriptional profiling of two contrasting varieties of <i>Brassica juncea</i> L. in response to arsenic exposure reveals mechanisms of stress perception and tolerance. Journal of Experimental Botany, 60, 3419-3431.	5.794	46
30.	Srivastava, S , Mishra, S, Dwivedi, S, Tripathi, RD, Tandon, PK, Gupta, DK (2009). Evaluation of zinc accumulation potential of <i>Hydrilla verticillata</i> . Biologia Plantarum, 53, 789-792.	1.74	6
31.	Mishra, S, Tripathi, RD, Srivastava, S , Dwivedi, S, Trivedi, PK, Dhankher, OP, Khare, A (2009). Thiol metabolism play significant role during cadmium detoxification by <i>Ceratophyllum demersum</i> L. Bioresource Technology, 100, 2155-2161.	5.039	46
32.	Gupta, DK, Nicoloso, FT, Schetinger, MRC, Rossato, LV, Pereira, LB, Castro, GY, Srivastava, S , Tripathi, RD (2009). Antioxidant defense mechanism in hydroponically grown <i>Zea mays</i> seedlings under moderate lead stress. Journal of Hazardous Materials, 172, 479-484.	4.331	69

33.	Shri, M, Kumar, S, Chakrabarty, D, Trivedi, PK, Mallick, S, Misra, P, Shukla, D, Mishra, S, Srivastava, S , Tripathi, RD, Tuli, R (2009). Effect of arsenic on growth, oxidative stress, and antioxidant system in rice seedlings. <i>Ecotoxicology and Environmental Safety</i> , 72, 1102-1110.	2.482	103
34.	Dwivedi, S, Srivastava, S , Mishra, S, Dixit, B, Kumar, A, Tripathi, RD (2008). Screening of native plants and algae growing on fly-ash affected areas near National Thermal Power Corporation, Tanda, Uttar Pradesh, India for accumulation of toxic heavy metals. <i>Journal of Hazardous Materials</i> , 158, 359-365.	4.331	25
35.	Mishra, S, Srivastava, S , Tripathi, RD, Trivedi, PK (2008). Thiol metabolism and antioxidant systems complement each other during arsenate detoxification in <i>Ceratophyllum demersum</i> L. <i>Aquatic Toxicology</i> , 86, 205-215.	3.73	78
36.	Tripathi, RD, Dwivedi, S, Shukla, MK, Mishra, S, Srivastava, S , Singh, R, Rai, UN, Gupta, DK (2008). Role of blue green algae biofertilizer in ameliorating the nitrogen demand and fly-ash stress to the growth and yield of rice (<i>Oryza sativa</i> L.) plants. <i>Chemosphere</i> , 70, 1919-1929.	3.499	28
37.	Tiwari, KK, Dwivedi, S, Mishra, S, Srivastava, S , Tripathi, RD, Singh, NK, Chakraborty, S (2008). Phytoremediation efficiency of <i>Portulaca tuberosa</i> rox and <i>Portulaca oleracea</i> L. naturally growing in an industrial effluent irrigated area in Vadodra, Gujrat, India. <i>Environmental Monitoring and Assessment</i> , 147, 15-22.	1.679	28
38.	Gupta, DK, Tripathi, RD, Mishra, S, Srivastava, S , Dwivedi, S, Rai, UN, Yang, XE, Huanji, H, Inouhe, M (2008). Arsenic accumulation in root and shoot vis-à-vis its effect on growth and level of phytochelatins in seedlings of <i>Cicer arietinum</i> L. <i>Journal of Environmental Biology</i> , 29, 281-286.	0.553	21
39.	Mishra, S, Srivastava, S , Tripathi, RD, Dwivedi, S, Shukla, MK (2008). Response of antioxidant enzymes in coontail (<i>Ceratophyllum demersum</i> L.) plants under cadmium stress. <i>Environmental Toxicology</i> , 23, 294-301.	2.562	25
40.	Srivastava, S , Mishra, S, Tripathi, RD, Dwivedi, S, Trivedi, PK, Tandon, PK (2007). Phytochelatins and antioxidant systems respond differentially during arsenite and arsenate stress in <i>Hydrilla verticillata</i> (L.f.) Royle. <i>Environmental Science & Technology</i> , 41, 2930-2936.	5.491	95
41.	Dwivedi, S, Tripathi, RD, Srivastava, S , Mishra, S, Shukla, MK, Singh, R, Rai, UN (2007). Growth performance and biochemical responses of three rice (<i>Oryza sativa</i> L.) cultivars grown in fly-ash amended soil. <i>Chemosphere</i> , 67, 140-151.	3.499	38
42.	Gupta, DK, Tripathi, RD, Rai, UN, Mishra, S, Srivastava, S , Maathuis, FJM (2007). Growth and biochemical parameters of <i>Cicer arietinum</i> L. grown on amended fly-ash. <i>Environmental Monitoring and Assessment</i> , 134, 479-487.	1.679	11

43.	Srivastava, S , Mishra, S, Tripathi, RD, Dwivedi, S, Gupta, DK (2006). Copper-induced oxidative stress and responses of antioxidants and phytochelatins in <i>Hydrilla verticillata</i> (L.f.) Royle. <i>Aquatic Toxicology</i> , 80, 405-415.	3.73	105
44.	Mishra, S, Srivastava, S , Tripathi, RD, Kumar, R, Seth, CS, Gupta, DK (2006). Lead detoxification by coontail (<i>Ceratophyllum demersum</i> L.) involves induction of phytochelatins and antioxidant system in response to its accumulation. <i>Chemosphere</i> , 65, 1027-1039.	3.499	201
45.	Mishra, S, Srivastava, S , Tripathi, RD, Govindarajan, R, Kuriakose, SV, Prasad, MNV (2006). Phytochelatin synthesis and response of antioxidants during cadmium stress in <i>Bacopa monnieri</i> L. <i>Plant Physiology and Biochemistry</i> , 44, 25-37.	2.352	254
46.	Dwivedi, S, Tripathi, RD, Rai, UN, Srivastava, S, Mishra, S, Shukla, MK, Gupta, AK, Sinha, S, Baghel, V, Gupta, DK (2006). Dominance of algae in Ganga water polluted through fly-ash leaching: metal bioaccumulation potential of selected algal species. <i>Bulletin of Environmental Contamination and Toxicology</i> , 77, 427-436.	1.216	10
47.	Gupta, DK, Tripathi, RD, Rai, UN, Dwivedi, S, Mishra, S, Srivastava, S , Inouhe, M (2006). Changes in amino acid profile and metal content in seeds of <i>Cicer arietinum</i> L. (Chickpea) grown under various fly-ash amendments. <i>Chemosphere</i> , 65, 939-945.	3.499	13
48.	Srivastava, S , Mishra, S, Dwivedi, S, Baghel, VS, Verma, S, Tandon, PK, Rai, UN, Tripathi, RD (2005). Nickel phytoremediation of broad bean <i>Vicia faba</i> L. and its biochemical responses. <i>Bulletin of Environmental Contamination and Toxicology</i> , 74, 715-72.	1.216	20
Review Articles			
1.	Srivastava, S , Suprasanna, P, D'Souza, SF (2012). Mechanisms of arsenic tolerance and detoxification in plants and their application in transgenic technology: a critical appraisal. <i>International Journal of Phytoremediation</i> , 14, 506-517.	1.466	7
2.	Tripathi, RD, Mishra, S, Srivastava, S (2008). Role of aquatic macrophytes in arsenic phytoremediation in wetlands. <i>Proceedings of National Academy of Sciences India Section B</i> , 78 (special issue), 167-182.	0.396	2
3.	Tripathi, RD, Srivastava, S , Mishra, S, Singh, N, Tuli, R, Gupta, DK, Maathuis, FJM (2007). Arsenic hazards: strategies for tolerance and remediation by plants. <i>Trends in Biotechnology</i> , 25, 158-165.	10.04	243

S.N.	Book Chapters	Citations
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1.	Srivastava, S , Suprasanna P, D'Souza, SF (2012). Heavy metal stress tolerance and signaling mechanisms in plants. In: Biotechnological Applications for Environmental Protection , Abhilash, PC (Ed.), Springer, (in press).	0
2.	Gupta, DK, Srivastava, S , Huang, HG, Romero-Puertas, MC, Sandalio, LM (2011). Arsenic tolerance and detoxification mechanisms in plants. In: Soil Biology: Detoxification of heavy metals , Sherameti, I, Varma, A (Eds.), Springer, Heidelberg, vol. 30, pp. 169-179.	4
3.	Tripathi, RD, Srivastava, S , Mishra, S, Dwivedi, S (2008). Strategies for phytoremediation of environmental contamination. In: Development in Physiology, Biochemistry and Molecular Biology of Plants , Vol. 2, Bose, B, Hemantranjan, A (Eds.), New India Publishing Agency, New Delhi, India, pp. 175-220.	0
4.	Grill, E, Mishra, S, Srivastava, S , Tripathi, RD (2006). Role of phytochelatins in phytoremediation of heavy metals. In: Environmental Bioremediation Technologies , Singh, SN, Tripathi, RD (Eds.), Springer, Heidelberg, 101-145.	25
5.	Tripathi, RD, Srivastava, S , Mishra, S (2006). Bioremediation of hazardous lead from the environment. In: Focus on Environmental Research , Davis, EB (Ed.), Nova Science Publisheres Inc., NY, 1-26.	0

S.N.	Popular / Newsletter Articles
1.	Srivastava, S , Suprasanna P, D'Souza, SF (2012). Plants adaptive responses to heavy metals and implications for phytoremediation. In: BARC Newsletter Founder's Day Special Issue , pp. 168-171.
2.	Mishra, S, Srivastava, S , Tripathi, RD (2006). Arsenic Vishaktata: Samasya avam Samadhan. In: Vigyan Vani , 12, 14-19.
3.	Srivastava, S , Mishra, S, Tripathi, RD (2004). Phytoremediation of hazardous lead from environment. In: EnviroNews , 10, 9-10.

S.N.	Our Research Highlighted in Popular Magazines/Newspapers
1.	Arsenic eyes rice nutrients , by Biplab Das, published in Down To Earth , http://www.downtoearth.org.in/print/38809 highlighting Dwivedi et al. (2012) Arsenic affects essential and non-essential amino acids differentially in rice grains: Inadequacy of amino acids in rice based diet. <i>Environment International</i> , 46, 16-22.

S.N.	Details of work presented	Type of presentation	Conference details
International Conferences			
1.	Evaluation of arsenic removal potential of five aquatic plants grown singly or in combinations. Sudhakar Srivastava , Suvarna Sounderajan, Ambuja Udas, and P. Suprasanna	POSTER	11th International Phytotechnologies Conference at Herakilon, Crete, Greece from September 30-October 3, 2014.

2.	Analysis of arsenic accumulation by NAA and its effects on the mineral nutrient profile of rice (<i>Oryza sativa</i>) plants. Sudhakar Srivastava , J.J. Akkarakaran, R.N. Shinde, R. Acharya and P. Suprasanna	POSTER	DAE-BRNS 5th Symposium on Nuclear Analytical Chemistry (NAC-V) , at BARC, Mumbai from 20-24 January, 2014.
3.	Functional analysis of redox-regulated components of arsenic tolerance: Implication of thiourea supplementation for reducing arsenic load from rice. A.K. Srivastava, Sudhakar Srivastava and P. Suprasanna	POSTER	11th International Symposium on Rice Functional Genomics at University of Delhi, New Delhi, India from 20-23 November, 2013
4.	Phytofiltration of arsenic contaminated water using <i>Hydrilla verticillata</i> Sudhakar Srivastava , Manoj Shrivastava, P. Suprasanna and S.F. D'Souza	POSTER	4th International Contaminated Site Remediation Conference, CleanUp 2011 at Hilton Adelaide Hotel, South Australia from 11-15 September, 2011.
5.	Modulations in Sulfur Supply affects arsenic accumulation and tolerance in <i>Hydrilla verticillata</i> Sudhakar Srivastava , P. Suprasanna and S.F. D'Souza	POSTER	4th International Conference on Plants and Environmental Pollution (ICPEP-4) at the National Botanical Research Institute, Lucknow, India from 8 - 11 December 2010.
6.	Arsenic-stressed <i>Brassica juncea</i> seedlings reveal interplay of arsenic and sulfur metabolism for signaling and tolerance, Sudhakar Srivastava , A.K. Srivastava, P. Suprasanna and S.F. D'Souza	ORAL	8th International Workshop on Plant Sulphur Metabolism in Higher Plants at the Department of Forest and Ecosystem Science, Melbourne School of Land and Environment, in Creswick, Victoria 3363, Australia, 22-27 November 2010.
7.	Biochemical responses of <i>Hydrilla verticillata</i> (l.f.) Royle to As(III) and As(V) bioaccumulation. Sudhakar Srivastava , Seema Mishra and R.D. Tripathi	POSTER	3rd International Conference on Plants and Environmental Pollution held at Lucknow during 28 November – 2 December, 2005.
8.	Phytochelatin synthesis and response of antioxidants during cadmium stress in <i>Bacopa monnieri</i> L. Seema Mishra, Sudhakar Srivastava and R.D. Tripathi	POSTER	3rd International Conference on Plants and Environmental Pollution held at Lucknow during 28 November – 2 December, 2005.
9.	Strategies for phytoremediation of heavy metal pollution involving phytochelatins by the plants. R.D. Tripathi, Amna Siddiqui, Seema Mishra, Sudhakar Srivastava , P.K. Trivedi and P. Nath	POSTER	3rd International Conference on Plants and Environmental Pollution held at Lucknow during 28 November – 2 December, 2005.
10.	Accumulation of cadmium and associated responses in aquatic macrophyte <i>Ceratophyllum demersum</i> L.	POSTER	International Conference on Soil and Ground Water Contamination: Risk Assessment and Remedial Measures held

	Seema Mishra, Sudhakar Srivastava and R.D. Tripathi		at National Geophysical Research Institute, Hyderabad during 8-11 December, 2004.
National Conferences			
1.	Arsenic impacts the oxidative status and antioxidant responses in <i>Ocimum tenuiflorum</i> . F. Siddiqui, P.K. Tandon and Sudhakar Srivastava	ORAL	102nd Indian Science Congress held at Mumbai, Maharashtra during 3-7 January 2014
2.	Significance of redox state in alleviating the arsenic stress in rice. A.K. Srivastava, Sudhakar Srivastava , P. Suprasanna and S.F. D'Souza	ORAL	DAE-BRNS Life Sciences Symposium 2012 on Trends in Plant, Agriculture and Food Sciences held at BARC, Mumbai, Maharashtra during 17-19 December, 2012.
3.	Evaluation of effects of arsenic on carbon, nitrogen and sulfur metabolism in two contrasting varieties of <i>Brassica juncea</i> . Varsha Pathare, Sudhakar Srivastava and P. Suprasanna	POSTER	DAE-BRNS Life Sciences Symposium 2012 on Trends in Plant, Agriculture and Food Sciences held at BARC, Mumbai, Maharashtra during 17-19 December, 2012.
4.	Arsenic stress induced effects on adenine and pyridine metabolism during germination and early seedling growth in <i>Brassica juncea</i> . J.J. Akkarakaran, Sudhakar Srivastava , P. Suprasanna and S.F. D'Souza	POSTER	DAE-BRNS Life Sciences Symposium 2012 on Trends in Plant, Agriculture and Food Sciences held at BARC, Mumbai, Maharashtra during 17-19 December, 2012.
5.	Microarray based analysis of arsenic-regulated microRNAs from <i>Brassica juncea</i> . Sudhakar Srivastava , A.K. Srivastava, P. Suprasanna and S.F. D'Souza	ORAL	DAE-BRNS Life Sciences Symposium 2011 on Advances in Molecular and Cell Biology of Stress Response held at BARC, Mumbai, Maharashtra during 12-14 October, 2011.
6.	Comparative analysis of salinity-induced effects on redox biology and energetics of a glycophyte (<i>Brassica juncea</i> L.) and halophyte (<i>Sesuvium portulacastrum</i> L.(L.). V.H. Lokhande, A.K. Srivastava, Sudhakar Srivastava , T.D. Nikam and P. Suprasanna	ORAL	National Conference on Frontiers in Plant Physiology towards Sustainable Agriculture held at Jorhat, Assam during 5-7 November, 2009.
7.	Modulation of antioxidant enzymes upon exposure to zinc in <i>Hydrilla verticillata</i> (L.f.) Royle. Sudhakar Srivastava , Seema Mishra and R.D. Tripathi	POSTER	94th Indian Science Congress held at Chidambaram, Tamil Nadu during 3-7 January 2007.
8.	Involvement of phytochelatins in arsenic detoxification by <i>Ceratophyllum demersum</i> L. Seema, Mishra, Sudhakar Srivastava and R.D. Tripathi	POSTER	94th Indian Science Congress held at Chidambaram, Tamil Nadu during 3-7 January 2007.
9.	Phytoremediation of Nickel by <i>Vicia faba</i> L.: Biochemical responses. Sudhakar	POSTER	91st Indian Science Congress held at Chandigarh during 3-7 January 2004.

	Srivastava, S. Verma, Seema Mishra and R.D. Tripathi		
Conferences / Workshops Attended			
1.	81st Annual Session of NASI & the National Symposium on “Sustainable Management of Biodiversity using Science & Technology” organized by The National Academy of Sciences, India during 24-26 November, 2011 at University of Kerala, Kariavattom, Thiruvananthapuram, Kerala		
2.	Theme meeting on Application of Analytical Environmental Chemistry organized by BRNS on 6 June, 2011 at BARC, Mumbai, Maharashtra		
3.	XI All-India Meeting of Women in Science “Science & Technology: Ethical Issues” organized by Indian Women Scientists Association during 28-30 January, 2011 at Vashi, Navi Mumbai, Maharashtra		
4.	XXI Annual Conference on Impact of Radiation Technology on Human Health and Environment organized by Indian Nuclear Society on 17 January, 2011 at NPCIL, Mumbai, Maharashtra		

GENE BANK SUBMISSIONS

1. FJ654732.1: *Brassica juncea* cultivar TPM-1 plasma membrane sulphate transporter mRNA, partial cds). **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
2. GQ243695.1: *Brassica juncea* tryptophan synthase-related protein-like mRNA, partial sequence. Srivastava, S., **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
3. GQ243696.1: *Brassica juncea* nitrilase 3-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
4. GQ243697.1: *Brassica juncea* sulfate transporter 4.1-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
5. GQ243698.1: *Brassica juncea* myrosinase-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
6. GQ243700.1: *Brassica juncea* S-adenosylmethionine synthetase 2-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
7. GQ243701.1: *Brassica juncea* methionine synthase-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
8. GQ243702.1: *Brassica juncea* 12-oxophytodienoate reductase 1-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)
9. GQ243703.1: *Brassica juncea* cytokinin receptor CRE1b-like mRNA, partial sequence. **Srivastava, S**, Srivastava, AK, Suprasanna, P, D'Souza, SF (2009)

PROJECTS

1. Investigation of effect of nitrate on arsenic accumulation, growth and biochemical parameters of rice (*Oryza sativa* L.) plants. Project funded by UGC for Start-Up Grant, Total cost: Rs. 6 lakhs.

COMMITTEES

1. As a member of Publication Committee in organization of **DAE-BRNS Life Sciences Symposium 2012 on Trends in Plant, Agriculture and Food Sciences** held at BARC, Mumbai, Maharashtra during 17-19 December, 2012.