Faculty Details proforma for DU Web-site

(01 July 2020)

Title	Professor	First Name	Radhey Shyam	Last Name	Sharma	Photograph
Designation		Professor				
Address		Department of Environmental Studies, Laboratory of Bioresources & Environmental Biotechnology, University of Delhi, Delhi-110 007				
Phone No Office		91-11-2766-6237 (Tele/Fax); 91-11-2766-7725 (Extn. 1422)				
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Educational Qualifications

Degree	Institution	Year
Ph.D.	University of Delhi	1999
M.Sc. Botany	University of Delhi	1993
B.Sc. (H) Botany	University of Delhi	1991

Career Profile

Professor (2015 – onwards)
Visiting Assistant Professor, Massachusetts Institute of Technology, Cambridge, USA (2011-2012)

Administrative Assignments

- Served as Coordinator, M.Phil. Course in Restoration Ecology at the University of Delhi
- Served as a member of Annual Flower Show Committee of the University of Delhi (1999-2010)
- Member Garden Committee, University of Delhi (2016-onwards)

Areas of Interest / Specialization

Environmental Sustainability; Restoration Ecology; Soil Microbial Ecology; Bio-/Phyto-Remediation; Plant-Microbe Associations; Bioresources and their Utilization

Subjects Taught

Post-Graduate Teaching (M.Sc.)

- Ecotoxicology and Environmental Health (Coordinator, 2007– till date)
- Environmental Biotechnology (Coordinator, 2006-2007; 2010-2011)
- Environmental Communication & Education (2015–)
- Environmental History and Environmentalism (2013; 2016-)
- Natural Resources: Their Conservation and Management (2007–2010)
- Natural Resource Conflicts and Choices (2017- onwards)
- Environmental Toxicology and Impact Assessment (2007–2010)
- Biodiversity and Conservation (2006-2007)
- Introduction to Environment (2006-2007; 2009-2011)
- Ecology and Systematics (1999-2003)
- Crop Genetics (1999-2003)

Post-Graduate Teaching (M.Phil.)

- Restoration Ecology

Research Guidance

1. *Supervision of Doctoral Thesis awarded*: **05**
2. *Supervision of Doctoral Thesis, under progress* : **07**
3. *Supervision of awarded M. Phil dissertations* : **01**

Publications Profile

Books / Monographs

Year of Publication	Title	Publisher	Co-Author
2020	**Exploitation of antibiotics: Mechanism of resistance, consequences, challenges of conventional remediation, and promise of nanomaterials in mitigation. In Nano-Materials as Photocatalysts for Degradation of Environmental Pollutants**	**Elsevier, Netherlands, pp. 195-209**	N Sarkar, M Kaushik
2003	**Valuing hydrological impacts of changing landuse – a case of Yamuna Floodplain Wetland Ecosystems, Delhi. In: Water Resources, Sustainable Livelihoods and Ecosystem Services.**	**Concept Publishing Company, New Delhi.**	P. Kumar, A. Love, C.R. Babu
2003	**Ecological restoration of degraded ecosystems and wastelands. In: Innovative Environmental Biotechnologies: From Research to Application.**	**Department of Biotechnology, Ministry of Science & Technology, Government of India.**	S. Subramanian, J. Rajiv, S. Kipgen, A. Mohmmed, A. Bhattacharyya, S. Sinharoy, B. Mittra, C.R. Babu
2002	**Economic Valuation of Wetlands: Problems and Prospects. In: (Nair, K.R.G., Roonwal, G.S., and Gupt, Y.) Environmental and Sustainable Development. Indo-Canadian Perspectives.**	**Kaveri Books, New Delhi.**	A. Love, S. Sharma, C.R. Babu
1997	**Protection of wild genetic resources of plants and microbes through wild life (Protection) Act 1972 - A view point, In: Handbook of Environment, Forest & Wildlife Protection Laws in India.**	**Natraj Publication, Dehra Dun.**	A. Joshi, N. Sardesai, A. Mohmmed, C.R. Babu

In Indexed/ Peer Reviewed Journals

Year of Publication	Title	Journal	Co-Author
2020	Direct contact membrane distillation for effective concentration of perfluoroalkyl substances–Impact of surface fouling and material stability	**Water Research**, p.116010.	X Chen, A Vanangamudi, J Wang, J Jegatheesan, V Mishra, **R Sharma,** SR Gray, J Kujawa, W Kujawski, F Wicaksana, LF Dumée
2020	Peroxidases from an invasive Mesquite species for management and restoration of fertility of phenolic-contaminated soil	**Journal of Environmental Management** 256, 109908	S Singh, S Malhotra, P Mukherjee, R Mishra, F Farooqi, **RS Sharma,** V Mishra

2020	Fast-changing life-styles and ecotoxicity of hair dyes drive the emergence of hidden toxicants threatening environmental sustainability in Asia.	**Environmental Research**, 184, p.109253	V Mishra, U Sharma, D Rawat, D Benson, M Singh, **RS Shamra**
2020	*Prosopis juliflora* peroxidases for phenol remediation from industrial wastewater–An innovative practice for environmental sustainability.	**Environmental Technology & Innovation,** p.100865.	S Garg, P Kumar, S Singh, A Yadav, LF Dumée, **RS Sharma,** V Mishra
2020	Dead biomass of *Morganella morganii* acts as an efficient adsorbent to remove Pb(II) from aqueous solution in different aeration–agitation and pH conditions	**SN Applied Sciences**. 2, 1258	P Kumar, A Maurya, S Garg, A Yadav,·V Mishra, **RS Sharma**
2020	Exploring the potential of DNA/RNA aptamers in national security.	**National Academy Science Letters** 43, 187–190.	N Sarkar, **RS Sharma,** M Kaushik
2019	Application of filamentous phages in environment: A tectonic shift in the science and practice of ecorestoration.	**Ecology and Evolution**. doi10.1002/ece3.4743.	**RS Sharma,** S Karmakar, P Kumar, V Mishra
2019	Green synthesis and physiochemical characterization of nickel oxide nanoparticles: Interaction studies with Calf thymus DNA.	**Luminescence** 35, 178-186.	Sarkar, N., **RS Sharma,** Kaushik, M.,
2019	Rhizosphere provides a new paradigm on the prevalence of lysogeny in the environment.	**Soil and Tillage Research**, 195, p.104368.	**RS Sharma,** S Nayak, S Malhotra, S Karmakar, M Sharma, S Raiping, V Mishra
2019	Protein signatures linking history of miscarriages and metabolic syndrome: a proteomic study among North Indian women.	**PeerJ,** 7:e6321 https://doi.org/10.7717/peerj.6321	S Sharma, S Yadav, K Chandiok, **RS Sharma,** V Mishra, KN Saraswathy
2018	A major lineage of non-tailed dsDNA viruses as unrecognized killers of marine bacteria.	**Nature, 554, 118–122 DOI: 10.1038/nature25474**	K Kauffman, FA Hussain, J Yang, P Arevalo, JM Brown, WK Chang, D VanInsberghe, J Elsherbini, **RS Sharma,** MB Cutler, L Kelly, MF Polz
2018	Viruses of the Nahant Collection, characterization of 251 marine Vibrionaceae viruses.	**Scientific Data** 5:180114 doi: 10.1038/sdata.2018.114.	K Kauffman, J Brown, **RS Sharma,** D VanInsberghe, J Elsherbini, MF Polz, L Kelly
2018	*Viscum articulatum* Burm. f. aqueous extract exerts antiproliferative effect and induces cell cycle arrest and apoptosis in leukemia cells.	**Journal of Ethnopharmacology 219: 91-102**	R Mishra, S Sharma, **RS Sharma,** S Singh, MM Sardesai, S Sharma, V Mishra

2018	Ecotoxic potential of a presumably non-toxic azo dye.	**Ecotoxicology and Environmental Safety** 148:528-537.	D Rawat, **RS Sharma,** S Karmakar, LS Arora, V Mishra
2017	Environmental predictors of indole acetic acid producing rhizobacteria at fly ash dumps: Nature-based solution for sustainable restoration.	**Frontiers in Environmental Science** 5:59. doi: 10.3389/fenvs.2017.00059	S Malhotra, V Mishra, S. Karmakar, **RS Sharma**
2017	Phenol remediation by peroxidase from an invasive mesquite: Turning an environmental wound into wisdom.	**Journal of Hazardous Materials** 334, 201-211	S. Singh, R Mishra, V Mishra
2017	Articulatin-D induces apoptosis via activation of caspase-8 in acute T-cell leukemia cell line.	**Molecular and Cellular Biochemistry** 426: 87–99	R Mishra, MK Das, S Singh, **RS Sharma,** V Mishra
2016	Detoxification of azo dyes in the context of environmental processes.	**Chemosphere** 155: 591 – 605.	D Rawat, V Mishra, **RS Sharma**
2016	Isolation and identification of *Bacillus megaterium* YB3 from an effluent contaminated site efficiently degrades pyrene	**Journal of Basic Microbiology** 56: 369–378	SS Meena, **RS Sharma**, P Gupta, S Karmakar, KK Aggarwal
2016	Increased iron-stress resilience of maize through inoculation of siderophore-producing *Arthrobacter globiformis* from mine.	**Journal of Basic Microbiology** 56:719-735	M Sharma, V Mishra, N Rau, **RS Sharma**
2012	Induction of apoptosis by ribosome inactivating proteins: importance of N-glycosidase activity.	**Applied Biochemistry and Biotechnology** 166:1552-1561.	M.K. Das, **R.S. Sharma,** V. Mishra
2011	A cytotoxic type-2 ribosome inactivating protein (from leafless mistletoe) lacking sugar binding activity.	**International Journal of Biological Macromolecules** 49: 1096**-1103**	M.K. Das, **R.S. Sharma,** V. Mishra
2011	Functionally diverse rhizobacteria of *Saccharum munja* (a native wild grass) colonizing abandoned morrum mine in Aravalli hills (Delhi).	**Plant and Soil** 341:447–459.	M. Sharma, V. Mishra, N. Rau, **R.S. Sharma**
2011	Variations in outer-membrane characteristics of two stem-nodulating bacteria of *Sesbania rostrata* and its role in tolerance towards diverse stress	**Current Microbiology 63:81–86**	**R.S. Sharma,** V. Mishra, A. Mohmmed, C.R. Babu
2011	A novel cationic peroxidase (VanPrx) from a hemi-parasitic plant (*Viscum angulatum*) of Western Ghats (India): Purification, characterization and kinetic properties.	**Journal of Molecular Catalysis B: Enzymatic. 71: 63–70.**	M.K. Das, **R.S. Sharma,** V. Mishra

2009	Evaluation of functional diversity in rhizobacterial taxa of a wild grass (*Saccharum ravennae*) colonizing abandoned fly ash dumps in Delhi urban ecosystem.	**Soil Biology & Biochemistry, 41: 813–821.**	N. Rau, V. Mishra, M. Sharma, M.K. Das, K., Ahaluwalia, **R.S. Sharma**
2008	Antifungal activity of some Himalayan medicinal plants and cultivated ornamental species.	**Fitoterapia 79: 589–591.**	**R.S. Sharma,** V. Mishra, R. Singh, N. Seth and C.R. Babu
2008	Phage specificity and lipopolysachharides of stem- and root-nodulating bacteria (*Azorhizobium caulinodans*, *Sinorhizobium spp.,* and *Rhizobium spp.*) of *Sesbania spp.*	**Archives of Microbiology 189: 411-418**	**R.S. Sharma,** V. Mishra, A. Mohmmed, C.R. Babu
2008	Purification and characterization of a unique peroxidase from a wild plant from Western Ghats region (India).	**FEBS Journal** 275 (S1): 397.	M.K. Das, **R.S. Sharma,** M. Serdesai, S.R. Yadav and V. Mishra
2005	Diversity in promiscuous group of rhizobia from three *Sesbania* spp. colonizing ecologically distinct habitats of the semi-arid Delhi region.	**Research in Microbiology** 156 (1): 57-67.	**R.S. Sharma,** A. Mohmmed, V. Mishra, C.R. Babu
2005	Crystal structure of Himalayan mistletoe ribosome inactivating protein reveals the presence of a inhibitor and a new functionally active sugar-binding site.	**Journal of Biological Chemistry** 280: 20712 – 20721.	V. Mishra, S. Bilgrami, **R.S. Sharma**, P. Kaur, S. Yadav, R. Krauspenhaar, Ch. Betzel, W. Voelter, C.R. Babu, T.P. Singh
2005	cDNA Cloning and characterization of a ribosome inactivating protein of a hemi-parasitic plant (*Viscum album* L.) from North-Western Himalaya (India).	**Plant Science 168** (3): 615-625.	V. Mishra, **R.S. Sharma,** M. Paramasivam, S. Bilgrami, S. Yadav, A. Srinivasan, C. Betzel, C.R. Babu, T.P. Singh.
2005	Unique sugar affinity of four novel isoforms of a ribosome inactivating protein from *Viscum album* (L.) inhabiting NW Himalaya.	**FEBS Journal** 272 (s1): 75.	**R.S. Sharma,** V. Mishra,S. Yadav, C.R. Babu, T.P. Singh
2005	Natural colour yielding potential of Himalayan plant species and identification of probable class of compounds.	**Asian Journal of Chemistry** 17(1): 149-154.	**R.S. Sharma,** V. Mishra, R. Singh, N. Seth, C.R. Babu
2005	Structure–function relationship of a ribosome inactivating protein from a Himalayan hemi-parasitic plant.	**FEBS Journal** 272 (s1): 54.	V. Mishra, **R.S. Sharma,** A.S. Ethayathulla, S. Bilgrami, M. Paramasivam, S. Yadav, C.R. Babu, T.P. Singh
2004	Purification and characterization of four isoforms of Himalayan mistletoe ribosome inactivating protein from *Viscum album* having unique sugar affinity.	**Archives of Biochemistry and Biophysics** 423(2): 288-301.	V. Mishra, **R.S. Sharma,** S. Yadav, C.R. Babu, T.P. Singh
2004	Crystal structure of a novel ribosome inactivating protein from a semi-parasitic plant inhabiting north-western Himalaya.	**Acta Crystallography D60:**2295-2304.	V. Mishra, A.S. Ethayathullah, **R.S. Sharma,** S. Yadav, R. Krauspenhaar, C. Betzel, C.R. Babu, T.P. Singh

2002	Crystal structure of a ribosome inactivating viscumin from Indian *Viscum album* at 2.8 Å resolution.	**Acta Crystallography** A58 (Suppl), 488.	A. Bhushan, V. Mishra, A.K. Verma, S. Yadav**, R.S. Sharma,** C.R. Babu, T.P. Singh
2002	Diversity among rhizobiophages from rhizospheres of legumes inhabiting three ecogeographical regions of India.	**Soil Biology and Biochemistry** 34(7): 965-974.	**R.S. Sharma,** A. Mohmmed, C.R. Babu
2001	Molecular diversity of the plasmid genotypes among *Rhizobium* gene pools of sesbanias from different habitats of a semi-arid region (Delhi).	**FEMS Microbiology Letters** 205(2): 171-178.	A. Mohmmed, **R.S. Sharma**, S. Ali, C.R. Babu

Articles

2016	**Environmental Toxicants and Reproductive Health - an Environmental Perspective.**	**Indian Society for the Study of Reproduction and Fertility 18:78-81.**	**R.S. Sharma,** Swagata Karmakar, Vandana Mishra
2014	**Restoration of ecosystem health: A key to ensure long-term reproductive health among living organisms.**	**Indian Society for the Study of Reproduction and Fertility 14:36-38.**	**R.S. Sharma**
2007	**Potential of microbial diversity to enhance agricultural productivity.**	**Ecosystems: Vol. 1. IUCN Commission on Ecosystem Management**	**R.S. Sharma**
2005	***Sesbanias*- a novel bioresource for restoration ecology and sustainable development.**	**Species 43:29.**	**R.S. Sharma,** V. Mishra, A. Mohmmed, C.R. Babu
2005	**Unexplored ecological significance of *Saccharum munja.***	**Species 43:39.**	M. Sharma, N. Rau, V. Mishra, **R.S. Sharma**
2004	**Mistletoe- a potentially new medicinal resource.**	**Species 41:10.**	V. Mishra, **R.S. Sharma,** C.R. Babu

Conference Presentations

A. International Conferences

1. S Sharma, AS Ethayathullah, V Mishra, BD Banerjee, **RS Sharma** (2019). Xanthatin, a sesquiterpene lactone, acts as a novel potent stabilizer for native form of transthyretin in breast cancer patients. International Health Congress 2019 on Human Health, 26–28 June 2019, t St. Hugh's College, University of Oxford, Oxford, United Kingdom
2. **R.S. Sharma** (2019). Restoration ecology – A key for circular economy. Indo-UK Workshop on Knowledge-Transfer on the Sustainability of Innovative Wastewater Treatment Technologies to India: Circular Economy and Graphene-Related Technologies'06 March 2019, University of Delhi, India.
3. S Garg, S Singh, P Kumar, Archana, **RS Sharma,** V Mishra (2019). Removal of chlorophenols using peroxidases of an invasive Mesquite from industrial effluents. International Conference on Chemistry and Environmental Sustainability, Feb 19-22, 2019, Mizoram University, Aizawl, India.
4. **R.S. Sharma** (2019). Role of Healthy Ecosystems in Overcoming Hyperindividualism and Achieving Sustainable Development. International Conference on Physics, Society, and Technology–2019 (ICPST-2019). 17–19 January 2019, University of Delhi, Delhi, India.
5. P Kumar, A Maurya, Archana, S Garg, V Mishra and **RS Sharma** (2019). Removal of lead from aqueous solution by bacterial dead biomass based adsorbent. International Conference on Chemistry and Environmental Sustainability, Feb 19-22, 2019, Mizoram University, Aizawl, India.

6. V Mishra, R Mishra, and **RS Sharma** (2019). Efficient induction of apoptosis by ribosome inactivating protein from Viscum articulatum in acute T-cell leukemia cell line. Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019), Loyola University Chicago and University of Delhi, Delhi, India.
7. N Sarkar, RS Sharma, M Kaushik (2018). Environment friendly green synthesis of NiO nanoparticles: Characterization and interaction with DNA. 11th Symposium on Frontiers of Biomedical Research, 09 February 2018, Ambedkar Centre for Biomedical Research, University of Delhi, Delhi.
8. S Garg, **RS Sharma**, L Dumee, V Mishra (2017). Phage Display based biosensors for detection of environmental pollutants. International Conference on Nanobiotechnology, 05-06 February 2018, Jamia Millia Islamia, New Delhi.
9. R Mishra, A Yadav, **RS Sharma**, V Mishra (2017). Purification of a ribosome inactivating lectin from *Viscum articulatum*: a protein with multiple enzymatic activities. World biotechnology congress, 2017.
10. R Mishra, RS Sharma, V Mishra (2016), Evaluation of anticancerous potential of aqueous extract of *Viscum articulatum*, leafless mistletoe, on human leukemia cells. 5th Biennnial International conference on new developments in drug discovery from natural products and traditional medicine, NIPER, Mohali, Punjab
11. S Karmakar, V Mishra, **RS Sharma** (2016). Environmental applications of ssDNA bacterial viruses. VirusDis. 27(4):428
12. S Karmakar, V Mishra, **RS Sharma** (2016). Pattern of distribution of bacterial host and its phages in soil environment. Expert Opin Environ Biol, 5:3(Suppl). http://dx.doi.org/10.4172/2325-9655.C1.011
13. **RS Sharma**, S Karmakar, R Bidhuri, S Malhotra, R Singh, V Mishra (2015). Prevalence of polyphosphate accumulating bacteria in degraded ecosystems. In: Proceedings of 56th Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on "Emerging Discoveries in Microbiology" Dec 7-10, 2015, JNU, New Delhi, pp. EMP123
14. V Mishra, S Malhotra, A Juneja, S Karmakar, **RS Sharma** (2015). Variation in nitrogen-fixing bacteria in different plant species at different stages of vegetation development. In: Proceedings of 56th Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on "Emerging Discoveries in Microbiology" Dec 7-10, 2015, JNU, New Delhi, pp. AMP97
15. S. Sharma, V. Mishra, A.S.Ethayathullah, S. Karmakar, **R.S. Sharma** (2015). Identification of multi-targeted Plant Compound for Breast Cancer Therapeutics. International Symposium on"Current Advances in Radiobiology, Stem Cells and Cancer Research" at Jawaharlal Nehru University, New Delhi, India February,
16. V. Mishra, M.K. Das, **R.S. Sharma** (2015). Indian Mistletoe: Source of Novel Anti-cancer Ribosome Inactivating Protein**.** International Symposium on "Current Advances in Radiobiology, Stem Cells and Cancer Research" at Jawaharlal Nehru University, New Delhi, India February, 2015
17. Mincer, T. J.**,** Johnson, M. D., Flynn-Carroll, A., **Sharma, R. S.,** Wildschutte, H., Polz, M. (2014). Indole as a Mediator of Protozoan Grazing of Bacteria: A New Role for a Multifaceted Infochemical. Proceedings of 114th General Meeting of the American Society for Microbiology, Boston, Massachusetts, May 17-20, 2014. N-779
18. **R.S. Sharma**, S. Raiping, M.K. Das, V. Mishra, N. Rau, M. Sharma (2006). Phage induced functional diversity in rhizosphere bacteria and its significance in restoration ecology. **International Symposium on Biology, Ecology and Management of World's Worst Plant Invasive Species**. 10-14 December 2006.
19. M.K. Das, **R.S. Sharma,** V. Mishra. Prospecting of stem-parasitic weeds for novel medicinally important compounds. In: **International Symposium on Biology, Ecology and Management of World's Worst Plant Invasive Species**. December 10-14 2006.
20. M. Sharma, **R.S, Sharma**. Dhubgrass – an agricultural weed, as a source of novel rhizobacteria. In: **International Symposium on Biology, Ecology and Management of World's Worst Plant Invasive Species**. December 10-14 2006.
21. **R.S. Sharma**, A. Mohmmed, V. Mishra, C.R. Babu. Diversity in functionally important traits of promiscuous group of *Sesbania*-rhizobia and their colonization potential to ecologically diverse habitats of a semi-arid region of India. **XVII International Botanical Congress 2005**, July 17-23, 2005.
22. V. Mishra, **R.S. Sharma**, T.P. Singh, C.R. Babu. Novel ribosome inactivating proteins (RIPs) from Himalayan *Viscum album* (L.)- potential biomolecules for bioprospecting. **XVII International Botanical Congress 2005,** July 17-23, 2005.
23. M.K. Das, S. Raiping, V. Mishra, M. Sharma and **R.S. Sharma**. Significance of bacteriophage sensitivity in rhizosphere ecology of growth promoting bacteria of *Dichanthium annulatum* (Willem.). **In: Third International Conference on Plants and Environmental Pollution (ICPEP-3),** 28 November – 2 December 2005.

24. S. Raiping, **R.S. Sharma,** M. Sharma, V. Mishra. Soil-borne bacteriophages of rhizobacteria of *Dichanthium annulatum* (Willem.) inhabiting mined out area and their significance in inoculation technologies. **In: Third International Conference on Plants and Environmental Pollution (ICPEP-3),** 28 November – 2 December 2005.

25. N. Rau, **R.S. Sharma,** V. Mishra. Variations in functional properties among rhizosphere bacteria of *Saccharum munja* (L.) inhabiting heavy metal contaminated fly ash dumps. **In: Third International Conference on Plants and Environmental Pollution (ICPEP-3),** 28 November – 2 December 2005.

26. V. Mishra, **R.S. Sharma,** T.P. Singh, C.R. Babu. Diversity In Ribosome inactivating proteins from a Himalayan parasitic plant: *Viscum album* L. **In: ICOB-4 & ISNP-24, IUPAC International Conference on Biodiversity and Natural Products: Chemistry and Medical Applications,** 26-31 January 2004.

27. R. Singh, **R.S. Sharma,** V. Mishra, N. Seth, C.R. Babu. Chemical prospecting for medicinal compounds from a hemi-parasitic plant (*Dendrophthoe trigona*) inhabiting western ghats of India. **In: ICOB-4 & ISNP-24, IUPAC International Conference on Biodiversity and Natural Products: Chemistry and Medical Applications,** 26-31 January 2004.

28. S. Kshirsagar, **R.S. Shamra**, M. Sen (2003). New reports to the Flora of Delhi. **In: Thirteenth Annual Conference of Indian Association for Angiosperm Taxonomy and International Symposium on Plant Taxonomy: Advances and Relevance.** November 14-15, 2003.

29. V. Mishra, **R.S. Shamra,** S. Bilgrami, S. Yadav and T.P. Singh. Diversity in ribosome inactivating proteins (Rips): some molecular evidences. In: **International Symposium on Ecology of Biological Invasions,** December 4-6, 2003.

30. **R.S. Sharma,** A. Mohmmed. Diversity among rhizobiophages and *Rhizobium* gene pools from rhizosphere of Sesbanias inhabiting ecologically distinct habitats. In: **International Symposium on Ecology of Biological Invasions,** December 4-6, 2003.

31. V. Mishra, S. Bilgrami, M. Paramsivam, S. Yadav, **R.S. Sharma,** C.R., Babu, T.P. Singh (2003). Crystal structure of a ribosome inactivating protein (Viscumin) from the Indian *Viscum album* reveals the presence of natural superinhibitor. **"International Symposium on Modern Trends in Cellular and Molecular Biology"** on March 6-7, 2003

32. V. Mishra, S. Bilgrami, M. Paramasivam, A.K. Varma., S. Yadav, **R.S. Sharma,** C.R. Babu, T.P. Singh. Crystal structure of a ribosome inactivating protein (viscumin) from Indian *Viscum album* at 2.8 Å resolution in **The First Indian Symposium of the Protein Society – Protein Structure and Function**, by International Protein Society at Indian Institute of Technology Bombay, Mumbai, October 18 - 20, 2002.

33. V. Mishra, A.K. Varma, S. Yadav, **R.S. Sharma,** C.R. Babu, T.P. Singh. Crystal structure of a Ribosome inactivating viscumin from Indian *Viscum album* at 2.8 Å resolution in **AsCA 01 IVth Meeting of Asian Crystallographic Association** at Indian Institute of Science Bangalore, India, November 18-21, 2001.

B. National Conferences

34. **R.S. Sharma** (2019). Empowering Youth for Designing a New Earth. Symposium on Avenues in Plant Sciences: A Hope for Sustainable Future. March 08 – 09, 2019, Deshbandhu College, University of Delhi, Delhi.

35. **R.S. Sharma** (2018). Ecosystem Restoration: A Path from Human Health, Personal Excellence, to Sustainable Development. In National Conference on Awareness of Changes in Lifestyle Influencing Adolescent Health, 15 September 2018, Birla Balika Vidyapeeth, BITS Campus, Pilani, Rajasthan.

36. **R.S. Sharma** (2018). Ecosystem Restoration, Personal Excellence and Sustainable Development: Potential of phages in next-generation microbial technologies. UGC Refresher Faculty Development Programme, 17 July–06 August 2018, .Department of Botany, University of Delhi, Delhi.

37. S Sharma, V Mishra, AS Ethayathullah, P Yadav, BD Banerjee, **RS Sharma** (2017). Transthyretin – a novel therapeutic target for breast cancer. National Conference on Breaking Barriers through Bioinformatics &

Computational Biology, 31 July–01 August 2017, .Indian Institute of Technology Delhi, New Delhi, India.

38. D Rawat, S Sharma, **RS Sharma**, V Mishra (2015). Proteomic analysis of halophilic bacterium efficient in degrading Acid Orange 7 Dye. 7th Annual Meeting of Proteomics Society of India (PSI) "Biochromatography, Molecular Recognition and Proteomics" Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, Dec 3–6, 2015

39. D Rawat, **RS Sharma**, V Mishra (2015). Toxicity assessment of microbe-mediated degradation of Acid Orange 7 dye. In: 1st International Conference on Trends in Cell and Molecular Biology (TCMB), Birla Institute of Technology and Science (BITS) Pilani, Goa, Dec 19–21, 2015

40. **R.S. Sharma** (2014). Environmental degradation and reproductive health. National Seminar on Reproductive Health Awareness, The IIS University, Jaipur during September 12-13, 2014.

41. S. Karmakar, V. Mishra, **R.S. Sharma** (2013). Role of environmental management of heavy metals to improve reproductive health of human. National Symposium on Changing Environment and Lifestyle: Impact on Reproductive Health (**NSCEL**- **2013**), AIIMS, New Delhi. 19–20 November 2013

42. **R.S. Sharma** (2013). Restoration of ecosystem health: A key to ensure long-term reproductive health among living organisms National Symposium on Changing Environment and Lifestyle: Impact on Reproductive Health (**NSCEL**-**2013**), AIIMS, New Delhi. 19– 20 November 2013

43. S Malhotra, **R.S. Sharma** (2013). Change in land use pattern and environment: Principal causes of emergence and reemergence of infectious diseases. National Symposium on Changing Environment and Lifestyle: Impact on Reproductive Health (**NSCEL**- **2013**), AIIMS, New Delhi. 19–20 November 2013

44. **R.S. Sharma** (2008). Prospecting of wild grasses and their rhizosphere microbial communities for remediation and biomass enhancement at the fly ash dumps. **Workshop on Taxonomy and Bioprospecting**, Ministry of Environment & Forests (Govt. of India) and University of Delhi, 28 Jan-06 Feb 2008.

45. **R.S. Sharma** (2006). Biodiversity and Environmental Pollution. 4-week Orientation Course on Environment for Teachers of Higher Education, 24.2.6- 24.03.06

46. **R.S. Sharma** (2005). Potential bioresources for ecological restoration of degraded lands and stressed habitats. Workshop on "Bioresources and Biotechnology in Sustainable Development" for College Teachers and University Lecturers, 23.01.06 – 6.02.06.

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Research Projects (Major Grants/Research Collaboration)

Principal Investigator, MoEFCC sponsored project "Advanced Training & Research in Plant Biosystematics. 2015-2021

Co-Principal Investigator, DU-DST sponsored R & D project "Diversity in bacteria at nutrient stressed site: Role of bacteriophages" 2014–2019

Awards and Distinctions

*** DBT CREST Award in Environmental Biotechnology (2011-12)**
*** Expert Member, IUCN Commission on Ecosystem Management, South Asian Region (2005–till date)**
*** Member, Core Group on the UNCCD, Govt. of India (2005–08)**

Association With Professional Bodies

*** Society of Biological Chemists (SBC) (India), Member**
*** Bacteriophage Ecology Group (BEG) (Ohio), Member**
*** Association of Microbiologists of India (AMI), Member**