

Jyotsna Singh

Scientist C
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Educational Qualification

Examination Passed	Board / University	Subjects	Percentage / Division	Year of Passing
PhD	Kanpur University	Biochemistry	Pursuing Research work	Registered in 2007
Post Graduation	Lucknow University	Biochemistry	69%	1998
Graduation	Lucknow University	B.Sc. (Botany, Chemistry, Zoology)	68%	1996
Intermediate	UP Board	Biology, Physics, Chemistry, Hindi, English	61%	1992
High School	UP Board	Mathematics, Science, Biology, Hindi, English, Social Science	61%	1990

Patents

Details of Indian patent- Title-Process for the preparation 11b-[4-(N,Ndimethylamino) phenyl]-17 β -hydroxy17-(3-ethyl-1-butynyl)estra-4,9-diene-3-one Patent application No. 2964/DEL/96dated27.12.1996 Patent No.=185080 grant date 15 June 2001 Inventors-Braj Gopal Hazara, Vandana Sudhir Pore, Padmakar Laxman Joshi , Sourav Basu, **Jyotsna Singh**, Anila Dwivedi.

Details of US patent- Title - Novel mifepristone analogue process for the preparation thereof and use thereof. Patent application No. 091656361dated 06/09/2000 **US patent No** –6512130 Grant date-28/01/2003 Inventors-Braj Gopal Hazara, Vandana Sudhir Pore, Padmakar Laxman Joshi , Sourav Basu, **Jyotsna Singh**, Anila Dwivedi.

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Names: Poonam Kakkar, **Jyotsna Singh**, Shailendra K Gupta, Meenakshi Tiwari
Title: Data Management System For Quality Assurance of Medicinal Plants (DMS-QAMP)

R&D Work

Research is being done to explore new chemical entities or herbal supplements to control hyperglycemia and its complications. Modulation of antioxidant responses, transcription factors, specific receptors during high glucose stress and its restoration by selected herbal extract is being explored *in vivo* and at cellular level. Some medicinal plants have been identified for their antihyperglycemic action and antioxidant potential. The plant extracts are being studied to observe their *in vitro* inhibition potential for alpha-glucosidase and dipeptidyl peptidase (DPP IV) and adipogenesis inhibition potential using 3T3L1 cells. . The contribution of exposure to environmental contaminants to the incidence of diabetes and obesity has received little attention until recently. Efforts are being made to assess effect of some environmental contaminants on insulin resistance and adipogenesis.

Projects (As Co-Participant)

1. In-Depth
2. NanoSHE

Publications

Published

- **Jyotsna Singh**, Poonam Kakkar. Antihyperglycemic and antioxidant effect of *Berberis aristata* root extract and its role in regulating carbohydrate metabolism in diabetic rats. *J of Ethnopharmacology*, 2009; 123: 22-26.
- Irshad Saba, **Singh Jyotsna**, Kakkar Poonam, Mehrotra Shanta. Molecular Characterization of Desmodium species- an important ingredient of 'Dashmoola' by RAPD analysis. *Fitoterapia*. 2009; 80:115-8.
- Rai Vartika, Kakkar Poonam, **Singh Jyotsna**, Misra Chetna, Kumar Santosh, Mehrotra Shanta Toxic metals and organochlorine pesticides residue in single herbal drugs used in important ayurvedic formulation- 'Dashmoola'. *Environment Monitoring Assessment*. 2008; 143:273-7.
- Poonam Kakkar, Jyotsna Singh and Brijesh Kumar Singh: Modulation of antioxidants status and carbohydrate metabolism by *Berberis aristata* DC extracts in diabetic rats. In; *3rd Biennial Meeting of the Society for Free Radical Research*, Lonawala, India, Jan. 8-11, 2007: 2007; 75-80.
- Radha Jain, Sangeeta Srivastava, **Jyotsna Singh** and Prashant S. Gupta: Assesment of Genetic Purity of Micropropagated Plants of Sugarcane by Isozyme and RAPD Analysis. *Sugarcane Technology*. 2005; 7: 15-19.

- Radha Jain, A.K. Srivastava, M.K. Srivastava and **Jyotsna Singh**: Specific activity and isozyme profile of oxidoreductases in response to chlorosis in sugarcane. *Indian Journal of Plant Physiology* 2003 (Special Issue) pp.560-564.
- Radha Jain, **Jyotsna Singh** and Sangeeta Srivastava: Changes in germination isozyme pattern and protein profile in response to Cold stress in Sugarcane. *Tropical Agriculture* (printed, original page no. still awaited).
- Sangeeta Srivastava, Radha Jain, Prashant S. Gupta and **Jyotsna Singh**: Analysis of Genetics fidelity in miropropagated Sugarcane plants using HSR-SSPP. *Indian J. of Genetics and Plant breeding*. 2006; 65: 327-328.
- Sangeeta Srivastava, Radha Jain, Prashant S. Gupta and **Jyotsna Singh**: Genetic Stability of in vitro raised Sugarcane plantlets by RAPD Markers. *Plant Cell Biotechnology and Molecular Biology*. 2006; 7: 93-96.

Seminars/ Symposium

Poster/ Oral presentation: 12

NET/GATE Qualification

- NET (LS), **CSIR/UGC**, Life Sciences, June, 2000
- NET (LS), **ASRB/ ICAR**, Plant Biochemistry, 1998

Membership of Scientific Society

Society of Toxicology (STOX), India: Membership no. 697L

Society of Biological Chemists (SBC), India Membership no. 2597

Society of Free Radical Research (SFRR), India