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## EDUCATIONAL DETAILS

- **Ph.D. (Biotechnology)**, Department of Biotechnology, Indian Institute of Technology Roorkee, India.
- **Masters of Science (Biotechnology)**, Indian Institute of Technology Roorkee, Roorkee, India.
- **Bachelors of Science with Honors (Botany)**, Hindu College, University of Delhi, India.

## RESEARCH PUBLICATIONS

### Papers in International Journals

- Anamika Jha\*, Ajeet Singh and Hemant K. Gautam Enhancement of functional Properties of Cholesterol Oxidase and Glucose Oxidase enzymes through Co-Immobilization on Organic Support (Communicated)
- Swati Bajaj, Muktesh Chandra, Rajiv Pathak, Raj Kumar, Rajesh Arora, Rakesh Kumar Sharma, **Ajeet Singh** and Hemant K. Gautam. Comparative Antioxidant profiling of exiguobacterium isolated from different geographical regions. *Trakia Journal of Sciences* (in press).
- Vishawdeep Singh Jamwal, Saurabh Mishra, D. Sudheer Kumar Reddy, Deen Dayal Bansal, Saleem Javed, **Ajeet Singh**, Hemant Kumar Gautam, Rakesh Kumar Sharma, Raj Kumar (2012) Evaluation of antioxidant and radioprotective properties of hydroxyectoine. *Trakia Journal of Sciences* 10, 25-33.
- Pooja Verma, **Ajeet Singh**, Harmeet Kaur and Manoj Majee (2010) PROTEIN L-ISOASPARTYL METHYLTRANSFERASE1 (CaPIMT1) from chickpea mitigates oxidative stress induced growth inhibition of *Escherichia coli*. *Planta*, Volume 231, Issue 2 , pp 329-336.
- Ajeet Singh** and Ramasare Prasad (2009) Salt stress effects growth and cell wall bound enzymes in *Arachis hypogaea* L. seedlings. *International Journal of Integrative Biology*, 7 (2):117-123.

## Papers in Conferences

**Ajeet Singh** and Prasad, R. "Isolation and identification of alkaline thermostable lipase producing microorganism from soil". First International Conference on "Global Sustainable Biotech Congress 2000 AD". P.G. Department of Microbiology, Nagpur University, Nagpur, India, Nov. 27-Dec1, 2000. Memoir Journal, pp-124.

**Ajeet Singh**, Parveen, S. and Prasad, R. "AGP like Molecules from *Thymus vulgaris* and its Antimicrobial Potential" 2nd International Conference on Recent advances in Biomedical and Therapeutics Sciences 2005, organized by Bundelkhand Univ Jhansi U.P. (India).

Mamta Metwal, **Ajeet Singh**, Manoj Singh and Anil Kumar. "Development and design of carbon nanoparticles based immunodiagnostic device for onsite testing of Karnal Bunt disease of Wheat. 6<sup>th</sup> Uttarakhand State Science and Technology Congress, 2011, pp-139.

## Book Chapter:

*Rajkumar and Ajeet Singh, "Smart Therapeutics from Extremophiles: Unexplored Applications and Technological Challenges" In Extremophiles: Sustainable Resources and Biotechnological Implications. Ed. 2012 Vol.(1) John Wiley and Sons. Pp 389-401.*

## WORKSHOP/SYMPOSIUM

- Attended National workshop on "Drafting a Patent Application", 2002, at Indian Institute of Technology Roorkee.
- Attended International workshop on education and capacity building in biophysics: Needs of the Asian African Region, February 24-25, 2003, organized by Department of Biotechnology, Indian Institute of Technology Roorkee.
- Attended National symposium on Biophysics, February 2003 at Indian Institute of Technology Roorkee.
- Attended National workshop on Intellectual Property Rights (IPRs), February 2005 at Indian Institute of Technology Roorkee.

## RESEARCH / PROJECT EXPERIENCE

Worked as **Post Doctoral Research Associate** with Dr Manoj Majee, Staff Scientist, National Institute of Plant Genome Research, Aruna Asaf Ali Marg, Delhi, INDIA ([http://www.nipgr.res.in/research1/Dr\\_M\\_Majee2008.htm](http://www.nipgr.res.in/research1/Dr_M_Majee2008.htm)).

Title of the project: **Molecular analysis, biochemical study and physiological significance of protein-L- isoaspartyl (D-aspartyl) O-methyltransferase**

**(PIMT) from stress tolerant plants and its exploitation to enhance seed vigor, viability and seed longevity in plants.**

The project involves isolation, characterization, temporal and spatial expression patterns of protein L-isoaspartyl (D-aspartyl) O-methyltransferase (PIMT) genes from different stress tolerant plants like *Cicer arietinum*, *Lycopersicon* and *Porteresia coarctata*. Bacterial expression, purification and biochemical characterization of recombinant PIMT proteins. Functional overexpression of PIMTs in model plant *Arabidopsis*/tobacco and their functional analysis with special emphasis to seed vigor, viability, longevity and stress tolerance.

## **TEACHING EXPERIENCE**

- Presently working as **Assistant Professor** in the Department of Biotechnology, G. B. Pant Engineering College, Pauri Garhwal, Uttarakhand.
- **Guest Faculty** for Bachelor of Engineering (Biotechnology) course at Netaji Subhas Institute of Technology, Azad Hind fauz Marg, Sector-3 Dwarka, affiliated to University of Delhi (2009).
- **Lecturer (Biotechnology)**, Indraprastha Engineering College Shahibabad, Ghaziabad, affiliated to U.P.Tech. University. (February 2007- November 2007).
- **Visiting Faculty** for Bachelors of Science (Biotechnology) course at Roorkee Institute of Medical Sciences affiliated to H.N.B. Garhwal University (July 2006-December 2006).

## **ACADEMIC ACHIEVEMENTS/AWARDS**

- (2004) **Awarded Early Faculty Induction Program Fellowship** by All India Council of Technical Education (AICTE). The objective of this program is to select Engineering & Technology students pursuing Ph.D and giving them an opportunity to take up teaching as career by providing INR 60,000 per annum for 3 years as incentive in addition to their salaries.
- (2003) Selected in **Joint CSIR-UGC Junior Research Fellowship and eligibility for lectureship (NET)**.
- (2001) Awarded Junior Research Fellowship by University Grants Commission, India in project titled "Identification and characterization of salinity stress induced proteins from *Arachis hypogaea*" for three years.
- (2000) Selected in Joint CSIR-UGC Junior Research Fellowship and Eligibility for lectureship (NET).
- (1998-2000) Awarded **fellowship by Department of Biotechnology (DBT)**, India, during Masters of Science program.

### **List of M.Tech Biotechnology Students**

S.No.	Name of Student	Title of Dissertation	Internal Supervisor
1.	Rashmi Raturi	Polymorphism in Gdf 9 gene	Dr Ajeet Singh
2.	Ravindra Kumar	Cloning, Over Expression, Purification and Crystallization of Calcium Binding Protein (CaBP25) from E. histolytica	Dr Ajeet Singh
3.	Ruchi Raturi	Isolation, Fractionation and Purification of oviductal proteins from buffalo oviduct	Dr Ajeet Singh
4.	Anjali Singh	Study of high altitude plants for their antimicrobial, antioxidant and reactive-oxygen species scavenging properties	Dr. Ajeet Singh
5.	Rahul Sharma	A NMR based Metabolomic investigation of metabolic disturbance in irradiated mouse model	Dr. Ajeet Singh
6.	Poonam Sharma	Expression , purification and crystallization of decaprenylphosphoryl - $\beta$ -D-Ribose 2'- Epimerase (dprE <sub>1</sub> ) Protein from mycobacterium tuberculosis	Dr. Ajeet Singh
7.	Mamta Metwal		Dr. Ajeet Singh
8.	V.S. Jamwal	Evaluation of antioxidant and radio protective properties of hydroquin and hydroxectoive	Dr. Ajeet Singh
9.	Swati Bajaj	Comparative antioxidant profiling of radio resistant Exiguabacterium SPS	Dr. Ajeet Singh
10	Utkarsh Rghuvanshi	Analysis of micro RNA Biogenesis through Artificial miRNA mediated gene silencing	Dr. Ajeet Singh
11	Triambika Gupta	Ellect of serine phosphorylation of UBCL on stress tolerance in sacharomyces cerevisiae	Dr. Ajeet Singh
12	D. Sudheer K Reddy	Evolution of oxidative stress suppressing and immunostimulatory cytokines inducing activities of SOGD against gamma radiation	Dr. Ajeet Singh