

- Name: **Dr. JASMEET KAUR ABAT**
- Department: **Botany**
- Designation: **Assistant Professor**
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Educational Qualifications

Qualification	Title/Course	University	Year
Undergraduate	B.Sc (H) Botany	S.G.T.B Khalsa College, University of Delhi	2001
Postgraduate	M.Sc Botany	S.G.T.B Khalsa College, University of Delhi	2003
M.Phil.	Botany	Department of Botany, University of Delhi	2004
Ph.D.	Title *	Department of Botany, University of Delhi	2010
Any other	Advance Diploma in Software Engineering	Aptech Computer Education	2001

* "S-nitrosoproteome analysis and target validation from *Kalanchoe pinnata* and *Brassica juncea*: differential modulation of *B. juncea* S-nitrosylome by cold stress."

Career profile

Teaching Experience in years	Area of Specialization	Courses and Subjects taught
5.5 years	Plant Cell Biology, Bioinformatics Molecular Biology, Genetics	B.Sc (H) Botany, B.Sc (P) Life Science Cell Biology, Molecular Biology, Genetics n Genomics, Biochemistry, Bioinformatics.

Research Undertaken

Major Projects	Innovation Projects	Minor Projects
DST SERC FAST-TRACK research project entitled "Proteomic analysis of <i>Brassica Juncea</i> floral proteome: Identification of abiotic stress induced changes in the proteome" (2012-2015).	DNA barcoding for grasses of Aravalli range in Delhi region and subsequent creation of database of DNA barcode sequence information: An essential study for formulating future conservation strategies. (GC-305/2015-2016)	1. Amplification and Bioinformatics Analysis of a gene conferring tolerance against temperature stress from <i>Brassica juncea</i> : a step towards developing thermotolerant crops. 2. Sequencing and bioinformatics analyses of an intergenic region of chloroplast genome: A step towards development of New potential DNA barcode for angiosperms. 3. Study of anti-bacterial properties of <i>Murraya koenigii</i> and <i>Rosa</i> sp.

Research Publication/s with ISSN/ISBN No.

Journals	<ol style="list-style-type: none"> Deswal R, Jasmeet Kaur Abat, Sehrawat A, Gupta R, <i>et al.</i>, (2014) First Systematic Plant Proteomics Workshop in Botany Department, University of Delhi: Transferring Proteomics Knowledge to Next-generation Researchers and Students. Proteomics 14(13-14):1581-6. Impact Factor: 4.13. Ankita Sehrawat, Jasmeet Kaur Abat and Renu Deswal (2013) RuBisCO depletion improved proteome coverage of cold responsive S-nitrosylated targets in <i>Brassica juncea</i>. Front. Plant Sci. 4:342. Doi: 10.3389/fpls.2013.00342. ISSN (electronic): 1664-462X. Impact Factor: 3.5 Renu Deswal, Ravi Gupta, Vivek Dogra, Raksha Singh, Jasmeet Kaur Abat et. al., (2013) Plant proteomics in India and Nepal: current status and challenges ahead. Physiology and
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	<p>Molecular Biology of Plants, Doi: 10.1007/s12298-013-0198-y. ISSN: 0971-5894.</p> <p>4. Jasmeet Kaur Abat and Renu Deswal (2013) Nitric oxide modulates the expression of proteins and promotes epiphyllous bud differentiation in <i>Kalanchoe pinnata</i>. Journal of Plant Growth Regulation, 32(1): 92-101. ISSN: 0721-7595 (Print) 1435-8107 (Online). Impact Factor: 2.86.</p> <p>5. Jasmeet Kaur Abat and Renu Deswal (2009) Differential modulation of S-nitrosoproteome of <i>Brassica juncea</i> by low temperature change in S-nitrosylation of Rubisco is responsible for the inactivation of its carboxylase activity. Proteomics, 9(18): 4368-4380. ISSN No. 1615-9861. Impact Factor: 4.13.</p> <p>6. Jasmeet Kaur Abat, Autar K. Mattoo and Renu Deswal (2008) S-Nitrosylated protein profile of a medicinal CAM Plant <i>Kalanchoe pinnata</i>: Ribulose-1, 5-bisphosphate carboxylase/oxygenase activity targeted for inhibition. FEBS Journal 275: 2862–2872. ISSN No. 1742-4658. Impact Factor: 4.25.</p> <p>7. Jasmeet Kaur Abat, Pooja Saigal (Talwar) and Renu Deswal (2008) S-nitrosylation-another biological switch like phosphorylation. Physiology and Molecular Biology of Plants. 14: 119-130. ISSN: 0971-5894.</p>
E content	<p>1. Jasmeet Kaur Abat (2013) “DNA Databank of Japan (DDBJ)” in e-content on “Bioinformatics” for Institute of Lifelong Learning, University of Delhi. ISSN 2349-154X.</p> <p>2. Jasmeet Kaur Abat (2013) “Resources at DDBJ” in e-content on “Bioinformatics” for Institute of Lifelong Learning, University of Delhi. ISSN 2349-154X.</p>

Book Chapters Written	
1.	Jasmeet Kaur Abat and Renu Deswal (2011) Nitric oxide, S-nitrosoproteome and abiotic stress signaling in plants. In “Omics and plant abiotic stress tolerance”. (N. Tuteja, S. Gill, R. Tuteja, Eds.) Bentham e Books, pp 133-142(10).
2.	Jasmeet Kaur Abat and Renu Deswal (2009) Post Translational modifications of proteins by Nitric Oxide – a new tool for metabolome regulation. In “Nitric Oxide in plant physiology”. (S. Hayat, M. Mori, J. Pichtel, A. Ahmad, Eds.) Wiley-Vch, Germany pp 189-200.

Conference/Symposia/Workshops Attended /Organised				
	International level	National level	State level	College Level
Presented papers	<p>Poster presented at 34th FEBS Congress in Prague, Czech Republic, from 4th – 9th July 2009. Title of the poster – Apoplasmic S-nitrosylated protein of <i>Brassica juncea</i>: the potential Nitric oxide sensors. Authors – Jasmeet Kaur Abat and Renu Deswal.</p> <p>Ankita Sehrawat, Jasmeet Kaur Abat, Renu Deswal. Cold stress modulates <i>Brassica juncea</i> nitrosoproteome and inhibits RuBisCo explaining</p>	<p>Surbhi Mittra and Jasmeet Kaur Abat (2012) Identification of S-nitrosylation sensitive motifs in plants. Silver Jubilee Bioinformatics Conference, Bioinformatics Centre, University of Pune, Dec 6th -8th 2012.</p> <p>Jasmeet Kaur Abat and Renu Deswal. <i>Brassica juncea</i> S-nitrosoproteome modulation by cold stress. The Indian Proteomics Conference, JNU April 3-5, 2011.</p> <p>Poster presented at National</p>	<p>Poster presented at Biotech-2004 organized by Institute of Genomics and Integrated Biology (13th -15th October, 2004), New Delhi. Title of poster – Nitric Oxide promotes epiphyllous bud differentiation in leaf discs of <i>Bryophyllum pinnatum</i>. Authors – Jasmeet Kaur Abat and Renu Deswal.</p>	<p>Role of Bioinformatics in Genomics & Students of Sciences from Gargi College) 27th-28th Dec, 2012.</p> <p>Attended workshop on Fundamentals of bioinformatics organized by Ramjas College at ILL, Delhi</p>

	<p>photosynthetic down regulation observed in cold stress. Frontiers in agriculture Proteome Research. Tsukuba International Congress, Takezono, Japan. Nov 8-10, 2011.</p>	<p>Seminar on Physiological and Biotechnological approaches to increase plant Productivity at the Centre for Plant Biotechnology, Department of Science & Technology, Hisar, 13-15th Mar, 2008. Title of the poster- Identification and purification of S-nitrosylated proteins from <i>Brassica juncea</i> using Biotin Switch Assay and avidin affinity chromatography to decipher Nitric Oxide signaling. Authors – Jasmeet Kaur Abat and Renu Deswal. <u>Jasmeet Kaur Abat was awarded 1st Prize for best poster presentation.</u></p> <p>Poster presented at Society of Biological chemists (SBC), organized by JNU, date - 8th - 11th December, 2006. Title of the poster – Identification and purification of S-nitrosylated proteins in <i>Bryophyllum pinnatum</i> to decipher Nitric Oxide signaling. Authors – Jasmeet Kaur Abat and Renu Deswal.</p> <p>Participated in Short term course on Bioinformatics in Genomics and Proteomics held at IIT-kharagpur from 26-27th Sep, 2008.</p>		<p>University from 26th – 30th Sep, 2011.</p> <p>Attended workshop on Computational Biology: A workshop for science teachers organized at D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House, 9th – 11th Jan, 2012.</p>
<p>Resource persons</p>		<p>Participated as Technical support at the 2nd Plant Proteomics workshop/Training program held at Department of Botany, University of Delhi from 21st -26th December, 2015.</p> <p>Participated as Resource Person at the 1st Plant Proteomics workshop/Training program held at Department of Botany, University of Delhi from 26th-30th December, 2013.</p>		
<p>Organiser-</p>				<p>Recent Techniques in Biological & Physical Sciences workshop for Laboratory Staff of Gargi College, Aug, 2013.</p>

Staff Development Programmes: Attended and Organised

Summer/ Winter School Workshops Attended	<ol style="list-style-type: none">1. Participated as Resource Person at the 1st Plant Proteomics workshop/Training program held at Department of Botany, University of Delhi from 26th-30th December, 2013.2. Role of Bioinformatics in Genomics (Teachers & Students of Sciences from Gargi College) 27th-28th Dec, 2012.3. Attended workshop on Fundamentals of bioinformatics organized by Ramjas College at ILL, Delhi University from 26th – 30th Sep, 2011.4. Attended workshop on Computational Biology: A workshop for science teachers organized at D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House, 9th – 11th Jan, 2012.
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Corporate Participation at the College Level

1. Member of **Admission Grievance Committee** 2015-16
2. Member of **Internal Assessment Committee** (Science Coordinator) for academic sessions 2011-12, 2012-13, 2013-14, 2014-15, 2015-16.
3. **Course In-charge** of B.Sc (P) Life Science for academic session 2012-13, 2013-14, 2014-15 and 2015-16.
4. Member of **College Prospectus Committee**, 2012.

Members of Professional Association/s:

1. **Member of International Plant Proteomics Organization.**
2. **Standing committee member of INPPO-India Nepal Chapter.**

Awards/ Honours / Scholarships

B.Sc (H) Botany

- **1st Position in University** in Delhi University, Annual Examinations, 2000.
- **2nd Position in University** in Delhi University Annual Examinations, 2001
- **Prof. K.M.M. Dakshini Medal** for securing highest marks in Ecology in B.Sc (H) Botany Examination held by Delhi University in 2001.
- **G.L. Sikka Memorial Award** for Academic Excellence in S.G.T.B. Khalsa College, University of Delhi 2001.

M.Sc Botany

- **1st Position in University** in Delhi University Annual Examinations 2002.
- **Prof. S.S. Bhojwani Medal** for securing highest marks in M.Sc.(P) Botany Examinations held by Delhi University in 2002
- **1st Position in University** in Delhi University Annual Examinations 2003

- **Prof. Panchanan Maheshwari Memorial Prize** for being the best candidate in M.Sc Examinations in Botany held in 2003.
- **Gold Medal** for being 1st in University Examinations in 2003.

M.Phil Botany

- **1st Position in University** in Delhi University Annual Examinations 2004.

Ph.D.

- Awarded **Prof. N.S.Rangaswamy medal** for the best Ph. D. thesis 2010 by Department of Botany, University of Delhi.

Others

- Awarded **Junior Research Fellowship (JRF)-NET** by Council of Scientific and Industrial Research (CSIR) in June, 2005.
- Awarded **International Travel Support** by Department of Science & Technology (DST) for presenting research findings at 34th FEBS Congress at Prague, Czech Republic.

EXTRA CURRICULAR ACHIEVEMENTS:

1. Served as President of Delhi University Botanical Society, Department of Botany, University of Delhi, 2009-10.
2. 1st Prize in Flower Arrangement Competition held at Department of Botany, University of Delhi, 2007
3. 1st Prize in Inter College slide making competition held at Maitreyi College, University of Delhi, 2000
4. 3rd Prize in Spot Identification Competition held at S.G.T.B. Khalsa College, University of Delhi, 2001
5. Certificate of Merit awarded for consistent contribution to the Botanical Society – “Prakriti”, S.G.T.B Khalsa College, University of Delhi, 2001.
6. 3rd Prize in Flower Arrangement Competition held at S.G.T.B Khalsa College, University of Delhi, 1999
7. Certificate of Merit awarded by National Service Scheme (N.S.S.) 1999
8. Certificate of Appreciation by Rotary Club Delhi for outstanding and dedicated service at Blood Donation Camp, 1998.