




Faculty Details proforma for DU Web-site

(PLEASE FILL THIS IN AND Email it to websiteDU@du.ac.in and
cc: director@ducc.du.ac.in)

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|--|--------------|---|-----------|--------------|--------|---|
| Title | Prof. | First Name | Satish C. | Last Name | Bhatla | Photograph |
| Designation | | Professor | | | |  |
| Address | | Department of Botany University of Delhi North Campus Delhi-110007 | | | | |
| Phone No | | 00 91 11 27667736 9818737090 | | | | |
| Residence Mobile | | | | | | |
| Email Web-Page | | bhatlasc@gmail.com ; scbhatla@hotmail.com | | | | |
| Educational Qualifications | | | | | | |
| Degree | | Institution | | | Year | |
| Ph.D. | | University of Delhi | | | 1980 | |
| PG | | G.B. Pant University of Agriculture and Technology, Pantnagar, Uttaranchal | | | 1976 | |
| UG | | University of Delhi | | | 1974 | |
| Any other qualification | | | | | | |
| Career Profile | | | | | | |
| Organisation / Institution | | Designation | | Duration | | Role |
| Delhi University (Hans Raj College) | | Lecturer | | 1980-1982 | | Teaching |
| Delhi University (Department of Botany) | | Research Associate | | 1982-1983 | | Research |
| University of Heidelberg, Germany (Institute of Botany) | | Fellow, Alexander von Humboldt Foundation, Germany | | 1983-1985 | | Research |
| University of Delhi (Department of Botany) | | Lecturer | | 1985-1987 | | Teaching and research |
| University of Delhi (Department of Botany) | | Lecturer in senior scale | | 1987-1995 | | Teaching and research |
| University of Delhi (Department of Botany) | | Reader | | 1995-2003 | | Teaching and research |
| University of Delhi (Department of Botany) | | Professor | | 2003 to date | | Teaching and research |
| Administrative Assignments | | | | | | |
| <ol style="list-style-type: none"> 1. Head, Department of Botany, Delhi University 2. Dean (Works) 3. Chairman, Delhi University Computer Centre Management Committee 4. Member of selection committees for some foreign scholarships for post-doctoral research 5. Subject expert with different Indian government research organizations 6. Reviewer of research papers for some international research journals 7. Member, Research Advisory Boards/Selection Committees of some Indian Universities | | | | | | |

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| Areas of Interest / Specialization | | | |
| Nitric oxide modulated plant development; Salt stress physiology; Physiology of adventitious rooting | | | |
| Subjects Taught | | | |
| Plant physiology and biochemistry | | | |
| Research Guidance | | | |
| 1. Supervision of awarded/ submitted Doctoral Thesis : 15 | | | |
| 2. Supervision of Doctoral Thesis, under progress : 6 | | | |
| 3. Supervision of awarded M.Phil dissertations : 3 | | | |
| Publications Profile | | | |
| <i>Research papers published in Refereed/Peer Reviewed Journals</i> | | | |
| Year of Publication | Title | Jounal | Co-Author |
| 2013 | Floral biology of sunflower-A histological and physiological analysis. | Sunflower: Growth and development, environmental influences and pests/diseases. Nova Science Publishers, USA, In Press | B. Sharma, R. Shakya |
| 2013 | Structural analysis of stigma development in relation with pollen stigma interaction in sunflower. | Flora 208. In press | B. Sharma |
| 2013 | Accumulation and scavenging of reactive oxygen species and nitric oxide correlate with stigma maturation and pollen-stigma interaction in sunflower. | Acta Physiologiae Plantarum D01-10.1007/S11738-013-1310-1 | B. Sharma |
| 2013 | Rapid auxin-induced nitric oxide accumulation and subsequent tyrosine nitration of proteins during adventitious root formation in sunflower hypocotyls. | Plant Signaling and Behaviour 8:e23196 | S. Yadav, A. David, F. Baluška |
| 2012 | Ion distribution measured by electron probe x-ray microanalysis in apoplastic and symplastic pathways in root cells in sunflower plants grown in saline medium. | Journal of Biosciences 37:713-721 | R. Ebrahimi |
| 2012 | Plant oil bodies and oleosins: structure, Functions and biotechnological applications. | Bionanotechnology: Biological Self-assembly and its Applications. Horizon Scientific Press, New Zealand | A. David, S. Yadav |
| 2011 | Nitric oxide accumulation and actin distribution during auxin-induced adventitious root development in sunflower. | Scientia Horticulturae 129: 159-166 | S. Yadav, A. David |
| 2011 | Localization of lipoxygenase activity on oil bodies and in protoplasts using a novel fluorescence imaging method. | Plant Physiology and Biochemistry 49: 230-234 | M.K.Yadav |

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| 2011 | Effect of sodium chloride levels on growth, water status, uptake, transport, and accumulation pattern of sodium and chloride ions in young sunflower plants. | Communications in Soil Analysis Science and Plant Analysis 42: 815-831 | R. Ebrahimi |
| 2010 | Sodium chloride stress induces nitric oxide accumulation in root tips and oil body surface accompanying slower oleosin degradation in sunflower seedlings. | Physiologia Plantarum 140:342-354 | A. David, S. Yadav |
| 2010 | Nitric oxide modulates specific steps of auxin-induced adventitious rooting in sunflower. | Plant Signaling and Behaviour 5(10): 1163-1166 | S. Yadav, A. David |
| 2010 | Use of oil bodies and oleosins in recombinant protein production and other Biotechnological applications. | Biotechnology Advances 28:293-300 | V. Kaushik and M.K. Yadav |
| 2010 | A comparative analysis of the distribution and composition of lipidic constituents and associated enzymes in pollen and stigma of sunflower. | Sexual Plant Reproduction 23: 163-172 | R. Shakya |
| 2010 | Temporal and spatial analysis of lipid accumulation, oleosin expression and fatty acid partitioning during seed development in sunflower (<i>Helianthus annuus</i> L.). | Acta Physiologiae Plantarum 32:199-204 | V. Kaushik and M.K. Yadav |
| 2009 | Co-localization of putative calcium channels (phenylalkylamine binding sites) on oil bodies in protoplasts from dark-grown sunflower seedling cotyledons. | Plant Signaling and Behaviour 4:604-609 | S. Vandana |
| 2009 | Recent developments in the localization of oil body-associated signaling molecules during lipolysis in oilseeds. | Plant Signaling and Behaviour 4:176-182 | S. Vandana and V.Kaushik |
| 2007 | Preferential phospholipase A2 activity on the oil bodies in cotyledons during seed germination in <i>Helianthus annuus</i> L. cv. Morden. | Plant Science 172: 535-543 | A. Gupta |
| 2006 | Evidence for the probable oil body association of a thiol protease, leading to oleosin degradation in sunflower. | Plant Physiology and Biochemistry 44:714-723 | S. Vandana |
| 2006 | Polypeptide markers for low temperature stress during seed germination in sunflower. | Biologia Plantarum 50:81-86 | A. Kumar |
| 2005 | Spatial and temporal changes in lipase activity sites during oil body mobilization in protoplasts from sunflower seedling cotyledons. | Plant Growth Regulation 46:11-17 | A. Gupta |

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| 2004 | Imaging of calcium channels during polarity induction in plant cells. | Biologia Plantarum 48: 327-332 | G. Kalra |
| 2003 | Subcellular detection of lipase activity in plant protoplasts using fluorescence microscopy. | Plant Growth Regulation 41: 259-264 | A. Gupta, and H.R. Sadegipour |
| 2003 | Light enhanced oil-body mobilization in sunflower seedlings accompanies faster protease action in oleosins. | Plant Physiology and Biochemistry 41: 259-264 | H.R. Sadegipour |
| 2003 | Distribution of activated calmodulin in the chloronema tip cells of the moss <i>Funaria hygrometrica</i> . | Journal of Plant Physiology 160:469-474 | H.P. Haschke and E. Hartmann |
| 2002 | Differential sensitivity of oleosins to proteolysis during oil body mobilization in sunflower seedlings. | Plant and Cell Physiology 43: 1117- 1126 | H.R. Sadegipour |
| 2002 | Observation of polarity induction by cytochemical localization of phenylalkylamine-binding sites in regenerating protoplasts of the moss <i>Physcomitrella patens</i> . | Protoplasma 219:99-105 | J. Kiessling and R. Reski |

Conference Organization/ Presentations (in the last three years)

Participation as Paper/Poster Presenter

1. S.C.Bhatla (2013). Annual meeting of the Society for Plant Signalling and Behaviour. University of British Columbia, Vancouver, Canada. July 8-10, 2013. Invited Lecture on “Mechanisms on salt stress tolerance in sunflower”.
2. S.C.Bhatla (2010). In: 8th Indo-Italian Workshop on “ Chemistry and Biology of Antioxidants”. University of Rome (Italy). Nov. 30 to Dec. 1, 2010
3. Vandana, S. and Bhatla, S.C. (2008). Recent advances in biochemical events associated with oil body mobilization during seed germination in sunflower. In: Golden Jubilee Conference on “Challenges and Emerging Strategies for Improving Crop Productivity”. IARI, New Delhi S. Vandana Received BEST ORAL PRESENTATION AWARD for this presentation.
4. Kaushik, V., Yadav, M.K. and Bhatla, S.C. (2008). Recent developments in pharmaceuticals and related biotechnological applications of oilseed-derived oleosins. In: First Indo-Danish DU-SDU Seminar on “Emerging Trends in Interfacial Areas of Chemical, Biological and Environmental Science”. University of Delhi. V. Kaushik and M.K. Yadav Received 2nd BEST POSTER AWARD for the presentation.
5. Kaushik, V. and Bhatla, S.C. (2007). Lipolytic events during seed development and seed germination in sunflower. In: “The Second Asian Symposium on Plant Lipids”. Tokyo. (Oral presentation).

Research Projects (Major Grants/Research Collaboration)

1. International collaboration with Professor F.Baluska (University of Bonn, Germany) under Group Linkage Programme of Alexander von Humboldt Foundation (Germany). Jan, 2011 to Dec. 2013, entitled “Investigations on a cross talk among nitric oxide, indolamines, and actin during salt stress-induced changes in adventitious rooting and seedling growth in sunflower”.
2. Ongoing CSIR project entitled “Biochemical events associated with oil body biogenesis and mobilization in Sunflower seeds”, from January 2010 to January 2013.
3. Received major research grants from U.G.C., DST, DAE, CSIR (India).
4. Indo-German research grant from Stiftung VW (Hannover, Germany).
5. Research equipment grant from Alexander von Humboldt Foundation (Bonn, Germany).
6. Had research collaboration with University of Heidelberg (Professor Dr. Martin Bopp).
7. Worked for post-doctorate research at the Universities of Heidelberg (1983-1985), Berlin (1998) and Freiburg (2000) in Germany, as a Fellow of the Alexander von Humboldt Foundation.

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| Awards and Distinctions | |
| Fellow, Alexander von Humboldt Foundation (Germany) Fellow, National Academy of Sciences, India (F.N.A.Sc.) | |
| Association With Professional Bodies | |
| 1. <i>Reviewing</i> 2. <i>Advisory</i> 3. <i>Committees and Boards</i> 4. <i>Memberships</i> 5. <i>Office Bearer</i> | Various international journals Various government organizations Life Member of : <ol style="list-style-type: none"> 1. Delhi University Botanical Society 2. Indian Science Congress Association 3. Indian Society for Plant Physiology 4. Indian Photobiology Society 5. Indian Society of Analytical Scientists 6. Indian Society of Developmental Biologists |

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.