


Faculty Details proforma for DU Web-site



(PLEASE FILL THIS IN AND Email it to websiteDU@du.ac.in)

Title	Dr	First Name	Yashwanti	Last Name	Mudgil	Photograph
Designation		Associate Professor				
Address		Department of Botany, University of Delhi, North Campus, Delhi-110007				
Phone No Office		011-27667573				
Residence						
Mobile						
Email		ymudgil@gmail.com , ymudgil@botany.du.ac.in				
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		JNU, ICGEB, New Delhi			2002	
M.Sc		M. S. University of Baroda			1996	
B.Sc		Srivenkateswara college, Delhi University			1993	
P.G Diploma: Biochem. Technology		Srivenkateswara college, Delhi University			1994	
Career Profile						
<p>March, 2010-till date: Department of Botany, University of Delhi.</p> <p>2012 Sept-2014 Sept: University of North Carolina at Chapel Hill, Department of Biology- visiting faculty on Govt of INDIA funded DBT CREST award</p> <p>2005-2010: Post-Doctoral Research Associate, Department of Biology, University of North Carolina at Chapel Hill, USA.</p> <p>2002 -2005: Post-Doctoral Research Associate, Department of Cell & Systems Biology, University of Toronto, Canada.</p>						
Administrative Assignments						
<p>Student's Teacher Mentor Botany Department, 2019 onward.</p> <p>Coordinator for the monthly meetings of the research scholars and faculty members of the Department of Botany- 2016 onward.</p> <p>Member Department Research committee 2018.</p> <p>Member faculty of Science 2017.</p> <p>Observer to observe the conduct of Annual/semester examinations, May/June and Nov/Dec 2016.</p> <p>Member Holi committee Botany Department. 2016 onwards.</p> <p>Member in-charge Radioactivity room facility. 2011 onwards.</p> <p>Member Secretary-Bio-Safety Committee North Campus. 2012 onwards.</p> <p>Student's Grievance committee Botany Department, 2016 onward.</p> <p>Members of the Project Implementation Group for the DST-FIST-II, 2017.</p>						
Areas of Interest / Specialization						
<input type="checkbox"/> Signal transduction networks in plant cells. <input type="checkbox"/> G protein mediated downstream signaling networks. <input type="checkbox"/> Abiotic stress signaling in plants.						

□ Molecular mechanisms of regulation of plant growth and development by hormones.

Subjects Taught

- Recombinant DNA technology and Proteomics
- Contemporary concepts and methods in cell biology
- Immunology
- EL-20 module Ph.D. and M.Phil course work

Time table of the subjects taught during the current semester

S.No.	Subject	Days	Time	Classroom
1	Recombinant DNA Technology and Proteomics	(i) Monday (Theory and Practical) (ii) Thursday (Theory and Practical)	(i) Monday: Theory 8.45 AM-10.45 AM Practical 11 AM-3.30 PM (ii) Thursday: Theory 3.30 PM-5.30 PM Practical 11 AM-3.30 PM	Theory #37 Practical # Lab26
2	Contemporary Concepts and Methods in Cell Biology	Tuesday (Theory and Practical)	Theory 8.45 AM-10.35 AM Practical 10.35 AM-4.05 PM	Theory # 207 (New Block) Practical # Lab45
3	Immunology	Thursday (Practical)	Practical 2.15 PM-5.30 PM	Practical # Lab 22
4	Dissertation	Thursday Friday Saturday	Thursday 2.15 PM-5.00 PM Friday 2.15 PM-5.00 PM Saturday 8.45 AM-5.00 PM	Room # 12
5.	Ph.D. Coursework EL20: Regulation of Eukaryotic Gene Expression	EL20: Friday	Friday 2.00 PM-4.00PM	Theory Committee room Practical As per the location of instrument

Research Guidance

Currently mentoring: 3 Ph.D. students, mentoring Project JRF and M.Sc. students for dissertation on regular basis for last 11 years.

Ph.D- awarded: 2.

M.Phil-awarded: 1.

Publications Profile

1. Kanojia A and **Mudgil Y (2020)**, Detailed in silico analysis of Arabidopsis N-myc Downregulated Like (NDL) interactome with reference to stress sensing. *Phytomorphology*, July-Dec 70 (3&4) 87-102.

2. Katiyar A, **Mudgil Y** (2019) *Arabidopsis* *NDL-AGB1* modules Play Role in Abiotic Stress and Hormonal Responses Along with Their Specific Functions. *In. J. Mol. Sci.* 20 (19) 4736, <https://doi.org/10.3390/ijms20194736>
3. Katri N, Singh S, Hakim N and **Mudgil Y** (. 2017) Comparative expression profiling of AtRAD5B and AtNDL1: Hints towards a role in G protein mediated signaling. *Gene Expression Patterns* (25-26) 167-174.
4. **Mudgil Y***, Karve A, Teixeira PJ, Jiang K, Tunc-Ozdemir M, Jones AM. 2016. Photosynthate Regulation of the Root System Architecture Mediated by the Heterotrimeric G Protein Complex in Arabidopsis. *Front Plant Sci.* 7:1255. doi: 10.3389/fpls.2016.01255. eCollection 2016.
5. Agarwal A, **Mudgil Y**, Pandey S, Fartyal D, Reddy MK. 2016. Structural modelling and phylogenetic analyses of *PgeIF4A2* (Eukaryotic translation initiation factor) from *Pennisetum glaucum* reveal signature motifs with a role in stress tolerance and development. *Bioinformation.* 12(12):416-419. doi: 10.6026/97320630012416. eCollection 2016.
6. Khatri N, **Mudgil Y (2015)**, Hypothesis: NDL proteins function in stress responses by regulating microtubule organization. *Front Plant Sci.* 6:947. doi: 10.3389/fpls.2015.00947. eCollection 2015.
7. Singh BN, **Mudgil Y**, John R, Achary VM, Tripathy MK, Sopory SK, Reddy MK, Kaul T (2015), Cell cycle stage-specific differential expression of topoisomerase I in tobacco BY-2 cells and its ectopic overexpression and knockdown unravels its crucial role in plant morphogenesis and development. *Plant Sci.* vol.240:182-92. doi: 10.1016/j.plantsci.2015.09.016. Epub 2015 Sep 25.
8. **Mudgil Y***, Ghawana S and Jones AM (2013). N-MYC DOWN-REGULATED-LIKE Proteins Regulate Meristem Initiation by Modulating Auxin Transport and *MAX2* Expression. *PLoS ONE*, 8(11): e7863/ doi: 10.131 ***corresponding author**.
9. Klopffleisch K, Phan N, Augustin K, Bayne RS, Booker KS, Botella JR, Carpita NC, Carr T, Chen JG, Cooke TR, Frick-Cheng A, Friedman EJ, Fulk B, Hahn MG, Jiang K, Jorda L, Kruppe L, Liu C, Lorek J, McCann MC, Molina A, Moriyama EN, Mukhtar MS, **Mudgil Y**, Pattathil S, Schwarz J, Seta S, Tan M, Temp U, Trusov Y, Urano D, Welter B, Yang J, Panstruga R, Uhrig JF, Jones AM (2011) Arabidopsis G-protein interactome reveals connections to cell wall carbohydrates and morphogenesis. *Molecular systems Biology*, 7:532. doi: 10.1038/msb.2011.66.
10. **Mudgil Y*** and Jones AM (2010) NDR proteins: lessons learned from Arabidopsis and animal cells prompt a testable hypothesis. *Plant Signaling & Behavior*, Vol. 5: issue 8 1-2, Aug 2010. ***corresponding author**
11. **Mudgil Y**, Uhrig J, Zhou J, Temple B, Jones AM (2009) Arabidopsis N-MYC DOWN-REGULATED-LIKE1, a Novel Sugar Regulated Downstream Effector of G β -Mediated Auxin Transport in the Root. *Plant Cell* 21: 3591-609.
12. Chen Z, Noir S, Kwaaitaal M, Hartmann HA, Wu MJ, **Mudgil Y**, Sukumar P, Muday G, Panstruga R, Jones AM (2009) Two Seven-transmembrane Domain MILDEW RESISTANCE LOCUS O Proteins Cofunction in Arabidopsis Root Thigmomorphogenesis. *Plant Cell*, 21: 1972-1991.

13. **Samuel MA***, **Mudgil Y***, Salt JN, Ramachandran S, Chilelli A, Goring DR (2008) Interactions between the S-Domain receptor kinases and AtPUB-ARM E3 ubiquitin ligases suggest a conserved signaling pathway in *Arabidopsis*. *Plant Physiology*. 147: 2084-95. ***these authors contributed equally to this article**
14. **Mudgil Y**, Shiu SH, Stone SL, Salt JN and Goring DR. (2004) Large Complement of the Predicted Arabidopsis ARM Repeat Proteins Are Members of the U-Box E3 Ubiquitin Ligase Family. *Plant Physiology* **134**: 59-66.
15. B.N. Singh, **Mudgil Y**, Sopory SK and Reddy MK (2003) Molecular characterization of a nuclear topoisomerase II from *Nicotiana tabacum* that functionally complements a temperature-sensitive topoisomerase II yeast mutant. *Plant Molecular Biology* **52**: 1063-76. .
16. Tuteja N, Reddy MK, **Mudgil Y**, Yadav BS, Chandok MR, Sopory SK (2003) Pea DNA topoisomerase I is phosphorylated and stimulated by casein kinase 2 and protein kinase C. *Plant Physiology* **132**: 2108-15.
17. **Mudgil Y**, B.N. Singh, Upadhyaya KC, Sopory SK and Reddy MK (2002) Cloning and characterization of a cell cycle-regulated gene encoding topoisomerase I from *Nicotiana tabacum* that is inducible by light, low temperature and abscisic acid. *Molecular Genetics and Genomics*. **267**:380-90.
18. Reddy MK, Nair S, Singh BN, **Mudgil Y**, Tewari KK and Sopory SK. (2001) Cloning and Expression of a nuclear encoded plastid specific 33 kDa ribonucleoprotein gene (33 RNP) from pea that is light stimulated. *Gene* **263**: 179-187.
19. Reddy MK, Nair S, Tewari KK **Mudgil Y**, Yadav BS and Sopory SK. (1999) Cloning and characterization of a cDNA Encoding Topoisomerase II in Pea and analysis of its expression in relation to cell proliferation. *Plant Molecular Biology* **41**:125-137.
20. Jasrai YT, **Mudgil Y**, A.Remakantham and Kannan VR. (1999) Direct shoot regeneration from cultured leaves of *PASSIFLORA CAERULEA L.* and field performance of regenerated plants. *Phytomorphology* **49**:289-293.

Book chapters and Proceedings

21. **Mudgil Y** (2011) Auxin Transport and Lateral Root Formation: Knowing the Process at the Root Level. Trivedi, P.C. and Sopory, S.K (Ed). *Current trends in Plant Biology*, 35-45. ISBN:817910303X
22. Khatri N, Katiyar A, **Mudgil Y** (2012) Role of G Protein Signaling Components in Plant Stress Management. In: Girdhar K. Pandey (Ed) Stress-Mediated Signaling in Plants I. *Plant Stress* **6 (Special Issue 1)**, 1-9. ISSN:1749-0359
23. Singh S, Khatri N, Katiyar A, **Mudgil Y** (2015) Molecular approaches in deciphering abiotic stress signaling mechanisms in plants. In: Girdhar K. Pandey (Ed) Elucidation of Abiotic Stress Signaling in Plants. A Functional Genomic. ISBN:978-1-4939-2211-6
24. Khatri N and **Mudgil Y** (2017) Salinity Stress: "OMICS" Approaches. In Zargar, SM and Rai, V.(Eds.) Plant Omics and Crop Breeding. ISBN:13:978-1-77, 188-455-6.
25. Katiyar A and **Mudgil Y** (2016) Protein-Protein Interactions: Basic Tools towards Finding Cell's Functional Organisation. The Botanica, ISSN 0045-2629, 66:45-11.

<p>26. Agarwal A, Fartyal D, Mudgil Y, Reddy, M.K (2018). Genetically Engineered Indica Rice for Drought and Salinity Tolerance and Weed Management Proceedings of the 4th World Congress on New Technologies (NewTech'18) Madrid, Spain, August 19 – 21, 2018 Paper No. ICBB 106.</p> <p>27. Gambhir P, Bhola D, Sharma S, Mudgil Y, Sharma, A. (2019). Integration of Multiple Signaling Cues. 10.1007/978-981-13-8922-1_21. In: Sudhir Sopory (Ed) Sensory Biology of Plant. ISBN:978-981-13-8922-1.</p>
Publications in the Last one year
Kanojia A and Mudgil Y (2020) , Detailed in silico analysis of Arabidopsis N-myc Downregulated Like (NDL) interactome with reference to stress sensing. <i>Phytomorphology</i> , July-Dec 70(3&4) 87-102.
Conference Organization/ Presentations (in the last three years)
<ol style="list-style-type: none"> 1. Yashwanti Mudgil Title of Talk: Molecular Characterization of Stress Interactome of NDL-AGB1 module in <i>Arabidopsis thaliana</i>. Joint Indo-Canadian online Conference titled “Science and Technology for the New Age – Acquisition, Analysis and Adaptation” March 4th 2021. Ministry of education Government of India and Shastri Indo-Canadian Institute, on line. 2. Yashwanti Mudgil Title of Talk: Understanding Molecular Basis of Plant Stress Mechanisms in the Light of Modern Optical Technologies. Optical society of America-Agri-Photonics Incubator: Advanced Spectroscopy in Precision Agriculture 12-14 May 2019, Washington, DC USA. 3. Arpana Katiyar and Yashwanti Mudgil (2019) Role of AtN-MYC Down regulated Like interactome in abiotic stress responses. India EMBO symposium on "Sensing and signalling in plant stress response" New Delhi India, April 15-17, 2019 Poster presentation. 4. Yashwanti Mudgil Title of talk: Current insights in regulation of meristem organization. Invited talk as a resource person at Department of Botany, Savitribai Phule Pune University. Date: 27th April 2018. A workshop on Teaching and Learning Skills in <i>Plant Development and Embryology</i>. Under the scheme of Pt. MadanMohan Malaviya National Mission on Teachers and Teaching (PMMMNTT).
Research Projects (Grants/Research Collaboration)
<p>Major Research grant: DST-SERB (Period: 2017-2020)</p> <p>Major Research grant: DBT (Period: 2018-2021)</p> <p>Minor Research grant: DU-IoE FRDP (Period: 2020-2021)</p>
Awards and Distinctions
<ul style="list-style-type: none"> <input type="checkbox"/> Awarded Department of Biotechnology, Govt. of India, Cutting-edge Research Enhancement and Scientific Training award, DBT-CREST award 2011-2012. <input type="checkbox"/> Recipient of scholarship from Department of Biotechnology, Government of INDIA (1994-1996). <input type="checkbox"/> Recipient of Fellowship University grant commission, Government of INDIA <input type="checkbox"/> Junior Research Fellowship (1996-1998) and <input type="checkbox"/> Senior Research Fellowship (1998-2001). <input type="checkbox"/> Recipient of Dr Manasi Ram Memorial Award for best poster: “Cloning, Characterization and Expression of Topoisomerase I from tobacco” in XXIV All India Cell Biology Conference (2000).
Association With Professional Bodies

The Indian Science Congress Association (Life member)
Delhi University Botanical Society (Life member)
International Society of Plant Morphologist (Life member)
Assistant editor : Phytomorphology (An international Journal of Plant Sciences: ISSN 0031-9449)

Other Activities

Workshop: Effective Mentoring in the Research Laboratory, University of North Carolina at Chapel Hill, 30-01-2013- 6-03-2013.
Orientation programme (OR-91) at CPDHE, University of Delhi, from 21-09-2017 to 19-12-2017.
Refresher Course in Life Sciences at CPDHE, University of Delhi, from 17-7-2018 to 6-8-2018.
Refresher Course Life Sciences at CPDHE, University of Delhi, from 28-06-2019 to 11-07-2019.

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.