

Curriculum Vitae

BASIC DATA:

Name: Kalika Prasad

Sex: Male

Date of Birth: 8th July 1974 Nationality: India



Current working address:

Professor

School of Biology

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No. 25, 3rd main, 4th Cross, Ganganagar Extension,

Bini Mill Road, Bangalore 560032

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ACADEMIC QUALIFICATIONS:

2004-Ph. D. Indian Institute of Science, Bangalore, India

1997-M. Sc. MS University of Baroda, Baroda, India

1994-B. Sc. University of Allahabad, Allahabad, India Research Experience:

DETAILS ON POSITIONS HELD:

From- Dec 2024- till date Professor, Indian Institute of Science Education and Research, Pune:
Regulation of regeneration and developmental plasticity in plants

From- 2021- Dec 2024 Tenured Associate Professor, Indian Institute of Science Education and Research, Pune: Regulation of regeneration and developmental plasticity in plants

From- June 2017- 2021 Associate Professor, Indian Institute of Science Education and Research, Trivandrum: Regulation of regeneration and developmental plasticity in plants

From- Nov 2010- June 2017, Assistant Professor, Indian Institute of Science Education and Research, Trivandrum, Area of Research: Regulation of regeneration and developmental plasticity in plants

From- 2006 To- 2010, Institution: Utrecht University, Utrecht, Position: EMBO Postdoctoral fellow, Area of research (name of supervisor): Regulatory feedback loop for primordium

formation in *Arabidopsis* (Prof. Ben Scheres).

From- Oct 2005 To- March 2006, Institution: Indian Institute of Science, Bangalore, India.
Position: Research fellow, Area of research (name of supervisor): Role of gene duplication in rice floral organ patterning (Prof. Usha Vijayraghavan).

From- July 2004 To- July 2005, Institution: Massey University, Palmerston North, New Zealand.
Position: Visiting research associate.

From- Aug 1998 To- June 2004, Institution: Indian Institute of Science, Bangalore, India.
Position: Ph.D. student, Area of research (name of supervisor): Genetic control rice inflorescence branching and floral organ patterning (Prof. Usha Vijayraghavan).

- a. 2000 (Oct-Nov) Worked in laboratory of Prof. V. Sundaresan, IMA, Singapore (Present address is- UCDAVIS, USA). On *Agrobacterium* mediated rice transformation (part of PhD work).
- b. 1999 (Oct-Nov) Worked in laboratory of Prof. Bob Schmidt, UCSD, Sandiego, USA. On construction and screening of rice genomic library, RNA-RNA in situ hybridization (part of PhD work).
- c. 1999 (Aug) Worked in laboratory of Dr. Autar K. Mattoo, USDA, Beltsville, MD 20705-2350, USA. On genomic organization of *RFL*, a rice *LFY* homolog (part of PhD work).

AWARDS & RECOGNITIONS:

A. Fellow/ Member

- Fellow, National Academy of Sciences (NASI), 2024
- Member of Guha Research Conference
- Member of Nomination Council for Infosys Price, 2024
- Fellow, (IASc) Indian Academy of Sciences, 2023

B. Editor/ Reviewer

- Journal Editorial Work
 - Member of advisory board of *Plants Communications* (from 31st March 2025 onwards)
 - Editorial Board member of *Developmental Biology* (USA), 2024
 - DB early career Guest Editor for special issue in *Developmental Biology* (USA) for year 2017-2018).
 - Editorial board member of *Journal of Genetics*
- Peer Reviewer for Journal's
 - Reviewer of manuscripts in *EMBO*, *Developmental Cell*, *EMBO Reports*, *Current Biology*, *Proceedings of National Academy of Sciences (PNAS USA)*, *Nature Communications*, *Nature Plant*, *Science Advances*, *The Plant Cell*, *Trends in Plant Science*, *Development*, *Molecular Plant*, *PLoS One*, *Planta*, *BMC Plant Biology*, *Journal of Genetics*, *Molecular Plant*, *Current Opinions in Plant Biology*, *Plant physiology*, *Plant Cell Physiology*, *Frontiers in plant science*, *Cell Press*.
- Reviewer of external funding agencies
 - Reviewer of grants: UKRI (United Kingdom) National Science Foundation (NSF), USA grants, reviewer of Research Foundation – Flanders, Belgium (Fonds Wetenschappelijk

Onderzoek - Vlaanderen, FWO), Israel Science Foundation (ISF), Swiss National Science Foundation (SNSF), Department of Science and Technology (DST), Govt of India and Department of Biotechnology, Govt of India

- o Member of Department of Biotechnology, Govt of India, Plant Biotechnology funding Task force, 2022-

C. Medals/ Fellowships

- Indian National Science Academy (INSA) medal for young scientist, 2009
- The Shamrao Kaikini Medal for the best thesis in division of Biological and chemical sciences, Indian institute of sciences, 2005
- Kanhaiya Lal Kakkar Gold Medal, Awarded by Allahabad University, 1995
- Parsadi Lal Gold Medal, Awarded by Allahabad University, 1995
- Taroo Bala Palit Memorial Gold Medal, Awarded by Allahabad University, 1995
- European Molecular Biology Organization (EMBO) long-term fellowship, 2006
- Travel fellowship from International Society of Plant Molecular Biology (ISPMB), 2001
- Travel fellowship from American Society for Developmental Biology (SDB), 2001
- Visiting student fellowship from Institute of molecular agrobiolology (IMA), Singapore, 2000
- United states department of agriculture (USDA -FERRO) travel award, 1998
- Visiting student fellowship from Rockefeller foundation, 1999
- Graduate Aptitude Test for Engineering (GATE), 11th rank in India, 1997
- Fellowship from CSIR (Council for Scientific and Industrial Research), 1998
- Scholarship from Department of Biotechnology (DBT) for Masters studies
- National Merit Scholarship for B. Sc. Studies
- State level merit scholarship for High School studies

RESEARCH CONTRIBUTIONS- RESEARCH PUBLICATIONS/ REVIEWS/ BOOK CHAPTER:

(a) Journal publications

1. Rajabhoj, MP., Sankar, S., Bondada, R., Shanmukhan, AP., **Prasad, K***, Maruthachalam, R*, (2023) Gametophytic epigenetic regulators MEA and DME synergistically suppress ectopic shoot formation in Arabidopsis. *Plant Cell Rep* 16.54102
2. Mathew MM*, Shanmukhan AP, Varapparambath V, **Prasad K***. (2023) Protocol for real-time imaging, polar protein quantification, and targeted laser ablation of regenerating shoot progenitors in Arabidopsis. *STAR Protoc.* 22;4(2):102184.
3. Varapparambath V, Mathew MM*, Shanmukhan AP, Radhakrishnan D, Kareem A, Verma S, Ramalho JJ, Manoj B, Vellandath AR, Aiyaz M, Radha RK, Landge AN, Mähönen AP, Heisler MG, Weijers D, **Prasad K***. (2022). Mechanical conflict caused by a cell-wall-loosening enzyme activates de novo shoot regeneration. *Developmental Cell.* 12;57(17):2063-2080.e10. doi: 10.1016/j.devcel.2022.07.017. (Featured article, **Featured on Cover**, highlighted in Preview: Shoot meristem progenitors emerge from mechanical heterogeneities <https://doi.org/10.1016/j.devcel.2022.08.004> (Olivier,2022), highlighted in Faculty Opinions: <https://facultyopinions.com/article/74229178>)
4. Garg T, Singh Z, Chennakesavulu K, Mushahary KKK, Dwivedi AK, Varapparambathu V, Singh H, Singh RS, Sircar D, Chandran D, **Prasad K**, Jain M, Yadav SR. (2022) Species-specific function of conserved

- regulators in orchestrating rice root architecture. *Development*. 1;149(9):dev200381. doi: 10.1242/dev.200381
(Highlighted in Trends in Plant Science's as Spotlight)
5. Neogy A, Garg T, Kumsar A, Dwivedi AK, Singh H, Singh U, Singh Z, **Prasad K**, Jain M, Yadav SR. (2019) Genome-Wide Transcript Profiling Reveals an Auxin-Responsive Transcription Factor, OsAP2/ERF-40, Promoting Rice Adventitious Root Development. *Plant Cell Physiol*. 1;60(10):2343-2355. doi: 10.1093/pcp/pcz132
 6. Radhakrishnan D, Shanmukhan AP, Kareem A, Mathew MM, Varaparambathu V, Aiyaz M, Radha RK, Mekala KR, Shaji A, **Prasad K***. 2021 Age, Wound Size, and Position of Injury - Dependent Vascular Regeneration Assay in Growing Leaves. *BioProtoc* 11(9):e4010. doi:10.21769/BioProtoc.4010
 7. Shanmukhan AP, Mathew MM, Aiyaz M, Varaparambathu V, Kareem A, Radhakrishnan D, **Prasad K***, (2021) Regulation of touch-stimulated *de novo* root regeneration from Arabidopsis leaves, *Plant Physiology*, 187 (1), 52-58 (Selected as Plant Physiology Article of the Week by American Society of Plant Biologists (ASPB))
 8. Radhakrishnan, D., Shanmukhan, AP., Kareem, A., Aiyaz, M., Varaparambathu, V., Toms, A., Kerstens, M., Valsakumar, D., Landge, AN., Shaji, A., Mathew, MK., Sawchuk MG., Scarpella, E., Krizek, BA., Efroni, I., Mähönen, AP., Willemsen, V., Scheres, B., **Prasad K***. (2020) A coherent feed forward loop drives vascular regeneration in damaged aerial organs growing in normal developmental context. *Development*. 147: dev185710. (Selected for the highlight of the issue and featured on cover)
 9. Durgaprasad, K., Roy, MV., Venugopal, MA., Kareem, A., Raj K., Willemsen, V., Mähönen, AP., Scheres, B., **Prasad, K***. (2019) Gradient expression of transcription factor Imposes a boundary on organ regeneration potential in plants. *Cell Reports*. 29(2): 453-463.e3. doi:10.1016/j.celrep.2019.08.099. (Featured on Cover, Recommend by F1000 Prime)
 10. Neogy, A., Garg, T., Kumar, A., Dwivedi, AK., Singh, H., Singh, U., Singh, Z., **Prasad, K.**, Jain, M., Yadav, SR. (2019) Genome-wide transcript profiling reveals an auxin-responsive transcription factor, OsAP2/ERF-40, promoting rice adventitious root development. *Plant Cell Physiol* pii: pcz132. doi:10.1093/pcp/pcz132
 11. Liu, B., Zhang, J., Yang, Z., Matsui, A., Seki, M., Li, S., Yan, X., Kohonen, M.V., Gu, L., **Prasad, K**, Tuskan, G.A., Lu, M., Oka, Y. (2018) PtWOX11 acts as master regulator conducting the expression of key transcription factors to induce *de novo* shoot organogenesis in poplar. *Plant Mol Biol*. 98(4-5):389-406.
 12. Liu, J., Hu, X., Qin, P., **Prasad, K.**, Hu, Y., Xu, L. (2018). The WOX11-LBD16 Pathway Promotes Pluripotency Acquisition in Callus Cells During *De Novo* Shoot Regeneration in Tissue Culture. *Plant Cell Physiol*. 59(4):734-743.
 13. Kareem, A., Radhakrishnan, D., Wang, X., Bagavathiappan, S., Trivedi, Z.B., Sugimoto, K., Xu, J., Mähönen, A.P., **Prasad, K***. (2016). A method to study the direct reprogramming of lateral root primordia to fertile shoots. *BMC Plant Methods* 12:1-14 doi:10.1186/s13007-016-0127-5.
 14. Santuari L, Sanchez-Perez, G.F., Luijten, M., Rutjens, B., Terpstra, I., Berke, L., Gorte, M., **Prasad, K.**, Bao, J.L., Timmermans Hereijgers, K., Maeo, K., Nakamura, A., Shimotohno, A., Pencik, O., Novak, K., Ljung, S., van Heesch, E., de Bruijn, E., Cuppen, V., Willemsen, A.P., Mähönen, W., Lukowitz, B., Snel B.D., de Ridder, B., Scheres, R., Heidstra. (2016). The PLETHORA Gene Regulatory Network Guides Growth and Cell Differentiation in Arabidopsis Roots. *Plant Cell*. 28(12), 2937-2951. (Featured on Cover).

15. Siligato, R., Wang, X., Yadav, SR., Lehesranta, S., Ma, G., Ursache, R., Sevilem, I., Zhang, J., Gorte, M., **Prasad, K.**, Wrzaczek, M., Heidstra, R., Murphy, A., Scheres, B., Mahonen, A.P. (2016) MultiSite gateway-compatible cell type- specific gene- inducible system for plants. *Plant physiology* 1702:627-641.
16. Kareem, A., Durgaprasad, K., Sugimoto. K., Du, Y, Pulianmackal, AJ., Trivedi, ZB., Abhayadev, PV., Pinon, V., Meyerowitz, EM., Scheres, B., **Prasad, K***. (2015) PLETHORA genes control regeneration by a two-step mechanism. *Current Biology*. 25: 1017- 1030. (*Featured on Cover*)
17. Pulianmackal, AJ., Kareem, A.V., Durgaprasad, K., Trivedi, ZB., **Prasad, K***. (2014) Competence and regulatory interactions during regeneration in plants. *Front Plant Sci*. 11;5:142. doi:10.3389/fpls.2014.00142.
18. Hofhuis, H., Laskowski, M., Du, Y., **Prasad, K***., Grigg, S., Pinon V, Scheres B. (2013) Phyllotaxis and Rhizotaxis in Arabidopsis Are Modified by Three PLETHORA Transcription Factors. *Current Biology*, 23: 956-962.
19. Mähönen, AP., Tusscher, KT., Siligato, R., Smetana, O., Díaz Triviño, S., Salojärvi, J., Wachsman, G., **Prasad, K.**, Heidstra, R., Scheres, B. (2014) PLETHORA gradient formation mechanism separates auxin responses. *Nature*. 515:125-129
20. Pinon, V., **Prasad, K.**, Grigg, SP., Sanchez-Perez, GF., Scheres, B. (2013) Local auxin biosynthesis regulation by PLETHORA transcription factors controls phyllotaxis in *Arabidopsis*. *Proc Natl Acad Sci USA* 110: 1107 1112.
21. **Prasad, K.**, Grigg, SP., Barkoulas, M., Yadav, RK., Sanchez Perez, GF., Pinon, V., Blilou, I., Hofhuis, HF., Dhonukshe, P., Galinha, C., Mähönen, AP., Muller, WH., Raman, S., Verkleij, AJ., Snel, B., Reddy, GV., Tsiantis, M., Scheres, B. (2011) Arabidopsis PLETHORA transcription factors control phyllotaxis. *Current Biology* 21:1123-1128 (*Recommended by F1000*). *Highlighted in Phyllotaxis:in search of the golden angle. Palauqui JC,Laufs P. Current Biology. 2011 Jul12;21(13):R502-4*
22. Dhonukshe, P, Huang F, Galvan-Ampudia, CS., Mähönen, AP., Kleine-Vehn, J., Xu, J., Quint, A., **Prasad, K**, Friml, J., Scheres, B., Offringa, R. (2010) Plasma membrane-bound AGC3 kinases phosphorylate PIN auxin carriers at TPRXS(N/S) motifs to direct apical PIN recycling. *Development* 137:3245-3255.
23. **Prasad, K**, Zhang X, Tobón E, Ambrose BA. (2010) The Arabidopsis B-sister MADS-box protein, GORDITA, represses fruit growth and contributes to integument development. *Plant Journal* 62:203-214
24. Rao, NN., **Prasad, K**, Kumar, PR., Vijayraghavan, U. (2008). Distinct regulatory role for RFL, the rice LFY homolog, in determining flowering time and plant architecture. *Proc Natl Acad Sci USA* 105:3646-3651.
25. Yadav, SR#, **Prasad, K.**, Vijayraghavan, U. (2007). Divergent regulatory OsMADS2 functions control size, shape and differentiation of the highly derived rice floret second- whorl organ. *Genetics* 176:283-94. * (#joint first authors)
26. **Prasad, K.**, Sriram, P., Vijayraghavan, U. (2005). *OsMADS1*, a rice MADS-box factor, controls differentiation of specific cell types in the lemma and palea and is an early- acting regulator of inner floral organs. *Plant Journal* 43: 915-928.

27. **Prasad, K.**, and Vijayraghavan, U. (2003) Double-stranded RNA interference of a rice *PI/GLO* paralog, *OsMADS2*, uncovers its second whorl-specific function in floral organ patterning. *Genetics* 165: 2301-2305.
28. **Prasad, K.**, Kushalappa, K. and Vijayraghavan, U. (2003) Mechanism underlying regulated expression of *RFL*, a conserved transcription factor, in the developing rice inflorescence. *Mechanisms of Development* 120: 491-502. (Coverpage Article)
29. **Prasad, K.**, Kushalappa, K. and Vijayraghavan, U. (2003). Genomic structure of *RFL/OSL*, a rice *LFY* homolog, and the regulated repression of its expression in the vegetative tissues. *J Plant Physiol.* (Special issue): 439-446.
30. **Prasad, K.**, Sriram, P., Kumar, C. S., Kushalappa, K. and Vijayraghavan, U. (2001) Ectopic expression of rice *OsMADS1* reveals a role in specifying the lemma and palea, grass floral organs analogous to sepals. *Development Genes Evolution* 211: 281-290.
31. **Prasad, K.**, Vijayraghavan, U. (2001). Regulation of *OSL*, a *LEAFY* homolog, during rice panicle and spikelet development. *Developmental Biology* 235: 260.
32. Nandi, A.K., Kushalappa, K., **Prasad, K.**, Vijayraghavan, U. (2000) A conserved function for *Arabidopsis SUPERMAN* in regulating floral-whorl cell proliferation in rice, a monocotyledonous plant. *Current Biology* 10: 215-218.

b) Review articles

1. **Prasad K.*** and Palakodeti D*. (2024) Cellular and molecular mechanisms of development and regeneration. *Development* dev203023. doi:10.1242/dev.203023
2. Chen C*, Hu Y*, Ikeuchi M*, Jiao Y*, **Prasad K.***, Su YH*, Xiao J*, Xu L*, Yang W*, Zhao Z*, Zhou W*, Zhou Y*, Gao J*, Wang JW* (2024). Plant Regeneration in the new era: from molecular mechanisms to biotechnology applications. *Sci China Life Sci.* <http://doi.org/10.1007/a11427-024-2581-2>.
3. Mathew MM., Akansha G, **Prasad, K.***. (2024) Multiple feedbacks on self-organized morphogenesis during plant regeneration. *New Phytologist* 241(2):553-559.
4. Mathew MM, **Prasad K.***. (2021) Model systems for regeneration: Arabidopsis. *Development*. 148 (6), dev195347
5. Shanmukhan AP, Mathew MM, Radhakrishnan D, Aiyaz M, **Prasad K.***. (2020) Regrowing the damaged or lost body parts. *Curr Opin Plant Biol.* 53:117-127. doi: 10.1016/j.pbi.2019.12.007.
6. Radhakrishnan, D., Kareem, A., Durgaprasad, K., Sreeraj, E., Sugimoto, K., **Prasad, K.***. (2018). Shoot regeneration: a journey from acquisition of competence to completion. *Current Opinion in Plant Biology*.41,23-31. doi:10.1016/j.pbi.2017.08.001
7. Fonseca, S., Radhakrishnan, D., **Prasad, K.**, Chini, A. (2018). Fungal production and manipulation of plant hormones. *Curr Med Chem.* 25(2):253-267.
8. Efroni I., **Prasad, K.***. (2018) Insights into the art of recreation. *Dev Biol.* 442(1):1-2. doi: 10.1016/j.ydbio.2018.08.007
9. Kareem, A., Radhakrishnan, D., Sondhi, Y., Aiyaz, M., Roy, M. V., Sugimoto, K., **Prasad, K.***. (2016). De novo assembly of plant body plan: a step ahead of Dead pool. *Regeneration (Oxf)*, 3(4), 182-197. doi: 10.1002/reg2.68 (Featured on Cover)

10. Beleyur, T., Kareem, VK., Shaji, A., **Prasad, K*** (2013) A mathematical basis for plant patterning derived from physico chemical phenomena. *BioEssays* 35:366- 376.
11. **Prasad, K**, Ambrose BA. (2010). Shaping up the fruit: Control of fruit size by an Arabidopsis B-sister MADS-box gene. *Plant Signaling & Behavior* 15:5-7.
12. Rao, NN., **Prasad, K**, Vijayraghavan, U., (2008). The making of a bushy grass with a branched flowering stem: Key rice plant architecture traits regulated by *RFL* the rice *LFY* homolog. *Plant Signaling & Behavior* 3:12, 1-3.
13. Vijayraghavan, U., **Prasad, K.**, Meyerowitz, EM (2005). Specification and maintenance of the floral meristem: interactions between positively-acting promoters of flowering and negative regulators. *Curr Science* 89: 1835-1843
14. **Prasad, K.**, and Vijayraghavan, U. (2004). Genetic regulation of flowering: specification of the floral meristem and patterning of floral organs. *Proc Indian Natl Acad Sci (PINSAB)* 70: 413-435.
15. Ambrose, BA., and **Prasad, K.** (2004). MADS about plant development. *NZ BioScience* 13: 8-13.

c) *Book Chapters*

1. **Prasad K**, Dhonukshe P (2013) Polar auxin transport: Cell polarity to patterning. Polar Auxin Transport, Signaling and Communication in Plants 17, DOI 10.1007/978-3-642-35299-7_2, Springer-Verlag Berlin Heidelberg

RECENT INVITED LECTURE(S) DELIVERED IN CONFERENCES/WORKSHOPS:

2024 - Cell development and regeneration meeting at SNU

2024 - InSDB meeting at Bangalore

2024 - New Phytologist meeting in Bangalore

2024 - Guha Research Conference meeting , Kaziranga

2024 – Invited as guest speaker at International Symposium on Plant Photobiology (EMBO-ISPP), IISER-Bhopal, India

2023- Invited as Plenary speaker at the 33rd International Conference on Arabidopsis Research (ICAR- 2023) Chiba, Japan

2023- Japan regeneration workshop at RIKEN Yokohama, Kanagawa, Japan

2023- Enza Zaden Research & Development, Company at B.V. Netherlands

2023- Plant biology seminar series at university of Pennsylvania, USA.

2023- U Cam Morphogenesis seminar series at Cambridge University.

2022- Invited speaker at plant regeneration, Huazhong Agricultural University, China

2022- Plant Biology symposium (American society in plant Biology) Plant Biology 2022, Portland, Oregon, USA

2022- Biochemical Sciences Division, CSIR-NCL, Pune.

2021- Departmental Webinar series for Monsoon at IISER, Tirupati

2020- Plant Regeneration Seminar, RIKEN Yokohama, Kanagawa, Japan

2020- Seminar Series, King Abdullah University of Science and Technology, Saudi Arabia

JOURNAL EDITORIAL WORK/ PEER REVIEWER FOR JOURNAL'S/ REVIEWER OF EXTERNAL FUNDING AGENCIES

a) Journal Editorial Work

- Editorial Board member of *Developmental Biology* (USA), 2024
- Member of advisory board of *Plant Communications* (from 31st March 2025 onward),
- DB early career Guest Editor for special issue in *Developmental Biology (USA) for year 2017-2018*.
- Editorial board member of *Journal of Genetics*

b) Peer Reviewer for Journal's

Reviewer of manuscripts in, *Developmental Cell*, *EMBO Reports*, *Current Biology*, *Proceedings of National Academy of Sciences (PNAS USA)*, *Nature Communications*, *Nature Plant*, *Science Advances*, *The Plant Cell*, *Trends in Plant Science*, *Development*, *Molecular Plant*, *PLoS One*, *Planta*, *BMC Plant Biology*, *Journal of Genetics*, *Molecular Plant*, *Current Opinions in Plant Biology*, *Plant physiology*, *Plant Cell Physiology*, *Frontiers in plant science and Cell*, *Cell Press*.

c) Reviewer of external funding agencies

- Reviewer of grants for National Science Foundation (NSF), USA grants, reviewer of Research Foundation – Flanders, Belgium (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO), Israel Science Foundation (ISF), Swiss National Science Foundation (SNSF), Department of Science and Technology (DST), Govt of India and Department of Biotechnology, Govt of India
- Member of Department of Biotechnology, Govt of India, Plant Biotechnology funding Task force, 2022-

EXTERNAL RESEARCH FUNDINGS:

- 28-Jun-22 To 27-Jun-2025, Co-ordination between stem cell activation, cell division and trans-differentiation guiding the reunion of disconnected tissues: Dissecting the fundamental principles of a phenomenon previously unknown in plant, Science and

Engineering Research Board - Scientific and Useful Profound Research Advancement (SERB-SUPRA), Department of Science and Technology, Govt. of India.

- 02-May-2022 to 02-05-2025, Mechanisms controlling the positional memory of stem cell regeneration using Arabidopsis root tip resection as a model, Department of Biotechnology (DBT) Govt. of India.
- 21-May-19 to 20-May-2022, Control of stem cell heterogeneity during shoot regeneration in Arabidopsis – a functional and mechanistic analysis of its epigenetic regulators. Core Research Grant- Science and Engineering Research Board (CRG-SERB) Department of Science and Technology, Govt. of India.
- 20-Nov-2015 to 20-Nov-2021, Functional Characterization of Genetic and Epigenetic Regulatory Networks Involved in the Reproductive Development in Rice Department of Biotechnology (DBT), Govt. of India.
- 2013-2016, Department of Biotechnology, Govt. of India

RESEARCH SUPERVISION

a) PhD dissertations supervised.

2011-present Ph.D. students, No. 12

(Completed =5)

b) Undergraduate Major thesis supervised.

2011-present Undergraduate BS-MS thesis,

Total number= 25

c) Undergraduate short-term trainees supervised.

2011-present: Undergraduate short-term trainees and Junior Research Fellows, Total number=67 supervised