


## **Personal Information**

Name	Dr. Ranjit Singh Gujjar <a href="mailto:ranjit.gujjar@icar.gov.in">ranjit.gujjar@icar.gov.in</a> Date of joining: 28/04/2011	
Designation	Senior Scientist (Plant Biotechnology)	
Division/Section	Crop Improvement	
Research Area	Proteomics, Transcriptomics, Transgenic development, Red rot resistance in sugarcane, Tissue culture, Biotic and abiotic stress tolerance, Transcription factors	
Institutional Projects		
<ul style="list-style-type: none"><li>Investigating the differentially expressed proteins in red rot susceptible and resistant sugarcane cultivars during <i>C. falcatum</i> interactions.</li><li>Transcriptomics based identification of host and pathogen genes involved in red rot disease of sugarcane and their validation.</li></ul>		
External Funded Projects		

## Publications

- Worakan P, **Gujjar RS** and Supaibulwatana K\* (2022) Stable and reproducible expression of bacterial *ipt* gene under the control of SAM-specific promoter (pKNOX1) with interference of developmental patterns in transgenic *Peperomia pellucida* plants. *Frontiers in Plant Science*, 13: 984716; <https://doi.org/10.3389/fpls.2022.984716> (IF: 6.6 ; **NAAS: 12.6**)
- **Gujjar RS**, Roytrakul S, Chuekong W and Supaibulwattana K\*. (2021) A synthetic cytokinin influences the accumulation of leaf soluble sugars and sugar transporters, and enhances the drought adaptability in rice. *3 Biotech*, 11:369 (2021); <https://doi.org/10.1007/s13205-021-02908-3> (IF: 2.9 ; **NAAS: 8.9**)
- **Gujjar RS**, Banyen P, Chuekong W, Worakan P, Roytrakul S, and Supaibulwatana K\* (2020) A synthetic cytokinin improves photosynthesis in rice under drought stress by modulating the abundance of proteins related to stomatal conductance, chlorophyll contents, and rubisco activity. *Plants*, 9(9):1106; <https://doi.org/10.3390/plants9091106> (IF: 4.7 ; **NAAS: 10.7**)
- **Gujjar RS**, and Supaibulwatana K\* (2019). The Mode of cytokinin functions assisting plant adaptations to osmotic stresses. *Plants*, 8(12):542; <https://doi.org/10.3390/plants8120542> (IF: 4.7 ; **NAAS: 10.7**)
- **Gujjar RS\***, Pathak AD, Karkute SG, and Supaibulwatana K (2019) Multifunctional proline rich proteins and their role in regulating cellular Pro level in plants under stress. *Biologia plantarum*, 63(1):448-454; <https://doi.org/10.32615/bp.2019.078> (IF: 1.4 ; **NAAS: 7.4**)
- **Gujjar RS\***, Karkute SG, Rai A, Singh M, and Singh B (2018) Proline-rich proteins may regulate free cellular proline levels during drought stress in tomato. *Current Science*, 114(4):915-920; <https://doi.org/10.18520/cs/v114/i04/915-920> (IF: 1.1 ; **NAAS: 7.1**)
- Karkute SG, **Gujjar RS\***, Rai A, Akhtar M, Singh M, and Singh B (2018) Genome wide expression analysis of WRKY genes in tomato (*Solanum lycopersicum*) under drought stress. *Plant Gene*, 13(1):8-17; <https://doi.org/10.1016/j.plgene.2017.11.002> (IF: 0.7 ; **NAAS: 6.7**)
- Karkute SG, Easwaran M, **Gujjar RS**, Piramanayagam S and Singh M\* (2015) Protein modeling and molecular dynamics simulation of SIWRKY4 protein cloned from drought tolerant tomato (*Solanum habrochaites*) line EC520061. *Journal of Molecular Modelling*,

21(10):255; <https://doi.org/10.1007/s00894-015-2798-7> (IF: 1.8 ; NAAS: 7.8)

- **Gujjar RS\***, Akhtar M and Singh M (2014) Transcription factors in abiotic stress tolerance. *Indian Journal of plant physiology*, 19:306-316; <https://doi.org/10.1007/s40502-014-0121-8> (IF: 0.8 ; NAAS: 6.8)
- **Gujjar RS\***, Akhtar M, Rai A and Singh M (2014) Expression analysis of drought induced genes in wild tomato line (*Solanum habrochaites*). *Current Science*, 107(3):496-502 (IF: 1.1 ; NAAS: 7.1)
- Ali K, **Gujjar RS**, Niwas R, Gopal M and Tyagi A\* (2011) A rapid method for estimation of abscisic acid and characterization of aba regulated gene in response to water deficit stress from rice. *American Journal of Plant Physiology*, 6(3):144-156 (IF: 0.1 ; NAAS: 6.1)

### Books or Chapter Published

- **Ranjit Singh Gujjar** (2016) Transcription Factors in Abiotic Stress Tolerance. *Recent advances in plant stress physiology*, Chapter 3, Page 49-67.
- Singh M, Prasanna HC, Tiwari S, **Gujjar RS**, Karkute SG (2016) Biology of *Solanum lycopersicum* (tomato). *New Delhi: Ministry of Environment, Forest and Climate Change*, Government of India.
- Singh B, Mohanty D, Bakshi V, **Gujjar RS**, Upadhyay AK (2021) The Distinction of Omics in Amelioration of Food Crops Nutritional Value. *Bioinformatics for agriculture: High-throughput approaches*, 85.

### Awards

S.No	Name of Award	Awarding Agency	Year
1.	2 <sup>nd</sup> best oral presentation award in 7 <sup>th</sup> IAPSIT International Sugar Conference-SUGARCON	ICAR- Indian Institute of Sugarcane Research, Lucknow, India	2022
2.	Excellence in Agricultural Research Award for Outstanding contribution in Plant Biotechnology	International Conference, SERS and BBAU, Lucknow	2021
3.	Best Oral Presentation Award in International conference	Rajamangala University of Technology, Thailand	2019
4.	Netaji Subhas- ICAR International Fellowship Award 2015-16	Education Division, ICAR, New Delhi	2016
5.	Best Poster Presentation in National conference	Central Agricultural University, Arunachal Pradesh	2016