



**Dr. Reema Rani**

Scientist (Biotechnology)

Email: [reemasherwal@gmail.com](mailto:reemasherwal@gmail.com)

Phone no.- 08851984933

1. Date of birth : 25 June 1987
2. Education Qualification : Ph.D (Molecular Biology & Biotechnology) from Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana
3. Joining Date in ICAR : 01-07-2014
4. Joining Date in DRMR : 13-10-2014
5. Discipline/Specialization : Plant Biotechnology
6. Research Experience : 7 years
7. Training/advance exposure in the area of work : 3 Months professional attachment training on “Gene silencing” at National Institute of Plant genome research, New Delhi.  
Training on “Recent advances in NGS data analysis” from ICAR-IASRI, New Delhi.
- 8. Contribution to the scientific achievement:**
  - Pyramided Yellow rust resistance genes in widely cultivated bread wheat varieties i.e. WH711 and PBW343 through Marker assisted backcrossing approach.
  - Developed DNA-based soil diagnosis for *Orobanche* spp.
- 9. Current research Projects and future planning of research:**
  - Biotechnological intervention for development of *Orobanche* tolerance in Indian Mustard (*Brassica Juncea*) (Institute project) (PI)
  - Development of Nested Association Mapping population for mapping traits of economic importance (Institute project) (Co-PI)
- 10. Awards/Recognition**
  - Awarded Best poster prize on “Marker assisted selection for high temperature adult plant resistance to stripe rust (*Puccinia striiformis* f. sp. tritici) in the bread wheat (*Triticum aestivum* L.)” in “International conference on Microbes for Health and wealth”, 2017.
  - Awarded Second best poster prize on “Association of SSR markers with functional traits from heat stress in diverse Indian mustard (*Brassica juncea*) genotypes” in ISOB, 2017.

## 11. Publications (Research papers)

- Baliyan, N., Malik, R., **Rani, R.**, Mehta, K., Vashisth, U. Dhillon, S., and Boora, K.S. (2018). "Integrating marker-assisted background analysis with foreground selection for pyramiding bacterial blight resistance genes into Basmati rice". *Comptes Rendus Biologies*. 341(1):1-8. **(NAAS 7.10)**
- Singh, B.K., Chaudhary, S.B., Yadav, S., Vaidya, E., **Rani R. et al.**, (2018). "Genetic structure identification and assessment of interrelationships between Brassica and allied genera using newly developed genic-SSRs of Indian Mustard (*Brassica juncea* L.)". *Industrial Crops and Products* 113:111-120. **(NAAS 9.18)**
- Ibandalin Mawlong, **Reema Rani**, M.S. Sujith Kumar, Basant Kumar Kandpal, Om Prakash Premi (2018). "Peptide Polymorphism under Nitrogen Fertilization in *Brassica juncea*". *Journal of oilseeds Research* 34(4):217-225. **(NAAS 5.02)**
- **Rani, R.**, Yadav, P., Barbadikar, K.M., Baliyan, N., Vaidya, E., Singh, B.K., Kumar, A., and Singh, D. (2016). "CRISPR/Cas9: A promising way to exploit genetic variation in plants". *Biotechnology letters*. 38:1991-2006. **(NAAS 7.73)**
- Singh, B. K., Mishra, D. C., Yadav, S., Ambawat, S., Vaidya, E., Tribhuvan, K.U., Kumar, A., Kumar, S., Kumar, S., Chaturvedi, K.K., **Rani, R.**, Yadav, P., Rai, A., Rai, P.K., Singh, V.V. and Singh, D. (2016). "Identification, characterization, validation and cross-species amplification of genic-SSRs in Indian Mustard (*Brassica juncea*)". *Journal of Plant Biochemistry and Biotechnology*. 25:1-11 **(NAAS 6.95)**
- Baliyan, N., Mehta, K., **Rani, R.**, Purushottum and Boora, K.S. (2016). "Evaluation of Pyramided Rice Genotypes Derived from Cross between CSR-30 and IRBB 60 Basmati Variety against Bacterial leaf Blight". *Vegetos*. 29(3):184 **(NAAS 4.0)**
- Yadav, P., Vaidya, E., **Rani, R.**, Yadav, N.K., Singh, B.K., Rai, P.K. and Singh, D. (2016). Recent Perspective of Next Generation Sequencing: Applications in Molecular Plant Biology and Crop Improvement". *Proceedings of the National Academy of Sciences*. DOI 10.1007/s40011-016-0770-7 **(NAAS 4.0)**
- Yadav, P., Meena H.S., Meena P.D., Arun, K., Riteka, G., Jambhulkar, S., **Rani, R.**, and Singh, D. (2016). Determination of LD50 of ethyl methanesulphonate (EMS) for induction of mutations in rapeseed mustard. *Journal of Oilseed Brassica* 7(1): 77-82 **(NAAS 4.67)**