Name of the project	**Exploitation of heterosis in Okra [Abelmoscnus esculentus (L.) Moench] using conventional and Biotechnological tools**
Funding agency	**Council of Science and Technology, Lucknow**
Year of start	**2015-16**
Year of completion	**2018-19**
Name of PI and Co-PI	**Dr. Bijendra Singh Dr. Vaishali**
Total budget	**09.00 lakhs**

Significant achievements:

- Fifty okra genotypes were collected and screened on the basis of morphological, molecular, abiotic (salt) stress and biotic (YVMV) stress for further study.
- Three genotypes were found highly resistance to YVMV infection.
- Disease incidence ranged from 10.58 to 53.20 percent. Cross (hybrid) i.e. C-7801 x AB – 3 exhibited minimum percentage while cross (hybrid) KS – 310 x AB 1 exhibited maximum percentage of disease infestation.
- Out of 45 cross hybrids, 9 were highly resistance against YVMV, 6 were resistance, 21 moderately resistance, 8 moderately susceptible and 1 was highly susceptible.
- Three treatments were tested for salinity stress @ 25, 50 and 100 mmol respectively. After 20 days, it was noted that morphological characteristics affected with increase in salinity levels.
- The diversity or genetic similarities between varieties varied for all the 50 genotypes of okra germplasm.

Recommendations:

- The cross C-7801xAB-3 may be used for further study to develop the disease resistant genotype.

Publications:

- B. Singh, Aakansha Goswami and Vaishali (2017). Study of Genetic Diversity in Okra [Abelmoschus esculentus (L.) Moench]. Vegetos; 30 (Special) : 109-116.
- Kumar, A., Kumar, M., Sharma, V.R., Singh, M.K., Singh B.and Chand, P. (2019).Character association and path coefficient analysis of yield and yield related traits in Okra[Abelmoschus esculentus (L.) Moench]. Progressive Agriculture, 19 (1): 140-145.
- Kumar, A., Kumar, M., Sharma, V.R., Singh, M.K., Singh ,B. and Chand, P. (2019). Genetic variability, heritability and genetic advance studies in genotypes of Okra [Abelmoschus esculentus (L.) Moench]. Journal of Pharmacognosy and Phytochemistry, 8(1):1285-1290