

**TECHNOLOGIES DEVELOPED/STANDARDIZED AT INSTITUTE OF BIOTECHNOLOGY,
SKUAST-JAMMU**

1. Three new basmati *viz.* Jammu Basmati 118, Jammu Basmati 123 & Jammu Basmati 138 notified 2986 Dated 20/07/2021 and released.
2. Standardized the protocols for micro propagation of Brahmi, Peppermint, Potato and Liliun for mass multiplications and commercialization.
3. Pyramided bacterial blight (*xa13* and *Xa21*) and blast (*Pi9* and *Pi54*) resistance genes along with semi-dwarf gene (*sd1*) using *MAS* in Ranbir Basmati for release and commercialization.
4. Pyramided two blast resistance genes (*Pi 54* and *Pi 9*) in the genetic background of rice variety K 343 and identified a line SJHR-1 for release under Mid Hill ecologies of J&K
5. Pre breeding lines carrying *er1* and *er2* genes in the elite background have been developed in garden pea under the DST project aimed at pea improvement for powdery mildew resistance.
6. A short duration (100-110 days maturity), high yielding and blast resistant line (introgressed with *Pi54* gene) have been developed for Mid Hill ecologies of Jammu & Kashmir. It is under evaluation in Station trials during Kharif.
7. White rust resistant genetic stocks pyramided with two genes (*AcBIA4.1* and *AcBIA5.1*) developed in *Brassica juncea*.
8. A high quality DNA extraction protocol was developed for plant species with high amount of secondary metabolites
9. The sequences obtained following ddRAD sequencing of *Brassica juncea* have been submitted to European Bioinformatics Institute under the study ID PRJEB26751
10. Antioxidant gene (Cu/Zn SOD) and Transcription factor DREB3 has been cloned, sequenced and submitted to NCBI as a resource.