

Laboratory of Distant Hybrids

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Research topics:

- Synthesis of new genotypes of tetraploid, hexaploid and octoploid wheat-rye amphiploids,
 - Introduction of diploid wheat (*Triticum monococcum*) genes into hexaploid triticales, using primary diploid wheat/rye amphitetraploids as 'bridge' genotypes,
 - Selection of introgressive triticales genotypes with grain characters improved on the basis of alien gene introduction,
 - Introduction of wheat genetic material of A- and B-genome chromosomes into the tetraploid rye genome,
 - Studies on potential to develop substitution lines of diploid rye with particular wheat chromosomes,
 - Extension of genetic biodiversity in *Triticum aestivum* by introgression of genes from diploid wheats (*Triticum monococcum*, *T. tauschii*).
 - Studies on controlled introgression of resistance genes against biotic stress to wheat and triticales from *Aegilops* and *Agropyron*.
- Analyses are conducted using molecular cytogenetic methods (FISH, GISH and PRINS).