

# Laboratory of Genome Analysis

**Head: Prof. Wojciech Święcicki**

## **Staff:**

**Assoc. prof. Andrzej Górny**  
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**Magdalena Dziubałka**  
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## **PhD students:**

**Dominika Ratajczak, M.Sc.**

## **Research topics:**

- Mapping of new genes and construction of genetic maps for *Lathyrus*, *Lupinus* and *Pisum*,
- QTL characterization and mapping,
- variation and inheritance of anti-nutritional compound contents in pea, grass pea and lupins,
- analysis of phenotypic and molecular variation in *Lathyrus*, *Lupinus* and *Pisum* gene resources,
- searching for donors of efficiency and stress tolerance among wild and/or primitive *Triticum* species and introgression of the novel variation into cultivated 6x and 4x wheats,
- assessment of heritability for efficiency of the manner in which various shoot and root components in CO<sub>2</sub> assimilation and the efficiency of water and nutrient (N, P) utilization in grain mass formation,
- identification and localization of wheat genome regions that are responsible for the components of the efficiency and stress tolerance in substitution lines and hybrid populations of *T. aestivum* i *T. durum* using molecular markers,
- multivariate statistical methods to evaluate fatty acid composition of seed oil in winter oilseed rape doubled haploids studied in a series of experiments.