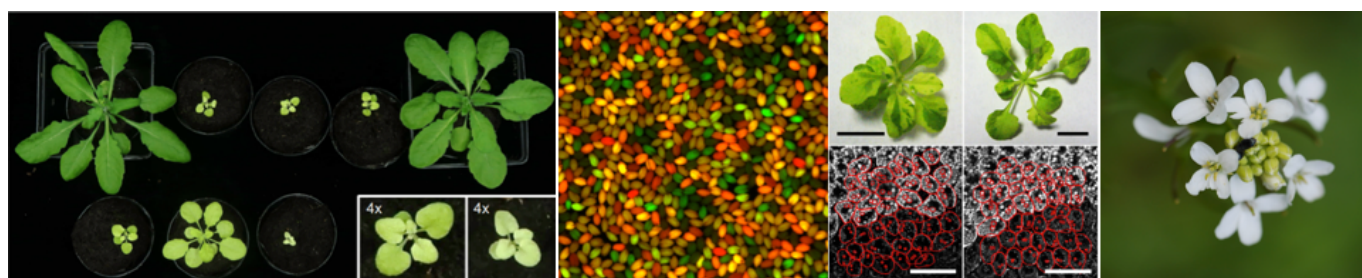


PhD student position on crossover recombination in *Arabidopsis*

A PhD student position is available in the Laboratory of Genome Biology led by Dr Piotr Ziolkowski at the Adam Mickiewicz University, Poznan, Poland.

Meiosis is a specific type of cell division that, by reducing the number of chromosomes, produces gametes and enables sexual reproduction. At the heart of meiosis is crossover recombination, which allows the genetic information of both parents to be shuffled. Our lab studies the factors and pathways that control meiotic crossover formation in plants.

This project will use the natural accession of the model plant *Arabidopsis thaliana* to understand how differences in DNA sequence between parents affect crossover distribution and frequency. By applying genome editing to these accessions, we will introduce mutations in selected genes related to crossover formation. Next, we will use genome-wide sequencing analyzes to investigate the crossover pattern in different hybrids. We will also study the activity of recombination hotspots using our recently developed technique of high-resolution crossover mapping, which is based on recombinant molecule sorting and Illumina-based sequencing.



The successful candidate will have master degree in biotechnology, biology or related field and a solid knowledge in molecular biology and genetics. Candidates with a good background and hand-on experience on *Arabidopsis* molecular genetics and bioinformatics skills are encouraged to apply. The project would significantly benefit from applying *Arabidopsis* meiotic cytology, therefore this expertise is considered an advantage.

We offer:

- Supportive and stimulating environment in an international, friendly and well-equipped research group
- Access to newly developed methodology and cutting-edge technologies in plant genetics and molecular biology
- A chance to develop new skills in research, paper writing and grant application

This position is part of a collaborative project funded by the NCN (Polish National Science Centre) together with Dr Charlie Underwood, Max Planck Institute for Plant Breeding Research, Cologne funded by DFG (German Research Foundation).

Please submit the following documents with your application:

- CV which gives an overview of the academic/education history
- Letter of motivation
- Names and contact information of at least two academic referees

Application deadline: **31.08.2022**

For further details contact us by email:

Dr Piotr A. Ziolkowski, tel. +48 61 829 59 66, pzio@amu.edu.pl



For more information on the group visit our website @ <http://dgb.amu.edu.pl>

Please include in your offer:

"I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)."