

The Graduate Program at the Leibniz Institute for Plant Genetics and Crop Plant Research in Gatersleben was established within the framework of the [Leibniz Graduate School "Yield Formation in cereals-overcoming yield-limiting factors"](#), in cooperation with the Martin-Luther University Halle-Wittenberg (MLU), Faculties of Natural Sciences I & III on basis of the WGL Joint Initiative for Research and Innovation – 2012. The graduate school is a structural component of the newly established "Science campus Halle plant-based bioeconomy".

Announcement

Scientific (technical) course within the IPK Graduate Program

Please note: The number of participants is limited to max. eight (8)

Flow cytometric genome size estimation, sorting and high throughput ploidy analysis

by Dr. Lars-Gernot Otto and Dr. Jörg Fuchs (QG/CSF)

Time: September 17 and 18, 2019, 8:30 a.m.

Place: Genetic building (rooms 1.66; 1.70; 1.58); IPK campus



Flow cytometry is a technology that allows the simultaneous measurement and subsequent analysis of multiple physical characteristics of single particles (e.g. cells or nuclei) in a fluid stream while passing a beam of light. This method has numerous applications in biomedical research, like immunology, haematology or oncology. In the last decades flow cytometry has become of increasing interest also for plant researchers and is now widely used for ploidy screenings, detection of mixoploidy and aneuploidy, cell cycle analysis, determination of reproduction pathways, and estimations of absolute nuclear DNA content.

In the theoretical part of the course, you will learn about the basic principles of flow cytometry and its application in plant science. With the focus on DNA flow cytometry the practical part includes setting up and controlling the cytometer, sample preparation, measurement, as well as data analysis and interpretation. We will cover genome size estimation, sorting of nuclei according to differences in the DNA content and semi-automated high throughput ploidy analysis. Plant material will be provided but you are also encouraged to bring your own material of interest (e.g. fresh leaf tissue or seeds).

After the course, you should have not only acquired basic knowledge about flow cytometry, but also about the various possibilities regarding this method at the IPK.

Registration:

If you want to attend, please register by writing an Email to graduierenschule@ipk-gatersleben.de. Application will be accepted in chronological order of receipt.

Subject to modifications