

FABIAN ATTENDS AN INSECT GENETIC TECHNOLOGIES COURSE IN THE USA

FABI Postdoctoral Fellow Dr Gudrun Dittrich-Schröder attended an Insect Genetic Technologies short course at The Insect Transformation Facility, University of Maryland, United States from 22 to 27 July. The aim of the workshop was to equip participants with the knowledge and skills to conduct experiments involving insect genetic technologies. A reliable method to introduce genetic material into insects is by microinjection into the germ cells.

The workshop consisted of lectures and practicals. Lectures covered topics such as



embryology and development, CRISPR/Cas9 technologies, RNAi, delivery of technologies to cells, gene drive and regulatory issues. Guest lecturers included Prof. Urs Schmidt-Ott, Prof. Peter Atkinson, Dr Alfred Handler, Dr Andrew Hammond, Dr Tassos Pavlopoulos and Dr Ben Matthews. The practical component included many different

aspects from the rearing of various insect species, preparation of eggs for microinjection, pulling of needles for various life stages to be microinjected, bevelling of needles, microinjection of eggs, pupae and adults, the design of Cas9 guide RNA, guide RNA assessment, mutation detection and the planning of an experiment.



The workshop was limited to 21 participants to enable them to benefit from practical training and to promote group discussions. Participants were mainly from the United States, but also as far as South Korea, Australia and South Africa. Most participants were focussing on species of mosquito, with a few others working on non-model organisms such as ticks, psyllids, the fall armyworm and the tobacco hornworm.