Title of module	Advanced Practical in the Focal Point Programme: "Molecular Medicine" VZ: 185881 **"Transgenic cell lines in cancer research"**

Credit points	7.5 (of 15)	***Available in semester(s)***	2
Hours per week	9	***Compact course***	☒

Lecturer(s)	S. Hahn
Teaching methods	A five-week all-day practical lab course with a compulsory seminar presentation. **Please note:** A second Advanced Practical will have to be performed in the same semester to earn the full complement of 15 credits
Evaluation of learning progress	Active participation, feedback during independently performed experiments, project discussions with the supervisor
Mode of examination	Assessment of experimental skills during the practical (50%), a written project report (40%), and a seminar presentation of experimental results (10%).
Learning objectives	After completion of the course students will have acquired basic practical skills in standard technologies to establish transgenic cell lines for functional analyses of selected cancer related genes including also microRNAs.
Soft skills	Collaboration in a small team of 2-3 students and interaction with the members of a research laboratory as well as oral presentation of results.

Contents of module	• Cloning of viral expression vectors • Basics in mammalian cell culture • Viral vector generation and transduction of target cells • Expression analysis of the transgene in the target cell using qRT-PCR and /or Western-blot