

Title of Course:

Advanced Practical in the Focal Point Programme "Molecular Medicine"

VZ: 209 806

"Introduction to Molecular Pathology"

Type: Mandatory practical with choices		Workload 120h per week	Intended for Semester I	Duration
I	Module: Elective Practical	Presence hours per course 5,25	Self-study 46,5 h	Credit Points 4 CP
2	Teaching Methods: A two-week all-day practical lab course with a compulsory seminar presentation. Please note: Three other Practical Courses will have to be performed in the same semester to earn the full complement of 16 credits			
3	Group Size: Individual training			
4	Learning/Course Objectives: After completing this course the student will acquire an intensive hands-on experience in different techniques to analyze DNA mutations and epigenetic modifications. Intensive training in bisulfite conversion of gDNA, pyrosequencing based quantitative positional methylation analysis and in vitro methylation will also be imparted.			
5	Contents: <ul style="list-style-type: none"> DNA-Extraction -Mutation analysis <ul style="list-style-type: none"> Sanger sequencing Pyrosequencing Promotor-Methylation analysis: <ul style="list-style-type: none"> Pyrosequencing MSP-Analysis 			
6	Degree Courses: Master of Science Biochemistry;			
7	Prerequisite(s): Knowledge of basic methods in molecular biology and pathology.			
8	Method(s) of Examination: Evaluation of successful completion of course will be based on seminar presentation of experimental results (60%), a viva voce examination (20%) and submission of a written project report (20%).			
9	Requirements for Acquiring Credit Points: Achievement of at least the mark "sufficient" regarding the above modes of examination.			
10	Significance for Overall Grade: Weighted according to CPs			
11	Frequency: Every winter term			
12	Supervisor(s): Prof. A. Tannapfel and teaching assistants			
13	Additional Information:			