

Genomics						
Kennnummer	Workload	Credits/LP	Studiensemester	Häufigkeit des Angebots	Dauer	
	180 Std.	6	1	Jedes Semester	1 Semester	
1	Lehrveranstaltungen		Sprache	Kontaktzeit	Selbststudium	Geplante Gruppengröße
	a) Molecular Human Genetics		a) English	a) 22,5 Std.	a) 67,5 Std.	a) 15
	b) Molecular Mechanisms		b) English	b) 22,5 Std.	b) 67,5 Std.	b) 15
2	<p>Lernergebnisse/Kompetenzen</p> <p>After successful participation in the module the students ...</p> <p>Verständnis (2) ... Characterisation of patterns of inheritance in man ... Understanding of human genetic diseases</p> <p>Anwendung (3) ... Perform of diagnostical methods to analyse genetic diseases ... Characterisation of genetic causes of human tumors</p> <p>Analyse (4) ... Gene therapy: Estimation of chances and risks ... Evaluation of diagnostic results</p> <p>Synthese (5) ... Analysis and interpretation of modifications in human genomes ... Reasonable application of gene therapeutical approaches</p> <p>Evaluation / Bewertung (6) ... Correlation of genesis and diagnosis of human genetic diseases ... Application of disease specific therapies</p>					
3	<p>Inhalte</p> <p>a) Human genome, inheritance patterns, genetic diseases, mutations and polymorphisms, genetic diagnostics and consulting, monogenetic, polygenetic and multifactorial diseases (syndromes), methods of diagnostics in human genetics, rare genetic diseases and therapeutical approaches, gene therapy, ethical aspects in context to genetics (e.g. "23 and me"), aspects of the genetic diagnostics law, influence of environmental factors on genetic diseases, viral and non-viral gene shuttling</p>					

	b) Origin and therapy of human tumors, single nucleotide polymorphisms, pharmacogenetics, genetics and effects of pharmaceuticals, epigenetics, signal transduction
4	Lehrformen a) Seminar b) Seminar
5	Teilnahmevoraussetzungen Knowledge in biology, molecular biology and biochemistry
6	Prüfungsformen a) Prüfungsleistung 1sbPN (Präsentation) (3 LP) b) Prüfungsleistung 1K (Klausur) (3 LP)
7	Verwendung des Moduls Precision Medicine Diagnostics M.Sc. (PMD)
8	Modulbeauftragte/r und hauptamtlich Lehrende Prof. Dr. Ulrike Salat (Modulverantwortliche/r) Robert Lukowski (Dozent/in) Sebastian Raimundo (Dozent/in) Prof. Dr. Ulrike Salat (Dozent/in)
9	Literatur a) Tariverdian, Buselmaier: Humangenetik (Springer Verlag) b) Alberts et al.: Molecular Biology of the Cell (Garland Science)