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| Module title | | Abbreviation |
| Principles of drug design | | o8-MCM3-132-m01 |
| Module coordinator | | Module offered by |
| lecturers Pharmazeutische Chemie (Pharmaceutical Chemistry) | | Institute of Pharmacy and Food Chemistry |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 5 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | graduate | -- |
| Contents | | |
| <p>Fundamentals: drug targets (types and classification), target validation, effect mechanisms, protein-ligand interactions, lead finding; lead optimisation. Experimental methods: bioassays, HTS, combinatorial chemistry, naturally occurring substances. Theoretical methods: molecular modelling, structure-based drug design, pharmacophore models, docking, virtual screening, simulation methods, de novo design. Ligand-based drug design. QSAR. Predictions of pharmacokinetic and toxicological components (ADME). Case examples, prodrug strategies, bioisosterism, SAR.</p> | | |
| Intended learning outcomes | | |
| Students master the theoretical and experimental methods and aspects of drug design. | | |
| Courses (type, number of weekly contact hours, language – if other than German) | | |
| S + Ü (no information on SWS (weekly contact hours) and course language available) | | |
| Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) | | |
| presentation with discussion (approx. 30 minutes) Language of assessment: German or English | | |
| Allocation of places | | |
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| Additional information | | |
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| Workload | | |
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| Teaching cycle | | |
| -- | | |
| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
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| Module appears in | | |
| Master's degree (1 major) Chemistry (2013) Master's degree (1 major) Chemistry (2014) | | |