

**Modulbezeichnung:** Medicinal chemistry B (Biopharmacy) (MSM-ME5B) 15 ECTS  
(Medicinal chemistry B (Biopharmacy))

Modulverantwortliche/r: Monika Pischetsrieder

Lehrende: Monika Pischetsrieder, Geoffrey Lee, Peter Gmeiner, Henning Gieseler

Startsemester: WS 2016/2017      Dauer: 2 Semester      Turnus: jährlich (WS)

Präsenzzeit: 210 Std.      Eigenstudium: 240 Std.      Sprache: Deutsch

### Lehrveranstaltungen:

**B1: SEM Biopharmacy (2S in winter or summer term)**

Biopharmazie (Schiene 2 im 4. Stj.) (WS 2016/2017, Seminar, 2 SWS, Anwesenheitspflicht, Geoffrey Lee et al.)

Biopharmazie (Schiene 1 im 3./4. Stj.) (SS 2017, Seminar, 2 SWS, Anwesenheitspflicht, Geoffrey Lee et al.)

**B2: Biopharmacy (2S in winter & summer term)**

Biopharmazie (3./4. Stj.) (WS 2016/2017, Vorlesung, 1 SWS, Geoffrey Lee)

Biopharmazie (3./4. Stj.) (SS 2017, Vorlesung, 1 SWS, Geoffrey Lee)

**B3: Gefriertrocknung pharmazeutischer Produkte (2S in winter & summer term)**

Gefriertrocknung pharmazeutischer Produkte (4. Stj) (WS 2016/2017, Vorlesung, 1 SWS, Henning Gieseler)

Gefriertrocknung pharmazeutischer Produkte (4. Stj) (SS 2017, Vorlesung, 1 SWS, Henning Gieseler)

**B4: Bioanalytics and instrumental analytics (2S in winter & summer term)**

Bioanalytik-Seminar für Lebensmittelchemiker und Molecular Science (WS 2016/2017, Seminar, 1 SWS, Monika Pischetsrieder)

Instrumentelle Analytik für Lebensmittelchemiker und Molecular Science (SS 2017, Seminar, 1 SWS, Monika Pischetsrieder)

**B5: Bioanalytics and instrumental analytics (5 Lab)**

Anwesenheitspflicht/attendance in lab courses is compulsory!

Bioanalytik-Praktikum (B5) für Wahlpflichtmodul MSM-ME5 (WS 2016/2017, Praktikum, 5 SWS, Monika Pischetsrieder et al.)

**B6: Bioassays (3 Lab)**

Anwesenheitspflicht/attendance in lab courses is compulsory!

Bioassays (SS 2017, Praktikum, 3 SWS, Peter Gmeiner et al.)

### Inhalt:

**B1, B2:** Pharmacokinetics: distribution of drug molecules within the body after drug product application.

**B3:** Stability, formulation and manufacture of drug products from recombinant human protein drugs.

**B4:** Theoretical knowledge on technology and application of advanced modern methods in instrumental and bioanalysis; acquainting students with current issues in the fields of instrumental and bioanalysis

**LAB courses:**

**B5:** Analytical practice courses to learn the most important basic techniques in the field of instrumental and bioanalysis

**B6:** Practical courses to learn the most important basic approaches and techniques in the field of bioassays (e.g. determination of the inhibition of enzymatic activity, receptor binding assays and analysis of signal transduction of G-protein coupled receptors)

### Lernziele und Kompetenzen:

The students

- gain insight into the design, synthesis & development of new drug products in the medicinal/pharmaceutical area
- acquire expertise for the theoretical evaluation and practical application of the most important techniques for the instrumental and bioanalysis of drugs
- are able to reflect crucial theories of the specialty in order to challenge problems in analytical practice.

### Studien-/Prüfungsleistungen:

Medizinische Chemie - Ausrichtung Biopharmazie (Prüfungsnummer: 30809)

(englische Bezeichnung: Medicinal Chemistry - Focus: Biopharmacy)

Prüfungsleistung, mündliche Prüfung, Dauer (in Minuten): 45

Anteil an der Berechnung der Modulnote: 100%

weitere Erläuterungen:

**Assessment and examinations:**

**O45 (PL) + LAB (SL): oral examination (45 min, 2 examiners) + lab course protocol(s) ungraded, presentation**

Calculation of the grade for the module: **100% from oral examination**

Prüfungssprache: Deutsch

Erstablingung: SS 2017, 1. Wdh.: WS 2017/2018

1. Prüfer: Monika Pischetsrieder

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### Organisatorisches:

Frequency of offer: **annually - start only in winter term!**

**B1:** winter term or summer term **B2:** winter term & summer term, **B3:** winter term & summer term, **B4:** winter term & summer term, **B5:** semester break between winter and summer term, **B6:** summer term

**Language:**

English (**B6**); German (**B1, B2, B3, B4, B5**)

### Bemerkungen:

Intended stage in the degree course: Mandatory elective module (Wahlpflichtmodul) or Elective module (Wahlmodul)

Courses of study for which the module is acceptable: M.Sc. Molecular **Life Science**