



# Wahlpflichtfach SoSe 2021 bis WiSe 2021/21

## Abt. Klinische Pharmazie & Biochemie

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### LITERATURE RESEARCH:

### NEBULIZATION OF PROTEIN DRUGS AND ITS EFFECT ON PHARMACOKINETICS AND PHARMACODYNAMICS. [FAIR-NEB]

#### Beschreibung/Aufgaben

Bacterial pneumonia is a leading cause of morbidity and mortality worldwide, currently treated with antibiotics. This standard of care faces antimicrobial resistance (AMR) and thus curative failure. Other treatment options currently being investigated are the use of immunomodulatory proteins derived from bacteria, which enhance airway epithelial innate immune defences and increases the therapeutic outcome relative to antibiotic alone.

In this project, the nebulization modalities for optimal airway targeting and rapid action at the infection site of proteins are investigated. In order to develop a pulmonary (inhalation) dose, knowledge about the influence of nebulization on protein characteristics is of utmost importance.

#### Lernziele/Methoden:

- Independent literature research on the mechanisms and possible optimization of nebulization of protein drugs and its effect on pharmacokinetics and pharmacodynamics.
- Summarising of the literature research in a report and presentation of the results

Beginn: as per agreement

**Voraussetzungen:** Interest in protein therapy, nebulization, pulmonary drugs  
Scientific reading and writing skills

**2 Studierende** (Studierende des 7. und 8. Semesters werden bevorzugt)

**Anmeldung:** Bis 24.05.2021 per E-Mail bei Frau Prof. Dr. Charlotte Kloft ([charlotte.kloft@fu-berlin.de](mailto:charlotte.kloft@fu-berlin.de), CC an [ingo.siebenbrodt@fu-berlin.de](mailto:ingo.siebenbrodt@fu-berlin.de)) mit kurzer Bewerbung einschl. Darlegung der Motivation für das Wahlpflichtthema. **FAIR-NEB**