Institute for Lung Biology and Disease/HMGU :: Ingolstädter Landstrasse 1 :: 85764 Neuherberg :: Germany 01.07.2020

MASTERARBEIT: PRMT inhibitors as potential novel therapeutics against inflammatory disease

Masterarbeit in der experimentellen Pneumologie am Helmholtz Zentrum München

Pneumologie - Wirkstoffforschung – 3D Zell- und Gewebekultur – Translationale Forschung

- **Zeitpunkt:** ab sofort (01.07.2020)
- **Dauer:** mind. 6 Monate, präferentiell 9 Monate inklusive Praktikum A+B
- **Bezahlung:** Minijob (450 Euro pro Monat) / geringfügige Beschäftigung
- **Standort:** Helmholtz Zentrum München / **Neuherberg**
- **Voraussetzungen:**
  - Starkes Interesse an experimenteller Grundlagenforschung und translationaler Forschung
  - Studium der Biologie, Biochemie, Humanbiologie, Pharmazie, oder eines verwandten Studienganges
  - Zuverlässige, analytische und strukturierte Arbeitsweise
  - Schnelle Auffassungsgabe und hohe Motivation

Project: Chronic obstructive pulmonary disease (COPD) is an inflammatory lung disease characterized by chronic bronchitis and tissue destruction (emphysema) leading to impaired gaseous exchange and ultimately death – COPD is currently the third leading cause of death worldwide, with no current therapies able to reverse disease progression. Targeting novel inhibitors of PRMT activity is therefore prime for potential drug discovery programs to elucidate novel anti-inflammatory approaches. To this end we are currently optimizing ALPHA-LISA activity assays utilizing recombinant PRMT proteins to enable screening of the small molecule libraries available at the Helmholtz Zentrum München, including the Prestwick FDA approved drugs library. Identification of putative candidates will need to be validated *in vitro* in cell culture assays for toxicity, the ability to block MMA activity, and downstream readouts of migration ability.

What techniques will you use? This project will utilize in vitro cell culture assays of cell lines and primary cells. Conventional molecular biological methods (qPCR, western blotting) will be carried out in addition to more specialized methods (FACS and trans-well migration assays).

Kontakt: **Dr. Ali-Önder Yildirim** :: phone: +49-89-3187-4037 :: mail: oender.yildirim@helmholtz-muenchen.de :: web: www.cpc-munich.org :: Comprehensive Pneumology Center (CPC) :: German Center for Lung Research (DZL) :: Ingolstaedter Landstr. 1 :: D-85764 Neuherberg