**CURRICULUM VITAE - ABSTRACT**

**NAME:** Claudia A. Staab-Weijnitz **Current Rank:** Visiting Associate Professor

**EDUCATION** (Residency, fellowship or graduate school training):

**School/Program Degree Date**

University of Bayreuth, Germany Diplom Biochemistry Univ. (=BS, MS)[[1]](#footnote-1) 1997 - 2003

Karolinska Institute, Stockholm, Sweden PhD in Medical Science 2003 - 2008

Karolinska institute, Stockholm, Sweden *Postdoctoral training* 2008 - 2009

University Hospital Schleswig-Holstein, *Postdoctoral training* 2009 - 2011

Kiel, Germany

Comprehensive Pneumology Center (CPC), *Postdoctoral training* 2013 - 2016

Helmholtz Munich, Germany

Inst. for Experimental Pneumology, Ludwig- Dr. habil. med. (Habilitation), Priv.-Doz.[[2]](#footnote-2) 2016 - 2018

Maximilians-University (LMU), Munich, Germany

**ACADEMIC APPOINTMENTS:**

**Institution Rank Dates**

University of Colorado (Pediatrics) Visiting Associate Professor 2024 - present

CPC, Helmholtz Munich, and Inst. for Experi- Research Group Leader & 2017 - 2024  
mental Pneumology, LMU, Germany equiv. to Senior Instructor

**TEACHING ACTIVITIES:**

From 2014 until Feb 2024, I have been involved in teaching for the international **MD/PhD program** **Comprehensive Pneumology Center (CPC) Research School "Lung Biology and Disease"**. In Nov 2017, I was appointed **spokesperson** for this program, one of the currently five core areas of doctoral studies at the LMU medical faculty. I was then responsible for planning the curriculum and conceived and further developed numerous teaching activities. Being the first scientist to habilitate at the CPC-associated Institute of Experimental Pneumology (Hospital of the LMU) since its foundation, I have not only acted as a role model and advised on the habilitation procedure, but also established a platform for other scientists to gain teaching experience for habilitation to achieve lecturer status. I have furthermore substantially contributed to the acquisition of 9 years of German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) funding to kick off an additional **MD/PhD program** named **"Targets in Toxicology"** from Sep 2018 (equiv. to an NIH-T32 training grant). Here, I not only acted as PI, but also provided conceptual input to the qualification program, presented and defended the same during DFG evaluation procedures, and lectured in the toxicology intro module. In 2018, I was elected **vice-spokesperson**, a position that I, for DFG eligibility reasons, had to relinquish upon relocating to Denver. In 2019, I conceived the module "Models and Methods in Translational Lung Research" within the international **M.Sc. program "Human Biology"** at LMU Munich. Here, I coordinated the lectures, the practical course and the seminars, and gave a significant part of the lectures myself. I have been organizing and lecturing in several **(inter)national post-graduate training activities**, including for the DZL (German Center for Lung Research) Academy, for the ERS, and for the ATS. Finally, I have successfully **mentored** four PhD candidates, one MD candidate, and five M.Sc./Diploma candidates in my lab. Four more are anticipated to submit their theses in 2024 or 2025. I have also participated in numerous thesis advisory and examination committees for additional MD and PhD candidates.

In summary, I have conceived and participated in a large variety of (inter)national (under)graduate teaching activities including introductory seminars in experimental pneumology and toxicology, method seminars, journal clubs, scientific writing seminars, and many more; these are summarized in my Teacher’s Portfolio.

**CLINICAL ACTIVITIES**: *not applicable*

**RESEARCH AND SCHOLARSHIP:** The extracellular matrix (ECM) acts as a growth factor reservoir and affects adherent cell fate via ECM receptor signaling. The role of collagen post-translational modifications (PTMs) in these processes is not well understood. My research over the past decade has focused on elucidating the function of FK506-binding proteins and enzymes of the collagen biosynthesis pathway in lung fibrosis. Ultimately, my research aims to **target collagen biosynthetic enzymes for therapy in progressive pulmonary fibrosis**. We discovered increased levels of ER-resident proteins involved in collagen biosynthesis in mouse models of pulmonary fibrosis and clinical lung specimens from IPF patients. Modulating these enzymes affected collagen PTMs and cell differentiation pathways in lung epithelial cells and fibroblasts. Collaborating with Vanderbilt Medical Center and the proteomics core at Helmholtz Munich, we developed a unique **mass spectrometry workflow for site-specific collagen PTM analysis**, ultimately enabling our ongoing functional studies of these modifications in pulmonary fibrosis. Documenting my recognized expertise in this area, I have written highly cited reviews on collagen alterations in aging, collagen biosynthesis as a therapeutic target in lung fibrosis, and a book chapter on state-of-the-art-methods to study collagen in disease. Finally, in efforts to reduce animal testing and better reflect aspects of human physiology, we have developed an *in vitro* lung fibrosis model with patient-derived fibroblasts, and an *ex vivo* model using precision-cut lung slices. Additionally, we have studied **bronchial epithelial responses to environmental stimuli**. In this context, we discovered immunophilins as potential therapeutic targets in coronavirus-induced lung disease, revealed novel potential host factors in the context of influenza infection, and developed a novel model of airway injury and regeneration.

**PUBLICATIONS/SCHOLARSHIP**

Number of original articles in peer-reviewed journals (TOTAL): **36**

First-author: **7** Senior-author: **8** Other co-author: **21**

Number of books: **0**

Number of other publications (scholarly reviews, symposium papers, editorials & book chapters): **15**

Number of published or presented scientific abstracts (TOTAL): **76**

Refereed abstracts: **76** Un-refereed abstracts: **0**

Letters-to-the-editor, other publications: **1** (biorXiv preprint)

Patient education materials, curricula, clinical guidelines, case studies or other scholarly works. **0**

**PUBLIC AND UNIVERSITY SERVICE ACTIVITIES/ PROFESSIONAL SOCIETY MEMBERSHIPS/HONORS:**

* Since 2024: Member of the PhD Faculty Working Group, Department of Pediatrics, University of Colorado
* Since 2024: Member of the ATS PhD and Basic and Translational Scientists Working Group (PBTS WG), Chair of Subcommittee “Proposal”
* Since 2018: Editorial Board Member of Respiratory Research
* Since 2017: Member of the ATS RCMB Planning Committee
* Since 2016: German Center of Lung Research (DZL) Principal Investigator
* 2023-2024: Elected Coordinator of DZL Disease Area DPLD (Diffuse Parenchymal Lung Disease)
* 2020-2024: Topic coordinator of Area C “The Mesenchymal Cell: An Active and Powerful Modulator of the Pulmonary Scaffold into the Spatial Context” within the DPLD disease area of the DZL
* 2022-2023: Member of LMU PhD Committee “Medical Research”
* 2018-2023: Deputy Spokesperson of DFG-funded MD/PhD program GRK2338 ”Targets in Toxicology”
* 2017-2023: Spokesperson of MD/PhD program CPC Research School ”Lung Biology and Disease”, Head of all (under)graduate teaching activities at the CPC, Helmholtz Munich
* Co-organizer, Session Chair, and Lecturer for *i.a.* ATS, ERS, and DZL; *e.g*. ATS 2021 PG Course: “How the extracellular matrix instructs lung regeneration: Translating tools and techniques”; ERS 2023 „Virtual Academy of Lung Physiology and Structure“

**FUNDED GRANTS (RESEARCH, TRAINING OR OTHER) SINCE LAST PROMOTION**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Reporting Since 2017** | **As Principal Investigator/Program Director (on primary or sub-award)** | | **As Co-Investigator/Key Personnel** | |
|  | Number of grants | Total Direct Costs EUR/USD[[3]](#footnote-3) | Number of grants | Total Direct Costs |
| Federal (DFG, BfR) | 2 | 832.218 / 898.795 | - | - |
| Foundation/Professional Assoc. (Friedrich-Baur Foundation) | 1 | 6.000 / 6.420 | - | - |
| Industry | 0 | - | - | - |
| Internal/Other grants (DZL) | 4 | 273.090 / 292.206 | - | - |

1. The German title “Diplom” is equivalent to having earned both U.S. bachelor's and master's degrees [↑](#footnote-ref-1)
2. A German academic title that ascertains eligibility for a professorship and the right to lecture at universities. [↑](#footnote-ref-2)
3. Conversion Rate (July 6, 2024): 1 EUR = 1.08 USD [↑](#footnote-ref-3)