Master's Thesis | Characterization of airway epithelial immune and nasotype signatures in primary airway epithelium

The **Center of Allergy and Environment (ZAUM)** in central Munich is offering a Master's thesis project for a motivated student interested in airway epithelial biology, functional immunology, and asthma development.

The project will investigate how airway epithelial immune signatures change in response to cytokine priming, with a particular focus on newly identified nasotype signatures associated with **early-onset asthma**. Using established state-of-the-art **confocal imaging** panels, the student will validate these signatures and help establish a framework for understanding why some children may be at increased risk of developing asthma and/or experiencing asthma exacerbations.

We are looking for a Master's student in immunology, cell biology, biotechnology, biomedicine, or a related discipline. Applicants should have a strong interest in experimental immunology, enjoy precise hands-on laboratory work, and be motivated to establish, optimize, and troubleshoot experimental assays. Previous experience with cell culture, primary cells, microscopy, or flow cytometry is advantageous but not required. No computational background is necessary.

The project will be conducted on-site at ZAUM in Munich and is available from 1 September 2026.

Please send your CV and a brief cover letter describing your motivation and relevant experience to **constanze.jakwerth@tum.de**.

PD Dr. Constanze Jakwerth

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