

# ACME Seminar

**Speaker**

**Prof. Antje Flieger**

**Title**

**Legionella and Its Secreted Phospholipases:  
A Universe of Influence on Host and Pathogen**

**When**

**29.04.2026, 13:00**

**Where**

**Lecture Hall H (building J1)**

**Host**

**Prof. Guntram Graßl**

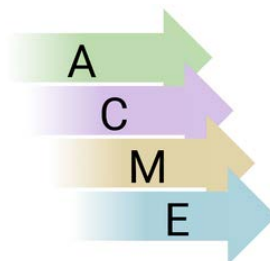
## About Professor Antje Flieger's research

Legionella are Gram-negative rod-shaped bacteria and the causative agents of Legionnaires' disease, a severe form of pneumonia that is fatal in approximately 9% of cases. According to a study by the Network for Community-Acquired Pneumonia (CAPNET), approximately 3.8% of all pneumonia cases in Germany are caused by Legionella, which corresponds to approximately 20,000 cases of Legionella infection per year.

The goal of our research is to characterize virulence factors of Legionella. The focus here is on secreted phospholipases. At least 15 different phospholipases A, some of which also exhibit lysophospholipase A and glycerophospholipid:cholesterol acyltransferase activity, have been described to date for *L. pneumophila*. Analysis of the pathogen's phospholipolytic activity is expected to provide a better understanding of the molecular processes involved in the modulation and destruction of lung cells during Legionnaires' disease. This forms the basis for advancing the inhibition of cytolytic factors as a new therapeutic approach for improved treatment of patients with Legionnaires' disease.



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**Activation of Cellular  
anti-Microbial Effectors**