

Proteases in pathogen and host: importance in inflammation and infection – RTG-PRO

2. Opening Retreat

Research Training Group 2719

07 - 09 May 2025

VENUE

C-FunGene Building,
Seminarraum
Beitzplatz
17489 Greifswald

CONTACT

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FUNDING



PROGRAMM

WEDNESDAY

9:00 – 9:30 Welcome

Prof. Dr. Matthias Eschrig

Dean of Faculty of Mathematics and Natural Science

Prof. Dr. Agnes Flöel

Vice Dean University Medicine

9:30 – 10:15 Keynote Lecture

Chair: Madina Baglanova

Targeted protein degradation as therapeutic approach in cancer and infectious diseases

Prof. Dr. Jan Krönke

10:15 – 10:45 Coffee break

10:45 – 13:15 Project Presentation

Chair: Sophie Möller, Larissa Busch

(C1) Functional analysis of proteases of *S. aureus* and phagocytes using proteomics

Hannes Wolfgramm/ Gina Wockenfuß

(A2) Properties of allergenic proteases released by *Staphylococcus aureus*

Christopher Saade/ Hanna Friedrich

(C2) Sequence-structure-function analysis of *S. aureus* and *S. pneumoniae* extracellular serine proteases

Felix Glinka/ Katharina Mehnert

11:45 – 12:15 Coffee break

(A3) The *S. aureus* serine protease-like protein B (SplB) in murine allergic lung disease - mechanisms of pathogenicity

Jessica von Fournier/ Marques Schilling

(A5) Jep, a novel serine protease common to murine *Staphylococcus aureus* isolates – defining its role in mouse colonization

Shruthi Peringathara/ Elisa Bludau

(B3) Elucidating structure and function of CE-clan protease-related bacterial virulence factors with dual ubiquitin-protease and acetyltransferase activity

Ole Schmöker/ Nilüfer Kara

13:15 – 14:00 Lunch break

THURSDAY

9:00 – 9:45 Keynote Lecture

Chair: Shah Faisal

The proteasome in the proteostatic network and cellular control: Lessons learnt from rare proteasomopathies

Prof Dr. Elke Krüger

10:00 – 12:30 Project Presentation

Chair: Hannes Wolfgramm, Shruthi Peringatara

(B1) Protein stability in *Staphylococcus aureus* and its impact on *S. aureus* pathophysiology

Larissa Busch/ Chelsea Scheidhauer

(B2) Ubiquitination-dependent host cell response to *Staphylococcus aureus*

Abhishek Singh/ Madina Baglanova

(A6) Role of serine proteases in the pathophysiology of *Streptococcus pneumoniae*

Supradipta De/ Mariama Kujabi

11:00 – 11:30 Coffee break

Characterization of molecular mechanisms underlying OTUB1 dependent heart tissue homeostasis (short presentation)

Nina Oechsler - associated

(B4 ass.) Crosstalk between ferroptosis and protein homeostasis in lymphocytes

(short presentation)

Dr. Ruba Al'Abdulla

(B4) Altered immune responses upon proteasome impairment

Sophie Möller/ Inok Son

(B5) Role of UPS-dependent protein degradation in *S. pneumoniae*- and *S. aureus*-induced heart failure

Celina Würner/ Farwa Altaw

12:30 – 14:00 Lunch break

FRIDAY

9:00 – 9:45 Keynote Lecture

Chair: Chelsea Scheidhauer

Pancreatitis: a protease driven disease
PD Dr. Matthias Sandler

10:00 – 11:40 Project Presentation

Chair: Christopher Saade, Felix Glinka

(A1) Proteolytic processing of cytokines of the IL-1 family regulating the immune response during experimental pancreatitis

Hala Mazloum/ Shenja Buchholz

(C3) Sequence-structure-function analysis of proteases involved in acute pancreatitis

Christina Möller/ Berenika Stloukalová

(B7) Endogenous inhibition of cathepsin B regulates intracellular protease activation during acute pancreatitis

Saeedeh Asgarbeik/ Navodita Seth

(B6) Roles of phagocyte proteases in defense against *Mycobacterium tuberculosis*

Faisal Sha/ Abhishek Sharma

(BioIT) Central biostatistics and bioinformatics support
Maryam Gholizadeh

Final discussion and remarks