

Inflammation at Interfaces



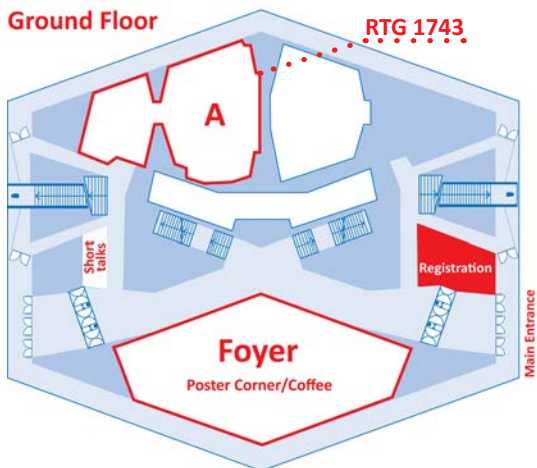
International 5th Annual
Cluster Symposium

PROGRAM

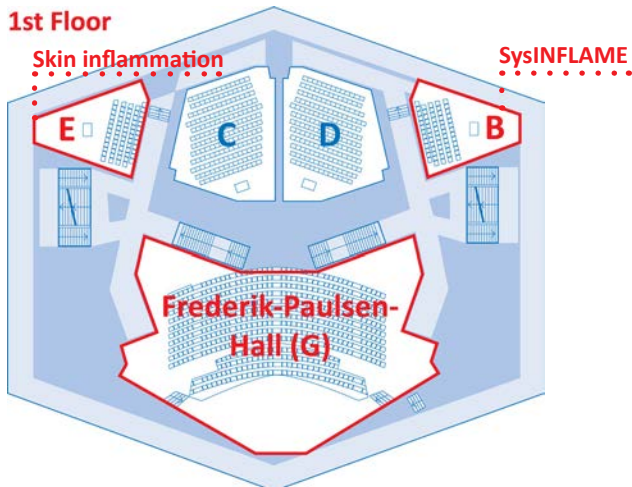
Feb 26-28, 2015

Kiel University, Germany

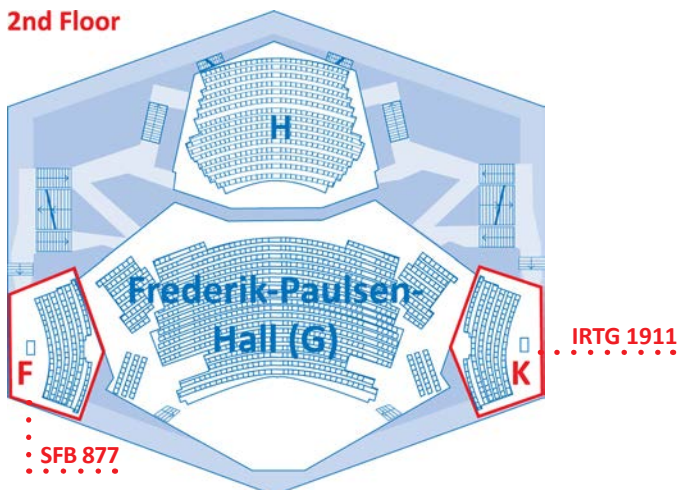
Ground Floor



1st Floor



2nd Floor



Program Cluster Pre-Symposium 2015

Thursday, February 26

11:00 – 12:00 *Registration and Coffee (Foyer)*

12:00 – **Frederik-Paulsen-Hall (G)**

12:15

Welcome

Matthias Laudes and Stefan Schütze, Kiel University, DE

12:15 –

13:00

Key Note: Marja Jäättelä, Danish Cancer Society, Copenhagen, DK

Control of lysosomal stability and autophagy by sphingomyelin metabolism: Possibilities for therapeutic intervention

Proteolysis as a Regulatory Event in Pathophysiology (SFB 877) Hall F

13:05 –

13:35

Stefan Rose-John, Kiel University, DE

Proteolysis as a regulatory event in pathophysiology

13:35 –

14:05

Bernd Schröder, Kiel University, DE

SPPL intramembrane protease – how they control immune cell development and function

14:05 –

14:35

Matthew Freeman, University of Oxford, UK

Rhomoid-like proteins, signalling and inflammation

14:35 –

15:05

Paul Saftig, Kiel University, DE

Regulation and function of the ectodomain sheddase ADAM10

15:05 – 15:45 *Coffee (Foyer)*

15:45 –

16:15

Marius Lemberg, Heidelberg University, DE

Role of intramembrane proteolysis in the control of organelle protein homeostasis

16:15 –

16:45

Stefan Lichtenthaler, Technische Universität München, DE

Substrate identification of sheddases using in vitro and in vivo proteomics

16:45 – 17:05 *Break*

17:05 –

17:35

Elke Deuerling, University of Konstanz, DE

Sorting right from wrong: How ribosomes-associated chaperones control protein transport processes

17:35 –

17:55

Hermann Altmeppen, University Medical Center Hamburg, DE

Proteolytic processing of the prion protein and its role in the pathophysiology of neurodegenerative diseases

17:55 –

18:15

Karina Reiß, Kiel University, DE

Mechanism of ADAM activation – a novel role for membrane asymmetry in biology

18:15 –

18:35

Jenny Björkquist, Karolinska Institut, Stockholm, SE

The mechanism and therapy of hereditary angioedema type III

18:40 – **Frederik-Paulsen-Hall (G)**

19:40

Key Note: Björn Bergh, University Hospital Heidelberg, DE

IT-architectures: the university medicine of the future
- The Heidelberg Experiences -

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Genes, Environment and Inflammation (RTG 1743)

Hall A

13:05 –

13:35

Andre Franke, Kiel University, DE

The Research Training Group „Genes, Environment and Inflammation“ (RTG 1743) – concept and scientific approach

13:35 –

14:05

Shoba Ranganathan, Macquarie University Sydney, AUS

Structural Immunoinformatics: towards rational design of MHC epitopes for T cell activation

14:05 –

14:35

Priyadarshini Kachroo, Kiel University, DE

Genome-wide mapping of the inflammation methylome

14:35 –

15:05

Yolanda Sanz, Spanish National Research Council (IATA-CSIC), ESP

Diet-microbiota interactions as key players in metabolic inflammation

15:05 – 15:35 *Coffee (Foyer) / Poster Session RTG 1743*

15:35 –

16:05

Philip Rosenstiel, Kiel University, DE

Epigenetic marks of a stable host-microbiota association in the mammalian gut

16:05 –

16:35

Ralf Ludwig, University of Lübeck, DE

Genotype-environment interactions for quantitative trait loci affecting common chronic inflammatory diseases

16:35 –

17:05

Arthur Kaser, University of Cambridge, GB

Genes, environment and microbiota: Does ER stress convert autophagy defects into Crohn's disease?

17:05 –

17:35

Felix Kordowski, Kiel University, DE

Epigenetic regulation of ADAMTS16

17:35 –

18:05

Patricia Hübbe, Kiel University, DE

APOE genotype - from geographical distribution to function and responsiveness to dietary factors

18:05 – 18:35 *Poster session*

18:40 –

19:40

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Immunoregulation of Inflammation in Allergy and Infection (IRTG 1911) | Hall K

13:05 –

13:35

Jörg Köhl, University of Lübeck, DE and

David A. Hildeman, Cincinnati Children's Hospital Medical Center, USA

Welcome and overview

13:35 –

14:20

Fred Finkelman, Cincinnati Children's Hospital Medical Center, USA

IgG1 protects against renal disease in a mouse model of cryoglobulinemia

14:20 –

14:35

Fanny Ender, University of Lübeck, DE

The anaphylatoxins regulate the pulmonary dendritic cell compartment in house dust mite-mediated allergic asthma

14:35 –

14:45

Franziska Hoffmann, University of Lübeck, DE

A new antigen-uptaking macrophage-like cell population contacts CD103+ conventional dendritic cells around airways

14:50 –

15:05

Marjan Ahmadi, University of Lübeck, DE

The role of mast cell-derived proteases in experimental asthma

15:05 – 15:35 *Coffee (Foyer)*

15:35 –

16:20

Harinder Singh, Cincinnati Children's Hospital Medical Center, USA

Counter-regulation of activated B cell fates by IRF4 and IRF8

16:20 –

16:35

Daria Briukhovetska, University of Lübeck, DE

Immune sensing of *Toxoplasma gondii* infection by C5aR and CCR5

16:35 –

16:50

Natallia Salei, University of Lübeck, DE

Apoptotic cells enhance the survival of intracellular pathogens in neutrophil granulocytes

16:50 –

17:05

Dirk Friedrich, University of Lübeck, DE

Induction of HIF-1 signaling in macrophages by *Histoplasma capsulatum*

17:05 – 18:35 *Poster session*

18:40 –

19:40

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SysINFLAME Hall B

13:05 – 13:35 **Stefan Schreiber and Philip Rosenstiel, Kiel University, DE**
sysINFLAME: A systems approach to chronic inflammatory disease

13:35 – 14:05 **Matthias Zilbauer, University of Cambridge, UK**
Epigenetics in paediatric IBD

14:05 – 14:35 **Ulf Schmitz and Shailendra Gupta, University of Rostock, DE**
An integrative computational workflow to investigate mechanisms of miRNA target regulation

14:35 – 15:05 **Konrad Aden, Kiel University, DE**
Systematic transcriptional profiling of anti-cytokine and anti-leukocyte trafficking in IBD

15:05 – 15:35 *Coffee (Foyer)*

15:35 – 16:05 **Werner Müller, University of Manchester, UK**
SysmedIBD: Systems Medicine of Inflammatory Bowel Disease

16:05 – 16:35 **Ulrich Sax, University of Göttingen, DE**
Data management and integration in translational medicine – methods, tools and challenges

16:35 – 17:05 **Andre Franke, Kiel University, DE**
An update on the genetic architecture of inflammatory bowel disease and beyond

18:40 – 19:40 **Frederik-Paulsen-Hall (G)**
Key Note: Björn Bergh, University Hospital Heidelberg, DE
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Mechanisms of tissue damage in skin inflammation

Hall E

13:05 –

13:35

Detlef Zillikens and Christian Sadik, University of Lübeck, DE
Introduction

13:35 –

13:55

Nina van Beek, University of Lübeck, DE
Clinical infrastructure for translational skin research

13:55 –

14:15

Inke König, University of Lübeck, DE
Biostatistics and systems medicine in skin research

14:15 –

14:35

Ralf Ludwig, University of Lübeck, DE
Keratinocytes in AAb-induced tissue injury

14:35 –

14:55

Rudolf Manz, University of Lübeck, DE
The role of lymphocyte in AAb-induced skin injury

15:05 – 15:35 *Coffee (Foyer)*

15:35 –

15:55

Saleh Ibrahim, University of Lübeck, DE
Genetics of blistering skin diseases

15:55 –

16:15

John Baines, Kiel University/Max Planck Institute Plön, DE
The skin microbiome in skin tissue damage

16:15 –

16:35

Christian Sadik, University of Lübeck, DE
Lipid mediators in skin tissue damage

16:35 –

16:55

Markus Schwaninger, University of Lübeck, DE
DMF as drug against skin tissue damage

16:55 –

17:15

Marc Ehlers, University of Lübeck, DE
Therapeutic potential of IgG glycosides in skin disease

17:15 –

17:35

Jörg Köhl, University of Lübeck, DE
Molecular mechanisms skewing IgG glycosylation patterns

17:35 – 18:35 *Panel discussion on future developments*

18:40 –

19:40

Frederik-Paulsen-Hall (G)
Key Note: Björn Bergh, University Hospital Heidelberg, DE
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**Program International 5th Annual
Cluster Symposium “Inflammation at Interfaces”
Friday, February 27 | Frederik-Paulsen-Hall (G)**

09:00 – *Welcome*
09:15 Stefan Schreiber, Speaker of the Cluster of Excellence
“Inflammation at Interfaces”

Session I: Metabolic Inflammation

Chairs: **Stefan Schreiber**, Kiel University, DE |
Andrew Gewirtz, Georgia State University, Atlanta, USA

09:15 – **Key Note: Teresa Zelante**, *University of Perugia, IT*
10:00 Tryptophan feeding of the IDO1-AhR axis in host-
microbial symbiosis

10:00 – **Matthias Laudes**, *Kiel University, DE*
10:20 wnt signaling and metabolic inflammation

10:20 – **Stefan Rose-John**, *Kiel University, DE*
10:40 Blocking only the bad side of Interleukine-6

10:40 – **Markus Schwaninger**, *University of Lübeck, DE*
11:00 Immune functions of the β -hydroxybutyrate receptor
HCA2

11:00 – 11:30 Coffee (Foyer)

Session II: Transition to System Medicine

Chairs: **Jeanette Erdmann**, University of Lübeck, DE |
Andrew Paterson, SickKids, Toronto, CAN

11:30 – **Key Note: Andrew Paterson**, *SickKids, Toronto, CAN*
12:15 Host genetic factors associated with human gut
microbiome: the GEM study

12:15 – **Jeanette Erdmann**, *University of Lübeck, DE*
12:35 Challenges to unravel the genetics of myocardial infar-
ction

12:35 – **Wolfgang Lieb**, *Kiel University, DE*
12:55 PopGen, the German National Cohort and other
future resources for systems medicine research

12:55 – **Guy Boeckxstaens**, *Catholic University Leuven, BE*
13:15 New insights in the pathophysiology of IBS

13:15 – 14:15 Poster Corner / Short Talks, Lunch (Foyer)

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Session III: Microbiome as a Therapeutic Target Cell Death in Inflammation

Chairs: **Philip Rosenstiel**, Kiel University, DE |
Arthur Kaser, University of Cambridge, UK

14:15 – 15:00 – **Key Note: Andrew Gewirtz**, *Georgia State University, Atlanta, USA*

Gut microbiota, low-grade inflammation, and metabolic syndrome

15:00 – 15:20 – **Stefan Schreiber**, *Kiel University, DE*

Microbiome modification as a therapy for IBD

15:20 – 15:40 – **John Baines**, *Kiel University/*

Max Planck Institute, Plön, DE

Interaction between blood group-related glycosyltransferases and the intestinal microbiota in mediating susceptibility to Inflammation

15:40 – 16:00 – **Saleh Ibrahim**, *University of Lübeck, DE*

Role of skin microbiota in susceptibility to autoimmune skin blistering

16:00 – 17:00 Poster Corner / Short Talks, Coffee (Foyer)

Session IV: Infection and Chronicity

Chairs: **Ulrich Schaible**, Research Center Borstel, DE | **Michael Zasloff**, Georgetown University Hospital, Washington, USA

17:00 – 17:15 – **Ulrich Schaible**, *Research Center Borstel, DE*

Infection and chronicity as research topic within the cluster of excellence

17:15 – 17:30 – **Regine Gläser and Jürgen Harder**, *Kiel University, DE*

Role of antimicrobial peptides in cutaneous infection and inflammation

17:30 – 17:45 – **Jan Rupp**, *University of Lübeck, DE*

Oxygen availability is the key factor in the host immune control against pathogens

18:00 – 19:00 – **Key Note: Michael Zasloff**, *Georgetown University Hospital, Washington, USA*

Non-inflammatory mechanisms of immunity: some surprises

20:00 Evening Event

Halle400 – Networking dinner and background music by Klezz Trio

**Program International 5th Annual
Cluster Symposium “Inflammation at Interfaces”
Saturday, February 28 | Frederik-Paulsen-Hall (G)**

09:00 – **Key Note: Rudi Balling, LCSB - Luxembourg Centre for
09:45 Systems Biomedicine, LUX**
Systems approaches to Parkinson’s disease

Session IV: Infection and Chronicity

Chairs: **Ulrich Schaible, Research Center Borstel, DE | Michael
Zasloff, Georgetown University Hospital, Washington, USA**

09:45 – **Key Note: Jan Wehkamp, University Hospital, Tübingen, DE**
10:30 Mechanisms of defensin deficiencies and consequences for
therapy of chronic inflammatory bowel diseases

10:30 – **Christoph Hölscher, Research Center Borstel, DE**
10:45 Hypoxia-induced adaptation of host/pathogen
gene expression in the microenvironment of necrotic
granulomas during chronic *Mycobacterium
tuberculosis* infection

10:45 – 11:15 Coffee (Foyer)

Session V: From Immune Dysregulation to Disease

Chairs: **Rudolf Manz, University of Lübeck, DE |
David A. Hildeman, Cincinnati Children’s Hospital Medical Center, USA**

11:15 – **Key Note: Rikard Holmdahl, Karolinska Institute,
12:00 Stockholm, SWE**
Priming, targeting and chronicity - the development of
autoimmune disease

12:00 – **Rudolf Manz, University of Lübeck, DE**
12:05 From immune dysregulation to disease: Defining the
turning point in allergy and autoimmunity

12:05 – **Marc Ehlers, University of Lübeck, DE**
12:20 The kind of IgG antibody glycosylation mirrors the pro-in-
flammatory or even tolerogenic state of an antigen-spe-
cific T and B cell immune response

12:20 – **Jörg Köhl, University of Lübeck, DE**
12:35 Novel roles for complement in the regulation of the B
cell response in autoimmunity and allergy

12:35 – **Ralf Ludwig, University of Lübeck, DE**
12:50 Autoimmunity to structural proteins of the skin in health
and disease

12:50 – Discussion
13:00

13:00 – 14:15 Lunch (Foyer)

**Program International 5th Annual
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Session VI: Cell Death in Inflammation

Chairs: **Stefan Schütze**, Kiel University, DE |

Sergio Grinstein, SickKids, Toronto, CAN

14:15 – 15:00	Key Note: Sergio Grinstein, SickKids, Toronto, CAN Imaging phagocytosis at the single-molecule level: receptors, kinases and phosphatases
15:00 – 15:15	Andreas Linkermann, Kiel University, DE So many ways to plasma membrane rupture! What’s behind regulated necrosis?
15:15 – 15:30	Tamás Laskay, University of Lübeck, DE Activating pathways of NETosis in infectious and non-infectious (auto-)inflammatory conditions
15:30 – 15:45	Susanne Sebens, Kiel University, DE When good turns into bad: How adaptation to chronic inflammatory stress contributes to carcinogenesis
15:45 – 16:00	Dieter Adam, Kiel University, DE Applying regulated necrosis in oncology: TRAIL/ceramide-induced necroptosis as a novel approach to eliminate tumor cells

from 16:00 Conclusion with Coffee (Foyer)

Presentation of poster awards on Saturday.

Audimax Kiel University



Kiel University
Christian-Albrechts-Platz 2 | 24118 Kiel

Halle400



Shuttle to „Halle400“
(Networking dinner)
Departure: 19:15 h, Audimax

Shuttle to Atlantic Hotel / Kiel
Hbf and Hotel Maritim
Departure: between 22:00 h
and 24:00 h every 30 minutes,
Halle400

An der Halle 400 1 | 24143 Kiel
www.halle400.de

For further information please contact:
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Sonja Petermann

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