

**SFB 914 –
Trafficking of Immune
Cells in Inflammation,
Development and Disease**



2nd International Conference on Leukocyte Trafficking

March 14–16, 2018
Carl Friedrich von Siemens Stiftung
Nymphenburg Palace, Munich

With generous support by:

DFG Deutsche
Forschungsgemeinschaft


Carl Friedrich von Siemens Stiftung

Dear Colleagues,

It is our great pleasure to welcome you to the *International Conference on Leukocyte Trafficking* organized by the Munich-based Collaborative Research Center (Sonderforschungsbereich) SFB 914 entitled “Trafficking of Immune Cells in Inflammation, Development and Disease”.

Our Collaborative Research Center was initiated by researchers of the Ludwig-Maximilians-University to conduct ambitious projects with long-term perspective on leukocyte trafficking. Being launched in 2011, our initiative focusses on the cell intrinsic migratory profiles of immune cells as a critical prerequisite for immune surveillance under physiological steady state conditions and during disease states. To date, the molecular and cellular signatures that control and organize this complex process of mammalian immune cell trafficking are still incompletely understood. It is therefore the mission of our SFB 914 to dissect the signals and mechanisms that regulate the migratory responses of distinct leukocyte subsets during inflammation, development and in disease states. A graduate school entitled “Leukocyte Trafficking” flanks our scientific efforts. All research groups of SFB 914 will present their work during the poster session.

We look forward to an intense scientific exchange and hope you will enjoy our meeting.

Welcome to Munich!



Barbara Walzog, Speaker of SFB 914
On Behalf of the Scientific Organizing Committee

Wednesday, March 14, 2018

13:00 **Barbara Walzog**

Speaker of SFB 914 (Munich, Germany)

Welcome Address

Session 1: Imaging Leukocyte Trafficking

Chairs: Barbara Walzog, Markus Sperandio

13:15-13:45 **Ronald Germain**

National Institutes of Health (Bethesda, MD, USA)

Using multiplex 2D and 3D live and static imaging to probe leukocyte biology in tissues

13:45-14:15 **Klaus Ley**

La Jolla Institute for Allergy & Immunology (La Jolla, CA, USA)

Superresolution microscopy reveals molecular patterns of activated beta2 integrins on the surface of arresting neutrophils

14:15-14:45 **Anna Huttenlocher**

University of Wisconsin-Madison (Madison, WI, USA)

Imaging inflammation and its resolution – implications to human disease

14:45-15:15 **Reinhold Förster**

Hannover Medical School (Hannover, Germany)

Homing of immune cells via afferent lymphatics

15:15-15:45 *Coffee Break*

Session 2: Neutrophils

Chairs: Christoph Reichel, Oliver Söhnlein

15:45-16:15 **Arturo Zychlinsky**

Max Planck Institute for Infection Biology (Berlin, Germany)

NETs – the second function of chromatin

16:15-16:45 **Andrés Hidalgo**

Centro Nacional de Investigaciones Cardiovasculares (Madrid, Spain)

Dynamics of neutrophils in homeostasis

16:45-17:15 **Matthias Gunzer**

University of Duisburg-Essen (Essen, Germany)

Neutrophil trafficking: From basic principles to clinical application

17:15-17:30 **Ludwig Weckbach**

Ludwig-Maximilians-Universität München (Munich, Germany)

Cardiac inflammation is driven by the cytokine Midkine mediating neutrophil trafficking and NETosis

17:30 Transfer for Speakers and PIs

18:40 Speakers' Event and Dinner

Thursday, March 15, 2018

Session 3: Leukocyte Navigation

Chairs: Ralph Böttcher, Steffen Massberg

9:00-9:30 **Paul Kubes**

University of Calgary (Calgary, AB, Canada)

Neutrophil trafficking in different organs and different inflammatory models

9:30-10:00 **Tanya Mayadas**

Brigham and Women's Hospital, Harvard Medical School (Boston, MA, USA)

Molecular control of autoantibody induced neutrophil trafficking in the kidney

10:00-10:30 **Michael Sixt**

Institute of Science and Technology Austria (Klosterneuburg, Austria)

Leukocyte navigation in complex environments

10:30-11:00 Coffee Break

Session 4: Leukocyte Transmigration

Chairs: Christian Schulz, Markus Moser

11:00-11:30 **Sussan Nourshargh**

Barts and The London School of Medicine and Dentistry (London, UK)

Neutrophil transmigration: Novel insights and mechanisms

11:30-12:00 **Dietmar Vestweber**

Max-Planck-Institute of Molecular Biomedicine (Münster, Germany)

Molecular mechanisms of leukocyte diapedesis

12:00-12:30 **William Muller**

Northwestern University (Chicago, IL, USA)

How endothelial cells regulate leukocyte transmigration

12:30-14:30 *Lunch*

Session 5: Novel Concepts in Immunology I

Chairs: **Barbara Schraml, Christoph Scheiermann**

14:30-15:00 **Paul Frenette**

Albert Einstein College of Medicine (New York, NY, USA)

Psychogenic stress, neutrophils and sickle cell vasoocclusion

15:00-15:30 **Irmgard Förster**

University of Bonn (Bonn, Germany)

CCL17 as a central mediator of inflammation and
neuro-immune interactions

15:30-16:00 **Hans-Reimer Rodewald**

German Cancer Research Center (DKFZ) (Heidelberg, Germany)

Resolving immune cell lineages and clone sizes
by endogenous barcoding

16:00-16:30 *Coffee Break*

Session 5: Novel Concepts in Immunology II

Chairs: **Julia von Blume, Konstantin Stark**

16:30-16:45 **Florian Gärtner**

Ludwig-Maximilians-Universität München (Munich, Germany)

Platelets on the move – boosters of innate immunity

16:45-17:00 **Christoph Reichel**

Ludwig-Maximilians-Universität München (Munich, Germany)

Complex formation of uPA and PAI-1 promotes myeloid
leukocyte trafficking in cancer metastasis

17:00-18:30 **Poster Session**

18:45 *Conference Dinner at "Schlosscafé im Palmenhaus"*

Friday, March 16, 2018

Session 6: T Cells

Chairs: Susanne Stutte, Christian Weber

9:00-9:30 Ulrich von Andrian

Harvard Medical School (Boston, MA, USA)

Intra- and extravascular immune surveillance by antigen-experienced T cell subsets

9:30-10:00 Victor Tybulewicz

The Francis Crick Institute (London, UK)

Novel signalling pathways controlling T cell migration and adhesion

10:00-10:30 Stefan Feske

New York University (New York, NY, USA)

Regulation of T cell metabolism and immunity by CRAC channels

10:30-11:00 Coffee Break

Session 6: T Cells & Beyond

Chairs: Rainer Haas, Thomas Brocker

11:00-11:30 Stephen Jameson

University of Minnesota (Minneapolis, MN, USA)

Factors regulating residency versus recirculation of memory CD8+ T cells

11:30-12:00 Christoph Scheiermann

Ludwig-Maximilians-Universität München (Munich, Germany)

A circadian zip code of pro-migratory factors determines rhythmic trafficking of leukocyte subsets to organs

12:00 Short Lunch

Posters by Research Projects of SFB 914

A01 Moser Differential requirement of Kindlin-3 for T cell progenitor homing to the non-vascularized and vascularized thymus

A02 Walzog Myosin 1f is specifically required for neutrophil migration in 3D environments during acute inflammation

A05 Böttcher/Fässler The role of integrin trafficking and stability for leukocyte migration

A06 Stutte/Brocke pDCs control endocrine mediators and chemokines to regulate appetite and immune cell homeostasis

A08 Klein Insights from studying patients with rare defects of neutrophil granulocytes

A09 von Blume The impact of TGN sorting in cell migration

A10 Schulz Trafficking of yolk sac macrophage progenitors to the embryo during defined stages of development

A11 Schraml *Clec9a*-mediated ablation of conventional dendritic cells reveals a lymphoid path to generating dendritic cells *in vivo*

B01 Sperandio Regulation of blood cell function during fetal ontogeny

B02 Stark/Massberg The role of pericytes in systemic leukocyte trafficking

B03 Reichel Vitronectin stabilizes intravascular adhesion of neutrophils

B05 Haas Murine *in vivo* and *in vitro* models to study the effects of *Helicobacter pylori* on leukocyte migration

B08 Weber/Söhnlein Platelets and neutrophils cooperate during monocyte recruitment

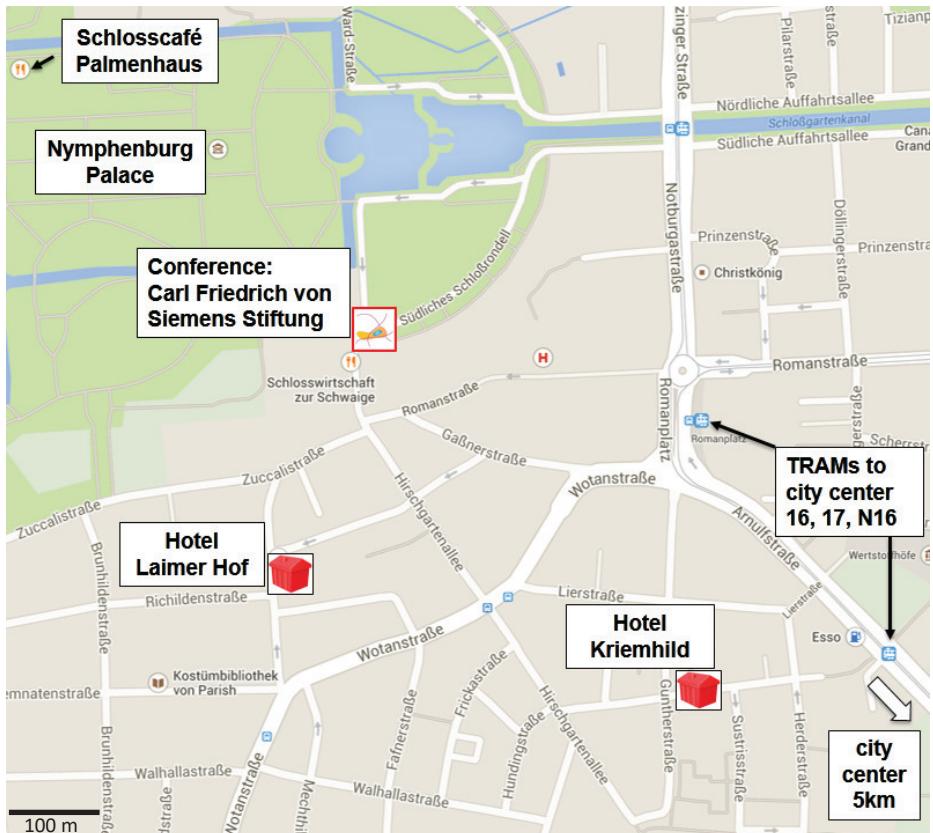
B09 Scheiermann A circadian zip code of pro-migratory factors determines rhythmic trafficking of leukocyte subsets to organs

Z01 Massberg/Khandoga 4D intravital multiphoton imaging to study immune cell trafficking in mouse models

Z03 Scheiermann/Sperandio/Walzog Fast and high-resolution imaging of leukocyte trafficking using spinning-disk confocal microscopy

Notes

Map & Addresses



Conference Venue:

Carl Friedrich von Siemens Stiftung
Südliches Schlossrondell 23, 80638 Munich

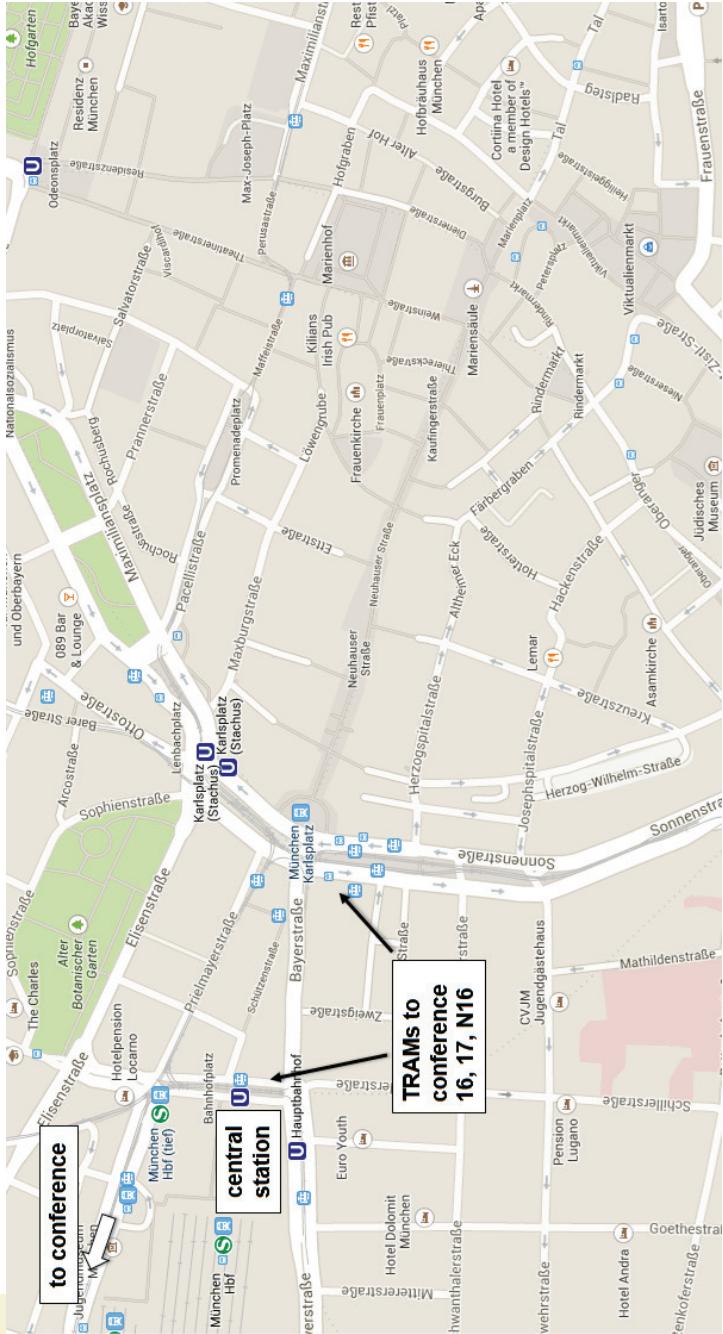
Hotels:

Hotel Laimer Hof, Laimer Straße 40, 80639 Munich, +49 (0)89-17 80 380
Hotel Kriemhild, Guntherstraße 16, 80639 Munich, +49 (0)89-17 11 170

Conference Dinner (Thursday evening):

Schlosscafé im Palmenhaus, Schloß Nymphenburg 43, 80638 München

Inner City Map



To City Center: From the conference venue go to tram stop "Romanplatz" and take Tram #16 "St. Emmeram" or Tram #17 "Schwanseestraße" – travel time ca. 11 min to Munich central station ("Hauptbahnhof")

Scientific Organizing Committee

Steffen Massberg Vice-Speaker of SFB 914

Medizinische Klinik und Poliklinik I, LMU München

Christoph Reichel Member of SFB 914

Klinik und Poliklinik für Hals-Nasen-Ohrenheilkunde, LMU München

Christoph Scheiermann Board Member of SFB 914

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Program at a Glance

	Wed	Thu	Fri
09			
10		Session 3	
11		Coffee Break	
12		Session 4	
13	Welcome	Lunch	
14	Session 1		
15	Coffee Break	Session 5	
16	Session 2	Coffee Break Session 5	
17		Poster Session	
18			
19	Speakers' Dinner	Conference Dinner at Palmenhaus	
20			
21			

Session 1: Imaging Leukocyte Trafficking

Session 2: Neutrophils

Session 3: Leukocyte Navigation

Session 4: Leukocyte Transmigration

Session 5: Novel Concepts in Immunology

Session 6: T Cells