



3<sup>rd</sup> Symposium  
**Platelets**

24<sup>th</sup> - 26<sup>th</sup> October 2019  
University Tübingen

Conference Center  
Otfried-Müller-Str. 6  
72076 Tuebingen



## 3<sup>rd</sup> Symposium Platelets

# Welcome to our conference

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### Dear Colleagues and Participants,

Platelets play a substantial role in cardiovascular diseases such as ischemic heart diseases, atherosclerosis or stroke. These cardiovascular diseases have a major medical as well as socio-economic relevance. By interacting with coagulation activating agents, platelets are critically involved in the regulation of thrombosis. They communicate with blood and vascular cells and regulate inflammation through the release of chemokines and growth factors. Platelet-derived inflammation contributes substantially to the development and progression of several diseases, e.g. atherosclerosis. The use of anti-thrombotic substances is often limited due to adverse effects, e.g. hemorrhage. The identification of platelet specific targets may result in greater therapeutic safety. In addition, new anti-thrombotic drugs may offer a broader field of application. Diseases, especially with an inflammatory element, like e.g. rheumatoid arthritis, are often affected by platelets in their pathophysiology. New therapeutical options for severe diseases could be revealed through the identification and investigation of platelet-associated mechanism, which induce or affect cardiovascular diseases.

We are pleased to announce that the 3<sup>rd</sup> Platelet Symposium will take place in Tuebingen (Germany), on 24<sup>th</sup>-26<sup>th</sup> of October 2019. The conference will cover basic research and applied science on platelet function and physiology as well as the resulting clinical implications. We will present highlights from our DFG Clinical Research Unit 274 (KFO 274) and the resultant DFG Collaborative Research Centre (SFB TR 240). Other major topics are platelets in neuronal and myocardial diseases, immunodefense, thrombo-inflammation, thrombopoiesis and thrombocytopenia. Furthermore, novel techniques to study platelet morphology, signaling and function as well as the resulting findings will be presented.

We are looking forward to a vivid discussion and exchange of experiences on these contemporary issues. Therefore, we cordially invite you to participate and wish you an informative and exciting symposium.

Yours sincerely,

Prof. Dr. Meinrad Gawaz



### Thursday, 24<sup>th</sup> October 2019

- 07:30 – 08:00 Registration and Get Together
- 08:00 – 08:05 **Welcome**
- 08:00 – 12:00 **Session I**  
Platelets – Molecular Mechanism and Translational Implications.  
Highlights from “CRU 274”
- 13:30 – 15:00 **Session II**  
Platelet Signaling
- 15:30 – 17.30 **Session III**  
Thrombopoiesis & Thrombocytopenia
- 17:30 – 18.30 **Plenary Lecture**

24<sup>th</sup>

### Friday, 25<sup>th</sup> October 2019

- 09:00 – 10:20 **Session IV**  
Novel techniques to study platelet morphology and function
- 10:50 – 12:00 **Session V**  
Immunodefense
- 13:00 – 15:00 **Session VI**  
Thrombo-Inflammation
- 15.00 – 16:30 **Poster Session**
- 16:30 – 17:30 **Session VII**  
Translational aspects
- 17:30 – 18:30 **Bench to Bedside**
- 19:30 – 21:30 **Get together at Corps Rhenania**

25<sup>th</sup>

### Saturday, 26<sup>th</sup> October 2019

- 09:00 – 10:20 **Session VIII**  
Platelets in neuronal & myocardial diseases
- 10:50 – 12:30 **Session IX**  
Platelets in diseases beyond thrombosis
- 12:30 – 15:00 **Closing Remarks**

26<sup>th</sup>



- 08:00 **Opening and Welcome Remarks**  
Meinrad Gawaz, Tuebingen
- 08:00 **Platelets - Molecular Mechanism and Translational Implications. Highlights from "CRU 274"**  
Chairs: Meinrad Gawaz, Tuebingen  
Harald Langer, Tuebingen
- 08:00 **Macrophage migration inhibitory factor (MIF) a novel ligand for the chemokine receptor CXCR7**  
Meinrad Gawaz, Tuebingen
- 08:20 **Structural analyses of Junctional Adhesion Molecules and their ligands**  
Thilo Stehle, Tuebingen
- 08:40 **Extracellular Cyclophilin A is essential for EMMPRIN - dependent cell function**  
Peter Seizer, Tuebingen
- 09:00 **CK2 $\beta$  is a critical regulator of thrombopoiesis and Ca<sup>2+</sup>-triggered platelet activation in arterial thrombosis**  
Oliver Borst, Tuebingen
- 09:20 **SICM and live imaging of single platelets**  
Tilmann E. Schäffer, Tuebingen
- 09:40 – 10:10 **Coffee Break**
- 10:10 **Imaging disruption of the Extra-Cellular Matrix using a GPVI fusion protein**  
Nicolas Bézière, Tuebingen
- 10:30 **Platelets induce apoptosis via membrane-bound FasL**  
Harald Langer, Tuebingen
- 10:50 **Value of platelet polymorphisms as risk predictor in cardiovascular patients**  
Tobias Geisler, Tuebingen



11:10 **Role of cGMP in regulation of platelet function**  
Robert Feil, Tuebingen

11:30 **Linking Thrombosis and Inflammation: Mechanisms and Therapeutic Opportunities for Platelet-Derived HMGB1**  
Sebastian Vogel, Bethesda

12:00 **Lunch Break**

13:30 **Platelet Signaling**  
Chairs: Oliver Borst, Tuebingen  
Bernhard Nieswandt, Wuerzburg

13:30 **GPVI and CLEC-2 in platelet ITAM signaling**  
Bernhard Nieswandt, Wuerzburg

14:00 **Molecular regulation of platelet secretion**  
Alastair Poole, Bristol

14:30 **The platelet Releasate in health & disease**  
Patricia Maguire, Dublin

15:00 – 15:30 **Coffee Break**

15:30 **Thrombopoiesis and Thrombocytopenia**  
Chairs: Taman Bakchoul, Tuebingen  
Markus Bender, Wuerzburg

15:30 **Regulation of Thrombopoiesis by the bone marrow vasculature**  
David Stegner, Wuerzburg

16:00 **Influence of the subendothelial matrix on platelet biogenesis**  
Harald Schulze, Wuerzburg

16:30 **Pathophysiology of Autoimmune Thrombocytopenia**  
Taman Bakchoul, Tuebingen

17:00 **Mechanisms of megakaryocyte polarisation and platelet biogenesis**  
Irina Pleines, Wuerzburg



3<sup>rd</sup> Symposium Platelets

Thursday, 24<sup>th</sup> October 2019

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Plenary Lecture

17:30

### Plenary Lecture

Chairs: Meinrad Gawaz, Tuebingen  
Oliver Borst, Tuebingen

**Hugo A. Katus**

“Major achievements to control acute coronary syndrome:  
Troponin”



- 09:00 **Novel techniques to study platelet morphology and function**  
Chairs: Robert Feil, Tuebingen  
Albert Sickmann, Dortmund
- 09:00 **Novel approaches to study platelet production**  
Markus Bender, Wuerzburg
- 09:20 **Targeted Drug Delivery to Flow-Obstructed Blood Vessels Using Mechanically Activated Nanotherapeutics**  
Netanel Korin, Haifa
- 09:40 **How changes in the platelet lipidome may modulate platelet function?**  
Robert Ahrends, Dortmund
- 10:00 **Imaging of the bone marrow *in vivo*, *in vitro* and *in silico***  
Katrin Heinze, Wuerzburg

10:20 **Coffee Break**

- 10:50 **Immunodefense**  
Chairs: Jürgen Bernhagen, Munich  
Stella Autenrieth, Tuebingen
- 10:50 **Immunothrombosis bridging innate and specific immunity**  
Andreas Greinacher, Greifswald
- 11:10 **Role of platelet serotonin in innate immune cell recruitment**  
Daniel Dürschmied, Freiburg
- 11:30 **Platelet IFITM3 and antiviral immune response**  
Matthew T. Rondina, Salt Lake City

12:00 **Lunch Break**

- 13:00 **Thrombo-Inflammation**  
Chairs: Meinrad Gawaz, Tuebingen  
Peter Rosenberger, Tuebingen
- 13:00 **Platelet Biomarkers: Implication for thrombo-inflammation and risk stratification in patients with symptomatic coronary artery disease**  
Dominik Rath, Tuebingen
- 13:30 **Platelets in rheumatoid arthritis: novel clues to a pathogenic role**  
Paolo Gresele, Perugia
- 14:00 **Cross-talk of platelets, coagulation and neutrophils in thrombus formation**  
Johan W.M. Heemskerk, Maastricht
- 14:30 **Thrombo-Inflammation in Cardiovascular Disease**  
Wolfram Ruf, Mainz

15:00 **Poster Session**

- 16:30 **Translational aspects**  
Chairs: Tobias Geisler, Tuebingen  
Peter U. Heuschmann, Wuerzburg
- 16:30 **Platelets in Cardiac Ischaemia/Reperfusion Injury - A Promising Therapeutic Target**  
Karlheinz Peter, Melbourne
- 17:00 **Recombinant GPVI-Fc and its new therapeutic applications**  
Götz Münch, Martinsried

- 17:30 **New therapeutic strategies in vascular protection**  
Chairs: Meinrad Gawaz, Tuebingen  
Oliver Borst, Tuebingen
- 17:30 **Low dose rivaroxaban in CAD and PAD**  
Amin Polzin, Duesseldorf
- 18:00 **From lipidomics to bedside: what's new in lipid-lowering therapy**  
Dominik Rath, Tuebingen

19:30 **Get together at Corps Rhenania**





09:00 **Platelet in neuronal & myocardial diseases**

Chairs: Meinrad Gawaz, Tuebingen  
Peter Seizer, Tuebingen

09:00 **Platelet-dependent injury and safeguard mechanisms in acute ischaemic stroke**  
Guido Stoll, Wuerzburg

09:20 **Role of cardio-vascular cGMP signaling for the cellular adaption to patho-/physiological stress**  
Robert Lukowski, Tuebingen

09:40 **Platelet-derived inflammatory mediators in degenerative aortic valve disease and concomitant hypertrophic cardiomyopathy**  
Karin Müller, Tuebingen

10:00 **Immunity and Inflammation in Atherosclerosis**  
Klaus Ley, La Jolla

10:30 - 11:00 **Coffee Break**

11:00 **Platelets in diseases beyond thrombosis**  
Chairs: Meinrad Gawaz, Tuebingen  
Oliver Borst, Tuebingen

11:00 **Platelet GPIIb/IIIa is a mediator and potential interventional target for NASH and subsequent liver cancer**  
Mathias Heikenwälder, Heidelberg

11:20 **Platelets in Acute Respiratory Distress Syndrome**  
Peter Rosenberger, Tuebingen

11:40 **Platelets and their role in the elimination of Plasmodium-infected red blood cells**  
Steffen Borrmann, Tuebingen

12:00 **Platelets programmed cell death ligand 1 (pPDG1) as prognostic marker in advanced lung cancer**  
Clemens Hinterleitner, Tuebingen

12:30 **Closing remarks**



## 3<sup>rd</sup> Symposium Platelets

### Chairs & Speakers

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#### **Robert Ahrends**

Group leader of Lipidomics  
Leibniz-Institut für Analytische Wissenschaften – ISAS – e.V.  
Dortmund, Germany

#### **Stella Autenrieth**

Group leader & chair of core facility flow cytometry  
Laboratory for dendritic cells  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

#### **Tamam Bakchoul**

Medical Director of Center for Clinical Transfusion Medicine  
Medical Faculty Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

#### **Nicolas Bézière**

Group Leader – Inflammation Imaging  
Werner Siemens Imaging Center  
Tuebingen, Germany

#### **Markus Bender**

Group leader – Institute of Experimental Biomedicine – Chair I  
University Hospital and Rudolf Virchow Center  
Wuerzburg, Germany

#### **Jürgen Bernhagen**

Chair of Vascular Biology, Institute for Stroke and  
Dementia Research (ISD)  
Klinikum der Universität München (KUM)  
Ludwig-Maximilians-University (LMU)  
Munich, Germany

#### **Steffen Borrmann**

Group leader – Institute for Tropical Medicine  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

#### **Oliver Borst**

Group leader – Department of Cardiology and Angiology  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

#### **Daniel Dürschmied**

Group leader – Platelets in Inflammation  
Department of Cardiology and Angiology I  
Heart Center, Faculty of Medicine, University of Freiburg  
Freiburg, Germany



**Robert Feil**

Head of the Department of Signal Transduction & Transgenic Models  
Interfaculty Institute of Biochemistry, University of Tübingen  
Tuebingen, Germany

**Meinrad Gawaz**

Medical Director of the Department of Cardiology and Angiology III  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
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**Tobias Geisler**

Group leader - Clinical trials  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

**Andreas Greinacher**

Head of the Department of Transfusion Medicine  
Institute for Immunology and Transfusion Medicine  
University Medicine of Greifswald  
Greifswald, Germany

**Paolo Gresele**

Full Professor of Internal Medicine  
Department of Medicine - Section of Internal and Cardiovascular  
Medicine  
University of Perugia  
Perugia, Italy

**Johan W.M. Heemskerk**

Full professor - Personal chair  
Department of Biochemistry  
Cardiovascular Research Institute Maastricht (CARIM)  
Maastricht University  
Maastricht, The Netherlands

**Mathias Heikenwälder**

Group leader  
Division of Chronic Inflammation and Cancer (F180)  
German Cancer Research Center  
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**Katrin Heinze**

Group leader  
Rudolf Virchow Center for Experimental Biomedicine  
University of Wuerzburg  
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**Peter U. Heuschmann**

Vice Dean (medical thesis and clinical trials)  
Faculty of Medicine  
Institute for Clinical Epidemiology and Biometry  
University of Wuerzburg  
Wuerzburg, Germany



## 3<sup>rd</sup> Symposium Platelets

### Chairs & Speakers

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#### **Clemens Hinterleitner**

Department of Hematology, Oncology, Clinical Immunology  
and Rheumatology  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

#### **Hugo A. Katus**

Medical Director of the Department of Cardiology,  
Angiology & Pulmonology  
University Hospital Heidelberg  
Heidelberg, Germany

#### **Netanel Korin**

Group leader  
Department of Biomedical Engineering  
Technion - Israel Institute of Technology  
Haifa, Israel

#### **Harald Langer**

Medical Director of the Department of Cardiology,  
Angiology & Intensive Care  
University Hospital Schleswig-Holstein  
Campus Luebeck  
Luebeck, Germany

#### **Klaus Ley**

Division Head  
Division of Inflammation Biology  
La Jolla Institute for Immunology  
La Jolla, USA

#### **Robert Lukowski**

Group leader  
Department of Pharmacology, Toxicology and Clinical Pharmacy  
Institute of Pharmacy, University of Tuebingen  
Tuebingen, Germany

#### **Patricia Maguire**

Director of UCD Institute for Discovery  
University College Dublin  
School of Biomolecular and Biomedical Science  
Conway Institute Belfield  
Dublin, Ireland

#### **Karin Müller**

Group leader  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

#### **Götz Münch**

Chief Executive Officer, AdvanceCOR GmbH  
Martinsried, Germany



### **Bernhard Nieswandt**

Professor of Experimental Biomedicine and Chair  
University Hospital and Rudolf Virchow Center  
University of Wuerzburg  
Wuerzburg, Germany

### **Karlheinz Peter**

Deputy Director (Basic and Translational Research)  
Head of the Atherothrombosis Program  
Head of the Atherothrombosis and Vascular Biology Laboratory  
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### **Irina Pleines**

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### **Amin Polzin**

Group leader  
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### **Alastair Poole**

Professor of Pharmacology and Cell Biology  
School of Physiology, Pharmacology & Neuroscience  
University of Bristol, Bristol, United Kingdom

### **Dominik Rath**

Group leader  
University Hospital Tuebingen, Eberhard Karls University Tuebingen  
Tuebingen, Germany

### **Matthew Rondina**

Associate Professor of Internal Medicine &  
Adjunct Associate Professor of Microbiology and Immunology  
Molecular Medicine Program  
University of Utah, Department of Internal Medicine  
George E. Wahlen VAMC Department of Internal Medicine and GRECC  
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### **Peter Rosenberger**

Medical Director of the Department of Anesthesiology &  
Intensive Care Medicine  
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### **Wolfram Ruf**

Scientific Director and Professor of Experimental Hemostaseology  
Center for Thrombosis and Hemostasis  
Johannes Gutenberg University Medical Center, Mainz, Germany



## 3<sup>rd</sup> Symposium Platelets

### Chairs & Speakers

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#### **Albert Sickmann**

Director of the Department of Bioanalytics, CEO  
Leibnitz – Institut für Analytische Wissenschaften – ISAS e.V.  
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#### **Tilman E. Schäffer**

Professor of Physics / Medical Engineering  
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#### **Harald Schulze**

Group leader – Experimental Hemostaseology  
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#### **Peter Seizer**

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#### **David Stegner**

Group leader  
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dicine, University of Wuerzburg  
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#### **Thilo Stehle**

Group Leader, Vice Dean for Research  
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## Scientific supervision / Organization

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# General Informations

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### Directions to the Conference Venue

University Hospital Tuebingen

**Conference Center**

Otfried-Müller-Str. 6

72076 Tübingen

**Building 520**; second floor

### By airplane

The Airport Stuttgart (STR) is approximately 35 km away from Tuebingen, which can be reached within 30 min via the B 27 by car. The bus line 828 commutes several times a day between the airport and Tuebingen main station.

Tuebingen can be reached from Frankfurt Airport (FRA) via a connecting flight to Airport Stuttgart or by train. Intercity Express trains (ICE) are connecting Tuebingen main station with Frankfurt Airport within two and a half hours.

### By train

Tuebingen main station is well connected with Stuttgart main station, which can be reached within 1 hour and offers fast connection to all major German cities.

### By public transport

Several bus lines are connecting the bus terminal at the Tuebingen main station (platform F) and Tuebingen city center to the University Hospital Campus „Uni-Kliniken Berg“.

**bus station:** Klinik Berg

**bus lines:** 5,13,17,18,19, X15, N93 & N94

### by car

The parking garages P4 and P5 are in the immediate vicinity to the conference venue (building 520) at the Campus Uni-Kliniken Berg.

From Stuttgart you can reach Tuebingen via the Autobahn A8. Leave the A8 at junction 52 Tübingen / Reutlingen. From there you are let onto the B 27 to Tuebingen. Use the second exit Tuebingen Nord, Kliniken, Kunsthalle. Follow the signalpostings Zentrum, Uni-Kliniken Berg. Turn right at the JET gas station onto the Nordring. You will reach Kliniken Berg after 5 km.





Campus Map





## General Informations

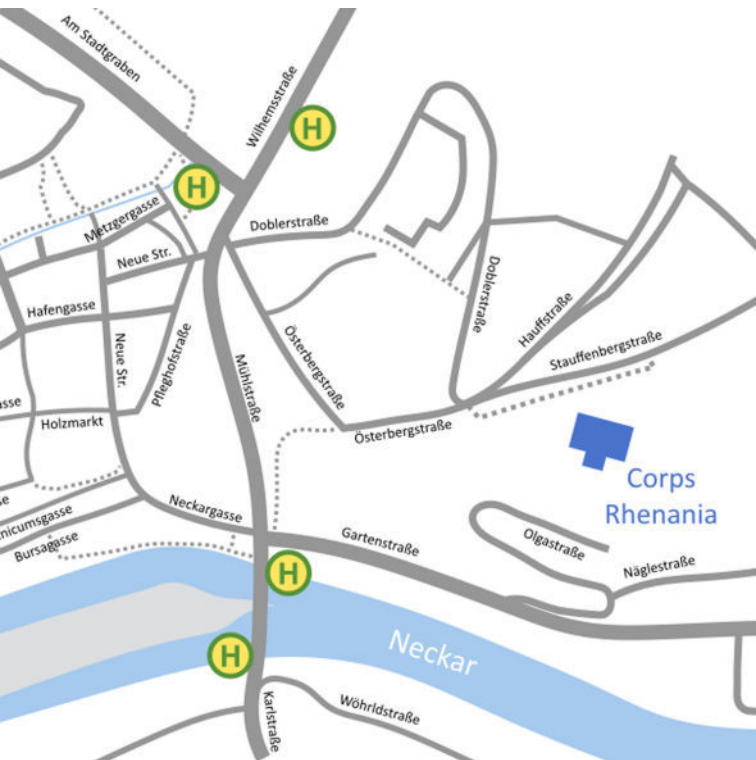
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### Directions to Corps Rhenania

The Corps Rhenania is located on the Österberg overlooking the historic city center of Tübingen as well as the river Neckar. The Corps Rhenania can be reached from the conference venue by bus at the University Hospital Campus „Uni-Kliniken Berg“. Use the bus lines 5, 13, 18 or 19 toward Tübingen Hauptbahnhof and exit at the station Neckarbrücke. The evening venue on the Österberg can be reached from the Neckarbrücke via a stair case at the corner Gartenstraße to Mühlstraße.

#### Adress:

Corps Rhenania Tübingen  
Stauffenbergstraße 4  
72074 Tübingen





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