

International  
Vascular Biology Meeting  
June 2–5, 2012  
Wiesbaden, Germany



Wiesbaden, June 2-5, 2012

**17<sup>th</sup>**  
International

Vascular Biology Meeting  
**2012**

Scientific  
Program

hosted by the „Verein  
für wissenschaftliche  
Fachtagungen in der  
Biomedizin e.V.“ (VWFB)



[www.ivbm2012.net](http://www.ivbm2012.net)



CSL Behring ist ein weltweit führendes Unternehmen im Bereich Biotherapeutika. Um die Lebensqualität von Patienten in aller Welt zu verbessern, bieten wir sichere und wirksame plasmatische und rekombinante Produkte an und stellen Patienten ein breites Spektrum weiterer Leistungen zur Verfügung.

Die Behandlung von Gerinnungsstörungen, Immundefekten, des hereditären Angioödems, Vorbeugung hämolytischer Erkrankungen bei Neugeborenen, Behandlung von Schock und Verbrennungopfern, bis hin zum Einsatz bei chirurgischen Eingriffen gehören zum Einsatzgebiet der CSL Behring.

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# Welcome Address

## Welcome to Wiesbaden and the 17<sup>th</sup> International Vascular Biology Meeting!

It is with great pleasure that we would like to welcome you all to the **17<sup>th</sup> International Vascular Biology Meeting 2012 (IVBM 2012)**, the largest meeting of its kind, and to the congress venue in Wiesbaden, the capital of the state of Hessen in Germany. Together with our friends and colleagues from the Local Organizing Committee and the International Advisory Board, we hope that you will enjoy your stay in Wiesbaden and look forward to a scientifically challenging and socially enjoyable meeting.

Many thanks to all of you who actively contributed to shaping the scientific program of the meeting. You all have made a major contribution to the now 32-year-old success story of the IVBM: The program covers all aspects of contemporary vascular biology research including the most recent developments in technology development and therapeutic translation. As such, IVBM 2012 aims at cross-fertilizing the basic and translational branches of vascular biology and medicine as well as demonstrating the latest developments in laboratory methods that are necessary to move the field forward. The core program of plenary and theme-orientated concurrent sessions with more than 90 invited speakers will be complemented by a significant number of oral presentations selected from submitted abstracts. Ample time and space has also been allocated for poster presentations and discussions; all posters will be on display for the duration of the meeting.

It is an honor for the Organizing Committee to play host to so many distinguished speakers from Europe and further afield. The Local Organizing Committee together with the Congress Management have combined their efforts to make your stay in Wiesbaden exciting, pleasant and comfortable. We sincerely hope that you will find the time to enjoy the social events including the Welcome Reception in the "Rhein-Main-Hallen" Congress Centre on Saturday evening, June 2, and that you will also be able to join us at the Congress Party at "Jagdschloss Platte" on Monday night, June 4, 2012.

**IVBM 2012** highlights include:

- 8 plenary sessions with outstanding speakers
- 30 concurrent symposia with leaders in the field and young scientists' presentations
- Poster presentations throughout the meeting
- Daily meet-the-expert sessions
- An informal job fair
- Best abstract and poster awards
- Exhibits by our industry partners

The success of a meeting primarily depends on the high quality of the scientific contributions and the enthusiasm of the speakers. We would therefore like to thank in advance all authors of submitted abstracts, speakers, chairs and moderators for helping to make what we anticipate will be a most successful and memorable congress, the IVBM 2012. Moreover, we would like to express our sincere thanks to the many financial contributors who have made this meeting possible. Above all, generous support was provided by the Deutsche Forschungsgemeinschaft. All

# Welcome Address

members of the Local Organizing Committee also made substantial financial contributions for which we are particularly thankful. Our corporate partners and sponsors were extremely loyal to the field of vascular biology, and their support is gratefully acknowledged.

We are confident that this meeting will be an intense learning expedition for all participants. We sincerely hope that it will provoke and stimulate discussions, challenge old dogmas, ignite new ideas, raise the bar of scientific excellence, and continue to foster scientific collaborations which will advance our common goal: The passion and love for the field of vascular biology research.

Make sure that you get the very best out of four intense days of science in Wiesbaden: Keep your thoughts and blood in flow.

## The IVBM 2012 Chairs



**Prof. Klaus T. Preissner**  
Justus-Liebig-University  
Giessen, Germany



**Prof. Hellmut Augustin**  
German Cancer Research Center  
(DKFZ) & Ruprecht-Karls-  
University Heidelberg, Germany



**Prof. Ingrid Fleming**  
Johann-Wolfgang-Goethe-  
University  
Frankfurt/Main, Germany



**Prof. Christian Weber**  
Ludwig-Maximilians-University  
Munich, Germany

# General Information

## **IVBM-2012 CONFERENCE OFFICE**

Daniela Dietz, IVBM2012, c/o A190, DKFZ, INF280  
69120 Heidelberg, Germany, secretariat@ivbm2012.net

## **CONFERENCE MANAGEMENT**

KelCon GmbH, c/o Jessica Mattner  
Liebigstrasse 11, 63500 Seligenstadt, Germany  
Tel. +49 (0)6182 - 94 666 17, Fax +49 (0)6182 - 94 666 44, j.mattner@kelcon.de

## **CONFERENCE DATE**

June 2 - 5, 2012

## **CONFERENCE VENUE**

Rhein-Main-Hallen GmbH, Rheinstrasse 20, 65185 Wiesbaden, Germany

## **LANGUAGE**

The official language during the meeting is English. No simultaneous translation is available.

## **INTERNET SERVICE**

Access to Internet is available at the registration desk upon request.

## **CERTIFICATE OF ATTENDANCE**

Certificates are available at the registration desk upon request.

## **CONGRESS BADGE**

The congress badge permits access to the congress from Saturday, June 2 to Tuesday, June 5, 2012. Please ensure your badge is visible at all times during the congress.  
In case of loss, we charge 5 EUR for replacement.

## **CONGRESS BAG/USB-STICK**

The congress bag, the final program as well as all submitted abstracts on a memory stick are available at the registration desk.

## **CONGRESS AND EXHIBITION HOURS**

Saturday	2 <sup>nd</sup> of June	08:45 - 18:30
Sunday	3 <sup>rd</sup> of June	08:30 - 18:35
Monday	4 <sup>th</sup> of June	08:30 - 18:30
Tuesday	5 <sup>th</sup> of June	08:30 - 17:45

## **REGISTRATION HOURS**

Saturday	2 <sup>nd</sup> of June	07:15 - 18:30
Sunday	3 <sup>rd</sup> of June	07:30 - 18:35
Monday	4 <sup>th</sup> of June	07:30 - 18:30
Tuesday	5 <sup>th</sup> of June	07:30 - 17:45

## **INDUSTRY EXHIBITION**

Setup	1 <sup>st</sup> of June	11:00 - 16:00
Tear Down	5 <sup>th</sup> of June	end of the congress, approx. 19:00

# General Information

## REGISTRATION

Registration for IVBM 2012 entitles delegates to the following:

- Entry to all scientific sessions, poster area and exhibition area
- The abstract book on USB flash drive and the final program
- Welcome reception on Saturday, June 2
- Coffee breaks

## SPEAKERS INFORMATION

All speakers and oral poster presenters giving presentations in scientific sessions are requested to come to the session room at least 30 minutes before the start of the session to connect your computer to the VGA switcher or load your presentation.

## POSTER AREA

Hang up 1<sup>st</sup> of June 14:00 - 17:00

Tear down 5<sup>th</sup> of June 14:00 - 17:00 (after Poster Session IV)

## POSTER SESSIONS

Poster presenters are kindly requested to be available at their posters during the indicated poster session (see program). Posters will be on display for the duration of the meeting. All posters will be reviewed by experts between Saturday and Monday.

Poster Session I: Saturday 2<sup>nd</sup> of June 13:00 - 14:45

Poster Session II: Sunday 3<sup>rd</sup> of June 13:00 - 14:45

Poster Session III: Monday 4<sup>th</sup> of June 13:00 - 14:45

Poster Session IV: Tuesday 5<sup>th</sup> of June 12:30 - 14:00

## MEET THE EXPERT / JOB FAIR

For further information please contact the registration desk.

## COFFEE BREAKS

Coffee breaks will take place within the exhibition area.

## RESTAURANT

During lunch hours the Congress Center inhouse restaurant is opened. Several restaurants are located in walking distance around the Congress Center.

## WELCOME RECEPTION

The welcome reception will take place in the exhibition and poster area following the plenary session II on Saturday, June 2, 18:30.

## SOCIAL EVENT

Join us in a friendly and relaxed atmosphere on Monday, June 4 at the „Jagdschloss Platte“ in Wiesbaden. Shuttle buses will depart from the congress center from 19:15 - 19:45.

Make sure to bring your white bracelet, which will be handed out at the registration desk to participants who have registered for the social event.

## The History of the International Vascular Biology Meeting (IVBM)

Meeting	Year	Location	Organisers
XVII	2012	Wiesbaden, Germany	Klaus T. Preissner, Hellmut Augustin, Ingrid Fleming, Christian Weber
XVI	2010	Los Angeles, USA	Luise Iruela-Arispe, Klaus Ley, Mark Ginsberg, Alan Fogelman
XV	2008	Sydney, Australia	Levon Khachigian, Michael Berndt, Colin Chesterman, Wendy Jessup, Julie Campbell
XIV	2006	Noordwijkerhout, Netherlands	Victor van Hinsbergh, Ton Rabelink, Mat Daemen, Hans Pannekoek, Adriana Gittenberger-de Groot, John Kasteleijn
XIII	2004	Toronto, Canada	Avrum Gottlieb, B. Lowell Langille
XII	2002	Karuizawa, Japan	Yoshio Yasaki, Fujio Numano
XI	2000	Geneva, Switzerland	Guillo Gabbiani et al.
X	1998	Seattle, USA	Stephan Schwartz, Russell Ross
IX ‡	1996	Cairns, Australia	Mathew Vadas, Julie Campbell, Jennifer Gamble
VIII	1994	Heidelberg, Germany	Werner Risau
VII	1992	San Diego, USA	David Loskutoff
VI †	1990	Paris, France	Jacques Caen, Jean-Luc Wautier
V	1988	Toronto, Canada	Michael Buchanan et al.
IV	1986	Noordwijkerhout, Netherlands	Pieter Brakman, Victor van Hinsbergh
III	1984	Cambridge, USA	Judah Folkman, Ramzi Cotran, Michael Gimbrone
II **	1982	Cambridge, UK	John Gordon, Jeremy Pearson
I *	1980	Cold Spring Harbor, USA	Eric Jaffe, Stephen Blöse, Hymie Nossel

\* A small gathering called "Symposium on the Biology of the Vascular Endothelial Cell"

\*\* 2nd "International Symposium on the Biology of the Vascular Endothelial Cell" (ISBVEC)

† Meeting changed title to "International Symposium on the Biology of Vascular Cells" (ISBVC)

‡ After formation of the North American Vascular Biology Organisation (NAVBO), the meeting changed its title to "International Vascular Biology Meeting" (IVBM)



## Scientific Organizers

Klaus T. Preissner (Giessen, Germany)  
Hellmut Augustin (Heidelberg, Germany)

Ingrid Fleming (Frankfurt, Germany)  
Christian Weber (Munich, Germany)

## International Advisory Board

Lena Claesson-Welsh (Sweden)  
Elisabetta Dejana (Italy)  
Michael Detmar (Switzerland)  
Francoise Dignat-George (France)  
Jozef Dulak (Poland)  
David Garcia-Dorado (Spain)  
Avrum Gotlieb (Canada)  
Göran K. Hansson (Sweden)  
Timothy Hla (USA)  
Luisa Iruela-Arispe (USA)  
Eli Keshet (Israel)  
Levon Khachigian (Australia)  
Gou Young Koh (Republic of Korea)  
Klaus Ley (USA)  
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Ryuichi Morishita (Japan)  
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William Sessa (USA)  
Alain Tedgui (France)  
Paul M. Vanhoutte (China)  
Victor van Hinsbergh (The Netherlands)  
Dietmar Vestweber (Germany)  
Steve Watson (United Kingdom)

## Local Organizing Committee

Ralf Adams (Muenster)  
Hellmut Augustin (Heidelberg)  
Jürgen Bernhagen (Aachen)  
Christoph Bode (Freiburg)  
Thomas Eschenhagen (Hamburg)  
Ingrid Fleming (Frankfurt)  
Hans-Peter Hammes (Mannheim)  
Karl-Ludwig Laugwitz (Munich)  
Steffen Massberg (Munich)

Klaus T. Preissner (Giessen)  
Walter Rosenthal (Berlin)  
Werner Seeger (Giessen)  
Markus Sperandio (Munich)  
Cord Sunderkötter (Muenster)  
Norbert Suttrop (Berlin)  
Christian Weber (Munich)  
Otmar D. Wiestler (Heidelberg)

# Acknowledgements

We acknowledge all our institutional partner organisations

**DFG** Deutsche  
Forschungsgemeinschaft



**BMBF**  
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VASCULAR BIOLOGY  
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# Scientific Program at a Glance

<b>Saturday, June 02, 2012</b>				
	<b>Room 7</b>	<b>Room 6.1</b>	<b>Room 6.2</b>	<b>Room 11</b>
08:45 - 09:45	Welcome + Plenary Session I	Welcome + Plenary Session I	Welcome + Plenary Session I	
09:45 - 10:15	COFFEE BREAK			
10:15 - 12:15	Angiogenesis in Development	Organotypic Vasculature	Atherogenesis I	Hypoxia and Metabolism
12:15 - 13:00	LUNCH			
13:00 - 14:45	Room 12 Poster Session I			
14:45 - 16:45	Lymphangiogenesis	Survival and Apoptosis	Lipid Signaling	Atherogenesis II
16:45 - 17:10	COFFEE BREAK			
17:10 - 18:30	Plenary Session II	Plenary Session II	Plenary Session II	
18:30	GET TOGETHER - WELCOME PARTY CONGRESS CENTER			


<b>Sunday, June 03, 2012</b>				
	<b>Room 7</b>	<b>Room 6.1</b>	<b>Room 6.2</b>	<b>Room 11</b>
08:30 - 09:50	Plenary Session III	Plenary Session III	Plenary Session III	
09:50 - 10:15	COFFEE BREAK			
10:15 - 12:15	Signaling in Angiogenesis	Microparticles	Genetic Diseases	Cardiopulmonary System
12:15 - 13:00	LUNCH			
13:00 - 14:45	Room 12 Poster Session II			
14:45 - 16:45	Inflammation I	Vascular Signaling		Vascular Diseases
16:45 - 17:15	COFFEE BREAK			
17:15 - 18:35	Plenary Session IV	Plenary Session IV	Plenary Session IV	
19:30	SPEAKERS' DINNER			

# Scientific Program at a Glance



<b>Monday, June 04, 2012</b>				
	<b>Room 7</b>	<b>Room 6.1</b>	<b>Room 6.2</b>	<b>Room 11</b>
08:30 - 09:50	Plenary Session V	Plenary Session V	Plenary Session V	
09:50 - 10:15	COFFEE BREAK			
10:15 - 12:15	Stem Cell Biology	Inflammation II	Angiogenesis in Pathology	Proteases
12:15 - 13:00	LUNCH			
13:00 - 14:45	Room 12 Poster Session III			
14:45 - 16:45	Neurovascular Interface	Barrier and Permeability	Infection and Immunity	Platelets
16:45 - 17:10	COFFEE BREAK			
17:10 - 18:30	Plenary Session VI	Plenary Session VI	Plenary Session VI	
20:00	SOCIAL EVENT AT JAGDSCHLOSS PLATTE			

<b>Tuesday, June 05, 2012</b>				
	<b>Room 7</b>	<b>Room 6.1</b>	<b>Room 6.2</b>	<b>Room 11</b>
08:30 - 09:50	Plenary Session VII	Plenary Session VII	Plenary Session VII	
09:50 - 10:15	COFFEE BREAK			
10:15 - 11:45	Endothelium and Pericytes	Blood-Brain Barrier	Integrins and ECM	Late-Breaking News Session
11:45 - 12:30	LUNCH			
12:30 - 14:00	Room 12 Poster Session IV			
14:00 - 15:30	Micro-RNA	Vascular Models	Mechano-transduction	Imaging
15:30 - 16:00	COFFEE BREAK			
16:00 - 17:45	Plenary Session VIII + Closing Remarks	Plenary Session VIII + Closing Remarks	Plenary Session VIII + Closing Remarks	
17:45	END OF CONGRESS AND DEPARTURE			

# Scientific Program – Saturday, June 02, 2012

	Room 7	Room 6.1
08:45 -09:45	<b>Welcome + Plenary Session I</b> Chair: Klaus T. Preissner (Giessen, Germany)	<b>Welcome + Plenary Session I</b> Chair: Klaus T. Preissner (Giessen, Germany)
08:45	Welcome and introduction	Welcome and introduction
09:05	<b>Plasticity of endothelial cell junctions in health and disease</b> Donald McDonald (San Francisco, USA)	<b>Plasticity of endothelial cell junctions in health and disease</b> Donald McDonald (San Francisco, USA)
09:45 -10:15	<b>COFFEE BREAK</b>	
10:15 -12:15	<b>Angiogenesis in Development</b> Chair: Dietmar Vestweber (Muenster, Germany)	<b>Organotypic Vasculature</b> Chair: Francoise Dignat-George (Marseille, France)
10:15	<b>Angiogenesis in zebrafish</b> Brant Weinstein (Bethesda, USA)	<b>Transient receptor potential channels and cardiovascular function</b> Thomas Gudermann (Munich, Germany)
10:45	<i>selected abstract:</i> <b>Notch-dependent VEGFR3 upregulation enables angiogenesis without VEGF/VEGFR2 signalling</b> Rui Benedetto (Muenster, Germany)	<i>selected abstract:</i> <b>Functional human endothelium for personalized cell based assays</b> William Adams (Boston, USA)
11:00	<b>Developmental clues in vascular maturation and repair</b> Adriana Gittenberger-de Groot (Leiden, The Netherlands)	<b>Organotypic endothelial differentiation and functions: The liver paradigm</b> Sergij Goerd (Mannheim, Germany)
11:30	<i>selected abstract:</i> <b>A single transcription factor, Tcf21, is required for cell fate determination of cardiac fibroblasts</b> Michelle Tallquist (Dallas, USA)	<i>selected abstract:</i> <b>Endothelial cells act as a rheostat of liver regeneration through an autocrine Angiopoietin-2 loop</b> Junhao Hu (Heidelberg, Germany)
11:45	<b>Regulation of dynamic endothelial cell rearrangements during angiogenic sprouting and remodelling</b> Holger Gerhardt (London, UK)	<b>Angiogenic factors and glomerular barrier function</b> Susan Quaggin (Toronto, Canada)
	<i>presented by: Max-Planck-Institute for Molecular Biomedicine Münster</i>	
12:15 -13:00	<b>LUNCH</b>	
13:00 -14:45	<b>Room 12 Poster Session I</b>	

# Scientific Program – Saturday, June 02, 2012

	Room 6.2	Room 11
08:45 -09:45	<b>Welcome + Plenary Session I</b> Chair: Klaus T. Preissner (Giessen, Germany)	
08:45	Welcome and introduction	
09:05	<b>Plasticity of endothelial cell junctions in health and disease</b> Donald McDonald (San Francisco, USA)	
09:45 -10:15	<b>COFFEE BREAK</b>	
10:15 -12:15	<b>Atherogenesis I</b> Chair: Michael Detmar (Zurich, Switzerland)	<b>Hypoxia and Metabolism</b> Chair: Hans-Peter Hammes (Mannheim, Germany)
10:15	<b>Plaque microenvironments, metalloproteinases and macrophage phenotypes</b> Andrew Newby (Bristol, UK)	<b>Hypoxia and cancer cell adaptation to metabolic stress</b> Celeste Simon (Philadelphia, USA)
10:45	<i>selected abstract:</i> CD40L deficiency ameliorates diet-induced adipose tissue inflammation - but does not protect from insulin resistance and hepatic steatosis in mice Dennis Wolf (Freiburg, Germany)	<i>selected abstract:</i> SR-BI expressed by lymphatic vessels is required for removal of cholesterol from peripheral tissues Veronique Angeli (Singapore, Republic of Singapore)
11:00	<b>Neutrophils as target cells to reduce atherosclerosis-related myocardial injury</b> Francois Mach (Geneva, Switzerland)	<b>Metabolism switching is essential for endothelial migration and angiogenesis</b> Raghu Kalluri (Boston, USA)
11:30	<i>selected abstract:</i> RGS-5 attenuates smooth muscle cell contraction during arteriogenesis Thomas Korff (Heidelberg, Germany)	<i>selected abstract:</i> AMP-activated protein kinase (AMPK) induces vasodilation of microvessels by two different mechanisms Kai Michael Schubert (Munich, Germany)
11:45	<b>Macrophage phenotypic diversity and the resolution of inflammation in atherosclerotic plaques</b> Edward A. Fisher (New York, USA)	<b>Hypoxia, metabolism and cancer – novel anticancer approaches</b> Jacques Pouyssegur (Nice, France)
	<i>presented by: DFG Forschergruppe 809</i>	<i>presented by: DFG-Int. Research Training Group 880</i>
		
12:15 -13:00	<b>LUNCH</b>	
13:00 -14:45	<b>Room 12 Poster Session I</b>	

# Scientific Program – Saturday, June 02, 2012

	Room 7	Room 6.1
14:45 -16:45	<b>Lymphangiogenesis</b> Chair: Michael Simons (New Haven, USA)	<b>Survival and Apoptosis</b> Chair: Stefan Liebner (Frankfurt, Germany)
14:45	<b>Mechanoinduction of lymph vessel expansion</b> Eckhard Lammert (Duesseldorf, Germany)	<b>Control of vascular growth and homeostasis through Foxo and Sirtuin pathways</b> Michael Potente (Frankfurt, Germany)
15:15	<i>selected abstract:</i> <b>Visualization of the initial steps of lymphatic vessel development and the role of CCBE1 in this process using ultramicroscopy</b> Friedemann Kiefer (Muenster, Germany)	<i>selected abstract:</i> <b>Imbalance between apoptosis and autophagy mediates protective effect of high-density lipoproteins in experimental abdominal aneurysm development</b> Grisha Pirianov (London, UK)
15:30	<i>EMBO Young Investigator Lecture:</i> <b>Morphogenesis of the lymphatic vascular system</b> Tajiia Makinen (London, UK)	<b>Signaling cascade of endostatin: From cell surface binding to nucleus internalization</b> Yongzhang Luo (Beijing, Republic of China)
16:00	<i>selected abstract:</i> <b>Hyaluronan oligosaccharides induce lymphangiogenesis through LYVE-1</b> Jochen Bauer (Eggenstein-Leopoldshafen, Germany)	<i>selected abstract:</i> <b>EC4-Fc, a ~50kDa fragment of N-cadherin, reduces apoptosis and promotes atherosclerotic plaque stability</b> Cressida Lyon (Bristol, UK)
16:15	<b>Control of lymphatic maturation and function in health and disease</b> Michael Detmar (Zurich, Switzerland)	<b>Ubiquitin and autophagy networks</b> Ivan Dikic (Frankfurt, Germany)
16:45 -17:10	<b>COFFEE BREAK</b>	
17:10 -18:30	<b>Plenary Session II</b> Chair: Yasufumi Sato (Sendai, Japan)	<b>Plenary Session II</b> Chair: Yasufumi Sato (Sendai, Japan)
17:10	<b>Endothelial heterogeneity: The basis and molecular support to organ-specific physiological needs</b> Luisa Iruela-Arispe (Los Angeles, USA)	<b>Endothelial heterogeneity: The basis and molecular support to organ-specific physiological needs</b> Luisa Iruela-Arispe (Los Angeles, USA)
17:50	<b>The VEGF family: The next generation</b> Kari Alitalo (Helsinki, Finland)	<b>The VEGF family: The next generation</b> Kari Alitalo (Helsinki, Finland)
18:30	<b>GET TOGETHER - WELCOME PARTY CONGRESS CENTER</b>	



# Scientific Program – Saturday, June 02, 2012


	Room 6.2	Room 11
14:45 -16:45	<b>Lipid Signaling</b> Chair: William Sessa (New Haven, USA)	<b>Atherogenesis II</b> Chair: Gerd Schmitz (Regensburg, Germany)
14:45	<b>The essential role for sphingosine-1-phosphate transporter Spns2 of vascular endothelial cells in lymphocyte egress from lymphoid organs</b> Naoki Mochizuki (Osaka, Japan)	<b>Co-stimulation in atherosclerosis and obesity</b> Esther Lutgens (Amsterdam, The Netherlands)
15:15	<u>selected abstract:</u> <b>11,12 EET contributes to acute hypoxic pulmonary vasoconstriction by stimulating the association of <math>\alpha</math> and <math>\beta</math>1 subunits of mitochondrial BK channels</b> Isabelle Moneke (Frankfurt, Germany)	<u>selected abstract:</u> <b>Procontractile G-protein-mediated signaling pathways antagonistically regulate smooth muscle differentiation in vascular remodelling</b> Till Althoff (Berlin, Germany)
15:30	<b>Sphingosine 1-phosphate signaling via its G protein-coupled receptors</b> Timothy Hla (New York, USA)	<b>Novel functions of HDL relevant to atherogenesis</b> Alan Tall (New York, USA)
16:00	<u>selected abstract:</u> <b>Intracellular transport of full functional lipid loaded lysosomes from macrophages into vascular smooth muscle cells during cell-cell contacts and their subsequent phenotypical alteration</b> Sönke Weinert (Magdeburg, Germany)	<u>selected abstract:</u> <b>Nuclear receptor Nur77 is anti-inflammatory in macrophages and reduces atherosclerosis</b> Anouk Hamers (Amsterdam, The Netherlands)
16:15	<b>Sphingosine kinase 1 and sphingosine-1-phosphate involvement in angiogenesis and lymph-angiogenesis during breast cancer progression</b> Sarah Spiegel (Richmond, USA)	<b>Regulation of the (auto)immune response in atherosclerosis</b> Ziad Mallat (Cambridge, UK)
		presented by: <b>Deutsches Zentrum für Herz-Kreislauf-Forschung e.V.</b>  <b>DZHK</b>
16:45 -17:10	<b>COFFEE BREAK</b>	
17:10 -18:30	<b>Plenary Session II</b> Chair: Yasufumi Sato (Sendai, Japan)	
17:10	<b>Endothelial heterogeneity: The basis and molecular support to organ-specific physiological needs</b> Luisa Iruela-Arispe (Los Angeles, USA)	
17:50	<b>The VEGF family: The next generation</b> Kari Alitalo (Helsinki, Finland)	
18:30	<b>GET TOGETHER - WELCOME PARTY CONGRESS CENTER</b>	

	Room 7	Room 6.1
08:30 -09:50	<b>Plenary Session III</b> Chair: Susan Quaggin (Toronto, Canada)	<b>Plenary Session III</b> Chair: Susan Quaggin (Toronto, Canada)
08:30 - 09:10	<b>Regulation of endothelial junctions</b> Dietmar Vestweber (Muenster, Germany)	<b>Regulation of endothelial junctions</b> Dietmar Vestweber (Muenster, Germany)
09:10 -09:50	<b>Vascular biomarkers</b> Thomas Wang (Boston, USA)	<b>Vascular biomarkers</b> Thomas Wang (Boston, USA)
09:50 - 10:15	<b>COFFEE BREAK</b>	
10:15 -12:15	<b>Signaling in Angiogenesis</b> Chair: Markus Hecker (Heidelberg, Germany)	<b>Microparticles</b> Chair: Steve Watson (Manchester, UK)
10:15	<b>Roles of Wnt antagonists, Dickkopf1 and Dickkopf2, in regulating angiogenesis</b> Young-Guen Kwon (Seoul, Korea)	<b>Multifaced endothelial microparticles</b> Francoise Dignat-George (Marseille, France)
10:45	<i>selected abstract:</i> <b>TSAd controls VEGF-induced angiogenic sprouting via Src activation downstream of VEGFR2</b> Simone Kutschera (Uppsala, Sweden)	<i>selected abstract:</i> <b>Natural IgM antibodies protect from atherosclerosis by binding circulating microparticles resulting in neutralization of their proinflammatory activities and regulation of splenic B cell maturation</b> Dimitrios Tsiantoulas (Vienna, Austria)
11:00	<b>Integrative signaling in arteriogenesis</b> Michael Simons (New Haven, USA)	<b>Microparticles, vascular function and atherothrombosis</b> Chantal Boulanger (Paris, France)
11:30	<i>selected abstract:</i> <b>VEGF dose negatively regulates the stabilization of newly induced vessels by inhibiting the Sema3A/Nrp1+CD11b+monocytes/TGF-<math>\beta</math>1 axis</b> Elena Groppa (Basel, Switzerland)	<i>selected abstract:</i> <b>A new therapeutic modality for ischemia-reperfusion injury: Nanoparticle-mediated delivery of pitavastatin into reperfused myocardium reduces ischemia/reperfusion injury in rats</b> Kazuhiro Nagaoka (Fukuoka, Japan)


# Scientific Program – Sunday, June 03, 2012

	Room 6.2	Room 11
08:30 -09:50	<b>Plenary Session III</b> Chair: Susan Quaggin (Toronto, Canada)	
08:30 -09:10	<b>Regulation of endothelial junctions</b> Dietmar Vestweber (Muenster, Germany)	
09:10 -09:50	<b>Vascular biomarkers</b> Thomas Wang (Boston, USA)	
09:50 -10:15	<b>COFFEE BREAK</b>	
10:15 -12:15	<b>Genetic Diseases</b> Chair: Levon Khachigian (Sydney, Australia)	<b>Cardiopulmonary System</b> Chair: Norbert Weissmann (Giessen, Germany)
10:15	<b>CCM1 and Notch signaling in the endothelium and the formation of vascular malformations</b> Andreas Fischer (Heidelberg, Germany)	<b>Pulmonary hypertension: Therapies beyond vasodilatation</b> Ralph Schermuly (Giessen, Germany)
10:45	<i>selected abstract:</i> <b>CCM1/ICAP-1 complex controls <math>\beta</math>1 integrin-dependent extracellular matrix remodeling and vascular integrity</b> Eva Faurobert (Grenoble, France)	<i>selected abstract:</i> <b>Characterization of lung microvascular endothelium from pulmonary arterial hypertension patients under high shear stress</b> Robert Szulcek (Amsterdam, The Netherlands)
11:00	<b>Vascular malformations and lymphedema: Etiopathogenic mechanisms</b> Miiikka Vikkula (Brussels, Belgium)	<b>VEGF-mediated vascular perturbations in the developing and adult lung</b> Eli Keshet (Jerusalem, Israel)
11:30	<i>selected abstract:</i> <b>BMP9 regulation of angiogenic sprouting through an Akt1-BMPRII/ActRII-ID1/ID3-dependent pathway: Implications for hereditary hemorrhagic telangiectasia type II</b> Christopher Hughes (Irvine, USA)	<i>selected abstract:</i> <b>RNase1 protects against cardiac ischemia/reperfusion injury</b> Hector Cabrera-Fuentes (Giessen, Germany)


	Room 7	Room 6.1
11:45	<p><i>selected abstract:</i>  <b>Tissue factor and PAR1 promote microbiota-induced intestinal vascular remodeling</b>                      Christoph Reinhardt (Mainz, Germany)</p>	<p><b>Platelet concentrate extracellular vesicle (PLC-EV) subclasses are carriers of biomarkers involved in vascular/metabolic- and neurological disease</b>                      Gerd Schmitz (Regensburg, Germany)</p>
12:00	<p><i>selected abstract:</i>  <b>Inflammatory activities of extracellular RNA in the vascular system are connected with cytokine release from monocytes</b>                      Silvia Fischer (Giessen, Germany)</p>	
	<p><i>presented by:</i>  <b>DFG-SFB/Transregio 23</b></p>	
12:15 -13:00	<b>LUNCH</b>	
13:00 -14:45	<b>Room 12 Poster Session II</b>	
14:45 -16:45	<p><b>Inflammation I</b>                      Chair: Jürgen Bernhagen (Aachen, Germany)</p>	<p><b>Vascular Signaling</b>                      Chair: Jozef Dulak (Krakow, Poland)</p>
14:45	<p><b>DEL-1, an endogenous anti-inflammatory agent</b>                      Triantafyllos Chavakis (Dresden, Germany)</p>	<p><b>Roles of thromboxane receptor signaling in enhancement of angiogenesis</b>                      Masataka Majima (Kanagawa, Japan)</p>
15:15	<p><i>selected abstract:</i>  <b>The Rho-GEF Trio controls leukocyte trans-endothelial migration by promoting docking structure formation</b>                      Jaap van Buul (Amsterdam, The Netherlands)</p>	<p><i>selected abstract:</i>  <b>Notch signaling and flow control blood vessel pruning in zebrafish embryos</b>                      Arndt Siekmann (Muenster, Germany)</p>
15:30	<p><b>Leukocyte CD47 functions as an important modulator of the innate and adoptive immune system during inflammation</b>                      F. William Luscinskas (Boston, USA)</p>	<p><b>Signaling events regulating collateral arterial network development in ischemic cardiovascular disease</b>                      Ferdinand LeNoble (Berlin, Germany)</p>

	Room 6.2	Room 11
11:45	<p><i>selected abstract:</i></p> <p><b>Identification of a novel KRIT1 interactor involved in the control of actin cytoskeleton dynamics and cell resistance to oxidative stress</b></p> <p>Saverio Retta (Torino, Italy)</p>	<p><b>Development of form and function of the zebrafish heart</b></p> <p>Didier Stainier (San Francisco, USA/ Bad Nauheim, Germany)</p>
12:00		
		<p>presented by: <i>Excellence Cluster Cardio-Pulmonary System (ECCPS)</i></p> 
12:15 -13:00	<b>LUNCH</b>	
13:00 -14:45	<b>Room 12 Poster Session II</b>	
14:45 -16:45		<p><b>Vascular Diseases</b></p> <p>Chair: Martin Moser (Freiburg, Germany)</p>
14:45		<p><b>Role of dendritic cells in atherosclerosis</b></p> <p>Alma Zerneck (Wuerzburg, Germany)</p>
15:15		<p><i>selected abstract:</i></p> <p><b>Endothelial cell specific deletion of tissue factor attenuates inflammation but not coagulation in mouse model of sickle cell disease</b></p> <p>Rafal Pawlinski (Chapel Hill, USA)</p>
15:30		<p><b>Thrombo-inflammation in akute stroke</b></p> <p>Bernhard Nieswandt (Wuerzburg, Germany)</p>

# Scientific Program – Sunday, June 03, 2012


	Room 7	Room 6.1
16:00	<p><i>selected abstract:</i></p> <p><b>Anti-inflammatory vascular effects of resveratrol are mediated by the RNA binding protein KSRP</b> Andrea Pautz (Mainz, Germany)</p>	<p><i>selected abstract:</i></p> <p><b>Stalk cell phenotype depends on integration of Notch and Smad1/5 signaling cascades</b> An Zwijsen (Leuven, Belgium)</p>
16:15	<p><b>How the „endothelial cell lateral border recycling-compartment“ regulates transmigration</b> William Muller (Chicago, USA)</p>	<p><b>Requirement of endothelial stem-like cells and Tie2-APJ axis for mature blood vessel formation</b> Nobuyuki Takakura (Osaka, Japan)</p>
	<p><i>presented by: „EuCAR“:</i> <i>Int. Research Training Group 1508</i></p>	
16:45 - 17:15	<b>COFFEE BREAK</b>	
17:15 - 18:35	<p><b>Plenary Session IV</b> Chair: Ingrid Fleming (Frankfurt, Germany)</p>	<p><b>Plenary Session IV</b> Chair: Ingrid Fleming (Frankfurt, Germany)</p>
17:15	<p><b>Targeting the angiogenic extracellular matrix with armed antibodies: From the bench to the clinic</b> Dario Neri (Zurich, Switzerland)</p>	<p><b>Targeting the angiogenic extracellular matrix with armed antibodies: From the bench to the clinic</b> Dario Neri (Zurich, Switzerland)</p>
17:55	<p><b>Molecular circuits in thrombosis and inflammation</b> Charles Esmon (Oklahoma City, USA)</p>	<p><b>Molecular circuits in thrombosis and inflammation</b> Charles Esmon (Oklahoma City, USA)</p>
18:35	<b>PROGRAM END SUNDAY</b>	
19:30	<b>SPEAKERS' DINNER</b>	

# Scientific Program – Sunday, June 03, 2012



	Room 6.2	Room 11
16:00		<p><i>selected abstract:</i></p> <p>Sources and targets of oxidative stress in vascular diseases Harald Schmidt (Maastricht, The Netherlands)</p>
16:15		<p>Tissue factor in inflammation and thrombosis Wolfram Ruf (La Jolla, USA)</p>
		<p><i>presented by: GTH Gesellschaft für Thrombose- und Hämostaseforschung e.V.</i></p> 
16:45 - 17:15	<b>COFFEE BREAK</b>	
17:15 - 18:35	<p><b>Plenary Session IV</b> Chair: Ingrid Fleming (Frankfurt, Germany)</p>	
17:15	<p><b>Targeting the angiogenic extracellular matrix with armed antibodies: From the bench to the clinic</b> Dario Neri (Zurich, Switzerland)</p>	
17:55	<p><b>Molecular circuits in thrombosis and inflammation</b> Charles Esmon (Oklahoma City, USA)</p>	
18:35	<b>PROGRAM END SUNDAY</b>	
19:30	<b>SPEAKERS' DINNER</b>	

	Room 7	Room 6.1
08:30 -09:50	<b>Plenary Session V</b> Chair: Gou Young Koh (Daejeon, Korea)	<b>Plenary Session V</b> Chair: Gou Young Koh (Daejeon, Korea)
08:30	<b>Metabolic and homeostatic functions of the endothelium</b> Peter Carmeliet (Leuven, Belgium)	<b>Metabolic and homeostatic functions of the endothelium</b> Peter Carmeliet (Leuven, Belgium)
09:10	<b>Hypoxia regulation in the vascular system</b> Randall Johnson (San Diego, USA)	<b>Hypoxia regulation in the vascular system</b> Randall Johnson (San Diego, USA)
09:50 - 10:15	<b>COFFEE BREAK</b>	
10:15 -12:15	<b>Stem Cell Biology</b> Chair: Steffen Massberg (Munich, Germany)	<b>Inflammation II</b> Chair: Markus Sperandio (Munich, Germany)
10:15	<b>Hematopoietic stem cells in the hypoxic niche</b> Toshio Suda (Tokyo, Japan)	<b>Therapeutic targeting of the chemokine system in atherosclerosis</b> Rory Koenen (Munich, Germany)
10:45	<i>selected abstract:</i> <b>Peroxisome proliferator activated receptor <math>\gamma</math>: A regulator of endothelial progenitor cell fate</b> Kate Parham (Adelaide, Australia)	<i>selected abstract:</i> <b>Transfer of H-Ras protein from endothelium to interacting leukocytes</b> Elisabeth Buchberger (Vienna, Austria)
11:00	<i>selected abstract:</i> <b>Diverse roles of protein kinase A signaling in early stage endothelial cell differentiation</b> Jun Yamashita (Kyoto, Japan)	<b>Role of inflammasomes in atherogenesis</b> Eicke Latz (Bonn, Germany)
11:30	<i>selected abstract:</i> <b>Cyclic strain modulates IPS cell differentiation to VSMC: Role of Notch1</b> Shaunta Guha (London, UK)	<i>selected abstract:</i> <b>Therapeutic benefit of urocortin in intracerebral hemorrhage</b> Cheng Yoong Pang (Hualien, Taiwan)
11:45	<b>Vascular niche-derived angiocrine signals in the regulation of stem cell homeostasis</b> Shahin Rafii (New York, USA)	<b>How antigen-specific interactions between CD4 T cells and antigen-presenting cells in the aortic wall influence atherosclerosis in ApoE<sup>-/-</sup> mice</b> Klaus Ley (San Diego, USA)
	presented by: <b>DFG Forschergruppe 923</b>  FOR923	presented by: <b>Gesellschaft für Mikro-zirkulation und Vasculäre Biologie e.V.</b> 





	Room 6.2	Room 11
08:30 -09:50	<b>Plenary Session V</b> Chair: Gou Young Koh (Daejeon, Korea)	
08:30	<b>Metabolic and homeostatic functions of the endothelium</b> Peter Carmeliet (Leuven, Belgium)	
09:10	<b>Hypoxia regulation in the vascular system</b> Randall Johnson (San Diego, USA)	
09:50 -10:15	<b>COFFEE BREAK</b>	
10:15 -12:15	<b>Angiogenesis in Pathology</b> Chair: Eli Keshet (Jerusalem, Israel)	<b>Proteases</b> Chair: Ryuichi Morishita (Osaka, Japan)
10:15	<b>Cellular oxygen sensors control tumor growth, angiogenesis, and vessel maturation</b> Georg Breier (Dresden, Germany)	<b>ADAM10/Notch signaling controls the development of specialized vascular niches</b> Carl Blobel (New York, USA)
10:45	<i>selected abstract:</i> <b>Microglia cells home to the perivascular niche and produce pro-angiogenic factors in glioblastoma</b> Kati Turkowski (Berlin, Germany)	<i>selected abstract:</i> <b>Tissue Inhibitor of Metalloproteinase (TIMP)-2 regulates macrophage invasion by modulating MMP-14 expression and retards plaque progression</b> Jason Johnson (Bristol, UK)
11:00	<b>Organ-specific angiogenesis and vascular remodeling</b> Gou Young Koh (Daejeon, Korea)	<b>The Factor XII-driven contact system: A proinflammatory and procoagulant protease cascade</b> Thomas Renné (Stockholm, Sweden)
11:30	<i>selected abstract:</i> <b>Endothelial-mesenchymal transition promotes the natural regression of infantile hemangiomas</b> Damian Medici (Boston, USA)	<i>selected abstract:</i> <b>Anti-angiogenic properties of protease nexin-1</b> Sonia Selbonne (Paris, France)
11:45	<b>The role of vasohibin family in tumor angiogenesis</b> Yasufumi Sato (Sendai, Japan)	<b>Protease-activated receptors</b> Shaun Coughlin (San Francisco, USA)
	<i>presented by: German Cancer Research Center - DKFZ</i>	


# Scientific Program – Monday, June 04, 2012

	Room 7	Room 6.1
12:15 -13:00	<b>LUNCH</b>	
13:00 -14:45	<b>Room 12 Poster Session III</b>	
14:45 -16:45	<b>Neurovascular Interface</b> Chair: Ferdinand LeNoble (Berlin, Germany)	<b>Barrier and Permeability</b> Chair: Norbert Suttrop (Berlin, Germany)
14:45	<b>Neural guidance receptors in vascular patterning</b> Anne Eichmann (New Haven, USA)	<b>Akt-eNOS regulation of vascular permeability</b> William Sessa (New Haven, USA)
15:15	<i>selected abstract:</i> <b>Arhgef15 promotes angiogenesis by mediating VEGF-induced Cdc42 activation and potentiating RhoJ inactivation in endothelial cells</b> Akiyoshi Uemura (Kobe, Japan)	<i>selected abstract:</i> <b>Activated protein C unexpectedly binds directly to the endothelial receptor, Tie-2, to rapidly enhance endothelial barrier integrity</b> Christopher Jackson (St. Leonards, Australia)
15:30	<b>Semaphorin signals controlling tumor angiogenesis and metastatic spreading</b> Luca Tamagnone (Torino, Italy)	<b>Leukocyte motility through venular walls in vivo</b> Sussan Nourshargh (London, UK)
16:00	<i>selected abstract:</i> <b>Netrin-1 guides sympathetic arterial innervation</b> Isabelle Brunet (Paris, France)	<i>selected abstract:</i> <b>Effective treatment of edema and endothelial barrier dysfunction with imatinib</b> Jurjan Aman (Amsterdam, The Netherlands)
16:15	<b>Neuropilin in angiogenesis and permeability</b> Christiana Ruhrberg (London, UK)	<b>JAM-C in inflammation and vascular disease</b> Beat Imhof (Geneva, Switzerland)
	<i>presented by:</i> Max-Delbrück-Center Berlin	<i>presented by:</i> DFG-SFB/Transregio 84
		
16:45 -17:10	<b>COFFEE BREAK</b>	

# Scientific Program – Monday, June 04, 2012

	Room 6.2	Room 11
12:15 -13:00	<b>LUNCH</b>	
13:00 -14:45	<b>Room 12 Poster Session III</b>	
14:45 -16:45	<b>Infection and Immunity</b> Chair: Klaus Ley (San Diego, USA)	<b>Platelets</b> Chair: Peter Presek (Halle, Germany)
14:45	<b>Immune activation in atherosclerosis</b> Göran Hansson (Stockholm, Sweden)	<b>New insights into the thrombo-inflammatory function of platelets</b> Shaun Jackson (Melbourne, Australia)
15:15	<i>selected abstract:</i> <b>Local endotoxemia causes remote organ injury through formation of leukocyte aggregates</b> Martina Beyrau (London, UK)	<i>selected abstract:</i> <b>Misfolded/partly unfolded extracellular proteins activate platelets by interaction with the stress response cell surface chaperones, glucose-regulated protein (GRP) 78/BIP, and protein disulfide isomerase</b> Beate Kehrel (Muenster, Germany)
15:30	<b>Capturing pathogens by factor XIII - a novel defense mechanism?</b> Heiko Herwald (Lund, Sweden)	<b>The C-type lectin receptor CLEC-2 regulates development of the lymphatics and is required for integrity of the blood – cerebrospinal fluid barrier</b> Steve Watson (Birmingham, UK)
16:00	<i>selected abstract:</i> <b>ROCK mediates dendritic cell migration within lymphatic capillaries under steady state and inflammation</b> Cornelia Halin (Zurich, Switzerland)	<i>selected abstract:</i> <b>Von Willebrand factor mediates platelet binding and microthrombus formation upon melanoma cell-induced endothelial cell activation</b> Alexander Bauer (Mannheim, Germany)
16:15	<b>Neutrophil extracellular traps: From host defence to autoimmunity</b> Volker Brinkmann (Berlin, Germany)	<b>Platelet-leukocyte crosstalk in arterial and venous thrombosis</b> Steffen Massberg (Munich, Germany)
	presented by: <b>BMBF-SkinStaph Network</b>	presented by: <b>PROMISE: DFG-Int. Research Training Group 1566</b>
		
16:45 -17:10	<b>COFFEE BREAK</b>	

# Scientific Program – Monday, June 04, 2012

	Room 7	Room 6.1
17:10 -18:30	<b>Plenary Session VI</b> Chair: Christian Weber (Munich, Germany)	<b>Plenary Session VI</b> Chair: Christian Weber (Munich, Germany)
17:10	<b>Angiogenesis and heart failure</b> Issei Komuro (Osaka, Japan)	<b>Angiogenesis and heart failure</b> Issei Komuro (Osaka, Japan)
17:50	<b>New facets of inflammation in atherosclerosis</b> Peter Libby (Boston, USA)	<b>New facets of inflammation in atherosclerosis</b> Peter Libby (Boston, USA)
	<i>presented by:</i> <i>DGK - Deutsche Gesellschaft für Kardiologie - Herz- und Kreislaufforschung e.V.</i>	<i>presented by:</i> <i>DGK - Deutsche Gesellschaft für Kardiologie - Herz- und Kreislaufforschung e.V.</i>
		
18:30	<b>PROGRAM END MONDAY</b>	
20:00	<b>SOCIAL EVENT AT JAGDSCHLOSS PLATTE</b>	

# Scientific Program – Monday, June 04, 2012

	Room 6.2	Room 11
17:10 -18:30	<b>Plenary Session VI</b> Chair: Christian Weber (Munich, Germany)	
17:10	<b>Angiogenesis and heart failure</b> Issei Komuro (Osaka, Japan)	
17:50	<b>New facets of inflammation in atherosclerosis</b> Peter Libby (Boston, USA)	
	<i>presented by:</i> <i>DGK - Deutsche Gesellschaft für Kardiologie - Herz- und Kreislaufforschung e.V.</i>	
18:30	<b>PROGRAM END MONDAY</b>	
20:00	<b>SOCIAL EVENT AT JAGDSCHLOSS PLATTE</b>	

	Room 7	Room 6.1
08:30 -09:50	<b>Plenary Session VII</b> Chair: Timothy Hla (New York, USA)	<b>Plenary Session VII</b> Chair: Timothy Hla (New York, USA)
08:30	<b>The vascular pericyte: The endothelium's unknown neighbour</b> Christer Betsholtz (Stockholm, Sweden)	<b>The vascular pericyte: The endothelium's unknown neighbour</b> Christer Betsholtz (Stockholm, Sweden)
09:10	<b>Pathological development of brain micro-vasculature</b> Elisabetta Dejana (Milan, Italy)	<b>Pathological development of brain micro-vasculature</b> Elisabetta Dejana (Milan, Italy)
09:50 -10:15	<b>COFFEE BREAK</b>	
10:15 -11:45	<b>Endothelium and Pericytes</b> Chair: Victor van Hinsbergh (Amsterdam, The Netherlands)	<b>Blood-Brain Barrier</b> Chair: Christer Betsholtz (Stockholm, Sweden)
10:15	<b>Cytokine interplays controlling EC-pericyte tube coassembly and stabilization events</b> George Davis (Columbia, USA)	<b>Blood-brain barrier induction, maintenance and modulation</b> Joan Abbott (London, UK)
10:45	<i>selected abstract:</i> <b>The Notch pathway regulates the expression of pro-angiogenic transcription factor Sox17</b> Injune Kim (Daejeon, Korea)	<i>selected abstract:</i> <b>Retinoic acid induces blood-brain barrier development</b> Mark Mizze (Utrecht, The Netherlands)
11:00	<i>selected abstract:</i> <b>The Rab27/Rab3 effector Synaptotagmin-like protein 4-a (Slp4-a) positively regulates hormone-evoked Weibel-Palade body exocytosis</b> Ruben Bierings (Amsterdam, The Netherlands)	<i>selected abstract:</i> <b>Fli1 controls vascular branching morphogenesis and modulates neurogenesis in the zebrafish embryo</b> Janna Krüger (Berlin, Germany)
11:15	<b>Perivascular mesenchymal stem cells in human normal organs and disease</b> Mihaela Crisan (Rotterdam, The Netherlands)	<b>Molecular regulation of endothelial blood-brain barrier function in health and disease</b> Stefan Liebner (Frankfurt, Germany)
11:45 -12:30	<b>LUNCH</b>	
12:30 -14:00	<b>Room 12 Poster Session IV</b>	

# Scientific Program – Tuesday, June 05, 2012

	Room 6.2	Room 11
08:30 -09:50	<b>Plenary Session VII</b> Chair: Timothy Hla (New York, USA)	
08:30	<b>The vascular pericyte: The endothelium's unknown neighbour</b> Christer Betsholtz (Stockholm, Sweden)	
09:10	<b>Pathological development of brain microvasculature</b> Elisabetta Dejana (Milan, Italy)	
09:50 -10:15	<b>COFFEE BREAK</b>	
10:15 -11:45	<b>Integrins and ECM</b> Chair: Bernhard Nieswandt, Wuerzburg, Germany)	<b>Late-Breaking News Session</b> Chair: Andrew Newby (Bristol, UK)
10:15	<b>Vascular basement membranes and their contribution to microvessel integrity</b> Lydia Sorokin (Muenster, Germany)	<b>Bench to bedside development of novel "molecular assassin" strategies targeting immediate-early genes</b> Levon Khachigian (Sydney, Australia)
10:45	<i>selected abstract:</i> <b>Brag2, An Arf6 activator, mediates endocytosis of <math>\beta</math>1-integrins in endothelial cells and angiogenesis</b> Emmanouil Chavakis (Frankfurt, Germany)	<b>Angiopoietin-2 differentially regulates angiogenesis through Tie2 and integrin signaling</b> Hellmut Augustin (Heidelberg, Germany)
11:00	<i>selected abstract:</i> <b>Integrin <math>\alpha</math>6 controls endothelial podosome rosettes formation in tumor angiogenesis</b> Giorgio Seano (Torino, Italy)	<b>Smad2/Smad3 in endothelium is indispensable for vascular stability via SIP1 and N-cadherin expressions</b> Fumiko Itoh (Tsukuba, Japan)
11:15	<b>Integrin trafficking during cell migration and invasion</b> Jim Norman (Glasgow, UK)	
11:45 -12:30	<b>LUNCH</b>	
12:30 -14:00	<b>Room 12 Poster Session IV</b>	

	Room 7	Room 6.1
14:00 -15:30	<b>Micro-RNA</b> Chair: Stefanie Dimmeler (Frankfurt, Germany)	<b>Vascular Models</b> Chair: Andreas Fischer (Heidelberg, Germany)
14:00	<i>selected abstract:</i> <b>miR-24 modulates MMP-14 protein expression in macrophages suggesting a novel regulatory mechanism associated with atherosclerotic plaque progression</b> Karina Di Gregoli (Bristol, UK)	<b>Lymphangiogenesis in fish and mice - similarities and discrepancies</b> Stefan Schulte-Merker (Utrecht, The Netherlands)
14:15	<i>selected abstract:</i> <b>Control of vascular inflammation by a micro-RNA feedback loop</b> Jason E. Fish (Toronto, Canada)	
14:30	<i>selected abstract:</i> <b>Micro-RNA, collagen at RISC. A story of miR21</b> Felix Kolk (Maastricht, The Netherlands)	<i>selected abstract:</i> <b>KIAA1109 is differentially expressed post myocardial infarction and is required for vascular integrity in zebrafish</b> Sara Solayami-Kohal (Sheffield, UK)
14:45	<i>selected abstract:</i> <b>micro-RNA family-23 causes endothelial dysfunction and is dysregulated during cardiac fibrosis</b> Guido Krenning (Groningen, The Netherlands)	<b>Molecular regulation of endothelial sprouting and angiogenic blood vessel growth</b> Ralf Adams (Muenster, Germany)
15:00	<i>selected abstract:</i> <b>Micro-RNA-146a and its role in vascular smooth muscle cells during vascular remodelling processes</b> Daniel Sedding (Giessen, Germany)	
15:15	<i>selected abstract:</i> <b>The AMP-activated protein kinase regulates endothelial angiotensin-converting enzyme (ACE) expression via p53 and micro-RNA-143/145</b> Karin Kohlstedt (Frankfurt, Germany)	<i>selected abstract:</i> <b>Medial elastin fragmentation leads to intraplaque neovascularisation, acute plaque rupture, atheroembolic stroke and sudden death in atherosclerotic mice</b> Carole van der Donckt (Antwerp, Belgium)
	presented by: <b>DFG-SFB834</b>	



	Room 6.2	Room 11
14:00 -15:30	<b>Mechanotransduction</b> Chair: Peter J. Little (Melbourne, Australia)	<b>Imaging</b> Chair: William Muller (Chicago, USA)
14:00	<b>Systems biology of mechanotransduction</b> Anton J.G. Horrevoets (Amsterdam, The Netherlands)	<b>Cardiac phenotyping of Akt1/PKB<math>\alpha</math> deficiency during development and after myocardial infarction</b> Michal Neeman (Rehovot, Israel)
14:15		
14:30	<i>selected abstract:</i> <b>Shear-induced binding of platelets to von Willebrand factor is enhanced by clustering of glycoprotein Iba</b> Eelo Gitz (Utrecht, The Netherlands)	<i>selected abstract:</i> <b>Dynamic cell rearrangements shape the vascular network of the developing zebrafish embryo</b> Anna Lenard (Basel, Switzerland)
14:45	<b>Using molecular force sensors to elucidate a shear stress mechanotransduction pathway</b> Martin Schwartz (New Haven, USA)	<b>Novel ways to noninvasively study antiangiogenic therapy effects</b> Fabian Kiessling (Aachen, Germany)
15:00		
15:15	<i>selected abstract:</i> <b>The influence of flow on vascular endothelial cell senescence</b> Christina Warboys (London, UK)	<i>selected abstract:</i> <b>Lymphadenectomy promotes tumor growth and cancer cell dissemination</b> Kim Pin Yeo (Singapore, Republic of Singapore)

# Scientific Program – Tuesday, June 05, 2012

	Room 7	Room 6.1
15:30 - 16:00	<b>COFFEE BREAK</b>	
16:00 -17:30	<b>Plenary Session VIII</b> Chair: Hellmut Augustin (Heidelberg, Germany)	<b>Plenary Session VIII</b> Chair: Hellmut Augustin (Heidelberg, Germany)
16:00	<b>Announcement IVBM2014 Japan</b> Yasufumi Sato (Sendai, Japan)	<b>Announcement IVBM2014 Japan</b> Yasufumi Sato (Sendai, Japan)
16:10	<b>MicroRNAs in vascular biology</b> Stefanie Dimmeler (Frankfurt, Germany)	<b>MicroRNAs in vascular biology</b> Stefanie Dimmeler (Frankfurt, Germany)
16:50	<b>Role of the microenvironment in VEGF-dependent and -independent angiogenesis</b> Napoleone Ferrara (South San Francisco, USA)	<b>Role of the microenvironment in VEGF-dependent and -independent angiogenesis</b> Napoleone Ferrara (South San Francisco, USA)
17:30 - 17:45	<b>Closing Remarks</b>	<b>Closing Remarks</b>
17:45	<b>END OF CONGRESS AND DEPARTURE</b>	

# Scientific Program – Tuesday, June 05, 2012

	Room 6.2	Room 11
15:30 - 16:00	<b>COFFEE BREAK</b>	
16:00 - 17:30	<b>Plenary Session VIII</b> Chair: Hellmut Augustin (Heidelberg, Germany)	
16:00	<b>Announcement IVBM2014 Japan</b> Yasufumi Sato (Sendai, Japan)	
16:10	<b>MicroRNAs in vascular biology</b> Stefanie Dimmeler (Frankfurt, Germany)	
16:50	<b>Role of the microenvironment in VEGF-dependent and -independent angiogenesis</b> Napoleone Ferrara (South San Francisco, USA)	
17:30 - 17:45	<b>Closing Remarks</b>	
17:45	<b>END OF CONGRESS AND DEPARTURE</b>	

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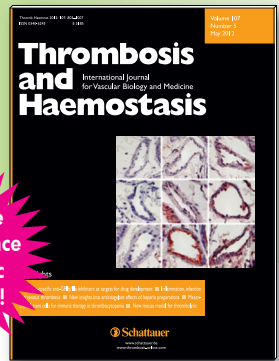
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Wuerzburg, Germany

# Travel Award Winners

Travel awards of the **North American Vascular Biology Organization (NAVBO)** are given to:



**Pericytes from infantile hemangioma display pro-angiogenic properties and dysregulated angiotensin-dependent vascular maturation**

**Elisa Boscolo** (Boston, USA)

Elisa Boscolo, John B. Mulliken, Joyce Bischoff

**Dissecting the mechanisms of integrin LFA-1 activation in neutrophils**

**Craig Lefort** (La Jolla, USA)

Craig T. Lefort, Jan Rossaint, Markus Moser, Brian G. Petrich, Alexander Zarbock, Susan J. Monkley, David R. Crichtley, Mark H. Ginsberg, Reinhard Fässler, Klaus Ley

**Alternative splicing in the vascular response to pathological shear stress**

**Patrick Murphy** (Cambridge, USA)

Patrick Murphy, Richard Hynes



Travel awards of the **German Cardiac Society (DGK)** are given to:

**Activation of SIRT1 by resveratrol maintains a contractile phenotype and prevents proliferation in vascular smooth muscle cells**

**Jochen Dutzmann** (Giessen, Germany)

Jochen Dutzmann, Jan-Marcus Daniel, Fabian Krämer, Sabina Vogel, Christian W. Hamm, Daniel G. Sedding

**Peroxisome proliferator-activated receptor gamma coactivator 1 $\alpha$  deficiency accelerates endothelial dysfunction during chronic angiotensin II treatment by increasing mitochondrial oxidative stress and vascular aging**

**Jasmin Ghaemi Kerahrodi** (Mainz, Germany)

Jasmin Ghaemi Kerahrodi, Swenja Kröller-Schön, Thomas Jansen, Matthias Oelze, Philip Wenzel, Michael Hausding, Maïke Beisele, Andreas Daiber, Thomas Muenzel, Eberhard Schulz

**Chronic therapy with isosorbide-5-mononitrate causes endothelial dysfunction, oxidative stress and a marked increase in vascular endothelin-1 expression**

**Anna Gottschlich** (Mainz, Germany)

Anna Gottschlich, Matthias Oelze, Maïke Knorr, Swenja Kröller-Schön, Sabine Kossmann, Robert Ruemmler, Alexandra Schuff, Steffen Daub, Christopher Doppler, Hartmut Kleinert, Tommaso Gori, Andreas Daiber, Thomas Muenzel

**1,12 EET contributes to acute hypoxic pulmonary vasoconstriction by stimulating the association of  $\alpha$  and  $\beta$ 1 subunits of mitochondrial BK channels**

**Isabelle Moneke** (Frankfurt, Germany)

Isabelle Moneke, Annemarieke E. Loot, Matthias Oelze, Andreas Daiber, Ingrid Fleming



# Travel Award Winners

**AGGF1 and the role of PI3K/Akt signaling in endothelial cells and vascular smooth muscle cells - a new angiogenic factor on old paths**

**Simone Mueller** (Heidelberg, Germany)

Simone Mueller, S. Eschricht, K.-U. Jarr, H.A. Katus, E. Chorianopoulos

**Glutathione peroxidase-1-deficiency enhances age-dependent vascular dysfunction**

**Sebastian Steven** (Mainz, Germany)

Sebastian Steven, Swenja Schuhmacher, Matthias Oelze, Markus Bachschmid, Christopher Doppler, Steffen Daub, Alexandra Schuff, Alexander Scholz, M. Torzewski, Eberhard Schulz, Karl J. Lackner, Thomas Muenzel, Andreas Daiber

Travel awards of the **European Vascular Biology Organisation** are given to:



**CSN5, a novel player in atherosclerosis, confers atheroprotection**

**Yaw Asare** (Aachen, Germany)

Yaw Asare, Erdenechimeg Shagdarsuren, Johannes A. Schmid, Jochen Grommes, Omar El Bounkari, André Gessner, Martina Panattoni, Ruggero Pardi, Christian Weber, Menno P.J. de Winther, Heidi Noels, Juergen Bernhagen

**Tie2-dependent knockout of alpha6 integrin subunit in mouse reduces angiogenesis**

**Claire Bouvard** (Paris, France)

Claire Bouvard, De Arcangelis Adèle, Dizier Blandine, Galy-Fauroux Isabelle, Fischer Anne Marie, Georges-Labouesse Elisabeth, Helley Dominique

**miR-24 modulates MMP-14 protein expression in macrophages suggesting a novel regulatory mechanism associated with atherosclerotic plaque progression**

**Karina Di Gregoli** (Bristol, UK)

Karina Di Gregoli, Rebecca Salter, Stephen White, Jason L Johnson

**Reversal of hypoxia in murine atherosclerotic plaques prevents apoptosis and necrotic core expansion**

**Judith C. Sluimer** (Maastricht, The Netherlands)

Judith C. Sluimer, Thomas L. Theelen, Matthijs van Gink, Jeroen Otten, Mike Jeurissen, Anique Janssen, Chris M. Van der Loos, Linda Beckers, Erwin Wijnands, Marion J. Gijbel, Mat J.A.P. Daemen

**Natural IgM antibodies protect from atherosclerosis by binding circulating microparticles resulting in neutralization of their proinflammatory activities and regulation of splenic B cell maturation**

**Dimitrios Tsiantoulas** (Vienna, Austria)

Dimitrios Tsiantoulas, Karsten Hartvigsen, Thomas Perkmann, Vesna Krajina, Christoph J. Binder

# Travel Award Winners

Travel awards of the **Japan Vascular Biology and Medicine Organization (JVBMO)** are given to:



The Japanese Vascular Biology and Medicine Organization  
日本血管生物医学学会

## Angiopoietin-1 is critical for coronary venogenesis in the developing heart

**Yoh Arita** (Suita, Japan) Yoh Arita, Yoshikazu Nakaoka, Taichi Matsunaga, Kohei Yamamizu, Hiroyasu Kidoya, Nobuyuki Takakura, Naoki Mochizuki, Gou Young Koh, Jun K. Yamashita, Issei Komuro

## TGF-signaling regulates lymphangiogenesis in mice development

**Fumiko Itoh** (Tokyo, Japan) Fumiko Itoh, Kei Ichikawa, Susumu Itoh, Guillermo Oliver, Takuya Watanabe

## Hic-5 deficiency enhances mechanosensitive apoptosis and modulates vascular remodeling

**Syuri Kanayama** (Tokyo, Japan)

## Vasohibin-2 expressed in human ovarian serous adenocarcinoma accelerates tumor growth by promoting angiogenesis

**Takahiro Koyanagi** (Sendai, Japan) Takahiro Koyanagi, Yoshifumi Takahashi, Yasuhiro Suzuki, Yasushi Saga, Naoki Kanomata, Takuya Moriya, Yasuhiko Tabata, Mitsuki Suzuki, Yasufumi Sato

## RSK4 regulates endothelial differentiation through suppression of cAMP/PKA-mediated Fik1 induction

**Taichi Matsunaga** (Kyoto, Japan) Taichi Matsunaga, Kohei Yamamizu, Kazuko Koshiba-Takeuchi, Mizuyo Kojima, Jun K. Takeuchi, Jun K. Yamashita

## Cross-talk of RANKL signaling with angiotensin II system in vascular calcification and remodeling

**Mariana Osako** (Suita, Japan) Mariana Kiomy Osako, Hironori Nakagami, Hiromi Rakugi, Ryuichi Morishita

## Identification and characterization of a resident vascular stem/progenitor cell population in preexisting endothelial cells

**Hisamichi Naito** (Suita, Osaka, Japan) Hisamichi Naito, Hiroyasu Kidoya, Susumu Sakimoto, Taku Wakabayashi, Kazuhiro Takara, Nobuyuki Takakura

## Genome-wide approaches reveal functional VEGF-NFATc-mediated RND1 induction is necessary for endothelial barrier potential

**Jun-ichi Suehiro** (Meguro-ku, Japan) Jun-ichi Suehiro, Yasuharu Kanki, Takashi Minami

## Vascular endothelial side population cells in the mouse liver blood vessels contribute to angiogenesis in vivo

**Taku Wakabayashi** (Suita, Japan) Taku Wakabayashi, Hisamichi Naito, Hiroyasu Kidoya, Kazuhiro Takara, Susumu Sakimoto, Nobuyuki Takakura

## Hic-5 deficiency blocks the development of angiotensin II-induced abdominal aortic aneurysms in mice

**Lei Xiao-Feng** (Tokyo, Japan) Xiao-Feng Lei, Joo-ri Kim-Kaneyama, Shigeko Arita, Takuro Miyazaki, Akira Miyazaki

## Roles of BMP-9 signals in the lymphatic vessel formation

**Yasuhiro Yoshimatsu** (Tokyo, Japan) Yasuhiro Yoshimatsu, Yuka Suzuki, Yuichi Akatsu, Yasuyuki Morishita, Tetsuro Watabe, Kohei Miyazono

**Winners will be awarded in a ceremony during the social event at „Jagdschloss Platte“, Monday evening, June 4, 2012.**

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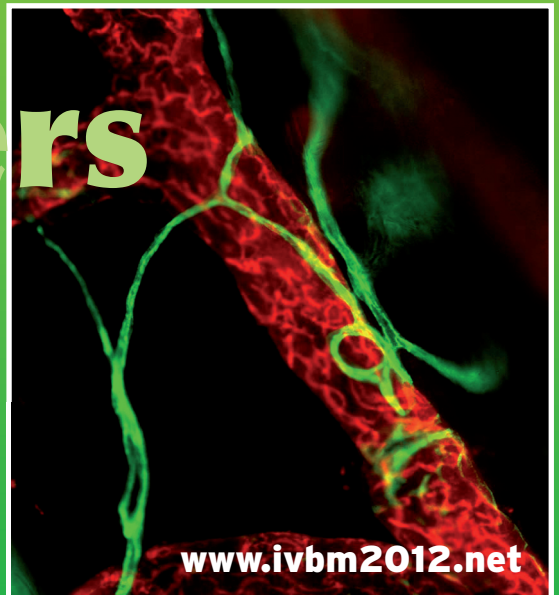
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## Angiogenesis in Development (PI-01 - PI-36)

### PI-01 **Angiopoietin-1 is critical for coronary venogenesis in the developing heart**

Yoh Arita (Suita, Japan)

Yoh Arita, Yoshikazu Nakaoka, Taichi Matsunaga, Kohei Yamamizu, Hiroyasu Kidoya, Nobuyuki Takakura, Naoki Mochizuki, Gou Young Koh, Jun K. Yamashita, Issei Komuro

### PI-02 **A cellular choreography of vascular network formation: Distinct cell activities are coordinated during blood vessel fusion**

Heinz-Georg Belting (Basel, Switzerland)

Lukas Herwig, Anna Lenard, Yannick Blum, Alice Krudewig, Heinz-Georg Belting, Markus Affolter

### PI-03 **The transcription factor Erg is essential for embryonic vascular development and postnatal retinal angiogenesis**

Graeme Birdsey (London, UK)

Graeme M. Birdsey, Irene Aspalter, Aarti V. Shah, Holger Gerhardt, Ralf H. Adams, Anna M. Randi

### PI-04 **Notch signaling induces extracellular matrix protein expression in endothelial cells through repression of microRNA-29b**

Reinier Boon (Frankfurt, Germany)

Reinier A. Boon, Guillaume Carmona, Katherina R. Keller, Susanne Heydt, Virginia Guarani, Michael Potente, Stefanie Dimmeler

### PI-05 **The helix-loop-helix transcription factor nPAS4 induces sprouting angiogenesis and regulates tip cell formation**

Anne Charlet (Freiburg, Germany)

Mei Schmidt, Anne Charlet, Sophia Heck, Jennifer Heinke, Daniel Epting, Albrecht Kramer-Zucker, Bianca Engert, Cam Patterson, Christoph Bode, Martin Moser

### PI-06 **Mast cells in arteriogenesis - a pre-clinical study employing a murine hindlimb model of collateral artery growth**

Omary Chillo (Munich, Germany)

Omary Chillo, Judith Irina Pagel, Teresa Trenkwalder, Christopher A. Reichel, Elisabeth Deindl

### PI-07 **The role of Pten during zebrafish development and tumor progression**

Suma Choorapoikayil (Utrecht, The Netherlands)

S. Choorapoikayil, B. Weijts, A.de Bruin, S. Schulte-Merker, J. den Hertog

### PI-08 **The vascular supply of zebrafish teeth, and its effect on tooth replacement**

Jeroen Crucke (Ghent, Belgium)

Jeroen Crucke, Ann Huysseune

### PI-09 **Role of endothelial Notch signalling in arteriogenesis**

Manuel Ehling (Muenster, Germany)

Manuel Ehling, Rui Benedito, Ralf H. Adams

### PI-10 **HoxB5 as an important factor in angiogenesis**

Anne Fessner (Freiburg, Germany)

Anne Fessner, Christoph Bode, Martin Moser

### PI-11 **Canonical Wnt-signaling via Lef-1 regulates the number of endothelial cells during zebrafish development, functionally opposing Notch signaling**

Kathrin Grassme (Muenster, Germany)

Kathrin S. Grassme, Saulius Sumanas, Wiebke Herzog

**PI-12 Development of the common cardinal vein in zebrafish represents a new mode of vessel formation**

Wiebke Herzog (Muenster, Germany)

Christian S. M. Helker, Terhi Kärpänen, Dagmar Zeuschner, Stefan Schulte-Merker, Wiebke Herzog

**PI-13 19,20-DiHDP A, a product of the soluble epoxide hydrolase, promotes angiogenesis by direct inhibition of Notch signalling**

Jiong Hu (Frankfurt, Germany)

Jiong Hu, Ruediger Popp, Khader Awwad, Timo Frömel, Ingrid Fleming

**PI-14 AmotL2 enables the actomyosin contractility needed for cell shape changes during aortic lumen formation**

Sara Hultin (Stockholm, Sweden)

Sara Hultin, Simona Vertuani, Mahdi Mojallal, Yuyuan Zheng, Staffan Nyström, Christin Bâth, Christian Gentili, Per Uhlen, Jean-Paul Borg, Arindam Majumdar, Lars Holmgren

**PI-15 Characterization of blood vessels in the bone during development**

Urs Langen (Muenster, Germany)

Urs Langen, Mara Pitulescu, Ralf H. Adams

**PI-16 Conceptualizing vascular remodelling via endothelial cell shape analysis in vivo**

Eleonora Lapi (London, UK)

Eleonora Lapi, Martin Jones, Holger Gerhardt

**PI-17 Contribution of tumor endothelial cells to tumor metastasis**

Nako Maishi (Sapporo, Japan)

Nako Maishi, Yusuke Ohba, Kazuyuki Yamamoto, Noritaka Ohga, Junichi Hamada, Kosuke Akiyama, Taisuke Kawamoto, Takahiro Osawa, Miyako Kondoh, Hitomi Ohmura, Masanobu Shindoh, Yasuhiro Hida, Kyoko Hida

**PI-18 EGF-like domain 7 in the placenta: Expression and role**

Micol Massimiani (Rome, Italy)

Micol Massimiani, Lucia Vecchione, Francesca Amati, Heidi Stuhlmann, Luisa Campagnolo

**PI-19 Regulation of cells shape in angiogenesis by the formin FMNL3**

Harry Mellor (Bristol, UK)

C. Hetheridge, AN. Scott, R.K. Swain, J.W. Copeland, H.N. Higgs, R. Bicknell, H. Mellor

**PI-20 In vivo Tie2 downregulation induced by lipopolysaccharide is caused by haemodynamic effects and is controlled by NF- $\kappa$ B activation**

Grietje Molema (Groningen, The Netherlands)

Neng F. Kurniati, Matijs van Meurs, Rianne M Jongman, Franziska vom Hagen, Guido Krenning, Jan-Renier A.J. Moonen, Martin C. Harmsen, Michel M.R.F. Struys, Hans-Peter Hammes, Jan G. Zijlstra, Peter Heeringa, Grietje Molema

**PI-21 Analysis of cell-based mechanisms involved in angiogenic morphogenesis by biological and computational approaches**

Koichi Nishiyama (Tokyo, Japan)

Kei Sugihara, Koichi Nishiyama, Takashi Miura, Satoshi Arima, Yuji Hakozaiki, Yuichiro Arima, Ki-Sung Kim, Yasunobu Uchijima, Yukiko Kurihara, Hiroki Kurihara

**PI-22 The F-BAR protein NOSTRIN participates in FGF signal transduction and vascular development**

Stefanie Oess (Frankfurt/Main, Germany)

Igor Kovacevic, Jiong Hu, Ann Siehoff-Icking, Nils Opitz, Aliesha Griffin, Andrew C. Perkins, Alan L. Munn, Werner Müller-Esterl, Rüdiger Popp, Ingrid Fleming, Benno Jungblut, Meike Hoffmeister, Stefanie Oess

**PI-23 Role of VEGF- and Notch-signaling for liver vascularization in zebrafish**

Nils Ohnesorge (Muenster, Germany)

Nils Ohnesorge, Arndt F. Siekmann

**PI-24 Nephronectin regulates axial vein morphogenesis in zebrafish**

Chinmoy Patra (Bad Nauheim, Germany)

Chinmoy Patra, Filomena Ricciardi, Iva Nikolic, Mirko HH Schmidt, Benno Jungblut, Felix B. Engel

**PI-25 Lysyl oxidase-like protein-2 mediated assembly of type IV collagen is required for sprouting angiogenesis**

Cathy Pichol-Thievend (Paris, France)

C. Pichol-Thievend, M. Bignon, M. Malbouyres, J. Hardouin, N. Brechot, A. Barret, E. Guillon, F. Ruggiero, C. Monnot, S. Germain, L. Muller

**PI-26 Transcriptional control of genes within the Notch signalling pathway during vessel growth**

Natalia Sacilotto (Oxford, UK)

N. Sacilotto, K. Liu, P. Pinheiro, H. Gerhardt, G. Bou-Gharios, R. Patient, S. De Val

**PI-27 Neuroligins 1 and 2, neuronal proteins with differential synaptic roles, modulate separate function in angiogenesis**

Anna Valeria Samarelli (Candiolo-Torino, Italy)

Anna Valeria Samarelli, Tatiana Nunes Silveira, Alessia Bottos, Federico Bussolino, Marco Arese

**PI-28 Angiopoietin-2 differentially regulates angiogenesis through Tie2 and integrin signaling**

Alexander Schering (Heidelberg, Germany)

Moritz Felcht, Alexander Schering, Robert Luck, Philipp Seidel, Kshitij Srivastava, Junhao Hu, Arne Bartol, Yvonne Kienast, Christiane Vettel, Elias K. Loos, Simone Kutschera, Susanne Bartels, Sila Appak, Eva Besemfelder, Dorothee Terhardt, Emmanouil Chavakis, Thomas Wieland, Christian Klein, Markus Thomas, Akiyoshi Uemura, Sergij Goerd, Hellmut Augustin

**PI-29 SIRT1 induction and resveratrol treatment revert senescence in endothelial progenitor cells from low birth weight neonates**

Stephanie Simoncini (Marseille, France)

Stéphanie Simoncini, Paula Frizera Vassallo, Isabelle Ligi, Richard Bachelier, Stéphane Robert, Edwige Tellier, Julia Morère, Florence Sabatier, Maxime Marcelli, Alain Pascal, Umberto Simeoni

**PI-30 The transcription factor MEF2C downmodulates the sprouting capacity of endothelial cells**

Caterina Sturtzel (Vienna, Vienna)

Caterina Sturtzel, Julia Testori, Karoline Lipnik, Bernhard Schweighofer, Martin Bilban, Erhard Hofer

**PI-31 Role of aPKC in endothelial cells and vascular integrity**

Marc Tjwa (Frankfurt, Germany)

Filip Claes, Wouter Vandeveld, Sabine Harenkamp, Christin Lössl, Jose Arencibia, Erhard Seifried, Reinhard Henschler, Ricardo Biondi, Lieve Moons, Marc Tjwa

**PI-32 Hey/Hes bHLH factors show great redundancy in target genes**

David Weber (Wuerzburg, Germany)

David Weber, Julia Heisig, Eva Englberger, Chia-Lin Wei

**PI-33 CXCR4a is required for blood vessels formation during fin regeneration in zebrafish**

Cong Xu (Muenster, Germany)

Cong Xu, Arndt Siekmann

**PI-34 Importance of VEGFR-2 and VEGFR-3 signaling in postnatal vascular development**

Georgia Zarkada (Helsinki, Finland)

Georgia Zarkada, Krista Heinolainen, Tuomas Tammela, Erwin Wagner, Kari Alitalo

## **PI-35 Transcription regulation of coronary endothelial cell differentiation**

Zhe Zhao (Oxford, UK)

Zhao Z, Sacilotto N, Lammerts van Bueren K, Black BL, Bou-Gharios G, and De Val S

## **PI-36 Angiotensin-2 is a key regulator in septic hypercirculation**

Tilman Ziegler (Munich, Germany)

V. Pfetsch, J. Horstkotte, T. Ziegler, C. Schwab, Ina Rohwedde, Melanie Schröder, R. Hinkel, Q. Di, S. Dietzel, U. Deutsch, C. Kupatt

## **Organotypic Vasculature (PI-37 - PI-41)**

### **PI-37 The unique lymphatic vascular phenotype of the Schlemm's canal develops via a VEGF-C/VEGFR-3 independent mechanism**

Aleksanteri Aspelund (Helsinki, Finland)

Aleksanteri Aspelund, Tuomas Tammela, Ilkka Immonen, Kari Alitalo

### **PI-38 Unique cell type-specific junctional complexes in vascular endothelium of human and rat liver sinusoids**

Konstantin Evdokimov (Mannheim, Germany)

Cyryll Géraud, Konstantin Evdokimov, Beate K. Straub, Wiebke K. Peitsch, Alexandra Demory, Yvette Dörfinger, Kai Schledzewski, Astrid Schmieder, Peter Schemmer, Hellmut G. Augustin, Peter Schirmacher, Sergij Goerd

### **PI-39 Deficiency of liver sinusoidal scavenger receptors stabilin-1 and -2 in mice causes glomerulofibrotic nephropathy via impaired hepatic clearance of noxious blood factors**

Cyryll Geraud (Mannheim, Germany)

Kai Schledzewski, Cyryll Géraud, Bernd Arnold, Shijun Wang, Hermann-Josef Gröne, Tibor Kempf, Kai C. Wollert, Beate K. Straub, Peter Schirmacher, Alexandra Demory, Hiltrud Schönhaber, Alexei Gratchev, Lisa Dietz, Hermann-Josef Thierse, Julia Kzhyshkowska

### **PI-40 Endothelial cells act as a rheostat of liver regeneration through an autocrine Angiotensin-2 loop**

Junhao Hu (Heidelberg, Germany)

Junhao Hu, Kshitij Srivastava, Hellmut Augustin

### **PI-41 Follicular workload dynamically regulates thyroid gland vasculature through VEGF pathway**

Jeon Yeob Jang (Daejeon, Republic of Korea)

Jeon Yeob Jang, Kyuho Kim, Joon Seo Lim, Kibaek Choe, Seong Eun Lee, Pilhan Kim, Minho Shong, Ook Joon Yoo, Gou Young Koh

## **Atherogenesis (PI-42 - PI-82)**

### **PI-42 The vascular endothelial growth factor receptor neuropilin-1 modulates endothelial apoptosis in arteriosclerosis**

Nadia Al-Fakhri (Marburg, Germany)

Nadia Al-Fakhri, Lilli Mey, Zeina Kharip, Andreas Hildenberg, Christa Löwer, Mareike Hörmann, Tibo Gerriets

### **PI-43 CSN5, a novel player in atherosclerosis, confers atheroprotection**

Yaw Asare (Aachen, Germany)

Yaw Asare, Erdenechimeg Shagdarsuren, Johannes A. Schmid, Jochen Grommes, Omar El Bounkari, Andre Gessner, Martina Panattoni, Ruggero Pardi, Christian Weber, Menno P.J. de Winther, Heidi Noels, Jürgen Bernhagen

**PI-44 Nuclear targeting of apelin in vascular smooth muscle cells: Implications in cell proliferation and atherosclerotic plaque formation?**

Marie-Luce Bochaton-Piallat (Geneva, Switzerland)

Author information: Chiraz Chaabane, Cécile Brun, Angela Roatti, Stéphane König, Yves Audigier, Alex J Baertschi, Marie-Luce Bochaton-Piallat

**PI-45 A chronic inflammation - the main trigger for cardiovascular diseases?**

Franziska Bollmann (Mainz, Germany)

Franziska Bollmann, Zhixiong Wu, Matthias Oelze, Daniel Siuda, Andreas Daiber, Hartmut Kleinert, Huige Li, Andrea Pautz

**PI-46 Extracellular RNA-mediated induction of inflammatory cytokines in macrophages during atherogenesis: The contribution of sialoadhesin-1**

Hector Alejandro Cabrera-Fuentes (Giessen, Germany)

Hector A. Cabrera-Fuentes, Svenja Meiler, Silvia Fischer, Yvonne Baumer, Klaus T. Preissner, William A. Boisvert

**PI-47 Altered expression of calcification regulatory factors in osteoprotegerin deficient mouse aortas and vascular smooth muscle cells**

Andrea Callegari (Seattle, USA)

Andrea Callegari, Kate Deuell, Michael E. Rosenfeld, Marta Scatena

**PI-48 Extracellular S100A4 mediates phenotypic transition of arterial smooth muscle cells: An important phenomenon in atherosclerosis and restenosis**

Chiraz Chaabane (Geneva, Switzerland)

Chiraz Chaabane, Claus W. Heizmann, Marie-Luce Bochaton-Piallat

**PI-49 EMAP II is necessary for inflammation and stenosis in a wire-induced vascular injury model**

Matthias Clauss (Indianapolis, USA)

Matthias Clauss, Linden Green, Dletlind Zohlnhöfer, Karsten Peppel

**PI-50 HIV-1 Nef is a wanderer between blood and endothelial cells and induces vascular dysfunction**

Matthias Clauss (Indianapolis, USA)

Matthias Clauss, Tina Wang, Linden Green

**PI-51 Calmodulin is a Marker of a Distinct Smooth Muscle Cell Population Recruited by Plaque-Derived Macrophages from the Human Carotid Artery Media**

Matteo Coen (Geneva, Switzerland)

Matteo Coen, Giovanna Marchetti, Carlotta Zerbinati, Giuseppe Guastella, Teresa Gagliano, Francesco Bernardi, Patricia M. Palagi, Francesco Mascoli, Marie-Luce Bochaton-Piallat

**PI-52 Two-chain high molecular weight kininogen inhibits neointimal lesion formation by preventing leukocyte recruitment**

Jan-Marcus Daniel (Giessen, Germany)

J.-M. Daniel, F. Reich, J. Dutzmann, K. T. Preissner, C. W. Hamm, D. G. Sedding

**PI-53 Complement factor C5a as mast cell activator mediates vascular remodeling in vein graft disease**

Margreet de Vries (Leiden, The Netherlands)

Margreet R. de Vries, Anouk Wezel, Abbey Schepers, Johan Kuiper, Ilze Bot, Paul HA Quax

**PI-54 Overexpression of heat shock protein 60 leads to vascular smooth muscle cell proliferation through alterations in nuclear protein import**

Justin Deniset (Winnipeg, Canada)

J.F. Deniset, M.N. Chahine, T.E. Hedley, E. Dibrov, and G.N. Pierce



**PI-55 Activation of SIRT1 by resveratrol maintains a contractile phenotype and prevents proliferation in vascular smooth muscle cells**

Jochen Dutzmann (Giessen, Germany)

Jochen Dutzmann, Jan-Marcus Daniel, Fabian Krämer, Sabina Vogel, Christian W. Hamm, Daniel G. Sedding

**PI-56 Hyaluronan synthase 3 plays a key role in activation of smooth muscle cells in inflammatory regions of atherosclerotic plaques**

Maria Grandoch (Düsseldorf, Germany)

Maria Grandoch, Inga Kretschmer, Ariane Melchior-Becker, Berit Rabausch, Sören Twarock, Guang Dai, Jens W. Fischer

**PI-57 CD40 ligand-induced von Willebrand factor deposition on endothelial cells promotes platelet-monocyte interaction**

Markus Hecker (Heidelberg, Germany)

Andreas H. Wagner, Kerstin Möller, Oliver Adolph, Manuel Schwarz, Chrysovalandis Schwale, Claus Bruehl, Rainer Nobiling, Thomas Wieland, Stefan W. Schneider, Markus Hecker

**PI-58 Deficiency of mitogen-activated protein kinase 2 (MK2) prevents maladaptive vascular remodeling and promotes vascular regeneration after injury of the carotid artery**

Piyushkumar Kapopara (Hannover, Germany)

Piyushkumar R. Kapopara, Johann von Felden, Kristina Sonnenschein, Johann Bauersachs, Bernhard Schieffer, Udo Bavendiek

**PI-59 Characterization of macrophage Migration Inhibitory Factor (MIF) as a new B cell chemokine**

Christina Klasen (Aachen, Germany)

Omar El Bounkari, Christina Klasen, Jürgen Bernhagen

**PI-60 The transcription factor CREM is involved in the regulation of VSMC proliferation in response to vascular remodeling**

Christian Klugstedt (Muenster, Deutschland)

C.T. Klugstedt, M.D. Seidl, A.K. Steingraber, W. Schmitz, F.U. Müller

**PI-61 Novel co-regulators of nuclear receptor Nur77 in vascular disease**

Kondababu Kurakula (Amsterdam, The Netherlands)

Kondababu Kurakula, Claudia M van Tiel, Erik van der Wal, Carlie JM de Vries

**PI-62 Maternal supraphysiological hypercholesterolemia leads to reduced endothelium-dependent vasodilation of human umbilical vein, reduced nitric oxide production and increased activity of arginase II in human umbilical vein endothelium**

Andrea Leiva (Santiago, Chile)

A. Leiva, E. Guzmán-Gutiérrez, F. Abarzúa, F. Westermeier, C. Diez de Medina, F. Pardo, L. Sobrevia

**PI-63 Azathioprine, a novel treatment for aneurysms with an old drug**

Goran Marinkovic (Amsterdam, The Netherlands)

Goran Marinkovic, Stijntje Hibender, Carlie J.M. de Vries, Vivian de Waard

**PI-64 The endothelial expressed chemokine CXCL16 (SR-PSOX) induced the adhesion and rolling of platelets: comparison to fractalkine (CX3CL1)-mediated adhesion**

Sascha Meyer dos Santos (Frankfurt, Germany)

Sascha Meyer dos Santos, Nadejda Monsefi, Ute Klinkhardt, Sebastian Harder

## **PI-65 Endothelial-to-mesenchymal transition underlies atherosclerosis**

Jan-Renier Moonen (Groningen, The Netherlands)

Jan-Renier A.J. Moonen, Ee Soo Lee, Marc Schmidt, Monika Maleszewska, Theo G. van Kooten, Clark J.A.M. Zeebregts, Guido Krenning, Martin C. Harmsen

## **PI-66 Endothelial Gab1 deletion accelerates angiotensin II-dependent vascular inflammation and atherosclerosis in apolipoprotein E knockout mice**

Yoshikazu Nakaoka (Suita, Osaka, Japan)

Yoshikazu Nakaoka, Kaori, Higuchi, Wataru Shioyama, Yoh Arita, Takahiro Hashimoto, Taku Yasui, Kuniyasu Ikeoka, Keiko Yamauchi-Takahara, Issei Komuro

## **PI-67 AMP-activated protein kinase inhibits IGF-1 signaling and cell proliferation in vascular smooth muscle cells via suppressing activation of extracellular signal-regulated kinases 1 and 2**

Junyu Ning (Beijing, P. R. China)

Junyu Ning, Cong Jin

## **PI-68 Cross-talk of RANKL and renin-angiotensin II system in vascular calcification**

Mariana Osako (Suita, Japan)

Mariana Kiomy Osako, Hironori Nakagami, Hiromi Rakugi, Ryuichi Morishita

## **PI-69 Inhibition of IGF-1 receptor signaling increases serum cholesterol and plaque burden in ApoE-deficient mice**

Anton Razuvaev (Stockholm, Sweden)

Anton Razuvaev, Jeanna Joneberg, Olle Larsson, Magnus Axelson, Ulf Hedin, Joy Roy

## **PI-70 RANKL enhances macrophages paracrine pro-calcific activity: Dependence on IL-6 and TNF $\alpha$**

Marta Scatena (Seattle, USA)

Andrea Callegari, Kate Deuell, Matthew Coons, Cecilia M. Giachelli, Michael E. Rosenfeld, Marta Scatena

## **PI-71 Dynamics of Junctional Adhesion Molecule (JAM) A during atherosclerotic lesion formation**

Martin Schmitt (Aachen, Germany)

M.M.N. Schmitt, R.T. Megens, O. Soehnlein, M.A. van Zandvoort, T.M. Hackeng, C. Weber, R.R. Koenen

## **PI-72 Reversal of hypoxia in murine atherosclerotic plaques prevents apoptosis and necrotic core expansion**

Judith Sluimer (Maastricht, The Netherlands)

Thomas L. Theelen, Matthijs van Gink, Jeroen Otten, Mike Jeurissen, Anique Janssen, Chris M. Van der Loos, Linda Beckers, Erwin Wijnands, Marion J. Gijbels, Mat J.A.P. Daemen, Judith C. Sluimer

## **PI-73 Fatty acid amide hydrolase deficiency is associated with a vulnerable plaque phenotype in atherosclerotic mice**

Sabine Steffens (Geneva, Switzerland)

Sébastien Lenglet, Aurélien Thomas, Fabrizio Montecucco, Fabienne Burger, Graziano Pelli, Katia Galan, Benjamin Cravatt, Christian Staub, Sabine Steffens

## **PI-74 The role of IKK $\alpha$ in atherosclerosis**

Pathricia Tilstam (Aachen, Germany)

P. Tilstam, H. Noels, M. de Winther, C. Weber

## **PI-75 Transglutaminase determines atherosclerotic plaque composition at locations exposed to oscillatory shear stress**

Ed van Bavel (Amsterdam, The Netherlands)

Hanke L. Matlung, Annette E. Neele, Harald C. Groen, Kim van Gaalen, Bilge Guvenc, Angela van Weert, Jolanda J. Wentzel, Jaap D. van Buul, Ed van Bavel, Erik N.T.P. Bakker

- PI-76 Association of smooth muscle cell pathologies with functional p27kip1 promoter-SNP**  
Claudia van Tiel (Amsterdam, The Netherlands)  
Claudia M. van Tiel, Peter I. Bonta, J. Wouter Jukema, Robbert J. de Winter, Alexander W. Clowes, Michael S. Conte, Carlie J. de Vries
- PI-77 Angio-associated migratory cell protein contributes to progenitor cell adhesion and migration and to neoatherosclerosis development in the rat in-stent restenosis model**  
Felix Vogt (Aachen, Germany)  
Mauricio Borinski, Christian Floege, Nicole Krott, Annika Grahl, Nikolaus Marx, Felix Vogt
- PI-78 Wnt2 stimulates smooth muscle cell migration**  
Helen Williams (Bristol, UK)  
Helen Williams, Sarah J George
- PI-79 High density lipoproteins inhibit vascular endothelial inflammation by increasing 3 $\beta$ -hydroxysteroid- $\delta$ 24 reductase expression and inducing heme oxygenase-1**  
Ben Wu (Sydney, Australia)  
Ben J. Wu, Kang Chen, Kwok L. Ong, Philip J. Barter and Kerry-Anne Rye
- PI-80 Apurinic/apyrimidinic endonuclease (Ape1) in endothelial progenitor cells (EPCs) has an important role in healing injured vascular wall through adhesion on the sites with much oxidative stress**  
Atsushi Yamauchi (Asahikawa, Japan)  
Atsushi Yamauchi, Jun-Ichi Kawabe, Maki Kabara, Akira Asanome, Motoki Matsuki, Naofumi Takehara, Naoyuki Hasebe
- PI-81 Nogo-B stabilizes atherosclerotic lesion through attenuation of ER-dependent free cholesterol induced macrophage apoptosis**  
Jun Yu (New Haven, USA)  
Xinbo Zhang, Yuan Yuan Zhang, Carlos Fernandez-Hernando, Jun Yu
- PI-82 ROCK2 deficiency in bone marrow-derived cells increases cholesterol efflux and decreases atherosclerosis**  
Qian Zhou (Freiburg, Germany)  
Qian Zhou, Goo Taeg Oh, Pat Ongusaha, Kunzhong Zhang, Karol Kaminski, Hannah Schmitt, Takuhito Shoji, Martin Moser, Christoph Bode, James K. Liao

## Hypoxia and Metabolism (PI-83 - PI-97)

- PI-83 Effects of ezetimibe on  $\alpha$  linolenic fatty acid absorption in cardiac patients**  
David Blackwood (Winnipeg, Canada)  
D.P. Blackwood, R.K. La Vallée, A. Al-Busaidi, D.S. Jassal, G.N. Pierce
- PI-84 Krüppel-like Factor 2 reduces endothelial metabolic activity**  
Anuradha Doddaballapur (Frankfurt, Germany)  
Anuradha Doddaballapur, Eduard Hergenreider, Riekelt H. Houtkooper, Johan Auwerx, Stefanie Dimmeler, Reinier A. Boon
- PI-85 Hypoxia-induced changes in vascular endothelial progenitor cell function: Role for the extracellular metalloproteinase ADAMTS9?**  
Michelle B. Hookham (Belfast, Northern Ireland)  
Michelle B. Hookham, Imran HA. Aii, Nathan Cantley, Heather Wilson, Alan W. Stitt, Derek P. Brazil

**PI-86 Glucose and reactive glucose metabolite methylglyoxal induce pathophysiological blood vessel development in zebrafish**

Kristina Jörgens (Mannheim, Germany)

Kristina Jörgens, Jennifer Pohl, Thomas Fleming, Angelika Bierhaus, Peter P. Nawroth, Hans-Peter Hammes, Jens Kroll

**PI-87 Scar rupture and death upon myocardial infarction by NOX4-derived ROS**

Pamela Kleikers (Landgraaf, The Netherlands)

P.W.M. Kleikers, K. Winger, K. Radermacher, N. Weissmann, H.H.H.W. Schmidt

**PI-88 Slow release H<sub>2</sub>S donors protect human microvascular endothelial cells from oxidative stress-induced cell toxicity**

Sophie Le Trionnaire (Exeter, UK)

S. Le Trionnaire, J. Whatmore, M. E. Wood., A. Perry, M. Whiteman

**PI-89 SR-BI expressed by lymphatic vessels is required for removal of cholesterol from peripheral tissues**

Hwee Ying Lim (Singapore, Republic of Singapore)

Hwee Ying Lim, Chung Hwee Thiam, Kim Pin Yeo, Chung Shii Hii, Kristine CY McGrath, Alison Heather, J. Steven Alexander, Véronique Angeli

**PI-90 Expression and function of Acetyl-CoA Carboxylase (ACC) isoforms in endothelial cells**

Silke Lindenmüller (Jena, Germany)

S. Lindenmüller, D. Weigel, R. Heller

**PI-91 CCN3, a potential angiogenic factor involved in endothelial dysfunction observed in the pregnancy disease preeclampsia**

Haiyi Liu (Essen, Germany)

Haiyi Liu, Liska Horsch, Stefan Radke, Bernd Giebel, Elke Winterhager, Alexandra Gellhaus

**PI-92 Neuron-specific prolyl-4-hydroxylase domain 2 knockout reduces brain injury after transient cerebral ischemia**

Hugo Marti (Heidelberg, Germany)

Reiner Kunze, Wei Zhou, Roland Veltkamp, Ben Wielockx, Georg Breier, Hugo H. Marti

**PI-93 Novel functional relationship between VEGF and skeletal muscle metabolism: Evidence for crosstalk between angiogenesis and metabolism?**

I. Mark Olfert (Morgantown, USA)

Sara Olenich, Gerald N. Audet, Viola Szeszel-Federowicz, I. Mark Olfert

**PI-94 The effect of acute and prolonged blockade of store operated channels on the response of the neonatal pulmonary circulation to hypoxia**

Victor Roberto Reyes (Santiago, Chile)

D. Parrau, G. Ebensperger, D. Santos, E.A. Herrera, C. Montt, M. Chubretovich, M. Diaz, F.A. Moraga, C. Ulloa, I. Hernandez, A.J. Llanos, V.R. Reyes

**PI-95 Regulation of AMPK by cAMP signaling pathways**

Katrin Spengler (Jena, Germany)

K. Spengler, A. Woods, D. Carling, R. Heller

**PI-96 CXCL1-CXCR2 signaling promotes arteriogenesis during ischemic hind limb conditions in the rat**

Mark Vries (Maastricht, The Netherlands)

M.H.M. Vries, A. Wagenaar, D.G.M. Molin, M.J. Post

**PI-97 Deficiency of CD40 aggravates diet-induced obesity and adipose tissue inflammation in mice**

Andreas Zirlik (Freiburg, Germany)

Dennis Wolf, Felix Jehle, Peter Stachon, Ingo Hilgendorf, Florian Willecke, Natalie Hoppe, Bianca Dufner, Alexandra Ortiz-Rodriguez, Nora Bukosza, Christoph Bode, Karlheinz Peter, Andreas Zirlik

## Lymphangiogenesis (PI-98 - PI-114)

**PI-98 The new lymphangiogenesis inhibitor esVEGFR2 is down-regulated in advanced stage neuroblastoma and induced upon differentiation**

Jürgen Becker (Goettingen, Germany)

Jürgen Becker, Jörg Wiltung

**PI-99 HDL antagonizes the defects in the lymphatic system that contribute to the pathogenesis of rheumatoid arthritis**

Radjesh Bissoendial (Newtown, Australia)

Radjesh J. Bissoendial, Wolfgang Weninger, Francine Petrides, BA Hons, Fatiha Tabet, Paul-Peter Tak, Kerry Anne Rye

**PI-100 Mutations in eight lymphangiogenic genes explain 20% of primary lymphedema**

Pascal Brouillard (Brussels, Belgium)

Pascal Brouillard, Matthieu Schlögel, Antonella Mendola, Mustapha Amyere, Laurence Boon, Nicole Revencu, Miikka Vikkula

**PI-101 Tumor lymphangiogenesis and immunological tolerance: A role for CD4+ T cells?**

Capotosti Francesca (Lausanne, Switzerland)

Francesca Capotosti, A.W. Lund, S. Hirosue, P. Corthesy Henrioud, C. Halin, S. Hugues, Melody Swartz

**PI-102 Visualization of the initial steps of lymphatic vessel development and the role of CCBE1 in this process using ultramicroscopy**

Rene Hägerling and Cathrin Pollmann (Muenster, Germany)

R. Hägerling, C. Pollmann, M. Andreas, L. Kremer, Uwe Schröer, Volker Andresen, S. Schulte-Merker, F. Kiefer

**PI-103 Follistatin as an inducer of lymph vessel formation in melanoma**

Magdalena Heinz (Vienna, Austria)

Magdalena Heinz, Heide Niederleithner, Peter Petzelbauer

**PI-104 The lymphatic system plays a vital role in maintaining tissue homeostasis by regulating tissue fluid and protein balance**

Fumiko Itoh (Tokyo, Japan)

Fumiko Itoh, Kei Ichikawa, Susumu Itoh, Guillermo Oliver, Takuya Watanabe

**PI-105 An important role of semaphorin 3A/neuropilin-1 signaling in lymphatic vessel maturation**

Alexandra Ochsenbein (Zurich, Switzerland)

Giorgia Jurisic, Hélène Maby-El Hajjami, Sinem Karaman, Alexandra M. Ochsenbein, Annamari Alitalo, Shoib S. Siddiqui, Carlos Ochoa Pereira, Tatiana V. Petrova, Michael Detmar

**PI-106 Wnt1 is anti-lymphangiogenic in a melanoma mouse model**

Peter Petzelbauer (Vienna, Austria)

Heide Niederleithner, Peter Petzelbauer

**PI-107 The cooperative effect of apelin with 17- $\beta$  estradiol on lymphatic integrity**

Mika Sawane (Yokohama, Japan)

Mika Sawane, Hiroyasu Kidoya, Masaya Takagi, Fumitaka Muramatsu, Nobuyuki Takakura, Kentaro Kajiji

**PI-108 VEGF-C application pattern improves the regeneration of autotransplanted lymph node fragments and the reconnection with the lymphatic system**

Lia Schindewolffs (Hannover, Germany)

L. Schindewolffs, M. Buettner, C. Hadamitzky, G. Breves, R. Pabst

**PI-109 Immunomodulatory functions of lymphangiogenic vessels**

Melody Swartz (Lausanne, Switzerland)

Melody A. Swartz, Amanda W. Lund, Sachiko Hirose, Francesca Capotosti, Fernanda Duraes, Stéphanie Hugues

**PI-110 Deciphering the role of GPR97. An orphan adhesion G protein coupled receptor highly expressed in the lymphatic endothelium**

Nadejda Valtcheva (Zurich, Switzerland)

Valtcheva N., Jurisic G., Primorac A., Detmar M.

**PI-111 Proteolytic processing of Semaphorin 3G determines its vascular function**

Anja Weick (Heidelberg, Germany)

Anja Weick, Lise Roth, Simone Kutschera, Maria Riedel, Christer Betsholtz, Hellmut G. Augustin

**PI-112 Role of ALCAM in lymphatic endothelial cell biology**

Ann-Helen Willrodt (Zurich, Switzerland)

Maria Iolyeva, Ann-Helen Willrodt, Stephanie Weingartner, Cornelia Halin Winter

**PI-113 Endogenous soluble VEGFR-2 in embryonic development and in neuroblastoma progression**

Jörg Wilting (Goettingen, Germany)

Jörg Wilting, Jürgen Becker, Christina Zelent, Johanna Fröhlich, Herbert A. Weich, Jayakrishna Ambati

**PI-114 Roles of BMP-9 signals in the lymphatic vessel formation**

Yasuhiro Yoshimatsu (Tokyo, Japan)

Yasuhiro Yoshimatsu, Yuka Suzuki, Yuichi Akatsu, Yasuyuki Morishita, Tetsuro Watabe, Kohei Miyazono

## Survival and Apoptosis (PI-115 - PI-118)

**PI-115 Lymphatic vessel endothelial hyaluronic acid receptor-1 expressing macrophages as gatekeepers of blood vessel homeostasis**

Veronique Angeli (Singapore, Republic of Singapore)

Hwee Ying Lim, Lihui Lim, Chern Goh, Yeo Kim Pin, Ling Li, Xiao Nong Wang, Stanley Richard, Matthew Collin, Florent Ginhoux, Veronique Angeli

**PI-116 Drug-induced macrophage autophagy in atherosclerosis: For better or for worse?**

Wim Martinet (Antwerp, Belgium)

W. Martinet, I. De Meyer, S. Verheye, D.M. Schrijvers, H. Bult, G. R.Y. De Meyer

**PI-117 Inflammatory mediators differentially regulate macro- versus micro-vascular endothelial cell survival**

Alex McSloy (London, UK)

A.C. McSloy, C.E. Farrar, E. Garonna, C.P.D. Wheeler-Jones

**PI-118 Balancing life and death: The role of autophagy in atherosclerosis**

Dorien Schrijvers (Antwerp, Belgium)

D.M. Schrijvers, M. Grootaert, H. Bult, G.R.Y. De Meyer, W. Martinet

## Lipid Signaling (PI-119 - PI-122)

**PI-119 Oxidized phospholipids (OxPLs) induce production of stem cell factor (SCF) and activation of its receptor c-KIT in endothelial cells**

Valery Bochkov (Vienna, Austria)

Taras Afonyushkin, Olga V. Oskolkova, Valery N. Bochkov

**PI-120 Sphingosine-1-phosphate receptor 3 promotes neointimal hyperplasia in mouse iliac-femoral arteries**

Guenter Daum (Seattle, USA)

Takuya Shimizu, Allison De Wispelaere, Martin Winkler, Travis D'Souza, Jacob Caylor, Lihua Chen, Frank Dastvan, Jessie Deou, Aesim Cho, Axel Larena-Avellaneda, Michael Reidy, Guenter Daum

**PI-121 Perivascular adipose tissue-derived methyl palmitate in vascular tone regulation**

Tony Lee (Hualien, Taiwan)

Yuan-Chieh Lee, Hsi-Hsien Chang, Chih-Lung Chiang, Chin-Hung Liu, Mei-Fang Chen, Po-Yi Chen, Tony J.F. Lee

**PI-122 S1P carrier-dependent regulation of endothelial barrier: HDL-S1P prolongs endothelial barrier enhancement as compared to albumin-S1P via effects on levels, trafficking and signaling of S1P1**

Brent Wilkerson (Charleston, USA)

Brent A. Wilkerson, G. Daniel Grass, Shane B. Wing, W. Scott Argraves, Kelley M. Argraves

## Signaling in Angiogenesis (PII-01 - PII-28)

### **PII-01 The RhoG-DOCK4-Rac1 signalling axis controls angiogenesis**

Sabu Abraham (London, UK)

Sabu Abraham, Margherita Scarcia, Tracey Harvey, Maggie Yeo, Christopher J. Marshall, Georgia Mavria

### **PII-02 Synaptotagmin-2 binding protein interacts with the Notch ligands DLL1 and DLL4 and inhibits sprouting angiogenesis**

Gordian Adam (Mannheim, Germany)

M. Gordian Adam, Caroline Berger, Joycelyn Wüsthube, Stefanie E. Herberich, Marcel Pinder, Sabine Gesierich, Hellmut G. Augustin, Andreas Fischer

### **PII-03 Intermediate filament breakdown controls activation of the angiogenic switch**

Kayla Bayless (College Station, USA)

Hyeong-Il Kwak, Hoin Kang, Jui M. Dave, E. Adriana Mendoza, Shih-Chi Su, Roland Kaunas, Steve A. Maxwell, Kayla J. Bayless

### **PII-04 Instrumental role of tenascin-C matrix as scaffold and niche in tumor angiogenesis and metastasis**

Langlois Benoit (Strasbourg, France)

B. Langlois, I. Gasser, F. Saupé, Huschluk R.&, C. Spenle, M. van der Heyden, P. Simon-Assmann, V. Djonov, Klaus-Peter Janssen, G. Christofori, G. Orend

### **PII-05 An endogenous vitamin K-dependent mechanism regulates cell proliferation in the brain subventricular stem cell niche. Interplay between the anticoagulant factor protein S and its homolog Gas6.**

Omar Benzakour (Poitiers, France)

Aurore Gely, Valérie Coronas, Thomas Harnois, Laetitia Prestoz, Nathalie Mandairon, Anne Didier, Jean Marc Berjeaud, Arnaud Monvoisin, Nicolas Bourmeyster, Pablo Garcia de Frutos, Michel Philippe, Omar Benzakour

### **PII-06 Tie1 controls Ang-1/Tie2 signaling by regulating endothelial cell surface Tie2 presentation**

Annika Budnik and Soniya Savant (Mannheim, Germany)

Soniya Savant, Annika Budnik, Andrew Benest, Dorothee Terhardt, Hellmut Augustin

### **PII-07 The vitamin K-dependent anti-coagulant factor, protein S, inhibits in a Mer- and SHP2- dependent manner multiple VEGF-A- dependent angiogenesis related events**

Sylvain Fraigneau (Poitiers, France)

Sylvain Fraigneau, Arnaud Monvoisin, Julie Talbot, Jonathan Clarhaut, Sandip M. Kanse, Michel Philippe, Omar Benzakour

### **PII-08 VEGF dose negatively regulates the stabilization of newly induced vessels by inhibiting the Sema3A/Nrp1+CD11b+ monocytes/TGF- $\beta$ 1 axis**

Elena Groppa (Basel, Switzerland)

E. Groppa, S. Reginato, R. Gianni-Barrera, M.G. Muraro, M. Heberer, A. Banfi

### **PII-09 In vitro differentiation of Hey-deficient endothelia to delineate vascular Hey gene functions**

Melanie Hein (Wuerzburg, Germany)

Melanie Hein, Andreas Fischer, Manfred Gessler

### **PII-10 HLX and FOXF1, two transcription factors involved in the regulation of sprouting angiogenesis**

Erhard Hofer (Vienna, Austria)

K. Lipnik, C. Sturtzel, J. Testori, R. Hofer-Warbinek, E. Hofer

### **PII-11 Repression of the miR-17-92a cluster by HDAC9 promotes angiogenesis of endothelial cells**

David Kaluza (Frankfurt, Germany)

D. Kaluza, S. Gesierich, C. Doebele, J.N. Boeckel, A. Bonauer, J. Kroll, A. Zelent, L. Rössig, S. Dimmeler, C. Urbich



**PII-12 CD34 marks angiogenic tip cells in human vascular endothelial cell cultures**

Ingeborg Klaassen (Amsterdam, The Netherlands)

Martin J. Siemerink, Ingeborg Klaassen, Ilse M.C. Vogels, Arjan W. Griffioen, Cornelis J.F. Van Noorden, Reinier O. Schlingemann

**PII-13 Endothelial cell-derived Wnt ligands control vessel branching in the postnatal retina**

Claudia Korn (Heidelberg, Germany)

Claudia Korn, Junhao Hu, Kshitij Srivastava, Tabea Arnsberger, Michael Boutros, Hellmut G Augustin, Iris Augustin

**PII-14 Carbon monoxide-exposed astrocytes induces angiogenesis by enhancing HIF-1 $\alpha$ -mediated VEGF expression**

Kyu-Sun Lee (Chuncheon, South Korea)

Kyu-Sun Lee, Yoon Kyung Choi, Hansoo Lee, Dooil Jeoung, Kwon-Soo Ha, Young-Guen Kwon, Kyu-Won Kim, Young-Myeong Kim

**PII-15 VEGF-mediated activation of calcineurin-NFAT-DSCR-1 axis in lung endothelium is critical for the establishment of lung metastases**

Takashi Minami (Tokyo, Japan)

Takashi Minami, Jun-ichi Suehiro, Tsuyoshi Osawa, William C. Aird, Sandra Ryeom

**PII-16 NRPI negatively regulates VEGF-induced angiogenesis and tumor growth in trans**

Eric Morin (Uppsala, Sweden)

Sina Koch, Eric Morin, Laurens van Meeteren, Chiara Testini, Sebastien Le Jan, Niklas Friberg, Lena Claesson-Welsh

**PII-17 AGGF1 and the role of PI3K/Akt signaling in endothelial cells and vascular smooth muscle cells: A new angiogenic factor on old paths**

Simone Müller (Heiligkreuzsteinach, Germany)

S. Müller, S. Eschricht, K.-U. Jarr, H.A. Katus, E. Chorianopoulos

**PII-18 Activation of Tie2 is regulated by dimerisation and conformation**

Alengo Nyamayantu-Antu (Manchester, UK)

Alengo Nyamay-Antu, Christoph Ballestrem, Richard Kammerer

**PII-19 Cancer signaling in human colorectal cancer**

Narendra Padhan (Uppsala, Sweden)

Narendra Padhan, Peter Åkerud, Helgi Birgisson, Lena Claesson-Welsh

**PII-20 Cross-talk and interdependence of hydrogen sulfide and nitric oxide in angiogenesis**

Andreas Papapetropoulos (Patras, Greece)

Andreas Papapetropoulos, Ciro Coletta, Panagiotis Panopoulos, Csaba Szabo

**PII-21 The role of endothelial G-proteins of the G12/13 family in tumor angiogenesis**

Kishor Kumar Sivaraj (Bad Nauheim, Germany)

Kishor Kumar Sivaraj, Stefan Offermanns, Nina Wettschureck

**PII-22 Genome-wide approaches reveal functional VEGF-NFATc-mediated RND1 induction is necessary for endothelial barrier potential**

Jun-ichi Suehiro (Meguro-ku, Japan)

Jun-ichi Suehiro, Yasuharu Kanki, Takashi Minami

**PII-23 VEGF164 over-expression in skeletal muscle induces vascular enlargement and intussusceptive angiogenesis through reciprocal activation of Notch-1 in contiguous endothelial cells**

Marianna Trani (Basel, Switzerland)

Marianna Trani, Roberto Gianni-Barrera, Silvia Reginato, Ruslan Hlushchuk, Michael Heberer, Valentin Djonov, Andrea Banfi

**PII-24 Proteomic screen identifies IGFBP7 as a novel component of endothelial cell-specific Weibel-Palade bodies**

Dorothee van Breevoort (Amsterdam, The Netherlands)

Dorothee van Breevoort, Ellen L. van Agtmaal, Bieuwke S. Dragt, Jacqueline Klein Gebbinck, Ilze Dienava-Verdoold, Anton J.G. Horrevoets, Karine M. Valentijn, Jeroen C. Eikenboom, Mar Fernandez-Borja, Alexander B. Meijer, Jan Voorberg

**PII-25 Platelet-derived deoxyribose-1-phosphate promotes endothelial cell motility in vivo and angiogenesis in vivo**

Dina Vara (Bath, UK)

Dina S. Vara, Tim Woodman, Warwick B Dunn, Elena Garonna, Caroline PD Wheeler-Jones, Giordano Pula

**PII-26 Protease-activated receptors 2 and 4 differentially utilise cyclo-oxygenase-2 activity and AMP kinase to regulate the pro-angiogenic functions of human endothelial cells**

Caroline Wheeler-Jones (London, UK)

E. Garonna, C. Farrar, A. McSloy, N. Kirby, E. Paleolog, C.P.D. Wheeler-Jones

**PII-27 Tie1 and Tie2 regulate blood vessel formation in a mutually dependent manner**

Daishi Yamakawa (Osaka, Japan)

Daishi Yamakawa, Hiroyasu Kidoya, Susumu Sakimoto, Weizhen Jia, Nobuyuki Takakura

**PII-28 Proteomic profile of endothelial morphogenesis unveils tumor angiogenic markers and metabolic remodeling**

Sara Zanivan (Glasgow, UK)

Sara Zanivan, Federica Maione, Marco Y. Hein, Katrien De Bock, Maria Georgiadou, Pawel Ostasiewicz, Christian Frezza, Sandra Cauwenberghs, Liang Zheng, Juan Ramon Hernandez-Fernaudo, Enrico Girauda, Eyal Gottlieb, Peter Carmeliet, Matthias Mann

## Microparticles (PII-29 - PII-34)

**PII-29 Protein C inhibitor on microparticles - what are the functional roles?**

Katrin Einfinger (Vienna, Austria)

K. Einfinger, M. Geiger

**PII-30 Release of extracellular RNA from vascular and tumor cells**

Barbara Griemert (Giessen, Germany)

Barbara Griemert, Klaus T. Preissner, Silvia Fischer

**PII-31 Stimulation of blood mononuclear cells with bacterial virulence factors triggers the release of pro-coagulant and pro-inflammatory microparticles**

Sonja Oehmcke (Rostock, Germany)

Sonja Oehmcke, Matthias Mörgelin, Johan Malmström, Adam Linder, Michelle Chew, Henrik Thorlacius, Heiko Herwald

**PII-32 Shear stress regulates endothelial microparticle release**

Anne-Clémence Vion (Paris, France)

Anne-Clémence Vion, Bhama Ramkhalawon, Xavier Loyer, Gilles Chironi, Cecile Devue, Gervaise Loirand, Alain Tedgui, Stéphanie Lehoux, Chantal M. Boulanger

**PII-33 Quantification of intravascular microparticles during Shiga toxin-induced hemolytic uremic syndrome**

Sibylle von Vietinghoff (Hannover, Germany)

Shuwang Ge, Barbara Hertel, Sang Hi Emden, Jan Beneke, Hermann Haller, Sibylle von Vietinghoff

## **PII-34 Inflammatory endothelial microparticles (EMPs) contribute to cellular interaction as a bioactive carrier**

Seiji Yamamoto (Toyama, Japan)

Seiji Yamamoto, Erika Azuma, Tsutomu Yanagibashi, Masashi Ikutani, Yoshinori Nagai, Kiyoshi Takatsu, Kenji Miyazaki, Mitsuko Dohmoto, Masashi Muramatsu, Naoyuki Matsuda, Shumpei Niida, Yuichi Hattori

## **Genetic Diseases / Other (PII-35 - PII-45)**

## **PII-35 CCM1/ICAP-1 complex controls $\beta$ 1 integrin-dependent extracellular matrix remodeling and vascular integrity**

Eva Faurobert (Grenoble, France)

Eva Faurobert, Claire Rome, Justyna Lisowska, Sandra Manet-Dupé, Gwénola Boulday, Marilynne Malbouyres, Martial Balland, Michelle Kéramidas, Daniel Bouvard, Jean-Luc Coll, Florence Ruggiero, Elisabeth Tournier-Lasserre, Corinne Albiges-Rizo

## **PII-36 Adenosine A2B receptor agonism inhibits vascular smooth muscle cell proliferation and intimal hyperplasia in ApoE-deficient mice**

Ilze Bot (Leiden, The Netherlands)

Ilze Bot, Henk de Vries, Martine Bot, Theo J.C. Van Berkel, Adriaan P. IJzerman, Johan Kuiper

## **PII-37 ERK 1/2 is involved in anti-angiogenic effect of polyphenols-enriched fraction from chilean propolis**

Alejandro Cuevas (Angol, Chile)

A. Cuevas, N.Saavedra, M. Rudnicki, D.S.P. Abdalla, L.A. Salazar

## **PII-38 Plasma proteomics: An insight into the pathological activity of abdominal aortic aneurysms (AAA)**

Saima Ehsan (Leicester, UK)

Saima Ehsan, David Boocock, Graham Ball, Karl Herbert, Robert Sayers, Matthew Bown

## **PII-39 Attenuated or inversed dicrotic wave of toe photoplethysmography is predictive of hypotension: Observation and application in a patient with severe hypoxic-ischemic brain injury**

Jin Fan (Beijing, China)

Jin Fan, ZhiQing Fu, Jian Li, Qing Zhu, XiuJin Zhang, QuanJin Si, YuTang Wang

## **PII-40 Investigation of the causal contribution of selective blood-brain barrier glucose transport processes to brain edema formation and functional deterioration after experimental focal brain ischemia and traumatic brain injury**

Carola Förster (Wuerzburg, Germany)

Elaine Salvador, Winfried Neuhaus, Herman Koepsell, Serge Thal, Carola Förster

## **PII-41 Chronic therapy with isosorbide-5-mononitrate causes endothelial dysfunction, oxidative stress and a marked increase in vascular endothelin-1 expression**

Anna Gottschlich (Mainz, Germany)

Anna Gottschlich, Matthias Oelze, Maike Knorr, Swenja Kröller-Schön, Sabine Kossmann, Robert Rümmler, Alexandra Schuff, Steffen Daub, Christopher Doppler, Hartmut Kleinert, Tommaso Gori, Andreas Daiber, Thomas Münzel

## **PII-42 Nrf-2-dependent and -independent mechanisms contribute to the cytoprotective actions of n-3 PUFAs carried in chylomicron remnants on aortic endothelial cells**

Sally Latham (London, UK)

S.H. Latham, R. Purcell, C. Lawson, K. Botham and C.P.D. Wheeler-Jones

## **PII-43 L-Carnitine transport in human fetal endothelial cells and modulation of human umbilical vein reactivity**

Andrea Leiva (Santiago, Chile)

A. Leiva, E. Guzmán-Gutiérrez, C. Salomón, P.S. Arroyo, M.V. Zambrano, A. Ruiz, A. Blanca, A. Mate, C. Vásquez, L. Sobrevia

## **PII-44 Control of arterial remodeling by nuclear expulsion of myocardin in vascular smooth muscle cells**

Larissa Pfisterer (Heidelberg, Germany)

Larissa Pfisterer, Anja Feldner, Markus Hecker, Thomas Korff

## **PII-45 Early diagnostic markers for NSTEMI preceding troponine**

Tineke van der Pouw Kraan (Amsterdam, The Netherlands)

C.T.M. van der Pouw Kraan F.J.P. Bernink, J.M. Baggen L. Timmers, A.M. Beek, M. Diamant, W.J.Y. Chen, A.C. v Rossum, N. v Royen, A.J.G. Horrevoets, Y. Appelman

## **Cardiopulmonary System (PII-46 - PII-49)**

### **PII-46 Ephrin-B2 regulates PDGFR $\beta$ function in vascular smooth muscle cells**

Akiko Nakayama (Muenster, Germany)

Akiko Nakayama, Masanori Nakayama, Ralf Adams

### **PII-47 Cerebral cavernous malformations proteins in cardiac morphogenesis**

Salim Seyfried (Berlin, Germany)

Marc Renz, Cécile Otten, Franziska Rudolph, Johan Duchene, Salim Abdelilah-Seyfried

### **PII-48 PAR-2 inhibition reverses experimental pulmonary hypertension**

Malgorzata Wygrecka (Giessen, Germany)

G. Kwapiszewska, P. Markart, B.K. Dahal, B. Kojonazarov, L.M. Marsh, R.T. Schermuly, C. Taube, A. Meinhardt, H.A. Ghofrani, M. Steinhoff, W. Seeger, K.T. Preissner, A. Olschewski, N. Weissmann, M. Wygrecka

### **PII-49 Role of protein arginine methyltransferase (PRMT) 1 in the pathogenesis of idiopathic pulmonary fibrosis (IPF)**

Dariusz Zakrzewicz (Giessen, Germany)

D. Zakrzewicz, A. Zakrzewicz, D. M. Didiasova, K.T. Preissner, M. Wygrecka

## **Inflammation (PII-50 - PII-80)**

### **PII-50 Comparison of endothelin and nitric oxide synthase blockade on hemorheological parameters in endotoxaemic rats**

Okan Arihan (Ankara, Turkey)

Okan Arihan, Neslihan H. Dikmenoglu, Alper B. Iskit

### **PII-51 The effect of smooth muscle cell-monocyte interactions on inflammatory molecules and oxidative stress production**

Elena Butoi (Bucharest, Romania)

Elena Butoi Dragomir, Ana Maria Gan, Ileana Manduteanu, Daniela Stan, Manuela Calin, Monica Pirvulescu, Rory Ryan Koenen, Christian Weber, Maya Simionescu

### **PII-52 An investigation into the expression and regulation of expression of endothelial cell JAM-C in inflammation in vivo**

Bartomeu Colom (London, UK)

Bartomeu Colom, David A Leinster, Mathieu-Benoit Voisin, Triantafyllos Chavakis, Beat A. Imhof, Sussan Nourshargh

**PII-53 The influence of chylomicron remnants on macrophage phenotype: modulation by fatty acid composition and oxidative state**

Paola Di Maggio (London, UK)

Paola Di Maggio, Charlotte Lawson, Caroline P. D. Wheeler-Jones, Kathleen M. Botham

**PII-54 Patients with peripheral arterial disease show an ameliorated proinflammatory status over 6 months parallel to an increased walking distance**

Jörn Fredrik Dopheide (Mainz, Germany)

Joern F. Dopheide, Vivane Obst, Christopher Doppler, Martin Scheer, Marie-Christine Radmacher, Markus Radsak, Tommaso Gori, Ascan Warnholtz, Christian Fottner, Thomas Münzel, Andreas Daiber, Christine Espinola-Klein

**PII-55 New insights into the pro-inflammatory activities of angiotensin II (AngII) on neutrophils: induction of MIP-1 $\beta$  synthesis and release**

Elizabeth Dumas (Montréal, Canada)

Elizabeth Dumas, Karine Martel, Paul-Eduard Neagoe, Martin G Sirois

**PII-56 Sphingosine kinase-1 regulates adhesion molecule expression for and neutrophil trafficking during the early phase of allergic inflammation**

Lisa Ebert (Adelaide, Australia)

Wai Yan Sun, Latasha Abeynaik, Lisa Ebert, Samantha Escarbo, Stuart Pitson, Michael Hickey, Claudine Bonder

**PII-57 LTB<sub>4</sub> induces changes in vascular morphology**

Michaela Finsterbusch (London, UK)

Michaela Finsterbusch, Mathieu-Benoit Voisin, Sussan Nourshargh

**PII-58 Proinflammatory cytokines induce nanoscale changes at the plasma membrane of endothelial cells**

Jonas Franz (Muenster, Germany)

Jonas Franz, Moritz Beutel, Christoph Riethmüller

**PII-59 Inflammatory stimuli down-regulate ribonuclease1 in human endothelial cells**

Julia Gansler (Giessen, Germany)

Julia Gansler, Klaus T. Preissner, Silvia Fischer

**PII-60 Inflammatory and anti-coagulant intervention strategies are not effective in reducing the effects of ionizing radiation on plaque size and phenotype in ApoE<sup>-/-</sup> mice**

Saske Hoving (Amsterdam, The Netherlands)

Saske Hoving, Sylvia Heeneman, Hans te Poele, Jeffrey Pol, Nicola Russell, Marion Gijbels, Fiona Stewart, Mat Daemen

**PII-61 Paxillin phosphorylation mediates vascular endothelial cadherin internalisation during lymphocyte transmigration**

Natalie Hudson (London, UK)

Natalie Hudson, Roberta Martinelli, John Greenwood, Patric Turowski

**PII-62 Role of the endothelial-derived endogenous anti-inflammatory factor Del-1 in inflammation-mediated adrenal gland dysfunction**

Waldemar Kanczkowski (Dresden, Germany)

Waldemar Kanczkowski, Antonios Chatzigeorgiou, David Sprott, Sylvia Grossklaas, Stefan Bornstein, Triantafyllos Chavakis

**PII-63 The role of the extracellular matrix in leukocyte infiltration into the pancreas of non-obese diabetic (NOD) mice**

Eva Korpos (Muenster, Germany)

Eva Korpos, Nadir Kadri, Reinhild Kappelhoff, Christopher Overall, Ekkehard Weber, Dan Holmberg, Susanna Cardell, Lydia Sorokin

## **PII-64 Myeloperoxidase interactions with thrombocytes**

Lukas Kubala (Brno, Czech Republic)

Kolarova H., Adam M., Gajdova S., Klinke A., Pekarova M., Baldus S., Kubala L.

## **PII-65 Impact of the EphrinB/EphB system on pro-inflammatory monocyte-endothelial cell interaction**

Hui Liu (Heidelberg, Germany)

Hui Liu, Markus Hecker, Thomas Korff

## **PII-66 Inflammatory signaling synergizes with TGF $\beta$ 2 in the induction of endothelial to mesenchymal transition**

Monika Maleszewska (Groningen, The Netherlands)

Monika Maleszewska, Jan-Renier Moonen, Guido Krenning, Martin C. Harmsen

## **PII-67 The role of FOXQ1 in monocyte transmigration**

Ilja Ovsy (Mannheim, Germany)

Ilja Ovsy, Ioannis Manousaridis, Vladimir Riabov, Aida Avdic, Aliyah Sanders, Sergij Goerd, Elisabeth Kremmer, Guido Krenning, Marco Harmsen, Alexei Gratchev, Julia Kzhyshkowska

## **PII-68 Anti-inflammatory vascular effects of resveratrol are mediated by the RNA binding protein KSRP**

Andrea Pautz (Mainz, Germany)

Julia Art, Verena Besche, Matthias Bros, Huige Li, Norbert Handler, Florian Bauer, Thomas Erker, Felix Behnke, Bettina Mönch, Ulrich Förstermann, Verena M. Dirsch, Oliver Werz, Hartmut Kleinert, Andrea Pautz

## **PII-69 Neutrophil extracellular traps directly induce epithelial and endothelial cell death: A predominant role of histones**

Mona Saffarzadeh (Giessen, Germany)

Mona Saffarzadeh, Christiane Juenemann, Markus A. Queisser, Guenter Lochnit, Guillermo Barreto, Sebastian P. Galuska, Juergen Lohmeyer, Klaus T. Preissner

## **PII-70 Effects of IL-1 $\beta$ and IL-1 receptor antagonist in hepatocellular cancer**

Olga Salnikova (Heidelberg, Germany)

O. Salnikova, K. Breuhahn, J. Schmidt, E. Ryschich

## **PII-71 Inflammation and the development of late vascular damage after radiotherapy**

Marion Scharpfencker (Amsterdam, The Netherlands)

M. Scharpfenecker, B. Floot, N.S. Russell, F.A. Stewart

## **PII-72 Angiopoietin-2 promotes myeloid cell infiltration in a $\beta$ -2 integrin-dependent manner**

Alexander Scholz (Frankfurt, Germany)

Alexander Scholz, Victoria Lang, Reinhard Henschler, Marcus Czabanka, Peter Vajkoczy, Emmanouil Chavakis, Janina Drynski, Patrick N. Harter, Michel Mittelbronn, Daniel J. Dumont, Karl H. Plate, Yvonne Reiss

## **PII-73 Vascular endothelial cadherin cleavage: A perturbation of adherens junction gatekeeper occurs during rheumatoid arthritis**

Adama Sidibe (Grenoble, France)

Adama Sidibé, Tiphaine Mannic, Mélanie Arboleas, Mariela Subileau, Danielle Gulino-Debrac, Laurence Bouillet, Mary Jan, Thibault Vandhuick, Xavier Le Loët, Olivier Vittecocq, Isabelle Vilgrain

## **PII-74 Impaired macrophage resolution at inflammatory sites in mice lacking leukocyte ADAM17**

Jingjing Tang (Seattle, USA)

Jingjing Tang, Carole L. Wilson, Ivan G. Gomez, Elaine W. Raines

**PII-75 DNA-dependent protein kinase (DNA-PK) modulates proliferation of vascular smooth muscle cells through the orphan nuclear receptor NOR1**

Veronika Thonn (Magdeburg, Germany)

Veronika Thonn, Senad Medunjanin, Frank Burgbacher, Ruth H. Strasser, Dennis Bruemmer, Alexander Schmeisser, Ruediger C. Braun-Dullaeus

**PII-76 Complex formation of urokinase-type plasminogen activator with plasminogen activator inhibitor-1 enhances its potential to promote extravasation of neutrophils and inflammatory monocytes**

Bernd Uhl (Munich, Germany)

Bernd Uhl, Marc Praetner, Gabriele Zuchtriegel, Max Lerchenberger, Paul J. Declerck, Sandip Kanse, Fritz Krombach, Christoph A. Reichel

**PII-77 Disruption of CD200L-CD200R axis results in increased local inflammation after triggering arteriogenesis in CD200L-deficient mice**

Pleunie van den Borne (Utrecht, The Netherlands)

P. van den Borne, A. Hoogendoorn, T.P. Rygiel, L. Meyaard, I.E. Hoefer, G. Pasterkamp

**PII-78 T box expressed in T cells (T-bet) is a mediator of angiotensin II induced vascular dysfunction, oxidative stress and inflammation**

Philip Wenzel (Mainz, Germany)

Maria Isabel Schmidgen, Sabine Kossmann, Michael Hausding, Melanie Schwenk, Maike Knorr, Susanne Karbach, Nir Yogev, Moritz Brandt, Ari Waisman, Matthias Oelze, Swenja Kröller-Schön, Christian Becker, Andreas Daiber, Thomas Münzel, Philip Wenzel

**PII-79 Insulin resistance at the endothelial cell level is a pathogenic link between psoriasis and its cardiovascular co-morbidities**

Kathrin Woth (Frankfurt, Germany)

Kathrin Woth, Katja Hardt, Sandra Diehl, Claudia Buerger, Wolf-Henning Boehncke

**PII-80 Inhibition of the SDF-1/CXCR4 axis alleviates chronic and acute skin inflammation**

Silvana Zraggen (Zurich, Switzerland)

Silvana Zraggen, Reto Huggenberger, Alexandra M. Ochsenein, Steven Proulx, David Aebischer, Michael Detmar

## Vascular Signaling (PII-81 - PII-85)

**PII-81 Beneficial effects of endothelial 'oxidative stress' on coronary vascular functions**

Ruhul Abid (Providence, USA)

Jun Feng, Vinicius Schoeps, Cesario Bianchi, Frank Sellke, Ruhul Abid

**PII-82 Hydrogen peroxide signaling in laminar shear stress**

Rosa Breton-Romero (Madrid, Spain)

Rosa Breton-Romero, Fernando Rodriguez-Pascual and Santiago Lamas

**PII-83 Uremia-induced nitric oxide resistance leads to decreased AV fistula function**

Irma Geenen (Maastricht, The Netherlands)

I.L.A. Geenen, F.F. Kolk, D.G.M. Molin, A. Wagenaar, J.H.M. Tordoir, G.W.H. Schurink, J.G.R. de Mey, M.J. Post

**PII-84 eNOS traffic inducer NOSTRIN is an important regulator of vascular function**

Igor Kovacevic (Frankfurt, Germany)

Igor Kovacevic, Tanja Hindemith, Mary Lee, Annemarieke Loot, Ingrid Fleming, Meike Hoffmeister, Stefanie Oess

## **PII-85 Hic-5 deficiency blocks the development of angiotensin II-induced abdominal aortic aneurysms in mice**

Lei Xiao-Feng (Tokyo, Japan)

Xiao-Feng Lei, Joo-ri Kim-Kaneyama, Shigeko Arita, Takuro Miyazaki, Akira Miyazaki

## **Vascular Diseases (PII-86 - PII-94)**

### **PII-86 Cancer predisposes peripheral neutrophils to generate extracellular DNA traps: A new link to cancer-associated thrombosis**

Melanie Demers (Boston, USA)

Mélanie Demers, Daniela S. Krause, Daphne Schatzberg, Kimberly Martinod, Jaymie R. Voorhees, Tobias A. Fuchs, David T. Scadden, Denisa D. Wagner

### **PII-87 A novel mechanism for hypofibrinolysis in diabetes: The role of Complement C3**

Katharina Hess (Aachen, Germany)

K. Hess, V. Schroeder, S. Alzahrani, M. Mathai, G. Howell, K. Smith, A.M. Carter, N. Marx, P.J. Grant, R.A. Ajjan

### **PII-88 Differential influence of extracellular adhesion protein (Eap) from Staphylococcus aureus on blood coagulation and fibrinolysis**

Christiane Juenemann (Giessen, Germany)

Christiane Jünemann, Brian V. Geisbrecht, Mathias Herrmann, Klaus T. Preissner

### **PII-89 Microvessel thrombosis as an instrument of innate immunity**

Davit Manukyan (Mainz, Germany)

D. Manukyan, M.L. von Bruehl, S. Pfeiler, L. Grahl, K. Bidzhekov, A.B. Khandagale, I. Konrad, C. Reinhardt, E. Kennerknecht, K. Reges, S. Braun, C. Goosmann, V. Brinkmann, M. Spannagl, K.T. Preissner, S. Massberg, B. Engelmann

### **PII-90 Atherogenic effects of thrombin via regulation of sphingosine kinase-1 (SPHK-1) expression in vascular smooth muscle cells**

Bernhard Rauch (Greifswald, Germany)

Anja Flößer, Andreas Böhm, Andrea Fischer, Heyo K. Kroemer, Bernhard H. Rauch

### **PII-91 Neutrophil extracellular traps contribute to DVT formation by providing a prothrombotic and procoagulant surface**

Konstantin Stark (Munich, Germany)

Konstantin Stark, Marie-Luise von Brühl, Alexander Steinhart, Sue Chandraratne, Anca Tirniceriu, Michael Lorenz, Annekathrin Eckart, Selgai Haidari, Susanne Pfeiler, Davit Manukyan, Jerry Ware, Volker Brinkmann, Klaus T. Preissner, Bernd Engelmann, Steffen Massberg

### **PII-92 Regulation of cAMP dependent Weibel-Palade Body exocytosis from endothelial cells**

Kathinka van Hooren (Amsterdam, The Netherlands)

Kathinka WEM van Hooren, Ellen A van Agtmaal, Mar Fernandez-Borja, Jan Voorberg, Ruben Bierings

### **PII-93 Naturally occurring fibrin variants modify scaffold vascularization in tissue engineering**

Ester Weijers (Amsterdam, The Netherlands)

Ester M. Weijers, Geerten P. van Nieuw Amerongen, Victor W.M. van Hinsbergh, Pieter Koolwijk

### **PII-94 Deficiency of plasma SCUBE1, a novel platelet adhesive protein, impairs thrombus stabilization and protects mice against thrombosis**

Ruey-Bing Yang (Taipei, Taiwan)

Meng-Ying Wu, Yuh-Charn Lin, Wei-Ju Liao, Ruey-Bing Yang



## Stem Cell Biology (PIII-01 – PIII-10)

### **PIII-01 Characterization of a distinct population of circulating human colony-forming endothelial progenitor cells**

Claudine Bonder (Adelaide, Australia)

Sarah L. Appleby, Jyotsna Pippal, Michaelia P. Cockshell, Emma Thompson, Gert Talbo, Angel Lopez, Claudine S. Bonder

### **PIII-02 Raman spectroscopy for stem cell detection and classification of viability states**

Steffen Koch (Tutzing, Germany)

Steffen Koch, Katja Schenke-Layland, Heike Walles, Karin Schütze

### **PIII-03 RSK4 regulates endothelial differentiation through suppression of cAMP/PKA-mediated Flk1 induction**

Taichi Matsunaga (Kyoto, Japan)

Taichi Matsunaga, Kohei Yamamizu, Kazuko Koshiba-Takeuchi, Mizuyo Kojima, Jun K. Takeuchi, Jun K. Yamashita

### **PIII-04 Distinct profiles of angiogenic mediators produced by mesenchymal stem cells of patients with chronic heart failure and co-morbidities**

Izida Minullina (Saint-Petersburg, Russian Federation)

I. Minullina, R. Dmitrieva, I. Meln, P. Butylin, S. Anisimov, A. Zaritskey

### **PIII-05 Identification and characterization of a resident vascular stem/progenitor cell population in preexisting endothelial cells**

Hisamichi Naito (Suita, Osaka, Japan)

Hisamichi Naito, Hiroyasu Kidoya, Susumu Sakimoto, Taku Wakabayashi, Kazuhiro Takara, Nobuyuki Takakura

### **PIII-06 Infection of human endothelial progenitor cells with Bartonella henselae induces vessel-like growth in vitro**

Fiona O'Rourke (Frankfurt, Germany)

Fiona O'Rourke, Tanja Mändle, Carmen Urbich, Stefanie Dimmeler, Kirsten Lauber, Volkhard A.J. Kempf

### **PIII-07 Outgrowth endothelial cell ex vivo expansion is associated with a pro-inflammatory phenotype and impaired vasoreparative function**

Michelle O'Doherty (Belfast, UK)

T.M. O'Doherty, R.J. Medina, C.L. O'Neill, S. Wilson, J. Guduric-Fuchs, A.W. Stitt

### **PIII-08 High glucose induces cellular dysfunction and premature senescence in endothelial progenitor cells (EPCs)**

Christina O'Neill (Belfast, UK)

Christina L. O'Neill, Reinhold J. Medina, Michelle T. O'Doherty, Sarah E. J. Wilson, Alan W. Stitt

### **PIII-09 Chemically defined conditions for derivation and expansion of endothelial cells from human Pluripotent Stem Cells (hPSCs)**

Valeria Orlova (Leiden, The Netherlands)

Valeria Orlova, Christian Freund, Dorien Ward-van Oostwaard, Konstantinos Gkatzis, Richard Davies, Peter ten Dijke, Christine Mummery

### **PIII-10 Vascular endothelial side population cells in the mouse liver blood vessels contribute to angiogenesis in vivo**

Taku Wakabayashi (Suita, Japan)

Taku Wakabayashi, Hisamichi Naito, Hiroyasu Kidoya, Kazuhiro Takara, Susumu Sakimoto, Nobuyuki Takakura

## Angiogenesis in Pathology (PIII-11 - PIII-66)

### **PIII-11 Permissive role of miR-663 in induction of VEGF and activation of the ATF4 branch of unfolded protein response in endothelial cells by oxidized phospholipids**

Taras Afonyushkin (Vienna, Austria)

Taras Afonyushkin, Olga V. Oskolkova, Valery N. Bochkov

### **PIII-12 In vitro and in vivo analyses of mesenchymal cells originated by endothelial-mesenchymal transition (EndMT)**

Yuichi Akatsu (Tokyo, Japan)

Yuichi Akatsu, Hajime Mihira, Yasuhiro Yoshimatsu, Kohei Miyazono, Tetsuro Watabe

### **PIII-13 A novel cell population from peripheral blood as surrogate marker for monitoring active tumor angiogenesis**

Ruben Bill (Basel, Switzerland)

E. Fagiani, R. Bill, J. Laurent, C. Ruegg, G. Christofori

### **PIII-14 Pericytes from infantile hemangioma display pro-angiogenic properties and dysregulated angiopoietin-dependent vascular maturation**

Elisa Boscolo (Boston, USA)

Elisa Boscolo, John B. Mulliken, Joyce Bischoff

### **PIII-15 Therapeutic angiogenesis in prevention of chronic heart failure**

Ebba Brakenhielm (Rouen, France)

Sébastien Banquet, Elodie Gomez, Lionel Nicol, Florence Edwards-Lévy, Jean-Paul Henry, Renhai Cao, Damien Schapman, Brigitte Dautreaux, Françoise Lallemand, Fabrice Bauer, Yihai Cao, Christian Thuillez, Paul Mulder, Vincent Richard, Ebba Brakenhielm

### **PIII-16 The dual role of the transcription factor Junb in tumor angiogenesis**

Jennifer Braun (Heidelberg, Germany)

Jennifer Braun, Karin Strittmatter, Kristin Kiesow, Dorde Komljenovic, Tobias Bäuerle, Peter Angel, Marina Schorpp-Kistner

### **PIII-17 Role of the transcriptional repressors Bcl-6/BCoR in angiogenic sprouting and endothelial cell cycle progression**

Christine Brostjan (Vienna, Austria)

Elisabeth Buchberger, Miriam El Harchi, Dietmar Payrhuber, Anna Zommer, Christine Brostjan

### **PIII-18 Angiogenesis is challenged in experimental brain metastases**

Edina Bugyik (Budapest, Hungary)

Edina Bugyik, Vanessza Szabó, Katalin Dezs, Péter Nagy, Sandor Paku

### **PIII-19 RIP-Tag2 mice lacking HRG display impaired vascular function and increased metastasis**

Jessica Cedervall (Uppsala, Sweden)

Jessica Cedervall, Yanyu Zhang, Åsa Thulin, Maria Ringvall, Wilhelm Jahnen-Dechent, Agneta Siegbahn, Anna-Karin Olsson

### **PIII-20 Effect of tellurium compounds on the interaction between retinal pigment epithelium (RPE) cells and endothelial cells (EC) in co-culture**

Rima Dardik (Tel Hashomer, Israel)

Rima Dardik, Tami Livnat, Yael Nisgav, Shirley Azar-Avivi, Benjamin Sredni, Dov Weinberger

### **PIII-21 Palmitic acid promotes pro-oxidant adaptor protein p66Shc expression and affects vascularization factors in pro-angiogenic cells**

Julie Favre (Amsterdam, The Netherlands)

Julie Favre, Cansu Yildirim, Juan-Jesus Garcia-Vallejo, Ruud Fontijn, Tineke van der Pouw-Kraan, Anton Horrevoets

## **PIII-22 Fibrin fragment E stimulates myofibroblast recruitment and differentiation**

Peder Fredlund Fuchs (Uppsala, Sweden)  
Peder Fredlund Fuchs, Johan Kreuger, Pär Gerwins

## **PIII-23 Tumor pericytes regulate malignancy by specifically controlling the transmigration of myeloid-derived suppressor cells (MDSC)**

Guillem Genove (Stockholm, Sweden)  
JongWook Hong, Hanyu Qin, Mirjana Poljakovic, Guillem Genové

## **PIII-24 FGD5 is highly expressed by endothelial cells in vascular sprouts and modulates VEGFA signaling**

Johan Heldin (Uppsala, Sweden)  
Johan Heldin, Peder Fredlund Fuchs, Zsolt Kasza, Paul O'Callaghan, Pontus Aspenström, Anqi Xiong, Karin Forsberg-Nilsson, Pär Gerwins, Johan Kreuger

## **PIII-25 Tumor endothelial cells acquire drug resistance by MDR1 upregulation**

Kyoko Hida (Sapporo, Japan)  
Kyoko Hida, Kosuke Akiyama, Noritaka Ohga, Yasuhiro Hida, Taisuke Kawamoto, Yoshihiro Sadamoto, Nako Maishi, Tomoshige Akino, Miyako Kondoh, Masanobu Shindoh

## **PIII-26 Angiopoietin-like protein 2 contributes to pathogenesis of diabetic retinopathy**

Yasuhiro Ito (Kumamoto, Japan)  
Yasuhiro Ito, Yuichi Oike, Hidenobu Tanihara

## **PIII-27 Dissecting the role of apelin-APJ signaling in gliomagenesis**

Roland Kälin (Berlin, Germany)  
Roland E. Kälin, Anne Jarczewski, Raymond Monk, Stefanie Kraft, Josefine Radke, Frank L. Heppner

## **PIII-28 Human endothelial colony forming cells and mesenchymal progenitor cells form functional blood vessels in rat myocardium after ischemia/reperfusion injury**

Kyu-Tae Kang (Boston, USA)  
Kyu-Tae Kang, Matthew Coggins, Chunyang Xiao, Anthony Rosenzweig, Joyce Bischoff

## **PIII-29 Peripheral nerve is critical for vasa vasorum maturation in injured vascular walls - Effects of substance P on pericytes-mediated vascular maturation**

Jun-ichi Kawabe (Asahikawa, Japan)  
Maki Kabara, Jun-ichi Kawabe, Akira Asanome, Atsushi Yamauchi, Motoki Matsuki, Naofumi Takehara, Naoyuki Hasebe

## **PIII-30 Tumor-derived microvesicles induce proangiogenic phenotype in endothelial cells via endocytosis**

Taisuke Kawamoto (Sapporo, Japan)  
Taisuke Kawamoto, Noritaka Ohga, Kosuke Akiyama, Naoya Hirata, Shuji Kitahara Nako Maishi, Takahiro Osawa, Kazuyuki Yamamoto, Miyako Kondoh, Masanobu Shindoh, Yasuhiro Hida, Kyoko Hida

## **PIII-31 PHD3 silencing leads to increased tumor growth and enlarged tumor vessels**

Antje Kettelhake (Dresden, Germany)  
Antje Kettelhake, Maryam Rezaei, Aleksandar Kuzmanov, David Poitz, Ben Wielockx, Georg Breier

## **PIII-32 Involvement of HIF-2, but not HIF-1, in chronic hypoxia-induced inhibition of tube formation by human endothelial cells in 3D fibrin matrices**

Pieter Koolwijk (Amsterdam, The Netherlands)  
Pieter Koolwijk, Monique C. Duyndam, Ester M. Weijers, Victor W.M. van Hinsbergh

**PIII-33 Vasohibin-2 expressed in human ovarian serous adenocarcinoma accelerates tumor growth by promoting angiogenesis**

Takahiro Koyanagi (Sendai, Japan)

Takahiro Koyanagi, Yoshifumi Takahashi, Yasuhiro Suzuki, Yasushi Saga, Naoki Kanomata, Takuya Moriya, Yasuhiko Tabata, Mitsuaki Suzuki, Yasufumi Sato

**PIII-34 The protease MT1-MMP drives a combinatorial proteolytic program in activated endothelial cells**

Agnieszka Koziol (Madrid, Spain)

Agnieszka Koziol, Pilar Gonzalo, Alba Mota, Angela Pollan, Cristina Lorenzo, Nuria Colomé, David Montaner, Joaquin Dopazo, Joaquin Arribas, Francesc Canals, Alicia G. Arroyo

**PIII-35 ADAMTS5 functions as an angiogenesis inhibitor and suppresses melanoma growth in mice**

Saran Kumar (Singapore, Republic of Singapore)

Saran Kumar, Soheila Sharghi-Namini, Nithya Rao, Ruowen Ge

**PIII-36 The recombinant lectin-like domain of thrombomodulin inhibits EGF-induced angiogenesis through interaction with Lewis Y antigen**

Cheng-Hsiang Kuo (Tainan, Taiwan)

Cheng-Hsiang Kuo, Po-Ku Chen, Bi-Ing Chang, Meng-Chen Sung, Chung-Sheng Shi, Jeng-Shin Lee, Chuan-Fa Chang, Guey-Yueh Shi, Hua-Lin Wu

**PIII-37 Transcriptional profiling identifies CD93 as a novel tumor vessel marker in human glioblastoma**

Elise Langenkamp (Uppsala, Sweden)

Elise Langenkamp, Lei Zhang, Sofie Mellberg, Lothar Dieterich, Tommie Olofsson, Irina Alafuzoff, Fredrik Pontén, Anna Dimberg

**PIII-38 Angiopoietin-1 induces vascular regeneration in ischemic retinopathies**

Junyeop Lee (Daejeon, Korea)

Junyeop Lee, Kyung Eun Kim, Honsoul Kim, Toshio Suda, Naoki Mochizuki, Yoshikazu Nakaoka, Issei Komuro, Ook-Joon Yoo, Gou Young Koh

**PIII-39 The role of endothelial JAM-C in inflammatory and vascular events associated with a murine model of ovarian cancer**

Andrew Leinster (London, UK)

David A Leinster, Bartomeu Colom, James R Whiteford, Triantafyllos Chavakis, Michel Aurrand-Lions, Beat A Imhof, Frances R Balkwill, Sussan Nourshargh

**PIII-40 The EF-hand calcium-binding protein S100A1 is critical for ischemic angiogenesis**

Carolin Lerchenmueller (Heidelberg, Germany)

Carolin Lerchenmueller, Walter J. Koch, Hugo A. Katus, Karsten Peppel, Patrick Most

**PIII-41 Targeting Olfactomedin-like 3, a BMP4 agonist, inhibits tumor growth by impairing angiogenesis and pericyte coverage**

Marijana Licina (Geneva, Switzerland)

Marijana Miljkovic-Licina, Philippe Hammel, Sarah Garrido-Urbani, Boris P.-L. Lee, Mehdi Meguenani, Chiraz Chabaane, Marie-Luce Bochaton-Piallat, Beat A. Imhof

**PIII-42 Overexpression of pro-angiogenic cytokines affects the proliferation, migration and tube formation abilities of human endothelial progenitor cells**

Monika Litwin (Wroclaw, Poland)

Monika Litwin, Dagmara Baczynska, Agata Radwanska, Wojciech Witkiewicz, Tadeusz Dobosz

## **PIII-43 The angiogenic potential of myeloid angiogenic cells (MACs) is regulated by cell density and associated alterations in the secretome**

Reinhold Medina (Belfast, UK)

Reinhold J. Medina, Christina L. O'Neill, Michele O'Doherty, Sarah E.J. Wilson, Jasenka Guduric-Fuchs, Alan W. Stitt

## **PIII-44 Proangiogenic gene expression level in critical limb ischemia (CLI)**

Dagmara Michalowska (Wroclaw, Poland)

Michalowska Dagmara, Baczynska Dagmara, Skora Jan, Barc Piotr, Dobosz Tadeusz

## **PIII-45 Microglia modulate vascularization in glioblastoma multiforme**

Annett Müller (Berlin, Germany)

Annett Müller, Susan Brandenburg, Christin Schmidt, Kati Turkowski, Frank L. Heppner, Peter Vajkoczy

## **PIII-46 Platelets mediate the accelerated angiogenic switch in mice lacking histidine-rich glycoprotein**

Anna-Karin Olsson (Uppsala, Sweden)

Maria Ringvall, Åsa Thulin, Jessica Cedervall, Zhang Lei, Wilhelm Jahnen-Dechent, Agneta Siegbahn, Anna-Karin Olsson

## **PIII-47 Paradoxically impaired development of atherosclerosis in hyperlipidemic Down's syndrome candidate region-1/- and apolipoprotein E-/- double-knockout mice**

Tsuyoshi Osawa (Tokyo, Japan)

Tsuyoshi Osawa, Kazuhiro Toyama, Suguru Nakagawa, Mai Miura, Jun-ichi Suehiro, Toshiya Tanaka, Hiroyuki Aburatani,

Tatsuhiko Kodama, Takashi Minami

## **PIII-48 Aspartame induces angiogenesis in chick chorioallantoic membrane**

Taner Ozgurtas (Ankara, Turkey)

T. Ozgurtas T, F. Aydin, O.Fermanli, S. Tekin, F. Yesildal

## **PIII-49 DKK1,2 role in tumor angiogenesis**

Hongryeol Park (Seoul, Korea)

Hongryeol Park, Jeong-Ki Min, Hye-yoon Jung, Ji-Young Yoo, Seung-sik Rho, Chae-Ok Yun, Young-Myoung Kim, Young-Guen Kwon

## **PIII-50 The role of Jagged1 in physiological angiogenesis**

Ana Rita Pedrosa (Lisboa, Portugal)

Pedrosa, Rita, Trindade, Alexandre, Carvalho, Catarina, Fernandes, Ana Carina, Adams, Ralf, Duarte, António

## **PIII-51 Domains I and IV of annexin A2 inhibit the formation of a vascular-like network in a co-culture system**

Aase Raddum (Bergen, Norway)

Aase Raddum, Lasse Evensen, Hanne Hollàs, James B. Lorens, Anni Vedeler

## **PIII-52 The cooperative role of tenascin-C and fibronectin in angiogenic endothelial cells**

Agata Radwanska (Nice, France)

Agata Radwanska, Dominique Grall, Benoit Langlois, Gertraud Orend, Ellen Van Obberghen-Schilling

## **PIII-53 Dual inhibition of Ang-2 and VEGF via a novel human bispecific bivalent IgG1 CrossMAb shows potent anti-angiogenic, anti-tumoral, and anti-metastatic efficacy and leads to a reduced side effect profile**

Romi Rämisch (Penzberg, Germany)

Romi Rämisch, Yvonne Kienast, Werner Scheuer, Erica Lorenzon, Frank Herting, Marielle Odin, Wolfgang Schäfer, Jörg Regula,

Kay Stubenrauch, Christian Klein, Markus Thomas

## **PIII-54 Endothelial Wnt/-catenin signaling reduces vascularization, blood-brain barrier breakdown and tumor growth in a mouse glioma model**

Marco Reis (Frankfurt, Germany)

Marco Reis, Cathrin J. Czupalla, Nicole Ziegler, Kavi Devraj, Jenny Zinke, Sascha Seidel, Rosario Heck, Sonja Thom, Jadranka Macas,

Ernesto Bockamp, Stefanie Dimmeler, Karl H. Plate, Stefan Liebner

**PIII-55 Long Pentraxin-3 inhibits FGF-dependent angiogenesis and growth of steroid hormone-regulated tumors**

Roberto Ronca (Brescia, Italy)

Roberto Ronca, Patrizia Alessi, Emanuela Di Salle, Daria Leali, Daniela Coltrini, Michela Corsini, Giorgia Nardo, Stefano Indraco, Cecilia Garlanda, Marco Presta

**PIII-56 Identification of novel tumor endothelial markers in human muscle invasive bladder carcinoma by laser capture microdissection and transcriptional profiling**

Filip Roudnicky (Zurich, Switzerland)

Filip Roudnicky, Cedric Poyet, Fabrizia Negrini, Peter Wild, Vivianne Otto, Tullio Sulser, Michael Detmar

**PIII-57 A novel mouse model of liver tumor progression to study angiogenesis in hepatocellular carcinoma**

Anja Runge (Heidelberg, Germany)

Anja Runge, Carolin Mogler, André Neumann, Dorde Komljenovic, Jan-Philip Bergeest, Bernd Arnold, Peter Schirmacher, Karl Rohr, Tobias Bäuerle, Sergij Goerd, Hellmut G Augustin

**PIII-58 Intracavernous delivery of blocking antibody to nerve injury-induced protein 1 (Ninjurin 1) restores erectile function through enhanced endothelial regeneration in the streptozotocin-induced diabetic mouse**

Ji-Kan Ryu (Incheon, Korea)

Ji-Kan Ryu, Guo Nan Yin, Hai-Rong Jin, Min Ji Choi, Kang-Moon Song, Mi-Hye Kwon, Woo Jean Kim, Jun-Kyu Suh

**PIII-59 Adjuvant anti-Ang-2 therapy inhibits postsurgical metastasis**

Kshitij Srivastava (Heidelberg, Germany)

Kshitij Srivastava, Junhao Hu, Alexander Schering, Manfred Jugold, Markus Thomas, Hellmut Augustin

**PIII-60 Von Willebrand factor regulates angiogenesis in von Willebrand disease patient's blood outgrowth endothelial cells**

Richard Starke (London, UK)

Richard D Starke, Koralia E Paschalaki, Sarah Mazi, Tuncay Sahutoglu, Jacqueline Cutler, Elspeth Payne, Carolyn Millar, Mike A Laffan, Anna M Randi

**PIII-61 In vitro biological activity of different transgenic anti-VEGF molecules as potential treatment options for retinal neovascular disorders**

Knut Stieger (Giessen, Germany)

K. Stieger, T. Wimmer, B. Lorenz

**PIII-62 Angiogenic inhibitors induce mature/drug-resistant blood vessels in the fibrous cap (the vasculature outside of tumor parenchyma)**

Kazuhiro Takara (Suita-Shi, Japan)

Takara Kazuhiro, Naito Hisamichi, Wakabayashi Taku, Kidoya Hiroyasu, Takakura Nobuyuki

**PIII-63 Inhibition of Notch signaling by DII4-Fc promotes reperfusion of acutely ischemic tissues**

Alexandre Trindade (Lisboa, Portugal)

Alexandre Trindade, Ren Liu, Zhanfeng Sun, Ram Kumar, Fred Weaver, Valery Krasnoperov, Naga Kranthi, Parkash S. Gill, Antonio Duarte

**PIII-64 Activation of signaling and transcriptional networks during TGF- $\beta$ -induced endothelial-mesenchymal transition (EndMT)**

Tetsuro Watabe (Tokyo, Japan)

Tetsuro Watabe, Hajime Mihira, Takashi Kokudo, Hiroshi I. Suzuki, Yuichi Akatsu, Yasuhiro Yoshimatsu, Kohei Miyazono

**PIII-65 Lymphadenectomy promotes tumor growth and cancer cell dissemination**

Kim Pin Yeo (Singapore, Republic of Singapore)

Yeo Kim Pin, Karen Khoo, Tan Karwai, Anne-Laure Puaux, Jean-Pierre Abastado, Véronique Angeli

## **PIII-66 Deleterious effect of IFN- $\beta$ on pro-angiogenic cells is mediated by calpainI**

Cansu Yildirim (Amsterdam, The Netherlands)

Cansu Yildirim, Julie Favre, Ruud D. Fontijn, Reinier A. Boon, Michiel H. van Wijhe, Pieter Koolwijk, S. van Vliet, Tineke C.T.M. van der Pouw-Kraan, Anton J.G. Horrevoets

## **Proteases (PIII-67 - PIII-76)**

### **PIII-67 Cyclo-oxygenase enzymes regulate the angiogenic functions of human lung microvascular endothelial cells**

Charlotte Farrar (London, UK)

C.E. Farrar, A.C. McSloy, E. Garonna, T. Warner, J. Mitchell, C.P.D. Wheeler-Jones

### **PIII-68 Seeking for the pro-angiogenic target of the metalloprotease meprin**

Jana Hedrich (Mainz, Germany)

Jana Hedrich, Elisa Nitzsche, Tamara Jefferson, Philipp Arnold, Mario DeJung, Ulrich auf dem Keller, Judith S. Bond, Jürgen Brieger, Christoph Becker-Pauly

### **PIII-69 The novel function of mannan binding lectin associated serine-protease-1 (MASP-1): Pro-inflammatory activation of endothelial cells**

Peter K. Jani (Budapest, Hungary)

Peter K. Jani, Marton Megyeri, Veronika Mako, Erika Kajdacsi, Peter Gal, Laszlo Cervenak

### **PIII-70 Novel regulatory mechanism for thrombin-dependent MMP-2 activity that is modulated by heparan sulfate**

Doo-Sik Kim (Seoul, Korea)

Bon-Hun Koo, Yeon Hyang Kim, Doo-Sik Kim

### **PIII-71 Reciprocal regulation of platelet derived growth factor-BB and bone morphogenetic protein-2 by factor VII activating protease in vascular smooth muscle cells**

Elfie Rödel (Giessen, Germany)

E. Rödel, F. Plöger, E. Schwarz, S.M. Kanse

### **PIII-72 Association between the expression of plasminogen activator inhibitor 1 and protease urokinase-type plasminogen activator as a discriminator between normal and cancerous prostate cells**

Gabriele Siegert (Dresden, Germany)

G. Siegert, A. Hagelgans, B. Arneth, O. Tiebel, S. Füssel, M. Menschikowski

### **PIII-73 The 8Cys subgroup of tetraspanins regulate ADAM10 expression in platelets, endothelial cells and erythrocytes**

Michael Tomlinson (Birmingham, UK)

Elizabeth J. Haining, Jing Yang, Kabir Khan, Richard Collier, Schickwann Tsai, Steve P. Watson, Jon Frampton, Paloma Garcia, Michael G. Tomlinson

### **PIII-74 Monocyte ADAM17 regulates transendothelial migration by promoting diapedesis**

Yoshiaki Tsubota (Seattle, USA)

Yoshiaki Tsubota, Jeremy M. Frey, Phillip W.L. Tai, Robert E. Welikson, Elaine W. Raines

### **PIII-75 Lipid binding Protein C Inhibitor (PCI) modulates the activity of the phosphoinositide-specific phosphatase SHIP2 in vitro**

Felix Wahlmüller (Vienna, Austria)

F. Wahlmüller, B. Sokolikova, D. Rieger, M. Geiger

## **PIII-76 The protease-activated receptor 1 (PAR1) possesses a functional and cleavable signal peptide which is essential for establishing a functional receptor**

Dimitrios Zampatis (Berlin, Germany)

Dimitris E. Zampatis, Nikos E. Tsopanoglou, Ralf Schülein

## **Neurovascular Interface (PIII-77 - PIII-79)**

### **PIII-77 Sympathetic activation causes nitregric vasodilation and increased blood flow in the brain stem**

Tony Lee (Hualien, Taiwan)

Hsi-Hsien Chang, Yuan-Chieh Lee, Mei-Fang Chen, Jon-Son Kuo, Tony J. F. Lee

### **PIII-78 Imaging of adhesion molecules in a murine model of vascular dementia**

Robert Eugen Poelmann (Leiden, The Netherlands)

Brigit den Adel, Ernst Suidgeest, Carmen Burtea, Robert, Muller, Louise van der Weerd, Robert E. Poelmann

### **PIII-79 VEGF modulates NMDA receptor activity in cerebellar granule cells through Src-family kinases before synapse formation**

Carmen Ruiz de Almodovar (Heidelberg, Germany)

Claire Meissirel, Carmen Ruiz de Almodovar, Ellen Knevels, Cathy Coulon Naura Chounlamountria, Inmaculada Segura, Pierre de Rossia, Stefan Vincier, Kristof Anthonis Bérangère Deléglise, Maria de Mol, Carine Ali, Karel Dassonville, Ellen Loyens, Jérôme Honnorat, Yvette Michotte, Véronique Rogemond, Ilse Smolders, Thomas Voets, Denis Vivien, Pieter Vanden Berghe, Ludo Van Den Bosch, Wim Robberecht, Alain Chédotal m Salvatore Oliviero, Mieke Dewerchin, Dietmar Schmucker, Nicole Thomasset, Paul Salin, Peter Carmeliet

## **Barrier and Permeability (PIII-80 - PIII-105)**

### **PIII-80 ARP2/3 complex controls endothelial junction integrity**

Abdallah Abu Taha (Muenster, Germany)

Abdallah Abu Taha, Jochen Seebach, Muna Taha, Hans Schnittler

### **PIII-81 A Cdc42-MRCK-myosin II signaling axis potentiates endothelial barrier function through formation of circumferential actin bundles in Rap1 signal-activated endothelial cells**

Koji Ando (Osaka, Japan)

Koji Ando, Shigetomo Fukuhara, Kazuomi Noda, Takahiro Moriya, Naoki Mochizuki

### **PIII-82 Mechanism of acute lung injury induced by transfusion of antibody against endothelial cells**

Behnaz Bayat (Giessen, Germany)

Behnaz Bayat, Yudy Tjahjono, Sydykov Akylybe, Stephan Hippenstiel, Nobert Weissman, Ulrich J. Sachs, Sentot Santoso

### **PIII-83 Loss of endothelial surface glycocalyx in the glomerular filtration barrier as a first step towards the development of proteinuria**

Martijn Dane (Leiden, The Netherlands)

Martijn Dane, Dan Potter, Cristina Avramut, Hans Vink, Johan van der Vlag, Anton Jan van Zonneveld, Ton Rabelink, Bernard van den Berg

### **PIII-84 Angiopoietin-1 requires IQ domain GTPase-activating protein 1 to activate Rac1 and promote endothelial barrier defense**

Sascha David (Hannover, Germany)

S. David, C.C. Ghosh, A. Mukherjee, S.M. Parikh



## **PIII-85 Homing of normal and malignant human B cells to lymphoid organs is controlled by Junctional Adhesion Molecule C (JAM-C)**

Carmen Donate (Geneva, Switzerland)

C. Doñate, C. Ody, T. Mckee, S. Ruault-Jungblut, N. Fischer, P. Ropraz, B.A. Imhof, T. Matthes

## **PIII-86 Fzd7 regulates endothelial cell junctions**

Pascale Dufourcq (Pessac, France)

Nancy Ferreira Tojais, Claire Peghaire, Frédéric Larriue, Catherine Moreau, Thierry Couffignal, Cécile Duplaa, Pascale Dufourcq

## **PIII-87 VE-PTP antibodies enhance endothelial barrier function in vitro and in vivo**

Maike Frye (Muenster, Germany)

Maike Frye, Mark Winderlich, Martina Dierkes, Dietmar Vestweber

## **PIII-88 EMMPRIN is a spatiotemporal switch for endothelial cell junction formation and vascular integrity**

Pilar Gonzalo (Madrid, Spain)

Vanessa Moreno, Pilar Gonzalo, Ángela Pollán, Fabrizio Orsenigo, Olga Barreiro, Kenji Kadomatsu, Elisabetta Dejana, Francisco Sánchez-Madrid, Alicia G. Arroyo

## **PIII-89 BMP activity controlled by BMPER modulates endothelial barrier function in acute lung injury**

Thomas Helbing (Freiburg, Germany)

Thomas Helbing, Elena Ketterer, Christoph Bode, Martin Moser

## **PIII-90 Altered vasoactive peptide levels in hereditary angioedema patients**

Erika Kajdacsí (Budapest, Hungary)

Erika Kajdacsí, Peter K. Jani, Dorottya Csuka, Jan Kunde, Zoltan Prohaszka, Henriette Farkas, Laszlo Cervenak

## **PIII-91 Investigating the role of podoplanin and CLEC-2 in the integrity of the blood-cerebrospinal fluid barrier**

Kate Lowe (Birmingham, UK)

Kate L. Lowe, Brenda A. Finney, Ana M. Gonzalez, Edina Schweighoffer, Victor L. J. Tybulewicz, Steve P. Watson

## **PIII-92 The Eph/ephrin and ADAM work in concert to regulate pulmonary endothelial barrier against tumor cells**

Yoshiro Maru (Tokyo, Japan)

Yoshiro Maru

## **PIII-93 A novel mode of VE-cadherin endocytosis controls VE-cadherin recycling**

Masahiro Murakami (New Haven, USA)

Takashi Sakurai, Masahiro Murakami

## **PIII-94 Prostaglandin D2-DP signal promotes endothelial barrier function via cAMP/PKA/Rac1 pathway**

Takahisa Murata (Tokyo, Japan)

Koji Kobayashi, Yoshiki Tsubosaka, Masatoshi Hori, Shuh Narumiya, Hiroshi Ozaki, Takahisa Murata

## **PIII-95 Radiation-induced vascular late reactions in the rat cervical spinal cord: A longitudinal magnetic resonance imaging (MRI) study**

Maria Saager (Heidelberg, Germany)

M. Saager, C. Gillmann, T. Welzel, M. Jugold, P. Peschke, P. Huber, J. P. Debus, C. P. Karger

## **PIII-96 Control of leukocyte transmigration: Inside-out regulation of endothelial ICAM-1 function through actin-binding proteins**

Antje Schaefer (Amsterdam, The Netherlands)

Antje Schaefer, Eloise C. Anthony, Mark Hoogenboezem, Jaap D. van Buul, Peter L. Hordijk

**PIII-97 Analysis of CD99L2 in vivo function in neutrophil transendothelial migration by means of CD99L2 conditional knock-out mice**

Ruth Seelige (Muenster, Germany)

Ruth Seelige, Christiane Natsch, Sigrid März, Ding Jing, Stefan Butz, Gabriele Bixel, Dietmar Vestweber

**PIII-98 Nerve growth factor overexpression in Clara cells suppresses metastasis and tumor growth in a mouse model of experimental lung metastasis**

Katrin Seidler (Marburg, Germany)

Katrin Seidler, Akylbek Sydykov, Sabine Müller-Brüsselbach, Rolf Müller, Norbert Weißmann, Harald Renz, Andreas Nockher

**PIII-99 Novel mechanism regulating endothelial permeability via T-cadherin-dependent VE-cadherin phosphorylation and clathrin-mediated endocytosis**

Ekaterina Semina (Moscow, Russia)

E. Semina, K. Rubina, V. Sysoeva, V. Tkachuk

**PIII-100 Erectile dysfunction occurs prior to systemic vascular disease due to incompetent penile endothelial cell-cell junctions**

Jun-Kyu Suh (Incheon, Korea)

Ji-Kan Ryu, Hai-Rong Jin, Guo Nan Yin, Mi-Hye Kwon, Kang-Moon Song, Min Ji Choi, Woo Jean Kim, Jun-Kyu Suh

**PIII-101 The guanine-nucleotide exchange factor Trio regulates endothelial adherens junction formation through the activation of the small GTPase Rac1**

Ilse Timmerman (Amsterdam, The Netherlands)

Ilse Timmerman, Jos van Rijssel, Dirk Geerts, Peter L. Hordijk, Jaap D. van Buul

**PIII-102 ROCK2 regulates thrombin receptor-mediated vascular permeability: Role of baseline junctional forces**

Geerten van Nieuw Amerongen (Amsterdam, The Netherlands)

Cora M.L. Beckers, Nebojsa Knezevic, Mohammad Tauseef, Ramaswamy Krishnan, Kavitha Rajendran, Jurjan Aman, Jan van Bezu, Victor W.M. van Hinsbergh, Dolly Mehta, Geerten P. Van Nieuw Amerongen

**PIII-103 Endothelial signaling pathways controlling the dissociation of the receptor phosphatase VE-PTP from VE-cadherin**

Matthias Vockel (Muenster, Germany)

Matthias Vockel, Astrid Nottebaum, Andre Broermann, Dietmar Vestweber

**PIII-104 Role of VE-cadherin tyrosine phosphorylation for the control of endothelial cell contacts**

Florian Wessel (Muenster, Germany)

Florian Wessel, Astrid Nottebaum, Alexander Zarbock, Ruth Linnepe, Dietmar Vestweber

**PIII-105 A role for PLVAP in the regulation of endothelial permeability and angiogenesis**

Joanna Wisniewska-Kruk (Amsterdam, The Netherlands)

Joanna Wisniewska-Kruk, Ilse M.C. Vogels, Cornelis J.F. Van Noorden, Reinier O. Schlingemann, Ingeborg Klaassen

## Infection and Immunity (PIII-106 - PIII-111)

**PIII-106 New insights into JAM-C/JAM-B function in lymph node and bone marrow homeostasis**

Michel Aurrand-Lions (Marseille, France)

M.L. Arcangeli, V. Frontera, A. Zarubica, F. Bardin, S. Adams, J.C. Lissitzky, R.H. Adams, M. Aurrand-Lions

**PIII-107 Evidence for a role of hypoxia inducible factor 1 (HIF-1)-regulated lysyl oxidase in Staphylococcus aureus abscess-formation**

Christiane Beerlage (Frankfurt, Germany)

C. Beerlage, J. Greb, D. Kretschmer, P.C. Trackman, R. Lieberz, M. Bonin, B. Brüne, A. Peschel, V.A.J. Kempf

**PIII-108 Neupilin-1 expression is regulated by gut microbial communities**

Nives Hörmann (Mainz, Germany)

Nives Hörmann, Jennifer Hahlbrock Fredrik Bäckhed, Ulrich Walter, Christoph Reinhardt

**PIII-109 VEGF decreases leukocyte adhesion in vitro through interfering with NF-KB signaling pathways leading to endothelial activation**

Hua Huang (Uppsala, Sweden)

Hua Huang, Elise Langenkamp, Sara Mangsbo, Angelica Loskog, Anna Dimberg

**PIII-110 Modification of a novel angiogenic peptide, AG30, for the development of novel therapeutic agents**

Hironori Nakagami (Osaka, Japan)

Hironori Nakagami, Yasufumi Kaneda, Ryuichi Morishita

**PIII-111 Both lipophilic and hydrophilic statins displayed strong in vitro anti-cytomegalovirus activity with lipophilic statins holding a higher in vivo potential**

Nicolas Ponroy (Zurich, Switzerland)

N. Ponroy, A. Taveira, N.J. Mueller, A.L. Millard

## Platelets (PIII-112 - PIII-122)

**PIII-112 Src-like adapter proteins are negative regulators of GPVI/ITAM-signaling in platelets**

Deya Cherpokova (Wuerzburg, Germany)

Deya Cherpokova, Markus Bender, Martina Morowski, Peter Kraft, Guido Stoll, Craig E. Hughes, Leonard L. Dragone, Steve P. Watson, Michael G. Tomlinson, Bernhard Nieswandt

**PIII-113 Expression of platelet CD40 promotes platelet-induced atherogenesis by enhancing leukocyte recruitment**

Dirk Lievens (Munich, Germany)

Dirk Lievens, Tom Seijkens, Marijke Kuipers, Holger Winkels, Linda Beckers, Oliver Soehnlein, Remco Megens, Norbert Gerdes, Johan Heemskerk, Christian Weber, Esther Lutgens

**PIII-114 2-Acetylphenothiazine inhibits superoxide ion generation in human platelets and impairs collagen-dependent thrombus formation**

Giordano Pula (Bath, UK)

D.S. Vara, M. Campanella, G. Pula

**PIII-115 Platelet dense granule secretion mediates platelet-dependent enhancement of tumor cell transmigration and formation of metastases**

Dagmar Schumacher (Bad Nauheim, Germany)

Dagmar Schumacher, Boris Strilic, Nina Wettschureck, Stefan Offermanns

**PIII-116 Properties of PAI-1 released after platelet activation.**

Gabriele Siegert (Dresden, Germany)

G. Siegert, B. Arneth, S. Gehrisch, O. Tiebel

**PIII-117 Role of platelet interleukin-17 receptor A in platelet activation, aggregation and adhesion over human endothelial cells in vitro**

Konstantinos Stellos (Frankfurt, Germany)

Kateryna Sopova, Katerina Gatsiou, Carolin Amrhein, Christian Erbel, Alexandros Tselepis, Voahanginirina Randriamboavonjy, Konstantinos Stellos

**PIII-118 Platelet flow-induced protrusion (FLIPR) formation is a shear and calpain-induced process leading to platelet disintegration and the formation of procoagulant microparticles**

Claudia Tersteeg (Utrecht, The Netherlands)

C. Tersteeg, H.F. Heijnen, G. Pasterkamp, C.E. Floris, R.T. Urbanus, C. Maas, I. Hoefer, E.M. Mak-Nienhuis, V. De Angelis, Ph.G. de Groot, M Roest

**PIII-119 Redundant functions of phospholipases D1 and D2 in platelet granule release**

Ina Thielmann (Wuerzburg, Germany)

Ina Thielmann, David Stegner, Peter Kraft, Ina Hagedorn, Christoph Kleinschnitz, Guido Stoll, Bernhard Nieswandt

**PIII-120 Frequent night dialysis is associated with reduced platelet responsiveness**

Thijs van Holten (Utrecht, The Netherlands)

T.C. van Holten, B.C. van Jaarsveld, M. van Wijk, F. van Reekum, Ph.G. de Groot, M. Roest

**PIII-121 Dual regulation of CD84 by ADAM10 and calpain in platelets**

Timo Vögtle (Wuerzburg, Germany)

Sebastian Hofmann, TIMO VÖGTLE, Markus Bender, Stefan Rose-John, Bernhard Nieswandt

**PIII-122 Determination of platelet stimulation by ADP, thrombin and Aspirin® by evaluating the role of phosphatidylserine as an annexin V binding molecule**

Saman Yazdani (Lund, Sweden)

Saman Yazdani, Mohammad Reza Aghanoori, Yasaman Yazdani

## Endothelium and Pericytes (PIV-01 - PIV-20)

### **PIV-01 Aerobic exercise slows breast cancer growth and normalizes tumor vasculature**

Allison Betof (Durham, USA)

Allison S. Betof, Christopher D. Lascola, Lee W. Jones, Mark W. Dewhirst,

### **PIV-02 The Rab27/Rab3 effector Synaptotagmin-like protein 4-a (Slp4-a) positively regulates hormone-evoked Weibel-Palade body exocytosis**

Ruben Bierings (Amsterdam, The Netherlands)

Ruben Bierings, Nicola Hellen, Athinoula Meli, Robert J. Rowlands, Bijal Patel, Lindsay Hewlett, Laura Knipe, Charles McKenna, Ambrosius Sniijders, Marlen Rose, Matthew J. Hannah, Tom Carter

### **PIV-03 Differences between basal and agonist-induced nitric oxide production in the isolated mouse aorta**

Hidde Bult (Wilrijk, Belgium)

J. van Langen, P. Fransen, C.E. Van Hove, H. Bult

### **PIV-04 VE-cadherin - $\alpha$ -catenin homozygous knock-in mice die of developmental defects during midgestation**

Nina Dartsch (Muenster, Germany)

Nina Dartsch, Dörte Schulte, Dietmar Vestweber

### **PIV-05 Regulation of vascular remodeling during angiogenesis by pericytes**

Hanna Eilken (Muenster, Germany)

Hanna M. Eilken, Ann L. B. Seynhaeve, Susanne Adams, Inga Schmidt, Ralf H. Adams

### **PIV-06 Involvement of A2A adenosine receptors in insulin-increased L-arginine transport in human umbilical vein endothelium**

Enrique Guzmán-Gutiérrez (Santiago, Chile)

E. Guzmán-Gutiérrez, F. Westermeyer, C. Salomón, P. Arroyo, F.N. Pardo, A. Leiva, L. Sobrevia

### **PIV-07 Bone morphogenetic protein modulator BMPER induces a synthetic to contractile phenotype switch in vascular smooth muscle cells**

Jennifer Heinke (Freiburg, Germany)

Jennifer Heinke, Franziska Bluhm, Thomas Helbing, Sebastian Grundmann, Christoph Bode, Martin Moser

### **PIV-08 Shear-induced aquaporin-1 expression regulates NO secretion in endothelial cells**

Thomas Leyen (Amsterdam, The Netherlands)

Thomas Leyen, Ruud Fontijn, Josefien Baggen, Dirk Geerts, Etto Eringa, Anton Horrevoets

### **PIV-09 Regulation of microvasculature by estrogen receptors using mouse models**

Margaret Markiewicz (Charleston, USA)

Margaret Markiewicz, Anna Ludwicka-Bradley, Gary Gilkeson

### **PIV-10 Strongly reduced establishment of blood outgrowth endothelial cell colonies in subjects with subclinical cardiovascular disease**

Javier Martin Ramirez (Amsterdam, The Netherlands)

Javier Martin-Ramirez, Menno Hofman, Maayke G.M. Kok, Esther Creemers, Joost Meijers, Jan Voorberg, Sara-Joan Pinto

### **PIV-11 Optimized method for culturing outgrowth endothelial progenitor cells from human umbilical cord blood and adult peripheral blood**

Noriko Oshima-Sudo (Tokyo, Japan)

Noriko Oshima-Sudo, Yuko Hoshino, Motohiro Komaki, Ken-ichi Nakahama, Toshiro Kubota, Mayumi Abe, Ikuo Morita

**PIV-12 Study of the anti-inflammatory effects of a novel endothelial cell-matrix formulation conditioned media**

Laura Paneghetti (London, UK)

Laura Paneghetti, Yin-Shan Ng

**PIV-13 Pericytes regulate vascular stability after kidney injury through TIMP3 and ADAMTS1**

Claudia Schrimpf (Hannover, Germany)

Claudia Schrimpf, Cuiyan Xin, Gabriella Campanholle, Sean E. Gill, William Stallcup, Shuei-Liong Lin, George E. Davis, Benjamin D. Humphreys, Jeremy S. Duffield

**PIV-14 Glutathione peroxidase-1-deficiency enhances age-dependent vascular dysfunction**

Sebastian Steven (Mainz, Germany)

Sebastian Steven, Swenja Schuhmacher, Matthias Oelze, Markus Bachschmid, Christopher Doppler, Steffen Daub, Alexandra Schuff, Alexander Scholz, M. Torzewski, Eberhard Schulz, Karl J. Lackner, Thomas Münzel, Andreas Daiber

**PIV-15 Visualization and tracing of tumor-associated pericytes**

Ann Seynhaeve (Rotterdam, The Netherlands)

Ann LB. Seynhaeve, Hanna M. Eilken, Susanne Adams, Timo LM ten Hagen, Ralf H. Adams

**PIV-16 The role of hepatic stellate cells during inflammation and metastasis**

Nicole Simonavicius (Munich, Germany)

Nicole Simonavicius, Annika Armulik, Guillem Genove, Scott Friedman, Mathias Heikenwälder

**PIV-17 Human umbilical vein endothelium from gestational diabetes and normal pregnancy are differentially responsive to insulin without altering insulin receptor  $\beta$  subunit phosphorylation**

Luis Sobrevia (Santiago, Chile)

F. Westermeier, C. Salomón, P. Arroyo, E. Guzmán-Gutiérrez, F. Pardo, A. Leiva, L. Sobrevia

**PIV-18 Insulin induces human equilibrative nucleoside transport 2 involving SREBP-1c in human umbilical vein endothelial cells**

Luis Sobrevia (Santiago, Chile)

F.N. Pardo, F. Westermeier, C. Salomón, E. Guzmán-Gutiérrez, A. Leiva, L. Sobrevia

**PIV-19 Endothelial outgrowth cells derived from human blood samples; isolation and in vitro performance**

Nynke van den Akker (Maastricht, The Netherlands)

Nynke M.S. van den Akker, Fabienne Jeukens, Mick Gagliardi, Mark J. Post, Daniel G.M. Molin, Johannes Waltenberger

**PIV-20 Biglycan is a specific marker and an autocrine angiogenic factor of tumor endothelial cells**

Kazuyuki Yamamoto (Sapporo, Japan)

Kazuyuki Yamamoto, Noritaka Ohga, Yasuhiro Hida, Nako Maishi, Taisuke Kawamoto, Kazuko Kitayama, Kosuke Akiyama, Takahiro Osawa, Miyako Kondoh, Kichizo Kaga, Nobuo Shinohara, Masanobu Shindoh, Satoshi Hirano, Kyoko Hida

## Blood-Brain-Barrier (PIV-21 - PIV-26)

**PIV-21 Elucidating the role of astrocyte-derived Wnt growth factors for BBB maintenance**

Cathrin Jaqueline Czupalla (Frankfurt, Germany)

Cathrin J. Czupalla, Claudio A. Franco, Holger Gerhardt, Karl-Heinz Plate, Stefan Liebner

**PIV-22 The role of Wnt signaling in glucose transport at the blood-brain barrier**

Kavi Devraj (Frankfurt, Germany)

Kavi Devraj, Marco Reis, Jenny Zinke, Ian Simpson, Richard Hawkins, Stefan Liebner

## **PIV-23 T cell extravasation across the blood-brain barrier endothelium: Extensive T cell crawling and transcellular versus paracellular T cell diapedesis**

Ruth Lyck (Bern, Switzerland)

Ruth Lyck, Christoph Wyss, Michael Abadier, Oliver Steiner, Giuseppe Cagna, Ruth Linnepe, Dietmar Vestweber, Urban Deutsch, Britta Engelhardt

## **PIV-24 Retinoic acid induces blood-brain barrier development**

Mark Mizee (Utrecht, The Netherlands)

Mark R. Mizee, Desiree Wooldrik, Kim A.M. Lakeman, Bert van het Hof, Joost A.R. Drexhage, Dirk Geerts, Marianna Bugiani, Eleonora Aronica, Reina E. Mebius, Alexandre Prat, Helga E. de Vries, Arie Reijerkerk

## **PIV-25 microRNAs control brain endothelial cell barrier function and immune quiescence, implications for MS**

Arie Reijerkerk (Amsterdam, The Netherlands)

Arie Reijerkerk, MA Lopez-Ramirez, Bert van het Hof, Kim A.M. Lakeman, Joost A.R. Drexhage, Gijs Kooij, Martijn E. Blommaart, Joost B. Vos, Dirk Geerts, Reuven Agami, Alex Prat, Anton J. van Zonneveld, Anton J. Horrevoets, Ignacio A. Romero, Helga E. de Vries

## **PIV-26 Chemical oxygen and glucose deprivation rapidly impairs blood-brain barrier integrity in an in vitro model of the neurovascular unit**

Christoph M. Zehendner (Mainz, Germany)

Christoph M. Zehendner, Laura Librizzi, Marco de Curtis, Christoph R. W. Kuhlmann, Heiko J. Luhmann

## **Integrins and ECM (PIV-27 - PIV-37)**

### **PIV-27 Tie2-dependent knockout of alpha6 integrin subunit in mouse reduces angiogenesis**

Claire Bouvard (Paris, France)

Claire Bouvard, Adèle De Arcangelis, Blandine Dizier, Isabelle Galy-Fauroux, Anne Marie Fischer, Elisabeth Georges-Labouesse, Dominique Helley

### **PIV-28 The role of basement membrane molecule, laminin $\alpha 5$ , in arterial endothelial cell physiology**

Jacopo Di Russo (Muenster, Germany)

Jacopo Di Russo, Verena Drüppel, Erik NTP Bakker, Hans Oberleithner, Ed vanBavel, Lydia Sorokin

### **PIV-29 Integrin $\alpha 7 \beta 1$ is a redoxregulated target of hydrogen peroxide in vascular smooth muscle cell adhesion**

Johannes Eble (Frankfurt, Germany)

Flávia Figueiredo de Rezende, Augusto Martins Lima, Stephan Niland, Ilka Wittig, Heinrich Heide, Katrin Schröder, Johannes A. Eble

### **PIV-30 Dissecting the mechanisms of integrin LFA-1 activation in neutrophils**

Craig Lefort (La Jolla, USA)

Craig T. Lefort, Jan Rossaint, Markus Moser, Brian G. Petrich, Alexander Zarbock, Susan J. Monkley, David R. Critchley, Mark H. Ginsberg, Reinhard Fässler, Klaus Ley

### **PIV-31 Inhibition of gelatinase B activity reduces cellular inflammation and restores function of transplanted pancreatic islets**

Neelam Lingwal (Giessen, Germany)

Neelam Lingwal, Klaus T. Preissner, Thomas Linn

### **PIV-32 Physiological roles of collagen-binding integrins on endothelial cells in angiogenic sprouting and vessel integrity**

Stephan Niland (Frankfurt, Germany)

S. Niland, T. Bracht, C. Westerhausen, D. Komljenovic, T. Bäuerle, S.W. Schneider, J.A. Eble

## **PIV-33 EGFL7 ligates $\alpha v \beta 3$ integrin to enhance vessel formation**

Mirko HH Schmidt (Mainz, Germany)

Iva Nikolic, Jeannette Meister, Helene Braun, Khader Awwad, Emmanouil Chavakis, Chinmoy Patra, Patrick N. Harter, Michel Mittelbronn, Karl H. Plate, Felix B. Engel, Stefanie Dimmeler, Johannes A. Eble, Benno Jungblut, Ingrid Fleming, Mirko HH Schmidt

## **PIV-34 Integrin $\alpha 6$ controls endothelial podosome rosette formation in tumor angiogenesis**

Giorgio Seano (Candiolo, Italy)

Giorgio Seano, Laura di Blasio, Roberto Sessa, Paolo Armando Gagliardi, Federico Bussolino, Guido Serini, Luca Primo

## **PIV-35 Fibrosis and matrix remodelling in foamy mouse macrophages**

Anita Thomas (Bristol, UK)

Anita C. Thomas, Wouter J. Eijgelaar, Mat J.A.P. Daemen, Andrew C. Newby

## **PIV-36 Syndecan extracellular core proteins have anti-angiogenic properties**

James Whiteford (London, UK)

Giulia De Rossi, Sussan Nourshargh, James R. Whiteford

## **PIV-37 Laminin isoform expression and function in perivascular basement membranes**

Lema Yousif (Muenster, Germany)

L. Yousif, E. Bakker, E. Van Bavel, L. Sorokin

## **Micro-RNA (PIV-38 - PIV-43)**

### **PIV-38 MicroRNA 10a and 92a regulation of proinflammatory phenotype in athero-susceptible endothelium in vivo and in vitro**

Yun Fang (Philadelphia, USA)

Yun Fang, Peter F. Davies

### **PIV-39 Role of AP-1 transcription factor subunit Junb in microRNA regulation and its impact on lymphangiogenesis in zebrafish**

Kristin Kiesow (Heidelberg, Germany)

Kristin Kiesow, Melanie Sator-Schmitt, Karin Strittmatter, Katrin Bennewitz, Peter Angel, Jens Kroll, Marina Schorpp-Kistner

### **PIV-40 Expression profile analysis of microRNAs 221 and 222 in human umbilical vein endothelial cells: Anti-angiogenic effects of hydroxyurea**

Flavia Lopes (Sao Paulo, Brazil)

Flavia Cristine Mascia Lopes, Regiane Ferreira, Dulcinéia Martins Albuquerque, Fernando Ferreira Costa, Nicola Conran

### **PIV-41 Reduced miR-223 expression enhances mouse pulmonary hypertension and right ventricle failure response to chronic hypoxia**

Lei Shi (Frankfurt, Germany)

Lei Shi, Bhola Kumar Dahal, Baktybek Kojonazarov, Robert Voswinckel, Beate Fisslthaler, Werner Seeger, Ralph T. Schermuly, Ingrid Fleming

### **PIV-42 Role of miR-223 in the regulation of angiogenesis**

Lei Shi (Frankfurt, Germany)

Lei Shi, Beate Fisslthaler, Nina Zippel, Ingrid Fleming

### **PIV-43 Micro RNA-146a and its role in endothelial cells during vascular remodeling processes**

Rebecca Widmer-Teske (Giessen, Germany)

Rebecca Widmer-Teske, Wiebke Bielenberg, Jan-Marcus Daniel, Christian Troidl, Holger Nef, Stephan Achenbach, Christian Hamm, Daniel Sedding



## Vascular Models (PIV-44 - PIV-60)

### **PIV-44 Peroxisome proliferator-activated receptor gamma coactivator 1 $\alpha$ deficiency accelerates endothelial dysfunction during chronic angiotensin II treatment by increasing mitochondrial oxidative stress and vascular aging**

Jasmin Ghaemi (Mainz, Germany)

Jasmin Ghaemi Kerahrodi, Swenja Krölller-Schön, Thomas Jansen, Matthias Oelze, Philip Wenzel, Michael Hausding, Maike Beisele, Andreas Daiber, Thomas Münzel, Eberhard Schulz

### **PIV-45 Regulation of vascular smooth muscle cell proliferation rate by the inducible cAMP early repressor (ICER)**

Iris Hildebrandt (Bochum, Germany)

I. Hildebrandt, M.D.Seidl, F. Nunes, S. Endo, N. Kojima, S. Offermanns, W. Schmitz, F.U. Müller

### **PIV-46 Transcriptional profiling reveals a requirement for phosphodiesterase 10A during flow-induced vessel remodeling in the chick embryo**

Emily Hoggar (Sheffield, UK)

E.C. Hoggar, M. Placzek, T.J. Chico

### **PIV-47 HIF-regulated HO-1 and VEGF expression improves revascularization in ischemic limbs**

Agnieszka Jazwa (Krakow, Poland)

Agnieszka Jazwa, Jolanta Jagodzinska, Mateusz Tomczyk, Chantal Pichon, Alicja Jozkowicz, Jozef Dulak

### **PIV-48 High-fat diet impairs lymphatic function**

Sinem Karaman (Zurich, Switzerland)

Katrin Sabine Blum, Sinem Karaman, Steven Proulx, Alexandra Ochsenbein, Paola Luciani, Jean-Christophe Leroux, Christian Wolfrum, Michael Detmar

### **PIV-49 Hyperglycemia and oxidative stress in cultured endothelial cells: Comparison of primary endothelial cells with an immortalized endothelial cell line**

Susanne Helena Karbach (Mainz, Germany)

Susanne Karbach, Thomas Jansen, Sven Horke, Tjebo Heeren, Alexander Scholz, Meike Coldewey, Angelica Karpi, Michael Hausding, Swenja Schuhmacher, Matthias Oelze, Thomas Münzel, Andreas Daiber

### **PIV-50 Does the regeneration of the normal vasculature in tumors suppress the tumor growth?**

Shuji Kitahara (Shinjuku, Tokyo)

Shuji Kitahara, Yasuhiro Suzuki, Yoshikazu Kuwahara, Motoi Fukumoto, Asuka Yoshii, Manabu Fukumoto, Yasufumi Sato, Taichi Ezaki

### **PIV-51 Immortalized endothelial cell lines**

Tobias May (Braunschweig, Germany)

Roland Schucht, Franziska Schuller, Jeannette Zauers, Tobias May

### **PIV-52 Modeling angiogenesis in vitro: Comparing two human co-culture approaches**

Dyke McEwen (Ann Arbor, USA)

Belinda O`Clair, Ashley Wolfe, Tim Dale, Kevin Allard, Del Trezise, Vince Groppi, Dyke P. McEwen

### **PIV-53 Apoptosis is critical for vascular inflammation and aneurysm progression in a murine abdominal aortic aneurysm model**

Stephanie Morgan (Madison, USA)

Stephanie Morgan, Dai Yamanouchi, Calvin Harberg, Bo Liu

**PIV-54 FDG-6-phosphate in experimental atherosclerotic lesions: Translatable marker of plaque inflammation that reflects glucose metabolic trapping but does not require PET imaging**

Mark Rekhter (Indianapolis, USA)

Richard Conway, Eyassu Chernet, David De Rosa, Robert Benschop, Anne Need, Emily Collins, Michael Kalbfleisch, James Bean, Mark Rekhter

**PIV-55 Motor coordination in a new mouse model of atherosclerotic plaque rupture**

Lynn Roth (Antwerp, Belgium)

L. Roth, D. Van Dam, C. Van der Donckt, D.M. Schrijvers, G. Vanhoutte, M. Verhoye, W. Martinet, A. Van der Linden, H. Bult, G.R.Y. De Meyer

**PIV-56 Rabbit iliac artery model to evaluate novel drug-eluting stents**

Matthijs Ruiter (Amsterdam, The Netherlands)

Matthijs S. Ruiter, Robbert J. de Winter, Carlie J.M. de Vries

**PIV-57 The transcription factor CREB promotes atherosclerotic plaque progression**

Matthias Seidl (Muenster, Germany)

M.D. Seidl, A.K. Steingraber, C. Klugstedt, K. Tiemann, S. Offermanns, W. Schmitz, F.U. Müller

**PIV-58 A possible role of the podoplanin positive cells as an extravascular pathway during wound healing in the mouse tongue**

Kazuhiko Shimizu (Tokyo, Japan)

Kazuhiko Shimizu, Taichi Ezaki

**PIV-59 Medial elastin fragmentation leads to intraplaque neovascularization, acute plaque rupture, atheroembolic stroke and sudden death in atherosclerotic mice**

Carole Van der Donckt (Antwerp, Belgium)

Carole Van der Donckt, Dorien M. Schrijvers, Greetje Vanhoutte, Annemie Van der Linden, Marleen Verhoye, Wim Martinet, Hidde Bult, Arnold G. Herman, Guido R.Y. De Meyer

**PIV-60 Ovine carotid artery-derived cells as an optimized supportive cell layer in 2-D capillary network assays**

Stefan Weinandy (Aachen, Germany)

S. Weinandy, P. Babczyk, C. Schiklenk, R. Unger, C.J. Kirkpatrick, T. Flanagan, J.S. Sachweh, M. Zenke, D. Klee, S. Jockenhoevel

## Mechanotransduction (PIV-61 - PIV-67)

**PIV-61 How to modulate Tie2 activity from a phage display based approach to a new interacting protein: Neurexin**

Stefania Graziano (Candiolo-Torino, Italy)

S. Graziano, B. Assenzio, L. Mascia, M. Arese, F. Bussolino

**PIV-62 Investigating shear stress-dependent changes in endothelial cell adhesion**

Georgina Hazell (Bristol, UK)

Georgina Hazell, Elaine Hayes, Jack Teasdale, Jason Johnson, Andrew Newby, Stephen White

**PIV-63 Vinculin associates with endothelial VE-cadherin junctions to control their force-dependent remodelling**

Stephan Huveneers (Amsterdam, The Netherlands)

Stephan Huveneers, Joppe Oldenburg, Emma Spanjaard, Gerard van der Krogt, Ilya Grigoriev, Anna Akhmanova, Holger Rehmann, Johan de Rooij

**PIV-64 The role of flow-induced gene expression in vascular plasticity**

Espen D. Jahnsen (Montreal, Canada)

Espen D. Jahnsen, Elizabeth A.V. Jones

**PIV-65 Hic-5 deficiency enhances mechanosensitive apoptosis and modulates vascular remodeling**

Joori Kim-Kaneyama (Tokyo, Japan)  
Joori Kim-Kaneyama, Akira Miyazaki

**PIV-66 The role of the GEF Trio in endothelial cell adaptation to laminar flow**

Jeffrey Kroon (Amsterdam, The Netherlands)  
Jeffrey Kroon, Jos van Rijssel, Floris P.J van Alphen, Dirk Geerts, Peter L. Hordijk, Jaap D. van Buul

**PIV-67 Alternative splicing in the vascular response to pathological shear stress**

Patrick Murphy (Cambridge, USA)  
Patrick Murphy, Richard Hynes

## Imaging (PIV-68 - PIV-70)

**PIV-68 Imaging the angiogenic activity in very small breast cancer xenografts by ultrasound molecular imaging of VEGFR-2 with BR55 microbubbles**

Jessica Bzyl (Aachen, Germany)  
Jessica Bzyl, Moritz Palmowski, Anne Rix, Susanne Arns, Isabelle Tardy, Sibylle Pochon, Josef Ehling, Simone Schradling, Fabian Kiessling, Wiltrud Lederle

**PIV-69 Visualizing cell-cycle progression of endothelial cells during vascular network formation in zebrafish**

Shigetomo Fukuhara (Osaka, Japan)  
Shigetomo Fukuhara, Jianghui Zhang, Koji Ando, Yuki Wakayama, Hyouk-Bum Kwon, Asako Sakaue-Sawano, Atsushi Miyawaki, Naoki Mochizuki

**PIV-70 Intravital immunofluorescence in the mouse ear dermis**

Witek Kilarski (Lausanne, Switzerland)  
Witold W. Kilarski, Esra Guc, Jeremy C. M. Teo S. Ryan Oliver, Amanda Lund, Melody A. Swartz

# Speakers & Poster Presenters

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Abid, Ruhul, P 63  
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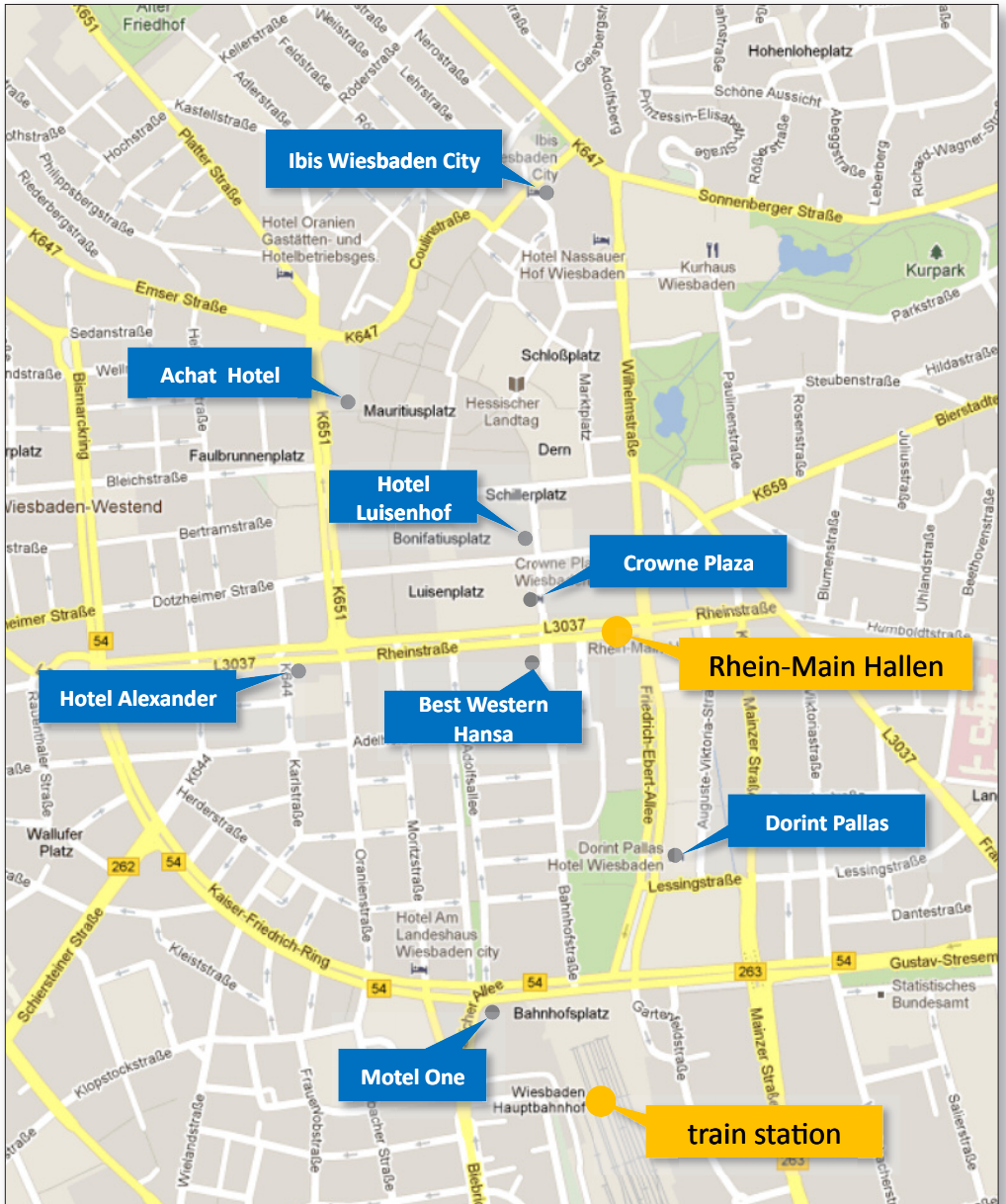
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# Wiesbaden Map





## HOTELS

### Crowne Plaza

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### Motel One

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Tel.: +49 611 450 208 0

### Hotel Luisenhof

Bahnhofstr. 7, 65185 Wiesbaden, Germany

Tel.: +49 611 397 880

### Hotel Alexander

Rheinstr. 72, 65185 Wiesbaden, Germany

Tel.: +49 611 99 285 0

### Ibis Wiesbaden City

Georg-August-Zinn-Str. 2, 65183 Wiesbaden, Germany

Tel.: +49 611 36 140

### Best Western Hotel Hansa

Bahnhofstr. 23, 65185 Wiesbaden, Germany

Tel.: +49 611 90 124 0

### NH Aukamm Wiesbaden

Aukamm Allee 31, 65191 Wiesbaden, Germany

Tel.: +49 611 5760

### Achat Premium Hotel City

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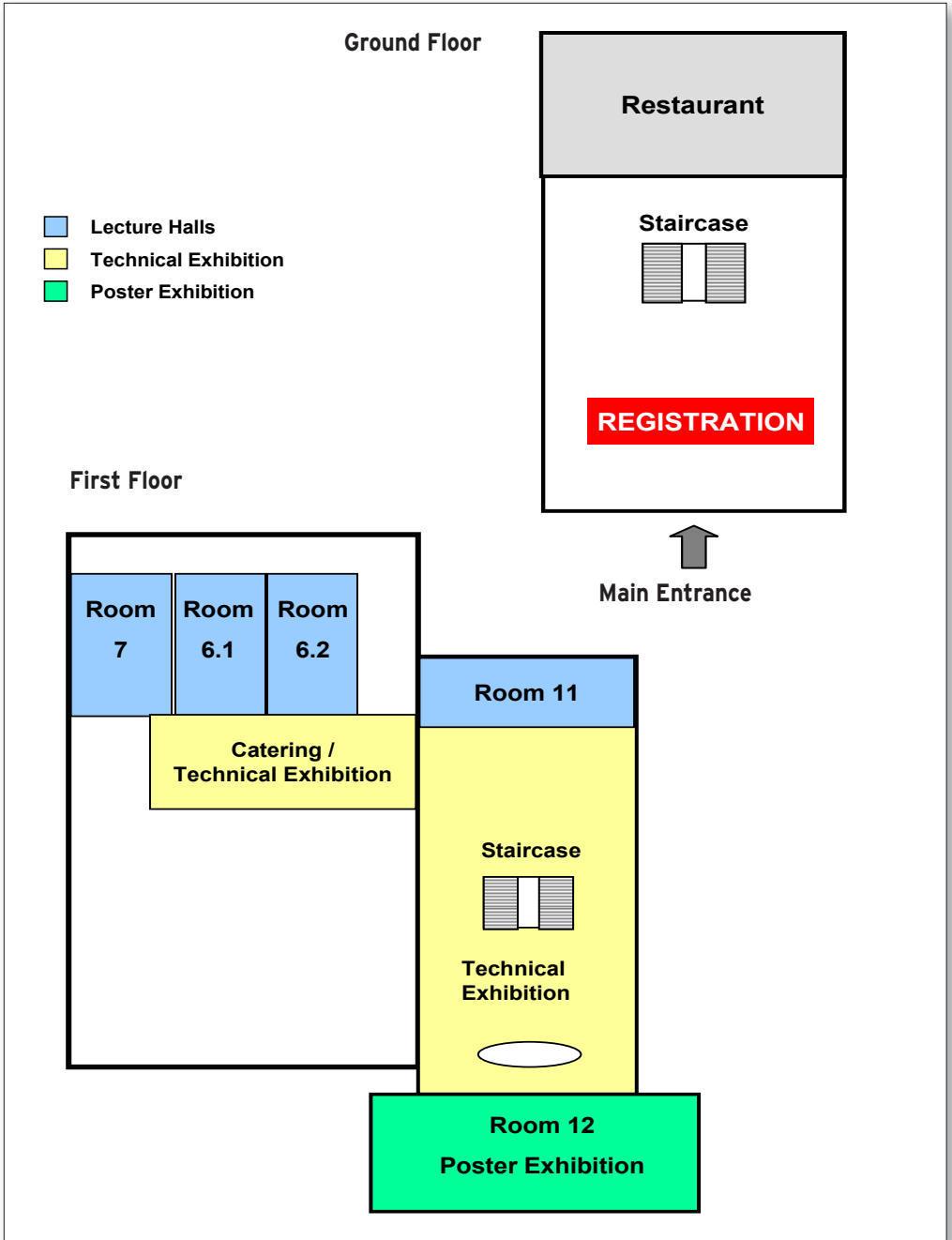
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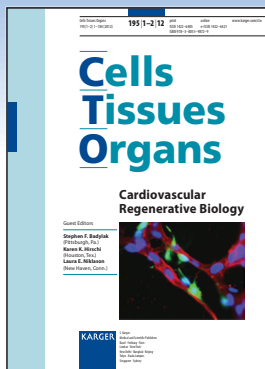
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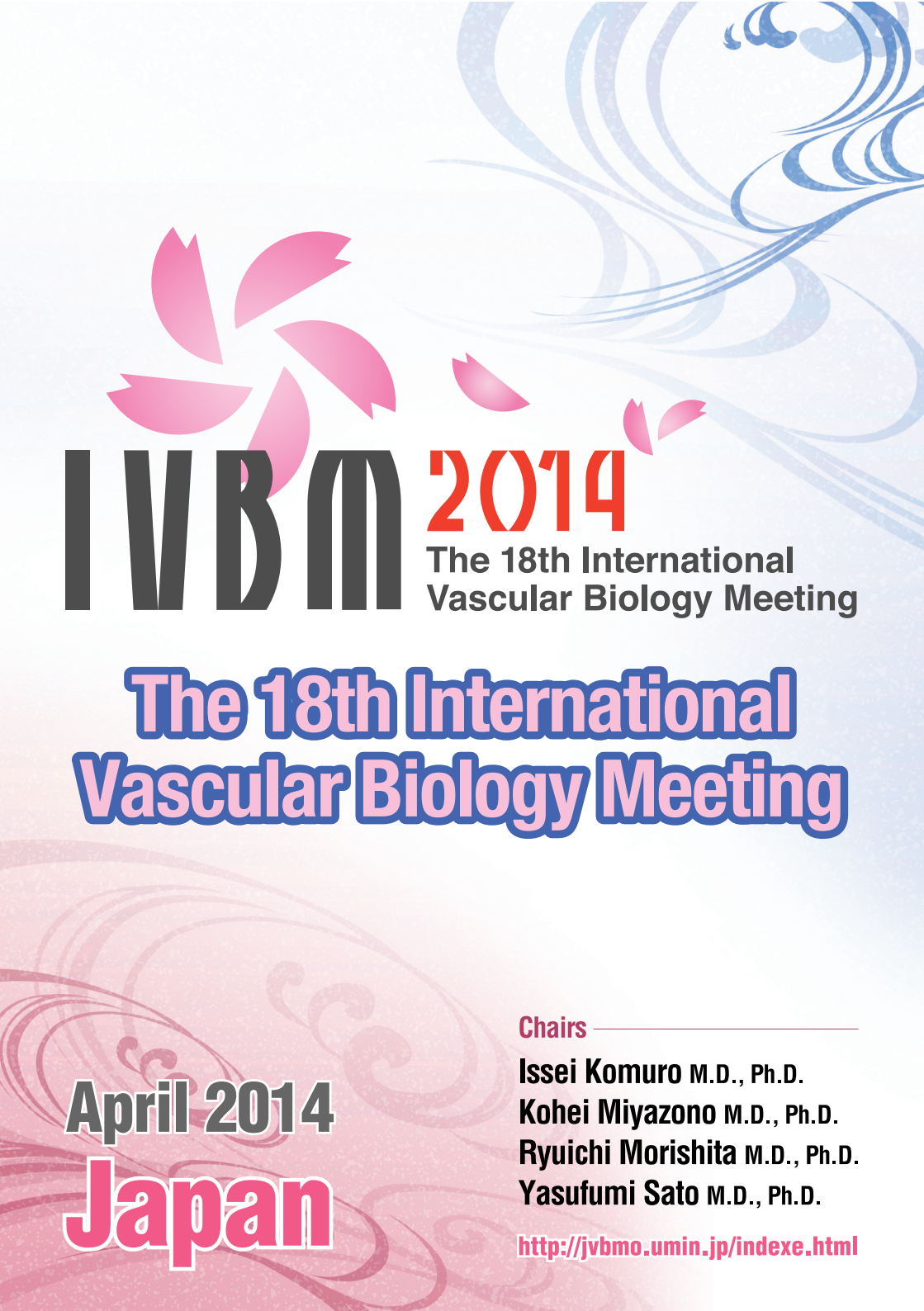
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