



# IRTG 1902 Summer School 2022

June 15<sup>th</sup> – 17<sup>th</sup> 2022

Heinrich Heine University

Düsseldorf

Wednesday, June 15<sup>th</sup> 2022

Venue: Roy-Lichtenstein Lecture Hall 2B, Building 22.01, HHU

16:30 – 17:15

Keynote I: Maria Grandoch

Inflammatory bowel disease - a driver of atherogenesis and -progression

17:30 – 18:30

Eden's Award Ceremony followed by get-together

Laudation:	Prof. Dr. Malte Kelm	Prof. Dr. Axel Gödecke
Laureate:	Dr. med. Patricia Wischmann	PD Dr. Dr. med. André Heinen

Thursday, June 16<sup>th</sup> 2022

Venue: Orangerie, Schloss Benrath

08:50 - Opening remarks: Axel Gödecke

### Session I

Time	Title	Speaker
09:00	Role of dietary potassium in hypertensive cardiovascular damage	Johannes Stegbauer
09:25	Update on clonal hematopoiesis and cardiovascular disease	Ken Walsh
09:50	Where I am is what I do – when intracellular localization determines protein function	Jojo Haendeler
10:15	Targeting oxidized phospholipids by AAV-based gene therapy in mice prevents hepatic steatosis and progression to fibrosis	Clint Upchurch

10:40 – 11:00 Coffee break

## Session II

Time	Title	Speaker
11:00	Adhesion GPCR- receptors shaping cellular processes in metabolism	Simone Prömel
11:25	Activated cardiac fibroblasts: a rich source of paracrine factors	Jürgen Schrader
11:50	Dynamic viscoelastic hydrogels as cell culture models of fibrotic disease	Steven Caliarì
12:15	Ambient stiffness as a determinant of cardiomyocyte function- or vice versa?	Martina Krüger
12:40	Molecular mechanisms of RAF1 and RIT1 associated hypertrophic cardiomyopathy in Noonan Syndrome patients	Farhad Bazgir

13:00 – 14:15 Lunch

## Session III

Time	Title	Speaker
14:15	Myoendothelial junction heterogeneity enables phosphatidylserine regulation of Kir2.1	Claire Ruddiman
14:40	The redox physiology of red blood cells: Lessons from erythroid-cell specific knockout and knockin mice	Miriam Cortese-Krott
15:05	Angiocrine signals in liver and heart growth and regeneration	Eckhard Lammert

15:30 Coffee break

## Session III contd.

15:45	Mouse models to decipher organelle-specific protein functions <i>in vivo</i>	Yogi Altschmied
16:10	Role of white adipose tissue in myocardial infarction	Katharina Bottermann
16:35	End of talks – Break and Transfer to Schloss Mickeln	

Venue: Schloss Mickeln

18:00 – 19:30 Poster Session

Venue: Schloss Mickeln & Remise

19:30 - Get together with BBQ

Session IV: Poster Presentations

Venue: Schloss Mickeln

**Thursday, June 16th 2022, 18:00 – 19:30**

Print	Name	Poster Title
1	Luke Dunaway	Arterial Mesenteric and Adipose Endothelial Transcriptomes Converge in High Fat Diet fed Mice
2	Melissa Luse	Direct cellular communication between capillary adipose endothelium and adipocytes can regulate lipid handling
3	Sophia Heuser	Erythroid cell specific knock out of soluble guanylate cyclase leads to disturbed erythropoiesis, anemia and splenomegaly in mice
4	Anthea Lo Bue	The role of red cell eNOS in the regulation of renal blood flow and systemic hemodynamics
5	Denada Arifaj	Potassium intake induces cardiovascular damage accompanied by premature senescence in hypertensive ApoE mice under salt conditions
6	Ola Cwiek	Role of the Retinoic Acid in Placental Endothelial Cell Specification during vascularization and Hematopoiesis
7	Paula Follert	Identification of a novel angiocrine signal for hepatocyte proliferation
8	Fiona Cox	Effects of Curcumin on cells of the vascular wall
9	Julia Nau	The microenvironment of cardiac hypertrophy
10	Jan Greulich	The transcription factor Grainyhead-like 3 exerts extranuclear functions in the endothelium by interaction with endothelial nitric oxide synthase

Session IV: Poster Presentations

Venue: Schloss Mickeln

**Thursday, June 16th 2022, 18:00 – 19:30**

Print	Name	Poster Title
11	RJ Shute	Comparison of weightlifting and voluntary running against obesity and insulin resistance in mice
12	Anne Hemmers	Immune cells play a crucial role in the development of a cardiac dysfunction in cardiac p38 MAPKa KO mice after pressure overload
13	Caitlin Pavelec	A role for Pannexin 1 in a murine model of isoproterenol induced heart failure
14	Eva Köster	Characterization of disturbances in substrate metabolism after acute myocardial infarction
15	Asena Eliacik	Extracellular flux analysis in intact cardiac tissue slices – a new tool to investigate cardiac substrate metabolism
16	Sophia Reidel	Insulin-like growth factor 1 induces a reparative neutrophil phenotype
17	Jasmin Bahr	Quantitative secretome analysis of cardiac fibroblasts isolated from the infarcted heart using a combination of SILAC labeling and Click-Chemistry
18	Farhad Bazgir	Molecular Mechanisms of RAF1 Associated Hypertrophic Cardiomyopathy in Noonan Syndrome Patients
19	Junjie Li	Characterization of systemic hemodynamics and arginine metabolome in RBC Arg1 KO mice
20	Dennis Merk	Protective effect of SELENOT on LPS-induced endothelial dysfunction
21	Luca Rolauer	Clonal hematopoiesis in experimentally-induced colitis
22	Julia Steinhausen	Hif1-a induction via A2BR activation under normoxic conditions in post MI epicardial stromal cells and activated cardiac fibroblasts

Venue: Orangerie, Schloss Benrath

08:50 - Opening remarks (Norbert Leitinger)

### Session V

Time	Title	Speaker
09:00	Keynote lecture Exercise-medicine	Zhen Yan
09:45	Cell type-specific role of the CD40/CD40L dyad in immune responses of cardiovascular disease	Norbert Gerdes
10:10	IgE antibody responses to the oligosaccharide galactose-alpha-1,3-galactose (alpha-gal) and its link to atherosclerosis	Loren Erickson
10:35	The role of myeloid cells in cardiac disease	Rianne Nederlof

11:00 – 11:15 Coffee break

### Session VI

Time	Title	Speaker
11:15	tba	Tobias Marschall
11:40	Investigating the role of smooth muscle glutamine metabolism in atherosclerotic plaque stability	Anita Salomon
12:05	Electrical remodeling post myocardial ischemia/reperfusion injury	Ehsan Amin
12:30	Regulation of erythrocyte glucose uptake by sphingolipids	Bodo Levkau
12:55	End of talks	

13:00 – 14:00 Lunch to go (Sandwich & Co)

15:00 – 19:00

Rhine River Boats Tour and  
Guided Tour through Kaiserswerth

19:00

Conference Dinner at Restaurant Alex

## General information

### Office contact during the Summer School:

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### Roy-Lichtenstein Lecture hall 2B–Building 22.01, HHU

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### Orangerie, Schloss Benrath

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Urdenbacher Allee 6

40593 Düsseldorf

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8997187



<https://www.schloss-benrath.de/en/visitor-information>

### Schloss Mickeln

Address:

Alt Himmelgeist 25

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<https://www.hhu.de/en/about-hhu/contact-and-services/service-offers/events-in-our-guesthouse/schloss-mickeln>

### Restaurant Alex Düsseldorf

Address:

Kasernenstraße / Graf-Adolf-Platz 48

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<https://www.dein-alex.de/duesseldorf>