

## ORGANIZING COMMITTEE

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Universitätsklinikum Würzburg, Institut für Experimentelle Biomedizin

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Universitätsklinikum Köln, Klinik III für Innere Medizin – Allgemeine und interventionelle Kardiologie, Elektrophysiologie, Angiologie, Pneumologie und internistische Intensivmedizin

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Universitätsklinikum Tübingen, Klinik für Kinder- und Jugendmedizin, Kinderheilkunde I – Hämatologie, Onkologie, Gastroenterologie, Nephrologie, Rheumatologie

**PROF. DR. JENS JORDAN**, Köln  
Institutsdirektor, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Institut für Luft- und Raumfahrtmedizin

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**DR. LUKAS STREESE**, Düsseldorf  
Heinrich-Heine-Universität Düsseldorf, Universitätsklinikum, Klinik für Nephrologie

## REGISTRATION

Registration is exclusively online at  
<https://forms.gle/WtXmhWa4Joa4c9986>

**Data Protection:** Registration is processed electronically. You agree that we may contact you and inform you about future events.

## GENERAL INFORMATION

### LOCATION

Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR)  
Linder Höhe, 51147 Köln

### EVENT ORGANIZER

Akademie für Fort- und Weiterbildung Nieren- und Hochdruckkrankheiten (Akademie Niere)

Deutsche Gesellschaft für Nephrologie e.V. (DGfN)

Deutsche Hochdruckliga e.V. (DHL®)

Deutsche Gesellschaft für Kardiologie – Herz- und Kreislaufforschung e.V. (DGK)

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)

For further questions, please contact:  
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The summer school is open to **graduate students (MD/ PhD), clinicians, clinician-scientists, and post-docs** with an interest in hypertension and interorgan crosstalk in cardio-renal-vascular health (40–50 participants). **The program is deliberately interactive, not a lecture series: participants are encouraged to present and discuss ongoing or planned projects (talks/posters)**, with ample time for feedback and networking. A small number of invited experts will provide keynotes to frame each session and stimulate discussion.

Please submit abstract to: <https://forms.gle/WtXmhWa4Joa4c9986>

We will regularly update the preliminary program and accepted posters: <https://tinyurl.com/3heatfnh>

For further questions, please contact  
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**Deadline for abstract submission: 19.04.2026**



# Hypertension & Organ Crosstalk Summer School

## From Environment to End-Organ Damage

## Interorgan-communication to prevent cardiovascular and renal health

**15.–16.06.2026, Cologne  
German Aerospace Center (DLR)**

Jointly organized by the DGfN, DHL, DGK and DLR



## PRELIMINARY PROGRAM

**Session I:** Environmental Influences and Extreme Environments – Heart, Kidney, and Vessels Under Stress.

**Session II:** Clinical Perspectives – Risk Stratification, Organ Damage, and Resistant Hypertension.

**Session III:** Systems Modifiers of End-Organ Injury – Microbiome, Immunity, and Metabolism.

**Session IV:** Revisiting the Classics – Salt, Potassium, RAAS, and Sympathetic Tone.

Poster session and networking.

Guided tour through the DLR.

Joint dinner.

## SPEAKER

**PROF. EBBA BRAKENHIELM**, Rouen/F  
University of Rouen, Rouen Institute for Research and Innovation in Biomedicine

**PROF. ARIEL R. GOMEZ**, Charlottesville/USA  
University of Virginia School of Medicine, Department of Pediatrics Child Health Research Center

**PROF. DR. JENS JORDAN**, Köln  
Institutsdirektor, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Institut für Luft- und Raumfahrtmedizin

**DR. LUCAS LAUSER**, Basel/CH  
Universitätsspital Basel, Abteilung für Kardiologie

**PROF. MARIA LUISA S. SEQUEIRA-LOPEZ**, Charlottesville/USA  
University of Virginia, School of Medicine, Center of Excellence in Pediatric Nephrology

The organizer reserves the right to make program changes.

The content of this continuing education program has been designed to be product and service neutral. Potential conflicts of interest of the organizer, scientific management, and speakers will be disclosed to participants through a self-declaration during the seminar.

## PROGRAM

Monday, 15.06.2026

### Session I: Environmental Influences and Extreme Environments – Heart, Kidney, and Vessels Under Stress

How does cardiorenal-vascular physiology respond to environmental stimuli, from everyday exposures to extreme environments?

09:20–09:50 **Human health in the harsh space environment**  
Jens Jordan, Köln

09:50–10:50 **Abstract presentation (1–3) à 20 min**

10:50–11:00 **Coffee Break**

11:00–11:30 **Fate of renin cells during development and disease**  
Ariel R. Gomez

11:30–12:10 **Abstract presentation (4–5) à 20 min**

12:10–13:00 **Lunch Break**

### Session II: Clinical Perspectives – Risk Stratification, Organ Damage, and Resistant Hypertension

How do we recognize clinically meaningful hypertension subtypes and prevent target-organ damage, especially when blood pressure is difficult to treat?

13:00–13:30 **From Treating Numbers to Treating Risk in Hypertension**  
Lucas Lauder, Basel/CH

13:30–14:30 **Abstract presentation (1–3) à 20 min**

14:30–14:40 **Coffee Break**

14:40–15:40 **Abstract presentation (4–6) à 20 min**

15:40–16:00 **Coffee Break**

16:00–17:30 **Networking and pitching your project – find collaboration partners**

17:30–18:30 **Coffee Break**

20:00 **Joint dinner**

## PROGRAM

Tuesday, 16.06.2026

### Session III: System Modifiers of End-Organ Injury – Microbiome, Immunity, and Metabolism

What determines susceptibility of end organ injury across heart kidney and vasculature?

09:00–09:30 **Insufficient lymphatic drainage in cardiovascular disease – molecular mechanisms and therapeutic targets**  
Ebba Brakenhielm, Rouen/F

09:30–10:10 **Abstract presentation (1–2) à 20 min**

10:10–10:20 **Coffee Break**

10:20–11:40 **Abstract presentation (3–5) à 20 min**

11:40–12:20 **Lunch Break**

### Session IV: Revisiting the Classics – Salt, Potassium, RAAS, and Sympathetic Tone

How do the „classical“ blood pressure regulators drive organ damage beyond their hemodynamic effects?

12:20–12:50 **Control of renin synthesis and release**  
Maria Luisa S. Sequeira-Lopez, Charlottesville, VA/USA

12:50–14:10 **Abstract presentation (1–4) à 20 min**

14:10–14:20 **Coffee Break**

14:20–16:20 **Guided tour through the DLR**

Visit the DLR Research Facilities including the envihab, an internationally unique facility for human studies with bedrest, isolation- and hypertension studies and European Astronaut Centre (EAC), featuring full-scale ISS training mock-ups and a 10m Neutral Buoyancy Facility for spacewalk training, the LUNA Analog Facility, an internationally unique lunar analogue facility enabling simulations of Moon surface operations in preparation for future lunar missions, and the envihab, an internationally unique facility for human studies with ongoing bed rest study and isolation study with NASA and ESA.

16:20–16:30 **Summary**