Joint Summer School of the ESAO, EUTox working group, Strategy-CKD & SFB/TRR219 IRTG



# **Contact/Organizer**

### **University Hospital RWTH Aachen**

Institute for Molecular Cardiovascular Research (IMCAR) Prof. Dr. Joachim Jankowski & PD Dr. Heidi Noels

Medical Clinic I - Cardiology PD Dr. Claudia Goettsch

University of Skopje Department of Nephrology Prof. Dr. Goce Spasovski

# Organization

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## Emerging and future technologies to remove uremic toxins: tackling cardiovascular complications in kidney failure

Did you know that since the discovery of dialysis the technology has not innovated that much? But that the number of patients, with associated comorbidities like cardiovascular diseases, is incredibly rising? Different pathological processes underlie increased cardiovascular risk in patients with chronic kidney disease, and clinicians and basic scientists are working side by side to reveal mechanistic insights. This is required for improvements in both the diagnosis and treatment of patients. This course is meant for future scientists experimental nephrology in and cardiovascular diseases and will equip you with the knowledge needed to make a change for kidney patients through accelerating insights into the underlying pathology of chronic kidney disease and associated cardiovascular disease, trends in dialysis technology, regenerative nephrology and artificial intelligence. The course is meant for PhD/Dr med students and young postdocs with a background in biomedical, technological or pharmaceutical sciences and concerns diverse trainings and workshop activities along with social events.

# **Meeting venue**

Limak Skopje Hotel Str. Jordan Mijalkov No.31 Skopje 1000 Republic of Macedonia



# Summer School as networking & visibility platform

- ✓ Guided poster presentations by all participants
- With three oral presentations by participants selected based on the submitted abstracts
- ✓ With award for the three best posters

# Summer School as scientific development platform

- ✓ With active learning session on grant writing
- $\checkmark$  With active learning session on research innovation

Day 1: Wednesday 21 September 2022 - Opening and introduction Moderator: Prof. Dr. Roos Masereeuw

| 08.30 - 09.00  | Introduction to the Winterschool<br>Prof. Dr. Goce Spasovski  |
|--|---|
| 09.00 - 09.15  | Introduction to ESAO and the EUTOX working group<br>Prof. Dr. Joachim Jankowski   |
| 09.15 - 09.30  | Introduction to SFB/TRR219 IRTG<br>PD. Dr. Claudia Goettsch   |
| 09.30 - 09.45  | Introduction to the Marie Skłodowska-Curie ITN "Strategy-CKD"<br>Prof. Dr. Griet Glorieux   |
| 09.45 - 10.00  | Introduction to group assignments<br>Prof. Dr. Roos Masereeuw   |
| 10.00 - 10.30  | Tea & coffee break  |
| 10.30 - 12.00  | Who is who: Speed-dating!<br>TBC  |
| <mark>12.00 - 13.30</mark>   | Guided poster tour – Part I (with lunch)  |
| Moderator: P   | the kidney and its pathological crosstalk with the heart<br>Prof. Dr. Joachim Jankowski   |
| 13.30 - 14.00  | Epidemiology<br>Prof. Dr. Alberto Ortiz   |
|  |   |
| 14 00 - 14 30  | Glomerular disease  |
| 14.00 - 14.30  | Glomerular disease<br>Prof. Dr. Jürgen Floege (online)  |
|  |   |
| 14.30 - 15.00  | <b>Prof. Dr. Jürgen Floege (online)</b><br>Tour along the nephron: basic  |
| 14.30 - 15.00<br>15.00 - 15.30   | Prof. Dr. Jürgen Floege (online)<br>Tour along the nephron: basic<br>Prof. Dr. Stéphane Burtey<br>Tour along the nephron: clinical  |
| 14.30 - 15.00<br>15.00 - 15.30<br>15.30 - 16.30  | Prof. Dr. Jürgen Floege (online)<br>Tour along the nephron: basic<br>Prof. Dr. Stéphane Burtey<br>Tour along the nephron: clinical<br>Prof. Dr. Mariano Rodriguez   |
| 14.30 - 15.00<br>15.00 - 15.30<br>15.30 - 16.30<br>16.30 - 17.00   | Prof. Dr. Jürgen Floege (online)Tour along the nephron: basicProf. Dr. Stéphane BurteyTour along the nephron: clinicalProf. Dr. Mariano RodriguezPhysical break: Social eventCardiovascular disease in CKD  |
| 14.30 - 15.00<br>15.00 - 15.30<br>15.30 - 16.30<br>16.30 - 17.00<br>17.00 - 17.30  | Prof. Dr. Jürgen Floege (online)Tour along the nephron: basicProf. Dr. Stéphane BurteyTour along the nephron: clinicalProf. Dr. Mariano RodriguezPhysical break: Social eventCardiovascular disease in CKDProf. Dr. Angel ArgilesImpact of posttranslational modification on CKD and CVD  |
| 14.30 - 15.00<br>15.00 - 15.30<br>15.30 - 16.30<br>16.30 - 17.00<br>17.00 - 17.30<br>17.30 - 19.00                                   | Prof. Dr. Jürgen Floege (online)<br>Tour along the nephron: basic<br>Prof. Dr. Stéphane Burtey<br>Tour along the nephron: clinical<br>Prof. Dr. Mariano Rodriguez<br>Physical break: Social event<br>Cardiovascular disease in CKD<br>Prof. Dr. Angel Argiles<br>Impact of posttranslational modification on CKD and CVD<br>Prof. Dr. Vera Jankowski  |
| 14.30 - 15.00<br>15.00 - 15.30<br>15.30 - 16.30<br>16.30 - 17.00<br>17.00 - 17.30<br>17.30 - 19.00                                   | Prof. Dr. Jürgen Floege (online)<br>Tour along the nephron: basic<br>Prof. Dr. Stéphane Burtey<br>Tour along the nephron: clinical<br>Prof. Dr. Mariano Rodriguez<br>Physical break: Social event<br>Cardiovascular disease in CKD<br>Prof. Dr. Angel Argiles<br>Impact of posttranslational modification on CKD and CVD<br>Prof. Dr. Vera Jankowski<br>Guided poster tour – Part II (with cheese, snacks & wine) |
| 14.30 - 15.00<br>15.00 - 15.30<br>15.30 - 16.30<br>16.30 - 17.00<br>17.00 - 17.30<br>17.30 - 19.00<br>19.00 - 19.30<br>Active learni | Prof. Dr. Jürgen Floege (online)<br>Tour along the nephron: basic<br>Prof. Dr. Stéphane Burtey<br>Tour along the nephron: clinical<br>Prof. Dr. Mariano Rodriguez<br>Physical break: Social event<br>Cardiovascular disease in CKD<br>Prof. Dr. Angel Argiles<br>Impact of posttranslational modification on CKD and CVD<br>Prof. Dr. Vera Jankowski<br>Guided poster tour – Part II (with cheese, snacks & wine) |

- 19.30 19.45 Introduction Prof. Dr. Roos Masereeuw
- 19.45 21.00 Group assignments: 'Innovation in artificial kidney' Dr. Dorothea Piecha
- 21.00 22.00 Presentations Groups

## Sponsoring

#### Day 2: Thursday 22 September 2022 Kidnev failure: consequences and treatments

Moderator: PD Dr. Heidi Noels

| 08.30 - 09.00 | Vascular calcification PD Dr. Claudia Goettsch                      |
|---------------|---|
| 09.00 - 09.30 | Increased thrombotic and bleeding risk in CKD<br>PD Dr. Heidi Noels |
| 09.30 - 10.00 | Dialysis<br>TBC   |
| 10.00 - 10.30 | Tea & coffee break  |
| 10.30 - 11.00 | Kidney transplantation<br><b>Prof. Dr. Goce Spasovski</b>           |
| 11.00 - 11.30 | Patient interview   |
|               | Prof. Dr. Roos Masereeuw  |

#### Active learning – session 2: Pitch your grant Moderator: Prof. Dr. Griet Glorieux

| 13.00 - 13.30 | How to write a successful grant<br>Prof. Dr. Griet Glorieux, Prof. Dr. Tonia Vlahou |
|---------------|---|
| 13.30 - 15.00 | Group assignment: write a high risk/high gain grant                                 |
| 15.00 - 16.30 | Social event  |

#### Keynote lectures

Moderator: Prof. Dr. Goce Spasovski

- 17.00 18.00 Keynote lecture: Kidney health and the EU: the end of the tunnel? **Prof. Dr. Raymond Vanholder**
- 18.00 22.00 Dinner & social event

#### Day 3: Friday 23 September 2022 **Emerging technologies** Moderator: Prof. Dr. Angel Argiles 08.00 - 08.30 Biomaterials in nephrology Prof. Dr. Dimitrios Stamatialis 08.30 - 09.00 Regenerative nephrology Prof. Dr. Maria Stangou Computational ecosystem for clinical application of organ cross-09.00 - 09.30 talk (TBC) Tea & coffee break 09.30 - 10.00 Disease modifying therapies: lesson from Fabry and ADPKD 10.00 - 10.30 Prof. Dr. Merita Rroji 10.30 - 11.00 Treatment option of post-translational modification of proteins in CKD, TBC Comorbidities heart-kidney axis: towards insight into molecular 11.00 - 11:30

## 11.00 - 11:30 Comorbidities heart-kidney axis: towards insight into molecular mechanisms **Prof. Dr. Joachim Jankowski**

11.30 - 12.30 Lunch with open poster discussions & networking

### Research Mini symposium: Industry Insights into

#### *Kidney-Heart crosstalk & Emerging technologies* Moderator: Prof. Dr. Vera Jankowski

- 12.30 13.00 Novel technologies for treatment of renal failure **Dr. Dorothea Piecha (Fresenius Medical Care)**
- 13.00 13.30 New development in plasmapheresis **TBC**

#### Keynote presentations & awards

#### Moderator: Prof. Dr. Goce Spasovski & Joachim Jankowski

- 13.30 14.30 Three selected oral presentations of participants (based on abstract)
- 14.30 14.45 Poster awards
- 14.45 15.30 Tea & coffee break & Goodbye