



## REN<sup>PRO</sup> Basic Nephrology Course

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| <b>Date:</b>          | April 9 – 11, 2024  |
| <b>Place:</b>         | Universität Regensburg  |
| <b>Target group:</b>  | Compulsory for PhD students of the TRR 374<br>open for medical doctoral students, PostDocs and Clinician Scientists in the TRR 374, and for interested doctoral students (via the graduate schools) |
| <b>Credit Points:</b> | Full participation can be counted as a method course with 0.9 CPs within the Curriculum of the Graduate Schools (RIGel, BioMediGS, life@FAU)  |

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| Registration and contact:       | <a href="mailto:michaela.kritzenberger@ur.de">michaela.kritzenberger@ur.de</a><br>Registration of TRR members requested by March 20, 2024 |
| Maximum number of participants: | 20 (first come first serve)   |

### Contents & Schedule:

| Tuesday, April 9 <b>Microscopic and macroscopic anatomy of the kidney</b> |   |                         |
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| 09:30h  | <b>Welcome</b><br>Place: Seminarraum Physiologie (4.1.29)   | R. Warth/<br>F. Schweda |
| 10:00h  | <b>Macroscopic anatomy: anatomical demonstration</b><br>Place: Präparier-Saal <ul style="list-style-type: none"> <li>• Cardiovascular System (overview)</li> <li>• Retroperitoneal space and anatomy of the kidney</li> </ul> | S. Härteis/<br>T. Aung  |
| 12:00h  | Lunch and discussion  |                         |
| 13:00h  | <b>Microscopic anatomy of the kidney: lecture and practical histology course</b><br>Place: Histo-Saal   | R. Witzgall             |
| 15:00h  | <b>Coffee break</b>   |                         |
| 15:30   | <b>Practical histology course continued</b>   | R. Witzgall             |

| <b>Wednesday, April 10</b> <b>Renal physiology and pathophysiology:</b><br><b>Electrolyte- and water balance, acid-base homeostasis</b> |  |            |
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| 08:30   | <b>Physiology of the glomerulus and tubular system of the kidney:</b> Lecture<br>Place: Seminarraum Physiologie (4.1.29)   | F. Schweda |
| 10:00h  | Coffee break   |            |
| 10:30h  | <b>Physiology of the glomerulus and tubular system of the kidney:</b><br>Continued   | F. Schweda |
| 12:00   | Lunch  |            |
| 13:00h  | <b>Practical Course</b><br>Place: Praktikumsraum 4.003<br><br><b>Determination of:</b> <ul style="list-style-type: none"> <li>• osmolality by measurement of freezing point depression</li> <li>• urea concentration in plasma and urine by the urease-GLDH method</li> <li>• Na<sup>+</sup>, K<sup>+</sup>, and Cl<sup>-</sup> -concentrations with ion-sensitive electrodes</li> <li>• bicarbonate concentration from pH and pCO<sub>2</sub> using the Henderson-Hasselbalch equation</li> <li>• creatinine concentration in plasma and urine</li> </ul> | R. Warth   |
| 19:00h  | <b>Get together</b><br>Unikat  |            |

| <b>Thursday, April 11</b> <b>Renal physiology and pathophysiology: Interstitium</b><br><b>Regulation of blood pressure</b> |   |            |
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| 08:30h   | <b>Practical course: Evaluation and Discussion</b><br>Place: Praktikumsraum 4.003   | R. Warth   |
| 10:30h   | Coffee break  |            |
| 11:00h   | Kidney interstitium - Lecture<br>Place: Seminarraum Physiologie (4.1.29)  | K. Broeker |
| 12:00h   | Lunch   |            |
| 13:00h   | <b>Regulation of blood pressure</b> - Lecture<br>Place: Seminarraum Physiologie (4.1.29)<br><br>Short term regulation<br>Endocrine system and long-term regulation of blood pressure: <ul style="list-style-type: none"> <li>• Renin-Angiotensin-System</li> <li>• ADH and Aldosteron</li> <li>• ANP</li> </ul> | F. Schweda |
| 15:00h   | Coffee and Farewell   |            |