



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

<b>Date:</b>	April 9 – 11, 2024
<b>Place:</b>	Universität Regensburg
<b>Target group:</b>	Compulsory for PhD students of the TRR 374 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)

Registration and contact:	<a href="mailto:michaela.kritzenberger@ur.de">michaela.kritzenberger@ur.de</a> 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>		
09:30h	<b>Welcome</b> Place: Seminarraum Physiologie (4.1.29)	R. Warth/ F. Schweda
10:00h	<b>Macroscopic anatomy: anatomical demonstration</b> 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/ T. Aung
12:00h	Lunch and discussion	
13:00h	<b>Microscopic anatomy of the kidney: lecture and practical histology course</b> 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> <b>Electrolyte- and water balance, acid-base homeostasis</b>		
08:30	<b>Physiology of the glomerulus and tubular system of the kidney:</b> Lecture 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> Continued	F. Schweda
12:00	Lunch	
13:00h	<b>Practical Course</b> Place: Praktikumsraum 4.003  <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> Bodega	

<b>Thursday, April 11</b> <b>Renal physiology and pathophysiology: Interstitium</b> <b>Regulation of blood pressure</b>		
08:30h	<b>Practical course: Evaluation and Discussion</b> Place: Praktikumsraum 4.003	R. Warth
10:30h	Coffee break	
11:00h	Kidney interstitium - Lecture Place: Seminarraum Physiologie (4.1.29)	K. Broeker
12:00h	Lunch	
13:00h	<b>Regulation of blood pressure</b> - Lecture Place: Seminarraum Physiologie (4.1.29)  Short term regulation 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	