



REN^{PRO} Basic Nephrology Course

- Date:** 20. - 22.04.2021
Place: zoom, GRIPS
Target group: Compulsory for PhD students of the SFB 1350
 open for medical doctoral students and PostDocs in the SFB 1350
 and interested doctoral students (via the graduate schools)
Credit Points: Full participation can be counted as a method course with 1.2 CPs within
 the Curriculum of the Graduate Schools (RIGel, BioMediGS, life@FAU)

Registration and contact: michaela.kritzenberger@ur.de
 Registration requested by 22.03.2021
 Maximum number of participants: 25 (first come first serve)

Contents & Schedule:

Tuesday, April 20 Microscopic and macroscopic anatomy of the kidney		
09:00h	Welcome	R. Warth/ F. Schweda
9:15h – 11:00h	Macroscopic anatomy: anatomical demonstration <ul style="list-style-type: none"> • Cardiovascular System (overview) • Retroperitoneal space and anatomy of the kidney 	E. Tamm/ L. Herrnberger
13:00 – 16:00h	Microscopic anatomy of the kidney: lecture and virtual histology course	R. Witzgall

Wednesday, April 21 Renal physiology and pathophysiology, Electrolyte- and water balance, acid-base homeostasis		
09:00 – 12:00h	Physiology of the glomerulus and tubular system of the kidney: Lecture	F. Schweda
13:00 – 13:45h	Kidney interstitium: Lecture	A. Kurtz
14:00 – 14:45h	Introduction Practical Course - Determination of: <ul style="list-style-type: none"> • osmolality by measurement of freezing point depression • urea concentration in plasma and urine by the urease-GLDH method • Na⁺, K⁺, and Cl⁻ -concentrations with ion-sensitive electrodes • bicarbonate concentration from pH and pCO₂ using the Henderson-Hasselbalch equation • creatinine concentration in plasma and urine 	R. Warth
15:00 – 17:00h	Practical Course (Video)	(GRIPS)

Thursday, April 22 Renal physiology and pathophysiology, Regulation and function of blood pressure		
9:00 – 12:00h	Regulation of blood pressure: <ul style="list-style-type: none"> • Short term regulation • Endocrine system and long-term regulation of blood pressure: <ul style="list-style-type: none"> - Renin-Angiotensin-System - ADH and Aldosteron - ANP 	F. Schweda
13:00 – 16:00h	Practical Course: Evaluation and Discussion	R. Warth