

Department of Pharmacology and Pharmacotherapy
DIPLOMA WORK TOPICS

2026/2027
(for medical students)

1. Investigation of comorbidity factors and simulated ischemia/reperfusion in isolated cardiac myocyte cultures

Supervisor: Dr. Anikó Görbe Associate Professor, Dr. András Makkos assistant professor, Dr. Regina Norma Nagy

2. Investigation of citoprotective microRNAs in small animal models

Supervisor: Dr. Anikó Görbe, Associate Professor, Dr. András Makkos assistant professor, Dr. Regina Norma Nagy

3. Investigation of hidden cardiotoxicity in isolated cardiac myocyte cultures

Supervisor: Dr. Anikó Görbe Associate Professor, Dr. Regina Norma Nagy

4. Microvascular obstruction and endoplasmic reticulum-mitochondria interaction in the aetiology of cardiac ischemia/reperfusion injury

Supervisor: Gábor Mórotz PhD, AFHEA research fellow

5. Protein aggregates and endoplasmic reticulum-mitochondria interaction in the aetiology of dementia

Supervisor: Gábor Mórotz PhD, AFHEA research fellow

6. The interaction between opioid and angiotensin systems in relation to chronic pain

Tutor: Dr. Mahmoud Al-Khrasani associate professor, Dr. Kornél Király associate professor

7. The impact of gut microbiom alterations in the development of opioid analgesic tolerance

Tutor: Dr. Mahmoud Al-Khrasani associate professor

8. The role of spinal glycinergic system in the development of opioid analgesic tolerance

Tutor: Dr. Mahmoud Al-Khrasani associate professor

9. The role of tyrosine kinase receptors in the development and management of neuropathic pain

Tutor: Dr. Mahmoud-Al-Khrasani, associate Professor

10. The Neurobiology of the TAAR1 System

Supervisor: Prof. Dr. László Hársing

11. Transporter-mediated drug disposition, assay and model development for novel anticancer therapies and tumor imaging

Supervisor: Laczka Csilla, PhD, DSc, scientific advisor

12. A comparative study of the cardioprotective and cardiotoxic effects of antigout drugs in an animal model

Supervisor: Zsófia Onódi, MD, PhD

13. The role of multidrug transporter modulation in the development of drug-induced cardiotoxic effects

Supervisor: Zsófia Onódi, MD, PhD

14. The role of the heart-bone marrow axis in cardiac disease: alterations in iron homeostasis and therapeutic implications

Supervisor: Zsófia Onódi, MD, PhD

15. Inflammation as a novel therapeutic target in cardiovascular diseases

Tutor: Dr. Zoltán Varga, senior research associate

16. Cardiotoxicity as a side effect of cancer chemotherapy

Tutor: Dr. Zoltán Varga, senior research associate