

**SZTE SZAOK**  
**(Institute of Surgical Research)**

**TDK topics (2021/2022):**

Tutor(s)	Topics
Prof. Dr. habil. Mihály Boros, M.D., Ph.D., D.Sc., Head of Department; Dr. Marietta Zita Poles, Ph.D., research fellow	Pathomechanism of the small bowel ischemia-reperfusion. <i>In vivo</i> examinations with confocal laser scanning endomicroscopy.
Prof. Dr. habil. Mihály Boros, M.D., Ph.D., D.Sc., Head of Department	Biological activity of phospholipids and phospholipid precursors in inflammatory diseases.
Prof. Dr. habil. Mihály Boros, M.D., Ph.D., D.Sc., Head of Department; Dr. Gabriella Varga, Ph.D., assistant professor, Dr. Dániel Érces, Ph.D., assistant professor	Protective effects of biological gases in circulatory disorders.
Prof. Dr. habil. Mihály Boros, M.D., Ph.D., D.Sc., Head of Department	Acting mechanism and interplay of biologically active gases in sterile inflammation and <i>in vitro</i> systems.
Dr. habil. József Kaszaki, Ph.D., associate professor, Dr. habil. Andrea Szabó Ph.D., associate professor, Dr. László Juhász, Ph.D., research fellow, Dr. Szabolcs Péter Tallós, Ph.D., assistant lecturer	Therapeutic possibilities of the microcirculatory and mitochondrial dysfunction in septic condition.
Dr. László Juhász, Ph.D., research fellow	Assessment of mitochondrial function in local and systemic inflammatory diseases.
Prof. Dr. habil. Mihály Boros, M.D., Ph.D., D.Sc., Head of Department, Dr. László Juhász, Ph.D., research fellow	Assessment of mitochondrial function of the enteric mucosa in physiological and pathophysiological states.
Tutors: Dr. habil. Andrea Szabó, M.D., Ph.D., associate professor, Dr. Marietta Zita Poles, Ph.D., research fellow	Assessment and modulation of the biochemical and microcirculatory consequences of urogenital diseases.
Dr. habil. Andrea Szabó, M.D., Ph.D., associate professor, Dr. Marietta Zita Poles, Ph.D., research fellow	Assessment and modulation of the injury of endothelial glycocalyx caused by circulatory disorders.
Prof. Dr. habil. Mihály Boros, M.D., Ph.D., D.Sc., Head of Department	Non-bacterial methane production: molecular mechanism and significance in

	clinical diagnostics.
Dr. Gabriella Varga, Ph.D., assistant professor, Dr. Dániel Érces, Ph.D., assistant professor	Examination of the complications of extracorporeal circulation on a large animal model.
Dr. Gabriella Varga, Ph.D., assistant professor, Dr. Dániel Érces, Ph.D., assistant professor	Non-invasive investigation of the lung and gastrointestinal microcirculation.
Dr. habil. József Kaszaki, Ph.D., associate professor, Dr. Szabolcs Péter Tallósy, Ph.D., assistant lecturer, Dr. László Juhász, Ph.D., research fellow	The effect of neutrophil extracellular trapping (NETosis) on mitochondrial function and organ damages in circulatory diseases.
Dr. habil. Andrea Szabó, M.D., Ph.D., associate professor, Dr. Marietta Zita Poles, Ph.D., research fellow	State-of-the-art assessment methods for quantification of surgical skills.
Dr. Tamara Horváth, Ph.D., assistant research fellow	Examination of the effects of preservation solutions on cold ischemic damage in <i>ex vivo</i> liver transplantation.
Dr. Marietta Zita Poles, Ph.D., research fellow; Dr. László Juhász, Ph.D., research fellow	Changes in cerebral mitochondrial function in experimental sepsis.