
Department of Histology and Embryology

Histology

Electron microscopy

Immunohistochemistry

Lungs, airways, vessels, cilia

Offer

- Our expertise in routine histology methods
- TEM research and diagnostics
- Immunohistochemistry and lectin histochemistry in paraffin and frozen sections

Know-how & Technologies

- Microscopic structure of lungs, respiratory passages, vessels, heart and placenta under experimental and pathological conditions, animal models
- Ultrastructure of respiratory cilia, high speed videomicroscopy, immunofluorescence
- Ultrastructural and molecular changes of cells and tissues
- Basic histology, conventional histochemistry, immunohistochemistry, lectin histochemistry

Laboratory Equipment

- Routine histological laboratory (tissue processor, microtomes, cryostat, vibratome)
- Special immunohistochemical laboratory
- Laboratory of electron microscopy (ultramicrotomes, sputter coater)
- Light and fluorescent microscopes
- Transmission electron microscope
- Computer image analyzers

Selected Publications

- Beránková, K., Uhlík, J., Hoňková, L., Pohunek, P.: *Structural changes are present in bronchial mucosa of young children in risk for developing asthma*. Pediatric Allergy and Immunology 25, 2, 2014: 136–142
- Uhlík, J., Šimůnková, P., Žaloudíková, M., Partlová, S., Jarkovský, J., Vajner, L.: *Airway Wall Remodeling in Young and Adult Rats with Experimentally Provoked Bronchial Asthma*. Int. Arch. Allergy Immunol. 164 (4), 2014: 289–300
- Hoňková, L., Uhlík, J., Beránková, K., Svobodová, T., Pohunek, P.: *Epithelial basement membrane thickening is related to TGF- β 1 expression in children with chronic respiratory diseases*. Pediatric Allergy and Immunology 25 (6), 2014: 593–599
- Novotný, T., Krejčí, J., Malíková, J., Švehlík, V., Wasserbauer, R., Uhlík, J., Vajner, L.: *Mast-cell stabilization with sodium cromoglycate modulates pulmonary vessel wall remodeling during 4-day hypoxia in rats*. Experimental Lung Research 41 (5), 2015: 283–292
- Džakov, J., Kramná, L., Dušátková, L., Uhlík, J., Pursiheimo, J.P., Svobodová, T., Pohunek, P., Cinek, O.: *An effective combination of Sanger sequencing with next generation sequencing in the genetic diagnostics of primary ciliary dyskinesia*. Pediatric Pulmonology 51 (5), 2016: 498–509
- Wilhelm, J., Vytášek, R., Uhlík, J., Vajner, L.: *Oxidative stress in the developing rat brain due to production of reactive oxygen and nitrogen species*. Histochemical and immunohistochemical study. Oxidative Medicine and Cellular Longevity, vol. 2016, Article ID 5057610, 12 pages, 2016. doi:10.1155/2016/5057610
- Novotný, T., Uhlík, J., Vajner, L.: *Four-day pulse of sodium cromoglycate modulates pulmonary vessel wall remodeling during 21-day hypoxia in rats*. Exp. Lung Res. 44 (1), 2018: 1–12

Team Members

- Doc. MVDr. Luděk Vajner, CSc.
- MUDr. Petra Dvořáková
- MUDr. Jiří Uhlík, Ph.D.

Are you interested in this expertise?

Please contact CPPT UK

Web: www.cppt.cuni.cz/

Mail: transfer@cuni.cz

Phone: +420 224 491 255

Experts and their department

Jiří Uhlík, M.D., Ph.D.

Department of Histology and Embryology

Web: <http://histologie.lf2.cuni.cz/>

Klíčová slova

Histologie

Elektronová mikroskopie

Imunohistochemie

Plíce, dýchací cesty, cévy, řasinky