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# Laboratory of LASER Microdissection

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## Offer

- Staining of tissue sections by common histological dyes
- Dissection of selected cells from tissue section and its transfer to microcaps followed by nucleic acids isolation
- Sterile dissection of alive cells from cell cultures for subsequent cultivation
- Creating of photo documentation of complete microdissection process for each sample

## Expertise

- This laboratory is concerned with identification and subsequent isolation of single cells from tissue sections and cell cultures
- Applied system allows work with fresh samples as well as with archive sections covered by medium
- Obtained samples serve for study of gene expression
- Additionally, used device enable to isolate concrete cell from heterogenic cell cultures and its subsequent cultivation

## Members

- Assoc. Prof. Magdalena Chottová Dvořáková, M.D., Ph.D. – Research Group Leader
- Assoc. Prof. Jana Slavíková, M.D., Ph.D.

## Selected Publications

- Chottova Dvorakova, M., Kruzliak, P., Rabkin, S.W. (2014) *Role of neuropeptides in cardiomyopathies*. Peptides 61, 1–6
- Mistrova, E., Wiegand, S., Svirglerova, J., Pfeil, U., Kuncova, J., Slavikova, J., Kummer, W., Chottova Dvorakova, M. (2014) *Adrenomedullin and the calcitonin receptor-like receptor system mRNA expressions in the rat heart and sensory ganglia in experimentally-induced long-term diabetes*. General Physiology and Biophysics 33 (2), 215–225
- Klenerova, V., Chottova Dvorakova, M., Skopek, P., Sida, P., Mistrova, E., Slavikova, J., Hynie, S. (2011) *Expression of oxytocin receptor and its mRNA in two rat strains with different activity of HPA axis*. Neuro Endocrinol Lett 32 (6), 805–810
- Chottova Dvorakova, M., Wiegand, S., Pesta, M., Slavikova, J., Reischig, J., Kuncova, J., Kummer, W. (2008) *Expression of neuropeptide Y and its receptors Y1 and Y2 in the rat heart and its supplying autonomic and spinal sensory ganglia in experimentally induced diabetes*. Neuroscience 151, 1016–1028
- Chottova Dvorakova, M., Pfeil, U., Kuncová, J., Švirglerová, J., Galvis, G., Krasteva, G., König, P., Grau, V., Slavíková, J., Kummer, W. (2006) *Down-regulation of vasoactive intestinal peptide and altered expression of its receptors in rat diabetic cardiomyopathy*. Cell Tissue Res 323, 383–393

## Are you interested in this expertise?

Please contact CPPT UK

Web: [www.cppt.cuni.cz/](http://www.cppt.cuni.cz/)

Mail: [transfer@cuni.cz](mailto:transfer@cuni.cz)

Phone: +420 224 491 255

## Experts and their department

Assoc. Prof. Magdalena Chottová Dvořáková, M.D., Ph.D.

Institute of Physiology

Web: [www.biomedic-plzen.cz](http://www.biomedic-plzen.cz)