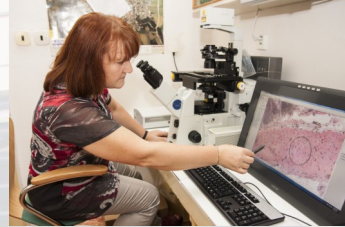


# LABORATORY OF LASER MICRODISSECTION



## ABOUT US

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
- Eliška Mistrová, M.D.
- Assoc. Prof. Jana Slavíková, M.D., Ph.D.

## WE 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.

## 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.

