Main goal of the Laboratory of Tumour Biology is to study novel prognostic and predictive markers with the capacity to improve treatment of oncology patients. We use colorectal cancer as a tumour model, because it is one of the most common malignant diseases worldwide as well as in the Czech republic. Within individual projects we measure expression levels of selected genes during tumour development, assess markers of cancer stem cells in the tumour samples or detect and characterize circulating tumour cells in the peripheral blood, including whole genome analysis of individual cells.

Members

- Pavel Pitule, Ph.D., M.Sc. – Research Group Leader
- Pavel Ostašov, Ph.D., M.Sc.
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- Eva Královcová
- Petr Hošek, M.Sc.
- Martin Pešta, Ph.D., M.Sc.
- Ludmila Vodičková, M.D., Ph.D.
- Pavel Vodička, M.D., Ph.D.
- Jiří Polivka, M.Sc.
- Dr. James Hicks

We offer

- Nucleic acid isolation from various cell types, frozen tissues and FFPE tissue samples.
- Quality control of nucleic acids.
- Analysis of relative gene expression and comparison of expression profiles of your samples.
- Preparation of gene expression microarray experiments.
- Detection of single-nucleotide polymorphisms and mutations.
- Fluorescence microscopy of cell cultures and tissue samples.
- Statistical analysis of results.
- Biological and functional interpretation of your results.
- Consultation of experimental design and selection of appropriate methodology for given project.
- Layout of project including time and cost estimation.
SELECTED PUBLICATIONS


