We are opened to a wide spectrum of collaboration with academic partners, partners from applied research and clinical partners. We can offer our help particularly in these fields:

- measurement of energy expenditure and nutrition substrate utilization (indirect calorimetry),
- examination of body composition and anthropometric parameters (caliperation, bioelectrical impedance analysis, bioelectrical impedance spectroscopy),
- function tests (dynamometry, spirometry),
- DNA damage and reparation (comet assay).

EXPERTISE

- Measurement of energy need and substrates.
- Effects of various diseases, therapy or nutrition on body composition, energy metabolism and nutrition substrate utilization.
- Searching for markers giving more accurate estimation of disease progression and mortality.
- Parenteral and enteral nutrition individualization of patients according their actual needs.

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"We are especially focused on body composition, energy metabolism, nutrition and DNA damage in various clinical conditions, both physiological and pathological."
KEY RESEARCH EQUIPMENT

- Indirect calorimeter Vmax Encore (SensorMedics).
- Multiscan 5000 (Bodystat).
- BCM – Body Composition Monitor (Fresenius Medical Care AG & Co.).
- Abdominal fat analyser AB 140 M Viscan (Tanita corporation).
- Pinch/grip analyser (MIE Medical Research ltd.).
- Fluorescence microscope Nikon Eclipse 80i (Nikon Instruments) + analyzation software Lucia Comet Assay (Laboratory Imaging Praha), ELFO + Western blot equipment.

PARTNERSHIPS & COLLABORATIONS

- Department of Research and Development, University Hospital, Hradec Kralove, Czech Republic (Prof. MUDr. Zdenek Zadak, CSc.).
- Department of Surgery, University Hospital, Hradec Kralove, Czech Republic (MUDr. Eduard Havel, Ph.D.).
- Department of Obstetrics and Gynecology, University Hospital and Faculty of Medicine, Hradec Kralove, Czech Republic (Doc. MUDr. Marian Kacerovsky, Ph.D.).
- Pulmonary Department, University Hospital, Hradec Kralove, Czech Republic (MUDr. Vladimir Kobližek, Ph.D. and MUDr. Michal Hrnčiarik).
- Department of Toxicology, Faculty of Military Health Sciences, Hradec Kralove, Czech Republic (Prof. RNDr. Rudolf Štětina, CSc.).

PUBLICATIONS

- Publications in respected international journals with impact factor.
- Presentations in domestic and international congresses.
- Application of new knowledge into clinical practice.

SEE MORE INFORMATION ON OUR WEBPAGES: