

INSTITUTE OF EXPERIMENTAL MEDICINE OF THE ASCR, v. v. i.
Ústav experimentální medicíny AV ČR, v. v. i. (ÚEM)

Section 5

Address: *phone:* +420 241 062 230, 241 062 682
Vídaňská 1083 *fax:* +420 241 062 782
142 20 Prague 4 *e-mail:* uemavcr@biomed.cas.cz
URL: <http://www.iem.cas.cz>

Director: **Prof. MUDr. Eva Syková, DrSc.**
phone: +420 241 062 230
e-mail: sykova@biomed.cas.cz

Deputy Director: **Doc. RNDr. Alexandr Chvátal, DrSc.**
phone: +420 241 062 670
e-mail: chvatal@biomed.cas.cz

Chair of the Board: **Prof. MUDr. Eva Syková, DrSc.**
phone: +420 241 062 230
e-mail: sykova@biomed.cas.cz

Secretary of the Board: **Ing. Petr Bažant, CSc., MBA.**
phone: +420 241 063 632
e-mail: bazant@biomed.cas.cz

Chair of the Supervisory Board: **RNDr. Jan Hrušák, CSc.**
phone: +420 221 403 258; 266 053 436
e-mail: hrusak@kav.cas.cz
hrusak@jh-inst.cas.cz

Secretary of the Supervisory Board: **Ing. Jan Prokšík**
phone: +420 241 063 632
e-mail: proksik@biomed.cas.cz

Chief Economic Manager: **Ing. Daniela Mrkvánková**
phone: +420 241 062 202
e-mail: mrkvan@biomed.cas.cz

The Institute of Experimental Medicine (IEM) was established in 1975 through the merger of several laboratories of the Czechoslovak Academy of Sciences (CSAS), founded in the years 1953-1957. In subsequent years, the number

of laboratories gradually increased. After the Institute of Pharmacology ASCR merged with the IEM, four new pharmacological departments were established at the Institute of Experimental Medicine, and currently the Institute consists of 10 departments and 2 independent laboratories. Pursuant to Act No. 341/2005 Coll., the Institute became a public research institution as of 1 January 2007.

The Institute's research is focused on selected problems in biomedicine with particular attention to their application in clinical medicine. In the field of neuroscience, research is focused on ionic changes and diffusion parameters in the CNS during physiological and pathological states, non-synaptic transmission in the CNS, ion channels and receptors, the function of glial cells, the morphological and functional characteristics of nerve cells in the auditory system and damage caused by pathological processes. In the field of cell biology, research is concentrated on the structural-functional organisation of the cell nucleus. Other research areas include the genotoxic and embryotoxic effects of xenobiotics and the mechanisms underlying the origins of congenital defects, the origin and course of toxic reactions at cellular and tissue levels, the histochemistry and pharmacology of enzymes as markers of biochemical processes, the effects of pharmaceuticals on the immune reaction during infectious diseases, and the role of glutamate receptors and calcium ions in communication between neurons and glial cells. In the field of biotechnological innovation, the work of the Institute is focused on technology transfer and the support of collaboration between the IEM ASCR and the business sphere in the area of regenerative medicine by means of education and joint research and development activities. The Institute, in cooperation with the Centre for Cell Therapy and Tissue Repair, devotes research to embryonic stem cells and the regulation of the cell cycle during gametogenesis and differentiation, the differentiation and implantation of neural and embryonic stem cells, the construction of tissue replacements based on hydrogels, and autologous chondrocytes and biodegradable matrices from unwoven nanofibres. Since 2000, the Institute of Experimental Medicine has been an EU Centre of Excellence with the acronym MEDIPRA.

Joint Research Centres

- Joint centre with the Department of Genetic Ecotoxicology, IEM ASCR, and the Regional Public Health Station of Central Bohemia
- Joint centre with the Department of Neuroscience, IEM ASCR, and the Institute of Neuroscience, Second Faculty of Medicine, Charles University, Prague

- Joint centre with the Department of Molecular Embryology, IEM ASCR, and the Biological Institute of the Faculty of Medicine, Masaryk University in Brno
- Joint centre with Regenerative Medicine of the Institute of Experimental Medicine ASCR, the Institute of Clinical and Experimental Medicine (IKEM), and Charles University in Prague (Centre for Cell Therapy and Tissue Repair)

More detailed information about the organisational structure of the Institute and its research and specialised units can be found at the following URL:
<http://www.iem.cas.cz>