Novinky v biomedicínském výzkumu/Biomedical Research News

Přednáškové dopoledne s předními světovými odborníky
Lectures of international experts in biomedicine

1. LÉKAŘSKÁ FAKULTA
Univerzita Karlova

Středa 22. listopadu/WednesdayNovember 22, 2017 Velká zasedací místnost děkanátu 1. LF UK (Na Bojišti 3, Praha 2)

Josef T. Prchal

Is Professor of Medicine in Hematology, Pathology, and Genetics at the University of Utah in Salt Lake City and visiting professor at 1st Medical Faculty, Charles University in Prague. Dr. Prchal's lab focuses to elucidate the molecular basis of hematological diseases to discover their either somatic or germline underlying mutations and then determine the functions of the mutations. Dr. Prchal's research has contributed substantially to the fundamental understanding of the genetic basis of both primary and secondary polycythemias.

His laboratory described the VHL mutation in recessive Chuvash familial polycythemia and elaborated on the pathobiology of EPOR mutations in autosomal dominant familial polycythemia. His genetic investigations of acquired polycythemia vera led to the association of chromosome 9p abnormalities with the disease. Dr. Prchal served as the associate editor of Williams Hematology and Williams Manual (7th, 8th, and 9th editions). Among other honors, he received several distinguished awards include the American Cancer Society Scholar Award, the 650th year Anniversary Medal of Charles University for Outstanding Research Accomplishments.

8.45 Registration for students

9.00 – 9.45 Disorders of Hypoxia Sensing

Adaptation to hypoxia is critical for survival and has profound effect on many tissue processes and functions including development, erythropoiesis, vasculogenesis, and angiogenesis. The expression of broad range of hypoxia-regulated genes, such as erythropoietin and VEGFs, is regulated by hypoxia-inducible factors (HIFs). The talk will focus on the mechanisms that result in failure of oxygen sensing and lead to the development of pathologic phenotype.

10.00 – 10.45 Myeloproliferative disorders

Myeloproliferative disorders (MPD) or myeloproliferative neoplasms (MPN) are defined as chronic marrow diseases with unregulated growth of one or more blood cell lineages that may extend to extramedullary sites. All of these disorders are clonal hematologic malignancies originating at the level of the multilineage hematopoietic stem or progenitor cell resulting in excess of blood cells or their functional dysregulation. The talk will focus on pathophysiology of Bcr-Abl negative myeloproliferative neoplasms. In 2005, a somatic activating mutation in the JAK2 non-receptor tyrosine kinase (JAK2V617F) was identified in most patients with polycythemia vera (PV) and in a significant proportion of patients with essential thrombocythemia (ET) and primary myelofibrosis PMF. Currently several other pathologic gene variants have been associated with MPD including MPL, TET2, ASXL and IDH. The role of inherited and somatic gene mutations in the pathogenesis of MPD is going to be discussed.

Přednáškové odpoledne je součástí kurzu „Novinky v biomedicínském výzkumu“, který je jeden z doporučených povinně volitelných kurzů pro Ph.D. studenty oboru Biochemie a patobiochemie (Oborová rada 04) a Fyziologie a patofyziologie člověka (Oborová rada 05). Účastníci na konci kurzu získají zápočet. Kurz je sestaven z přednášek zahraničních a domácích světově uznávaných odborníků zabývajících se molekulovými mechanismy etiologie, patogeneze a terapie chorob. Vítáni jsou i studenti jiných oborů a zájemci z řad vědeckých pracovníků a lékařů.

Contact information:
Doc. MUDr. Jan Živný, Ph.D., **jzivny@lf1.cuni.cz**, tel: 22496-5865
Prof. MUDr. Stanislav Štípek, DrSc., **stipekst@lf1.cuni.cz**, tel: 22496-4283