

On behalf of Dr Monika Belickova, we would like to express interest to cooperate as a partner in the following calls:

- EU4H-2021-PJ-15: Action grants for ‘Cancer Diagnostic and Treatment for All’ including ‘Genomic for Public Health’. Deadline: 25th January 2022.
- HORIZON-HLTH-2022-DISEASE-06-04-two-stage: Development of new effective therapies for rare diseases. Deadlines: 1st February 2022, 6th September 2022.

For questions and contact initiation, please email miluse.cizkova@uhkt.cz.

Information about the IHBT:

Country	Czech Republic
Name of organisation	Institute of Hematology and Blood Transfusion (IHBT)
Type of organisation	State funded organisation of the Ministry of Health of the Czech Republic Public body Research organisation
Description of organisation	<p>The Institute of Hematology and Blood Transfusion (IHBT) is an expanding center offering state-of-art medicine and top-notch research, as well as a friendly and safe organisation for both patients and personnel. The IHBT deals with the diagnosis and treatment of patients with severe disorders of hematopoiesis. Most often, these patients suffer from acute and chronic leukemias, myelodysplastic syndromes, myeloproliferative diseases, anemias and congenital or acquired disorders of blood clotting. A team approach plays an essential part in the treatment of patients; it is secured by the cooperation of experienced physicians, nurses, and other specialists, such as nutritional therapist, physical therapist, or a clinical pharmacist. Thanks to this concept, we can take care of the patients with severe hematological diagnoses of the widest possible spectrum. An essential part of the activities of the IHBT is science and research. The Institute offers a unique combination of research with the clinic and with a high standard of specialized transfusion part - specifically departments of Biochemistry, Cytogenetics, Genomics, HLA (Human Leukocyte Antigens), Modern Immunotherapy, Immunology, Immunomonitoring and Flow Cytometry, Molecular Genetics, and Proteomics.</p> <p>In the field of medical-preventive care, it successfully fulfils the role of highly specialized medical establishment and super-counselling unit. A strong background of routine and research laboratories makes it possible to perform diagnostics at the level commensurate with the global standard. The research section in cooperation with clinical and transfusion division focuses mainly on the research of hematological tumors, anemias, monitoring of gene and protein expression in onco-hematological diseases, research of low molecular weight metabolites in the treatment, study of tumor markers, study of hemostasis and thrombosis, and the development of therapeutic anti-tumor vaccines. The Institute is also significantly involved in educational and training activities, in cooperation with 1st Medical Faculty, Charles University contributes distinctly to the scientific postgraduate education. Further information is available at: www.uhkt.cz/ihbt.</p>

<p>Our expertise</p>	<p>Main goal of IHBT is to translate results of hematological research into implementable public health measures. This will help to address blood disease prevention on the basis of specific individual genetic profiles, which indicate the susceptibility of individuals to develop a hematological disease. Therefore, the project will open new perspectives to personalised risk-assessment and targeted disease prevention.</p> <p>Based on previously established multidisciplinary collaborations among various IHBT labs, we examine the genome, transcriptome, and proteome, providing multi-omics research data for various blood diseases. We are experienced in application of multiple research strategies. We handle with wide spectrum of next generation sequencing (NGS)-based approaches including targeted sequencing as well as whole genome and transcriptome profiling. Individual NGS-based preselected molecular biomarkers are subjected to subsequent intense research routinely performed by wide arsenal of molecular biology and biochemistry methods. These include multiple state-of-the-art technologies such as individual expression and mutation monitoring, cytogenetics, proteomics, flow cytometry, microscopy imaging, <i>in vitro</i> cultivation, gene manipulation, and many others.</p> <p>As a part of highly specialized health organization dealing with patient care, we take advantage from a steady access to peripheral blood and bone marrow samples from both, diagnosis and follow-up examination of patients with malignant diseases such as acute and chronic leukemia or myelodysplastic syndromes, as well as of patients with anemia, congenital or acquired coagulation, and platelet disorders.</p> <p>We seek for international collaboration with well-established hematological centers to integrate current knowledge on personalized molecular-based strategies for diagnostics and treatment of patients with blood diseases. The multicenter collaboration will enable us to develop novel innovative research and care strategies from which small national cohorts of patients with rare blood diseases will also benefit. We will also profit from a collaboration with a center able to utilize established preclinical models and technologies to verify selected genes or molecular pathways that can be therapeutically targeted, increasing the confidence of the selection of these biomarkers/treatment targets.</p>
<p>Name and Specialty of the Principal Investigator:</p>	<p>RNDr Monika Belickova PhD</p> <p>Dr Belickova is a leader of Research section at the IHBT. She is a highly appreciated molecular biologist focusing on molecular diagnostics as well as on basic and translational research of myeloid neoplasia. Her major research goal is to identify mechanisms of leukemic transformation and to define new molecular biomarkers able to better stratify patients with regard to their prognosis and help to individualize their treatment strategies.</p>