

	GL leader	Prof. Šárka Pospíšilová, PhD
1	CEIPEX RESEARCH TOPIC LEVEL2	Molecular Medicine: medical genomics
2	RESEARCH GROUP	Medical Genomics
3	TOPICS/FOCUS	Genetic predispositions to development of hematological malignancies
4	SUMMARY	Hematological malignancies are closely related to various types of somatic mutations in blood cells, which often accumulate during the course of the disease. Recent findings point to the increasing importance of inherited genetic predispositions that influence the development of lymphoid and myeloid leukemias and other neoplasms. They could play a causal role in the development of the disease and be related to its early onset, patient prognosis and the effect of therapy. The description of novel germline mutations as risk factors for disease progression therefore has clear clinical implications and benefits for patients and their families. The underlying biological mechanisms leading to leukemic transformation are specific for each genetic variant and should be further investigated. The most frequent and severe genetic variants predisposing to hematological malignancies will be selected from a novel genome-wide analysis of the Czech/European population analyzed within the Genome of Europe project, which is currently underway in our laboratory.
5	RG WEBPAGE/CONTACT	<a href="https://www.ceitec.eu/medical-genomics/rg34">https://www.ceitec.eu/medical-genomics/rg34</a>