HENRIETT BUTZ

Semmelweis University, Faculty of Medicine
Department of Laboratory Medicine
Address: Nagyvárad tér 4., H-1089 Budapest, Hungary

National Institute of Oncology,
Department of Molecular Genetics
Address: Ráth György utca 7-9., 1122 Budapest, Hungary

RESEARCH AREA

Our research interest focuses on the clinical and molecular genetics of hereditary cancer and tumor syndromes and the pathogenesis of rare cancers and tumors of the neuroendocrine system. Clinical genetic research supports the complex genetic care of cancer patients including genetic susceptibility, prevention, targeted therapy, family screening, and the implementation of novel genetic methods into the daily routine. Modern molecular genetic methods and translational research support the precise understanding of tumor pathogenesis and the identification of diagnostic, prognostic, and predictive biomarkers.

TECHNIQUES AVAILABLE IN THE LAB

Basic molecular genetic methods (nucleic acid extraction, PCR, qPCR, conventional Sanger, and next-generation sequencing, multiplex ligation-dependent probe amplification, cell and tissue culturing, in vitro functional assays (viability, proliferation, migration, apoptosis), western blot, immunocytochemistry, immunohistochemistry, allele imbalance.

Clinical genetic methods (genetic variant interpretation, pedigree analysis, segregation, loss of heterozygosity).

SELECTED PUBLICATIONS

Butz, H., Rácz, K., Hunyady, L., Patócs, A. (2012) Crosstalk between TGF-β signaling and the microRNA machinery. **Trends Pharmacol Sci 33:** 382-93.

Butz, H., Szabó, P.M., Nofech-Mozes, R., Rotondo, F., Kovacs, K., Mirham, L., Girgis, H., Boles, D., Patocs, A., Yousef, G.M. (2014) Integrative bioinformatics analysis reveals new prognostic biomarkers of clear cell renal cell carcinoma. **Clin Chem 60**: 1314-26.

Szabó, B., Németh, K., Mészáros, K., Krokker, L., Likó, I., Saskői, É., Németh, K., Szabó, P.T., Szücs, N., Czirják, S., Szalóki, G., Patócs, A., **Butz, H.** (2022) Aspirin Mediates Its Antitumoral Effect Through Inhibiting PTTG1 in Pituitary Adenoma. **J Clin Endocrinol Metab 107:** 3066-3079.

Kuczynski, E.A., Yin, M., Bar-Zion, A., Lee, C.R., **Butz, H.**, Man, S., Daley, F., Vermeulen, P.B., Yousef, G.M., Foster, F.S., Reynolds, A.R., Kerbel, R.S. (2016) Co-option of Liver Vessels and Not Sprouting Angiogenesis Drives Acquired Sorafenib Resistance in Hepatocellular Carcinoma. **J Natl Cancer Inst 108:** djw030.

Butz, H., Patócs, A. (2022) Mechanisms behind context-dependent role of glucocorticoids in breast cancer progression. **Cancer Metastasis Rev 41:** 803-832.