Institute of Molecular Genetics
of the Czech Academy of Sciences

Regular Wednesday IMG seminar

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"SHOULD CANCER PATIENTS EAT DIFFERENTLY? Metabolomics-guided dietary intervention for optimal clinical use of anti-cancer MCL1 inhibitors."

Diet is the major source of nutrients for tumors. However, dietary interventions in cancer patients lack personalization. One of our active research areas is aimed at tailoring metabolomics-guided strategies to enhance the therapeutic effects of anti-cancer agents and/or ameliorate their toxicity. A new class of anti-cancer agents targeting Myeloid Cell Leukemia 1 (MCL1) protein is MCL1 is upregulated in around 10% of all tumors and contributes to tumorigenersis by allowing tumors to evade apoptosis. However, our recent findings (Gui et al., In revision in Nature Comm.) have identified unexpected functions for MCL1 in regulating cellular metabolism positioning MCL1 as a hinge linking the two hallmarks of cancer of "deregulated energetics" and "evading cell death". Using these novel insights and exploiting state-of-the-art humanized Mcl-1 mice, we devised dietary approaches to optimize the clinical use of MCL1 inhibitors currently under clinical testing.

The seminar will be held

on Wednesday 30th April 2025 at 15:00

in the Milan Hašek Auditorium at IMG

(Institute of Molecular Genetics of the Czech Academy of Sciences, Vídeňská 1083, Prague 4)