

Would you like to work on your master's thesis in the Cancer Biology Lab?

Title: Regulated protein degradation in cancer development and therapy.

Positions: We are opening two master's student positions

Supervisor: Mgr. Lukáš Čermák Ph.D.

Project description:

The study aims to characterize novel substrates of Cullin-dependent ubiquitin ligases and the significance of their degradation in the context of cancer biology and development. The intended methodology includes classical biochemical and molecular biology approaches with the opportunity to learn advanced methods such as protein mass spectrometry analysis and CRISPR-mediated genome engineering. The project is supported by recently awarded grant from the Czech Health Research Council. We are a friendly international laboratory.

Recent alumni:

In the past two years, one master's student and two Ph.D. students finished their studies in our laboratory. They were nominated for cum laude and Dean awards. In addition, our master's student graduated with a publication in the impacted journal. We can provide contact if you want detailed information about what life in our laboratory is like from a student's perspective.

Recent publications:

Dibus, N., Korinek, V., and Cermak, L. (2022a). FBXO38 Ubiquitin Ligase Controls Centromere Integrity via ZXDA/B Stability. *Front Cell Dev Biol* 10, 929288.

Dibus, N., Zobalova, E., Monleon, M.A.M., Korinek, V., Filipp, D., Petrusova, J., Sedlacek, R., Kasperek, P., and Cermak, L. (2022b). FBXO38 Ubiquitin Ligase Controls Sertoli Cell Maturation. *Front Cell Dev Biol* 10, 914053.

Suggested reading:

Cermak L, Pagano et al.: FBXO11 targets BCL6 for degradation and is inactivated in diffuse large B-cell lymphomas. *Nature*. 2012

Skaar JR, Pagan JK, Pagano M.: Mechanisms and function of substrate recruitment by F-box proteins. *Nature Rev Mol Cell Biol*. 2013

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