LITHUANIAN UNIVERSITY OF HEALTH SCIENCES

International Summer School Practice

Unraveling how tumor cells evade the immune system: exploring the role of immune checkpoints.

Project Description

Immune checkpoints are key regulators of immune responses and have revolutionized cancer treatment. However, their roles extend beyond immune cells: tumor cells themselves can express immune checkpoint molecules, potentially influencing tumor progression and interactions with the immune system. In our previous studies, we demonstrated that oncogenic KRAS signaling promotes the expression of PD-L1 [1] and CD137 [2] in cancer cells.

This short-term research project (July 1st to August 31th 2027) aims to investigate how immune checkpoint molecules contribute to tumor progression and immune evasion. By exploring the molecular mechanisms underlying their expression and function, students will contribute to addressing important unanswered questions in tumor immunology.

What will you gain?

You will have the opportunity to participate in experimental planning and hands-on laboratory research while learning a range of essential molecular and cellular biology techniques, including plasmid construction, cell culture, transfection, quantitative PCR (qPCR), protein analysis, and immune function assays.

Whether you are curious about cancer biology, and immunology, this project offers an excellent opportunity to gain practical research experience, and develop laboratory skills. You will join a supportive, friendly, and dynamic team where curiosity, initiative, and a willingness to learn are valued.

Interested in joining us?

Contact Dr. Christophe Glorieux at christophe.glorieux@lsmu.lt to learn more about the project and internship opportunities.

Selected References

[1] Glorieux C, et al. Regulation of PD-L1 expression in K-ras-driven cancers through ROS-mediated FGFR1 signaling. Redox Biology. 2021;38:101780. https://doi.org/10.1016/j.redox.2020.101780

[2] Glorieux C, Huang P. Regulation of CD137 expression through K-Ras signaling in pancreatic cancer cells. Cancer Communications. 2019;39(1):41. https://doi.org/10.1186/s40880-019-0386-4