

**Name and surname:**

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**Dissertation topic:**

New micropollutants and their toxicological effects

**Thesis annotation:**

The subject of my dissertation is the evaluation of the toxicity of selected per- and polyfluorinated substances (PFAS), using rainbow trout cell lines as a model system. PFAS are highly sought after in industry for their unique physicochemical properties, but it is precisely these properties that cause their high environmental persistence. The stability of these substances leads to their bioaccumulation in organisms, which poses a significant health risk to aquatic ecosystems and human health. The aim of my research is to clarify the effects of PFAS at the cellular and molecular level. I focus not only on determining cytotoxicity (cell viability), but above all I analyze how these substances affect the expression of genes representing selected metabolic and signaling pathways.

**Study start date:** 1.10.2022