Lecture: Monitoring of Selected Pollutants and Metabolites of Pharmaceuticals in Fish
(dissertation thesis defence)

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Abstract: The aim of this thesis is to bring new insight in the field of exposition of fish to xenobiotics released by humans. Two different perspectives were used:

1. Monitoring of one special group of contaminants, hexabromocyclododecane (HBCD) predominant isomers, in fish obtained from polish fish market. A suitable analytical method including sample preparation, instrumental analysis (HPLC/MS) and quality assurance and controll was adjusted. Relationship among individual HBCD isomers and their concantrations in fish and relationship between level of total HBCD content and lipid content were discussed.

2. Monitoring of metabolites of 2 APIs (active pharmaceutical ingredients) formed in laboratory conditions in model fish species, *Ameiurus Nebulosus*. Both APIs, obeticholic acid (OCA) and abirateron acetate (ABR-acetate), have steroid skeleton. OCA, in addition, is by nature a synthetic derivative of a naturally occuring bile acid (6-alpha-ethyl-derivative of chenodeoxycholic acid). This monitoring contributed to understanding of metabolism pathways of these special APIs in fish. Comparison with metabolism of these APIs in humans and other mammals and with metabolism of other steroids in fish was discussed, in case of OCA also comparison with metabolism of naturally occuring bile acids both in humans and other mammals and fish.