

Abstract Submitted  
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**Method Development of MC-LR Detection in the Liver and Brain of the Mummichog**<sup>1</sup> MADELINE KLUMB, ALANNA AGA, WILLIAM SILANDER, DAVID HOLLIS, JOHN WHEELER, SANDRA WHEELER, Furman University — Microcystins (MCs) are noxious compounds found in cyanobacteria (blue-green algae) accumulations in freshwater and estuaries. MCs are known to be potent hepatotoxins and neurotoxins. The nervous systems of fish are at high risk of exposure as these toxins are released into the water. We seek to examine whether regional susceptibility to Microcystin-leucine/arginine (MC-LR) exists in the Central Nervous System (CNS) of fish using the mummichog (*Fundulus heteroclitus*). Regional brain samples will be analyzed via Ultra-High Performance Liquid Chromatography (UPLC). There is little published LCMS data on MCLR and regional brain studies are novel. The topic of this poster is the extraction and UPLC separation method to isolate MC-LR from the tissue of exposed fish and calculate the buildup of the toxin after exposure.

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