

**Title:** Impact of Cholestatic Agents on Primary Human Cholangiocyte Viability and Bile Acid Transporter Levels

**Description:** The aim of this research project is to determine the impact of known cholestatic agents on the viability of primary human cholangiocytes cultured *in vitro*, and on levels of bile acid transporters. This experience will include training in cell culture, measuring integrity of the cell monolayer by using transepithelial electrical resistance (TEER), and viability assays (e.g., ATP and LDH measurements). There will be opportunities to learn Western blotting, quantitative targeted absolute proteomics (QTAP) to measure protein levels, as well as real-time reverse transcription quantitative polymerase chain reaction (RT-qPCR) to measure mRNA expression.

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