**INTRODUCTION**

Liver diseases, in part caused by inflammation, result in over 2 million deaths annually around the world (1).

**Epigallocatechin Gallate** (EGCG) is a catechin found in green tea leaves (2) and has potential anti-inflammatory effects (3).

Liver cells were put into a state of inflammation using TNF-α. Effects of EGCG on inflamed cells in a hypoxic state are not fully understood.

**METHODS**

**1. Adhesion Assay**

THP-1 Cells and LSECs are grown. LSECs into hypoxic or normoxic chamber.

4 main treatments:

- Control
- Water
- TNF-α
- EGCG (normoxia)

Added to LSECs after Calcein-AM is added.

Spectrophotometer: Fluorescence values of adhered cells.

**2. qPCR**

mRNA

Amplification plot

PCR process (4)

CONCLUSION/ FUTURE DIRECTIONS

- Trends show EGCG to have a potential anti-inflammatory effect, and hypoxia did not show much of a difference from normoxia.
- In the future, increase sample size and apply to a wider perspective of health.