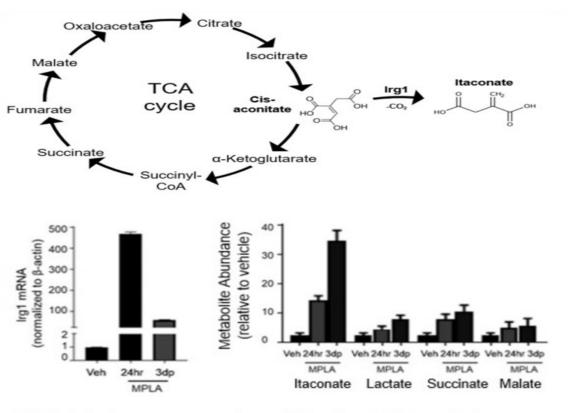
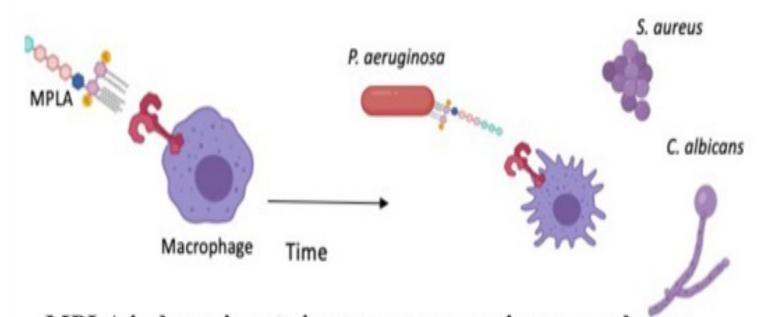
Malik McRae

Biology Major Second Year ARCS Scholar **Glenn Leadership Award**



The Influence of Irg1 and Itaconate on the **Bactericidal Capacity of Memory Macrophages**



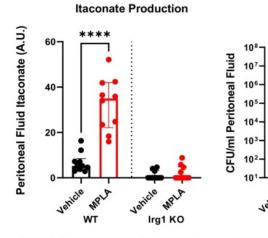


MPLA induces innate immune memory in macrophages

MPLA induces expression of Irg1 mRNA and increases itaconate production in vitro. Data expressed as mean +/- SEM.



Bacterial Clearance



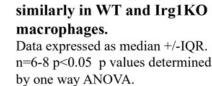
MPLA treatment increases itaconate production at the site of P. aeruginosa infection. Data expressed as median +/-IQR. n=10 p values determined by Student's two tailed t test.

WT Irg1 KO **MPLA treatment augments** MPLA enhances phagocytosis clearance of bacteria, an effect that is ablated in Irg1KO mice.

Data expressed as median +/-IQR.

n=15 p values determined by

Student's two tailed t test.

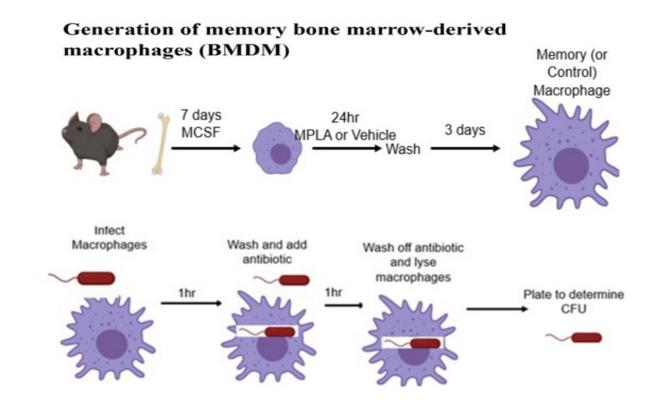


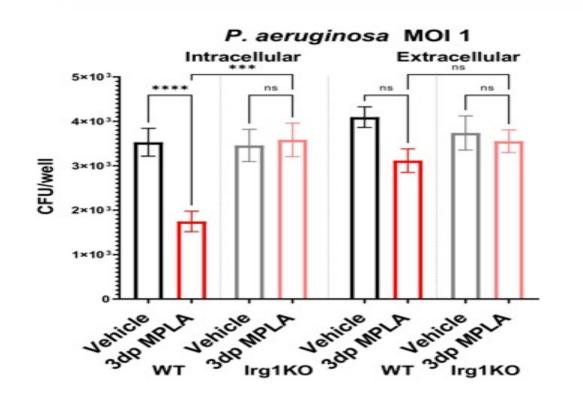
WT

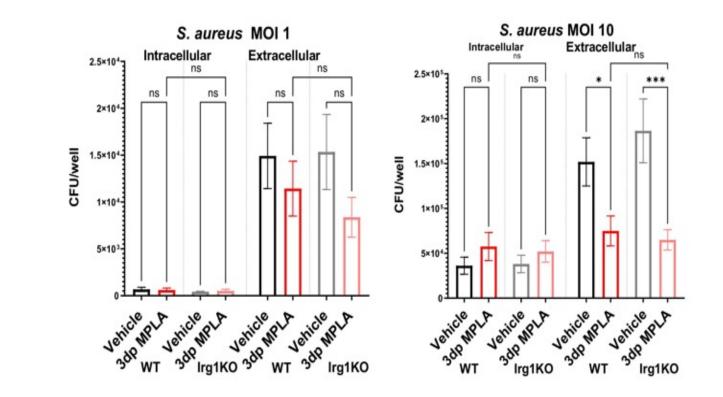
lrg1 KO

Intraperitoneal pHrodo Challenge

Macrophage Phagocytosis









FOCUS

Scholar Awards Celebration November 17, 2022