

Group B Streptococcus in Neonatal Meningitis

- GBS bacteria emerged in the 1970s as the most common cause of sepsis in newborns.
- Lives safely in the intestines and female reproductive tract in up to 1/3 of adults.



- Early onset disease has been well controlled with screening of pregnant mothers for GBS and treatment with antibiotics during birth.
- Very little is understood about late onset disease and there are currently NO preventative measures.



AIMS:

- HOW is GBS sticking around in the infant intestinal tract? What can we 1. target on the bacteria to therapeutically inhibit this?
- HOW is GBS escaping from the intestines to get the the bloodstream and the 2. brain?

Uncovering how Group B Streptococcus in the Infant Intestinal Tract Leads to Meningitis

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Global incidence: 137,000 deaths (2020)

US incidence: 0.31/1000 live births

Incidence estimates: Gonçalves et al. 2022 and CDC





Findings So Far and Future Directions





Which Factors are we Investigating?







*Mann-Whitney test

Next steps:

- Screen of database of FDA-approved drugs yielded possible drug matches to bind BspC.
- We want to know: Does treatment with these drugs stop GBS from colonizing the intestine and escaping to cause meningitis?