**JMolMed 2014** Electronic Supplementary Material

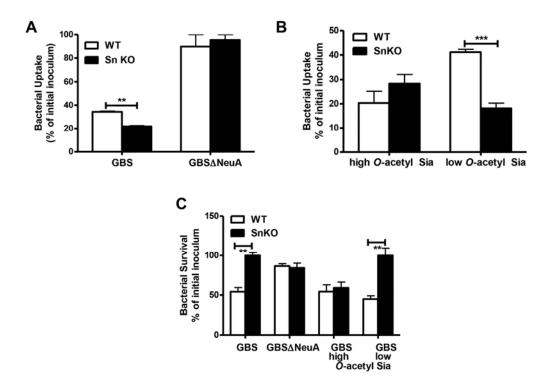
# **Role of Macrophage Sialoadhesin in Host Defense**

## **Against the Sialylated Pathogen Group B**

### Streptococcus

Yung-Chi Chang, Joshua Olson, Aaron Louie, Paul R. Crocker, Ajit Varki, Victor Nizet

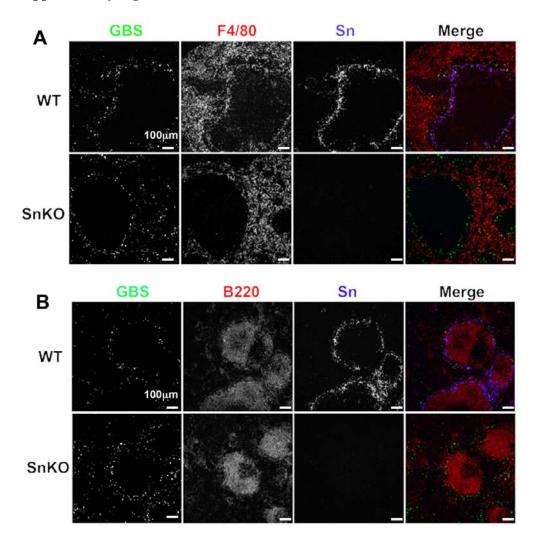
#### **Supplementary Figures:**



#### **Supplementary Figure S1**

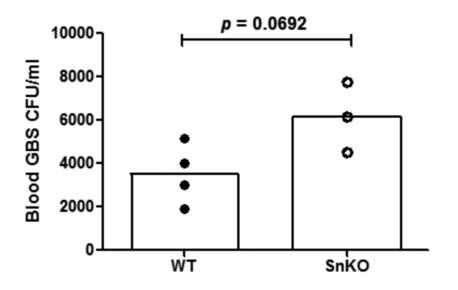
Supplementary Figure S1. Sialoadhesin (Sn) recognizes the sialic acid on GBS to promote macrophage phagocytic and bactericidal activities. (A and B) MBDMs from WT or Sn-deficient mice were infected with GBS strain COH1 and isogenic mutants lacking capsular sialic acid ( $\Delta$ NeuA), or expressing varying levels of capsular Sia *O*-acetylation. Experiment performed at multiplicity of infection of 5 bacteria per cell for 30 min, followed by extensive washes and antibiotic treatment to recover intracellular GBS. (C) MBDMs were infected with GBS strain COH1 at MOI of 0.2, and surviving GBS enumerated I h post infection. Differences between WT and Sn-deficient macrophages were calculated by student's *t* test.

#### **Supplementary Figure S2**



Supplementary Figure S2. Sialoadhesin (Sn) facilitates marginal metallophilic macrophage (MMM) trapping of GBS to limit pathogen dissemination. Extended image set with separate channel colors corresponding to Figure 3 of the main manuscript. WT and Sn-deficient mice were injected i.v. with  $2 \times 10^8$  5-(and-6)-carboxyfluorescein labeled GBS and kidney, lung and spleen were collected 1 h post infection. Sections were stained with mAb anti-mouse Sn, F4/80 and B220. Representative images of spleen sections are shown in A and B.

**Supplementary Figure S3** 



Supplementary Figure S3. Recovery of GBS from WT and sialoadhesin (Sn)deficient mice 1 h post-intravenous challenge. Blood CFU counts in wild-type and Sn-deficient mice 1 h after intravenous challenge with 1 x  $10^8$  CFU of group B *Streptococcus* strain DK23. A nearly 5-log reduction in bacteria is observed.