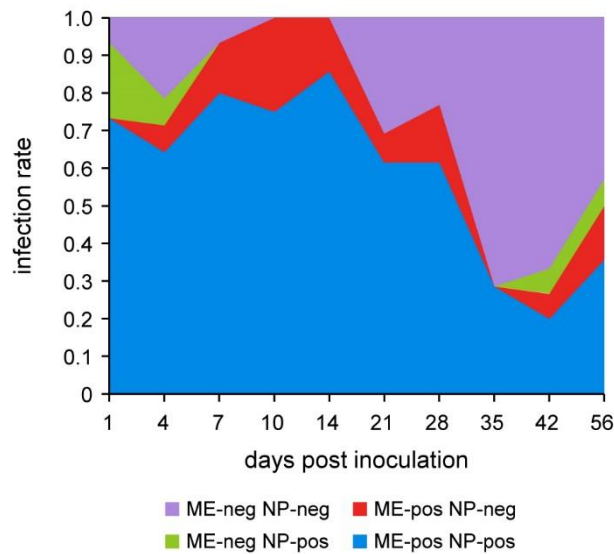
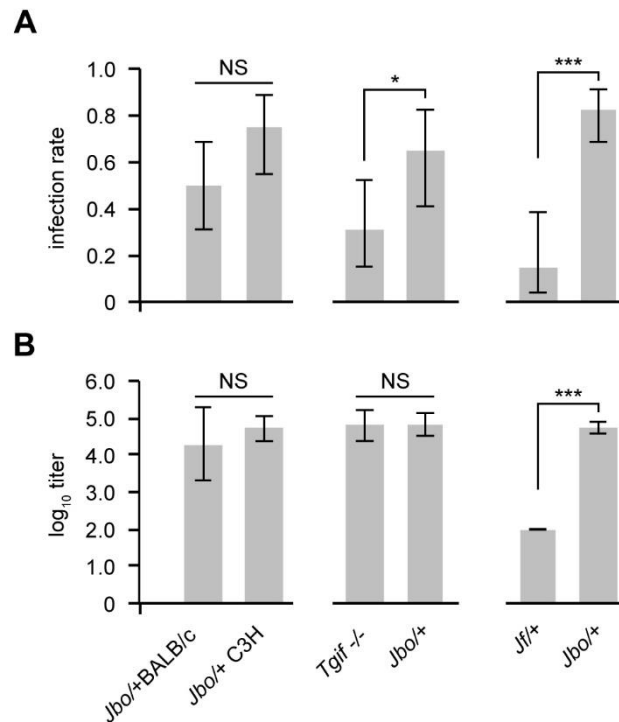


**Table S1. Nasopharynx and middle ear infection rates are positively associated.** In 12 week *Jbo/+* mice inoculated with  $10^6$  CFU NTHi 162sr NTHi infection in ME and NP is positively associated ( $P=2.62E-16$ ). Data in the body of the table is pooled from all sampling points, 1 to 56 days post inoculation (ME infection data from FIG 2E).

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**Fig. S1.** NTHi infection in ME and NP is correlated in *Jbo/+* mice. The proportion of *Jbo/+* mice with co-infection in ME and NP declines with time and a minority of mice have NTHi infection in one compartment only. 12 week *Jbo/+* mice were inoculated with  $10^6$  CFU NTHi 162sr and groups of  $n=13-15$  mice were terminally sampled at intervals between 1 and 56 days post inoculation (ME infection data from FIG 2E). Data are represented as percentages of mice that are positive or negative for ME and NP NTHi culture.



**Fig. S2. Characteristics of NTHi ME infection in *Junbo* mice on congenic inbred C3H/HeH and BALB/c genetic backgrounds compared to *Tgif* and *Jeff* mice that have different otitis media mutations.** NTHi ME infection rates (A) and bacterial titers (B) in paired comparisons between *Jbo*<sup>+/+</sup> C3H/HeH and *Jbo*<sup>+/+</sup> BALB/c mice; *Jbo*<sup>+/+</sup> and *Tgif*<sup>-/-</sup>; and *Jbo*<sup>+/+</sup> and *Jf*<sup>+/+</sup> mice inoculated with the same NTHi 162 strain. 7 days post-inoculation, ME infection rates (A) and NTHi titers (B) were not significantly different in 8 week *Jbo*<sup>+/+</sup> congenic on either inbred C3H/HeH ( $n=30$ ) or BALB/c ( $n=12$ ) genetic backgrounds when mice were challenged with  $10^6$  CFU NTHi 162sr. *Tgif* mice (8-14 week *Tgif*<sup>-/-</sup>,  $n=25$ ) had significantly lower infection rates than those seen in *Jbo*<sup>+/+</sup> mice (11 week  $n=12$ ) but had equivalent NTHi titers 7 days post IN-inoculation with  $10^6$  CFU 162kr. *Jeff* mice (7-8 week *Jf*<sup>+/+</sup>,  $n=11$ ) showed the lowest ME infection rate (~15%) and lowest NTHi titers compared to *Jbo*<sup>+/+</sup> (8 week,  $n=27$ ) 7-14 days post IN-inoculation with  $10^8$  CFU NTHi 162. Data are represented as mean  $\pm$  95% CI. NS not significant, \* $P<0.05$ , \*\*\* $P<0.001$ .