

**Figure S4. Live vaccine confers homologous and heterologous protection against colonization.** Bacterial loads in the nasal passages of BHN97 mice (day 7 post challenge) and the 6A4 strain (day 3 post challenge) as determined by nasal lavage and plating for colony forming units. Due to the lethality of the 6A challenge, the day 3 time point is shown due to the low survival of the mock animals at day 7. \*=  $p < 0.05$  by Mann-Whitney.

