Tick-borne tularemia was first described in 1924. Nearly 100 years later, questions remain about the tick vector(s) that pose(s) the greatest risk for transmitting *Francisella tularensis* (*Ft*), the causative agent of tularemia. Additionally, few studies have identified genes/proteins required for *Ft* to infect, persist, and replicate in ticks. To answer questions about vector competence and *Ft* transmission by ticks, we infected *Dermacentor variabilis (Dv), Amblyomma americanum (Aa)*, and *Haemaphysalis longicornis* (*Hl;* invasive species from Asia*)* ticks with *Ft*, finding that although *Aa* ticks initially become infected with 1-log higher *Ft*, *Ft* replicated more robustly in *Dv* ticks, and did not persist in *Hl* ticks. In transmission studies, both *Dv* and *Aa* ticks efficiently infected naïve mice, causing disease in 57% and 46% of those mice, respectively. We identified a putative *Ft* chitinase, *FTL1793,*

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