

Lyme Disease: 19ISP mRNA Vaccine Candidate Shows Clinical Efficacy

Sajid, *et al.*, published in the journal *Science Translational Medicine* about the development of a promising mRNA vaccine, 19ISP, which has been found to induce tick resistance and prevent transmission of the Lyme



disease-causing agent, *Borrelia burgdorferi* (*Bb*). The researchers observed that hosts with repeated exposures to the black-legged tick, *Ixodes scapularis* (the most prevalent vector of the *Bb*), can develop resistance against ticks, also referred to as “tick immunity.” The vaccine was developed to generate this same type of tick resistance. Hosts inoculated with 19ISP developed erythema at the site of tick bite which, according to the creators of the vaccine, is a sign of acquired tick resistance. This resulted in poor tick feeding and transmission of *Bb* was reduced. The research team puts forth 19ISP as a promising antitick vaccine candidate with the hope that it may prevent transmission of Lyme and other tick-borne diseases.

Read the study in *Science Translational Medicine*.

Read about other TBD vaccines.