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Francisella tularensis is a highly infectious bacterium that causes the disease, tularemia. Tularemia can be transmitted to humans in many ways including: inhalation, biting insects, contact with infected animal tissue, and contaminated food and water. The Centers for Disease Control and Prevention classified *F. tularensis* as a category A bioterror agent due to its virulence and ease of aerosolization. The intentional release of a resistant strain of *F. tularensis* could be devastating. Consequently, there is a need for novel treatments effective against *F. tularensis* infections. We previously tested a cataloged natural compound library with THP-1 cells (a monocyte line) infected with an engineered, fluorescent *F. tularensis* (LVS/pTC3D) to look for inhibition of bacterial growth. The focus of current investigations is to determine whether the compounds that exhibited inhibition were acting as traditional antibiotics or as immunostimulants. Disk diffusion assays indicated which compounds inhibited growth of *F. tularensis* in the absence of immune cells meaning these extracts exhibited were acting as antibiotics. Compounds that did not show inhibition on the diffusion assays are being tested again in the THP-1 infection model to verify their immunostimulatory action. These compounds could potentially be used as novel antimicrobial treatments.