

## Abstract

The presented thesis is focused on the relationship between the structure and the function of *Francisella tularensis* subsp. *holarctica* strain FSC200 FTS\_1067 lipoprotein. This protein with unique structure constituted by two functional domains is involved in the virulence of bacteria, nevertheless the roles of both domains have not been previously clarified yet. Although this protein is usually denoted as a factor of virulence, the previous studies have shown that its substrates are the real virulence factors and that FTS\_1067 protein is necessary for their proper function.

We created and after that characterized *in vivo* and *in vitro* the new mutant strain with the deletion of DSBA-like domain. Afterwards we prepared the recombinant protein with the same deletion and made several tests focused on the understanding of the protein function. From the analyses of these results and their comparison with previous studies we elaborated the first comprehensive report about the roles of both domains in the context of the whole protein. To supplement the information about the involvement of the FTS\_1067 protein in the mechanism of virulence we tried to verify its potential substrates by using bacterial two hybrid assay.