**Abstract**

**Title of dissertation thesis: Proteome analysis of secerned proteins of *Francisella tularensis***

The facultative intracellular bacterium *Francisella tularensis* is the causal agent of the infectious disease called tularaemia. Despite the available wide range of new knowledge focused on bacterium *Francisella*, till now, mechanisms of tularaemia disease pathogenesis were not completely clarified. The contents of our work was based upon analysis and identification of culture filtrate proteins of bacterium *F. tularensis* of three strains (LVS, FSC00, SchuS4). Among identified proteins, there were seeked protein candidates for secretion and proteins, which could help with explanation of molecular mechanisms of disease pathogenesis caused by *F. tularensis.* The best protein candidate for secretion is enzyme acid phosphatase with proven important role in bacterium *F. tularensis* escape from phagosome.

The attention was also focused on the new described mechanism of bacterial secretion, mediated by membrane vesicles. By the help of transmission electron microscopy was demonstrated, that *F. tularensis* of the strains LVS and FSC200 secretes membrane vesicles into extracellular milieu.

Key words: *Francisella tularensis*, secretion systems, cultivation filtrate proteins, secreted proteins, outer membrane vesicles