

The aim of the research will be assessment the prevalence and genetic diversity of *Coxiella burnetii* strains in dairy cattle herds in Poland using innovative molecular techniques: qPCR, Multispacer Sequence Typing (MST), Multiple Loci VNTR Analysis (MLVA) and sequencing. Moreover, the objectives of investigation will be estimation of correlation between serological profile of infected cattle and shedding bacteria in milk. In order to evaluate the possibility of transmission *C. burnetii* by alimentary tract, the biological test on guinea pigs will be performed. Range of knowledge about epidemiological situation, molecular characteristic and genotypes variations of *Coxiella burnetii* field strains in Polish dairy cattle herds is very limited. Data from other European countries indicate a need for research in this area. The literature data about transmission to humans by alimentary route are contradictory. Due to the continuously increasing number of *Coxiella burnetii* infections in European dairy cattle, the aim of this research gaining importance also because of shedding pathogen in milk, what pose a zoonotic threat to milk consumers. Moreover, the widespread availability of raw, unpasteurized milk from vending machines in our country, is the crucial argument. Proposed research will allow to explain the doubts concerning the possibilities of transmission *C. burnetii* by alimentary route and will extend the knowledge in the scope of public health security and zoonotic diseases.