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Author	Dimitri F. Guala	
Title (English)	Identification and screening of <i>Francisella tularensis</i> indel markers	
Abstract	<p><i>In silico</i> search for and identification of new type of markers for phylogenetic relation studies of <i>Francisella tularensis</i>, the causative agent of tularemia, and screening of twenty-four representative strains of the pathogen, allowed for correct identification of <i>F. tularensis</i> subspecies and groups. The insertion/deletion (indel) markers were able to confirm earlier findings of phylogenetic relationship between the subspecies of <i>F. tularensis</i> and position <i>F. tularensis</i> ssp. <i>mediasiatica</i> in the phylogenetic tree of <i>F. tularensis</i>. The data also supports previous suspicions that the Japanese strains of <i>F. tularensis</i> ssp. <i>holarctica</i> should be considered a separate subspecies. Some of the markers also suggest possible horizontal gene transfer between the subspecies of <i>F. tularensis</i>. In conclusion, indel markers appear to have suitable discriminatory capabilities for reliable subspecial identification and correct phylogenetic inference within <i>Francisellaceae</i>.</p>	
Keywords	<p><i>Francisella tularensis</i>, tularemia, markers, indel, phylogeny, subspecies, screening.</p>	
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