

## SUMMARY OF THESIS\*

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VELHO, Paulo Eduardo Neves Ferreira – **Estudo das bartoneloses humanas e da *Bartonella henselae*: infecção experimental, microbiologia, microscopia de luz e eletrônica de transmissão.** Campinas, 2001. (Tese de Doutorado – Faculdade de Ciências Médicas da Universidade Estadual de Campinas).

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### THE STUDY OF HUMAN BARTONELLOSES AND OF THE *Bartonella henselae*: EXPERIMENTAL INFECTION, MICROBIOLOGY, LIGHT AND TRANSMISSION ELECTRON MICROSCOPY

Human bartonelloses are a group of illnesses of poorly understood pathogenesis. *Bartonella henselae* is one of the most studied bacterium of its genus. The objective of this study was to observe whether passages of these bacteria, *in vivo*, would determine ultrastructural changes in them. For this purpose, isogenic mice were inoculated with a standard strain of *B. henselae* (I). These were initially retrieved from genetically immunodeficient animals (II) and then inoculated in immunocompetent ones. The bacterial colonies obtained (III) were compared, by transmission electron microscopy, with colonies I and II. Loss of fimbriae and an abundant bleb formation were the most common morphological changes found in colony III. Also, on day 6 postinfection, the main histological abnormalities were the endothelial proliferation presented

in immunodeficient animals and the incipient granulomata reaction found in one of the immunocompetent inoculated mice, which died spontaneously. These features agree with the *Bartonella* human disease clinical and histological observations. Our studies demonstrate that *B. henselae in vivo* passages induced morphological changes in them and these abnormalities could explain their seemingly greater virulence. Most of these observations have not been previously described. So, further studies on the *Bartonella* species pathogenesis should consider these data.

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