

SUMMARY OF THESIS

TAVARES, Celso - **Análise do contexto, estrutura e processos que caracterizaram o Plano Piloto de Peste em Exu e sua contribuição ao controle da peste no Brasil.** Recife, 2007. (Tese de Doutorado - Centro de Pesquisas Aggeu Magalhães/Fundação Oswaldo Cruz).

ANALYSIS OF THE PILOT PLAN OF PLAGUE IN EXU AND ITS CONTRIBUTION TO THE CONTROL OF THE DISEASE IN BRAZIL

In the beginning of the 1960s plague activities increased in Brazil and many features of the plague epidemiology were still unknown leading the Brazilian Government, through the Departamento Nacional de Endemias Rurais, to invite Marcel Baltazard, from the Pasteur Institute of Paris, to drought a researching project to elucidate the mechanisms of the persistence, focalization, epizootization and epidemization of plague in Brazil, in order to implement efficient activities of control. The project named "Plano Piloto de Peste em Exu" was carried out in "Chapada do Araripe-PE" from 1966 to 1974. In spite of several obstacles, the staff composed basically by two Brazilian technicians, semi-illiterate local workers, and consultants from the Pasteur Institute of Teheran and Paris successfully developed a large program of research which allowed uncovering most of the unknowns. The huge quantity of data produced was never published, however a few papers allow to highlight some of the results obtained: a) the confirmation of the natural infection of wild rodents and other small mammals and its fleas; b) the role of the *Bolomys lasiurus* (*Zygodontomys lasiurus pixuna*) in the epizootization; c) the vector capacity of *Polygenis bolhsi jordani* and its role in the transmission of

the infection to the man, more efficient than *Xenopsylla cheopis* and *Pulex irritans*; d) the participation of *P. irritans* in the epidemization; e) the sensitivity of the *Sigmodontinae*, *Equimidae* and the relative resistance of *Rattus rattus*; f) the resistance of the *Cavidae*, due to their high content of sera asparaginase; g) endogenous and chronic plague had been disavowed for the persistence; h) the resistance of *X. cheopis* and *P. irritans* to the organochlorine insecticides; i) the reduction of the period for diagnostic confirmation; j) the isolation of 719 strains originating the largest Brazilian collection of *Yersinia pestis* cultures; k) the definition of a program of control based on the continuous and systematic monitoring of the foci, including the community participation and research of the *Y. pestis* in the rodents and its fleas and search of antiplague antibodies in sentinel animal, the development of a national network of laboratories, as well as the prompt intervention in the occurrences, with prompt diagnosis, early treatment, chemoprophylaxis and desinsetization.

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