A program of "Sciencia do Brazil": the inclusion of experimental physiology in Brazilian scientific agenda in the late nineteenth century (1880-1889)

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The present work analyses the inclusion of experimental physiology in Brazilian scientific agenda in the late nineteenth century, particularly the idealization, establishment and working of the pioneering Experimental Physiology Laboratory of National Museum of Rio de Janeiro. We studied the scientific practices and knowledge produced by the several actors related to the beginnings of physiology at the institution, to show how the physiology, as an experimental and a laboratory science, was an ideal discipline for the consolidation of a new model of science and civilization that was forged in the country at that time. We found that the insertion of experimental physiology was a complex and problematic investigative enterprise. It involved high investments from imperial government and was related to scientific, professional, political, economic and commercial interests. Although the laboratory has been organized and equipped in Western models of physiology, the scientists who worked there, especially João Baptista de Lacerda, Louis Couty and Eduardo Guimarães, favored national scientific content and themes. We also found that the rise of physiology was constituted by a circulatory dynamics with multiple movements into and out of the country. This process included coming, accommodation and return to Europe, especially France, in an original way, the knowledge of Brazilian physiology. However, such dynamic was not disincarnated. The National Museum as a meeting site, the Emperor Pedro II and Louis Couty (included his job group) mediated this succeeded circulation of knowledge and practices. Nevertheless, we noted that the autonomy of the Brazilian physiology was not completed. Its esoteric scientific rules and criteria of importance were not attested and the laboratory location joined to National Museum brought disagreements. A solid community of physiologists was not constituted as well. The alliances that gave support and legitimated that investigative enterprise were betrayed. Besides, according to the utilitarian scientific culture of Brazil, the physiology was linked to some of the clinical and therapeutic practices in order to get legitimating, and later was replaced by the emergency of microbiology. Therefore, even with the efforts and investments to validate Brazilian physiology in national and international scientific communities and with its importance to the country's modernization, we observed that, during that time, the historical process of its insertion in the scientific agenda of Brazil was discontinuous.