The Laboratory Revolution in Spanish Veterinary Medicine.*

José Manuel **Gutiérrez García**
Doctor of Veterinary Medicine and member of the Catalan Association of Veterinary History.
Associate Professor of History of Science, Faculty of Medicine, Universitat Autònoma de Barcelona, 08193 Bellaterra (Barcelona), Spain.

* This research forms part of project HUM2006-12278-C03-03 financed by the Spanish Ministry of Education and Science.

In the course of the 19th century, under the influence of positivism, a profound modernisation of medical science took place. In the context of this cultural phenomenon, any knowledge not drawn from experience lacked scientific validity and all *a priori* and universal absolutes were rejected. In medicine, positivism imposed objectification of the facts of the case as the only scientific reality and this was the guiding idea which was to play a decisive role in transforming, in the language of the day, the veterinary medicine of old into a modern science.

Naturally, this development had a series of technical implications. At a time when experience and induction had emerged as the dominant methods in science, instruments and laboratories were to shape the new, unceasing flood of science.

However, the great renewal of ideas and methods in medical disciplines from the last third of the 19th century on was not mirrored immediately in Spanish veterinary science. Instead, at the turn of the 20th century the vast majority of vets were still rooted in the customs of old, centring on forging and fitting horseshoes, purging and blood-letting. What is more, all this was circumscribed by their most lucrative patients – horses – whose numbers were beginning to dwindle and which were losing value as horsepower was steadily being replaced by motor vehicles.

This delicate situation forced the profession to explore new ambits and made some leading veterinary surgeons aware that the time had come to reinvent the profession. With this in mind, they came up with an ambitious modernisation plan, the main objective of which was to adapt to the scientific changes of the day and in which the concepts developed in the laboratory, especially microbiology, assumed strategic importance. To achieve this aim, the first thing was to spread a discourse

linking scientific productivity to progress and improvements in the profession – no easy task, considering that it was not possible to make full use of many of the great scientific advances in bacteriology for diagnostics and therapeutics until decades later. Moreover, these supposed improvements took a long time to become part of the health culture of vets in Spain, since they clashed with the reality of the profession, marked by tough working conditions and a social image as relatively uneducated.

In the light of the foregoing, this presentation will show how at the turn of the 20th century, a group of veterinary surgeons concerned about the future of a profession in decline and stuck in routine identified and called for new professional pathways with the objective of laying the foundation for a "new" discipline. To meet these demands for modernisation, they subscribed to a positivist mentality, drawing on the value of laboratory medicine and the new bacteriological paradigm to accentuate the changes which differentiated them from and raised them above their predecessors in the history of this profession. A discipline was developed which brought to light conflicting interests amongst the different health-care professions and placed special emphasis on exhibiting the credentials of a new professional prototype, destined to occupy a prominent position in science and society.

By way of conclusion, this presentation reviews the process of slow, inexorable change and modernisation on which veterinary medicine in Spain embarked in the first few decades of the 20th century, not by analysing what the profession was at a particularly critical point in its history, but by looking in greater depth into what it was aiming to be, under the new bacteriological paradigm.