

## In memoriam

## Vicente López Merino



Professor Vicente López Merino, who died this past March 2016, was president of the Spanish Society of Cardiology from 1989 to 1991. He was granted the first full professorship in cardiology of the Spanish university system in 1981 and was head of the cardiology department at Hospital Clínico Universitario de Valencia, in eastern Spain, from 1981 until his retirement. His professional career was fruitful from the very beginning of his training period, during which he witnessed the practice of a medical science based on old-fashioned principles, means and attitudes, until the beginning of the 21st century, characterized by the progressive incorporation of the numerous conceptual advances and, above all, technologies. Kymographs, developed by Ludwig in 1847, in which the tracings were recorded on smoked paper, were among the tools that he employed in his first research endeavors. Only a few months ago, we were still debating about today's electrophysiological recordings, obtained in experimental arrhythmia models, with mapping techniques based on optical procedures.

In the courses and conferences in which he took on the difficult task of summarizing the history of cardiology, Professor López would underscore the persistence to this day of fundamental concepts or principles derived from the different paradigms of medical thinking that flourished during successive historical periods; for example, the clinical-anatomical viewpoint, with its maxim, which could be translated as, “convert into external and visible that which is internal and invisible”, so present today in the contributions of imaging techniques; the pathophysiological perspective, with the principle of “converting the symptom into a sign (measurement, graph, or signal)”, which is the basis that sustains the development of the numerous functional tests that are now being used in routine practice; or the etiological view, with the introduction of the concept of “infectious germ or harmful agent”, which later led to the search for and identification of “risk factors” and the development of preventive medicine.

When it came to describing more recent events, he would stress three of them. First, he would point out the development of the concept of “evidence-based medicine”, as defined by Guyatt, “an attitude of illustrated skepticism regarding the application of diagnostic, therapeutic, and diagnostic technologies to the daily handling of patients.” The information provided by clinical trials, registries, and epidemiological studies has allowed the development of the second feature, which, in his words, largely determines current clinical practice: the preparation and publication of diagnostic and therapeutic guidelines promoted by scientific societies. Thirdly, he would emphasize how easy it has become to gain access to and use literature and documents that support the previous 2 features.

Recalling the words in the speech he delivered when he was inducted into the Royal Academy of Medicine of Valencia,—“every physician, like every man, should have a clear image of his own horizon and take upon himself his profession with a clear personal view, even if it is erroneous, of the path he has taken”—one can see that, to a large extent, the aforementioned aspects, which he put forward with masterly eloquence, were part of his personal credo. Starting with the last of these points—his interest in gaining access to the literature he deemed necessary to keep abreast with innovations and in going to the sources, to read directly from the classical writings—he encountered no insurmountable obstacles even before the advent of the present electronic tools. This was possible because he made use of his personal resources to overcome the limitations of the moment.

Professor López finished his medical studies in 1953 and, in those days of scarce resources, he obtained “evidence”—or, more exactly, “proof”—through the strict application of the scientific method in the investigations he conducted, promoted, or coordinated in a wide range of medical scenarios. True to the motto proposed by Galileo, “Measure what is measurable and make measurable what is not so”, he used the limited means he had to begin with, and those that he himself helped to design, to carry out precise and meticulous determinations of the phenomena he analyzed. Moreover, he applied mathematical modeling techniques and statistical analysis methods that provided a very solid basis for these investigations.

This initial activity covered studies on ventilatory function, the dose-effect relationship of certain drugs, and lung mechanics that had an international impact. He collaborated in pioneering studies on esophageal manometry, splanchnic circulation, pulmonary embolism, localized bronchial stenoses, and flail chest. During the same period (1960-1975), in the field of cardiology, he studied the origin of the feeling of palpitations and the hemodynamic impact of mitral stenosis; he systematized phonomechanocardiographic recordings; and he analyzed the value of challenge tests in the diagnosis of different types of heart disease, including hypertrophic obstructive cardiomyopathy, as well as the electrocardiographic features of atrial fibrillation, the effects of amiodarone, and factors that determine electromechanical systole. One of the areas in which he worked in those early days and

continued to do so throughout his long career was cardiac electrophysiology. In 1972, together with Professor Roberto García Civera, among others, he published the report entitled "*Estudio de la activación auricular y de la conducción A-V en el bloqueo del haz de Bachmann del corazón humano*" ("Study of atrial activation and A-V conduction in Bachmann bundle block in the human heart") in *Revista Española de Cardiología*. This article describes the recording of the His bundle electrogram using a system for amplifying endocavitary signals designed by the authors.

Throughout his life, among the scores of articles in which he collaborated, 74 were published in *Revista Española de Cardiología*, the first of them in 1967, on the origin of palpitations, and the last in 2009, on experimental models. One of the aspects of this scenario that he promoted was the study of radiofrequency ablation procedures, with pioneering articles in both the experimental and clinical settings. He was also an advocate of the analysis of cardiac pacing, pacemakers, and the behavior of subsidiary pacemakers, thus contributing to the development of this technology in Spain. In other areas, such as ischemic heart

disease, he promoted studies in myocardial viability and in ventricular remodeling, its epidemiology and that of its risk factors.

Although the results of his activity are reflected in his ample *curriculum vitae*, Professor López's influence goes beyond the data detailed there. With his generosity and ability to inspire enthusiasm and motivate others in the quest for scientific knowledge and the adventure of research, he also knew how to create working groups whose members have undertaken independent careers.

His biography can be summarized by the words that Professor Adolfo Benages Martínez dedicated to him in response to his speech when he was inducted into the institution of which he himself was a member, "Today the Royal Academy of Medicine of the Valencian Community receives a good man, in the sense intended by Machado, an exemplary citizen, an excellent physician, an educator enamored with the university, and an exceptional scientist."

Francisco Javier Chorro Gascó and Juan Sanchis Forés  
*Valencia, Spain*