

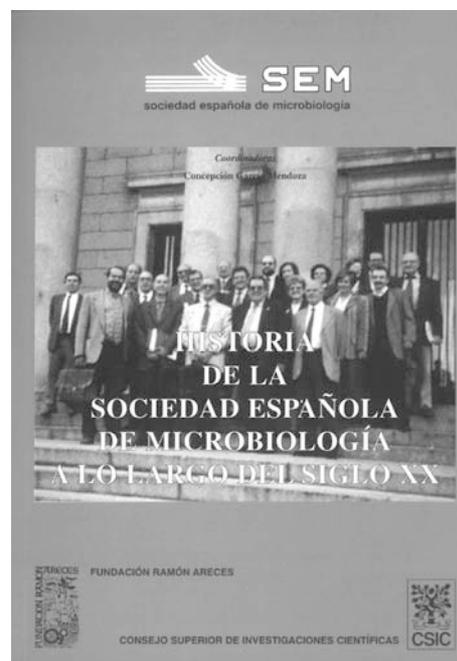
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## The development of microbiology in Spain

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It is a pleasure for me to preface yet another publication issued by the Spanish Society of Microbiology (SEM), which tells the fascinating story of this thriving branch of biology that has reached such high levels of excellence worldwide, and especially in Spain in the last decades. The SEM is only a little over 50 years old—it was founded in 1946—and has more than 2,000 members working in universities, institutions of scientific research (such as the Consejo Superior de Investigaciones Científicas, CSIC), biotechnological industries, and hospitals scattered all over Spain. Many of these microbiologists belong to a generation of young graduates trained in our universities and CSIC centres, with postgraduate studies in European and American institutions. Indeed, the SEM has many members who are dedicated researchers and whose work regularly appears in prestigious national and international journals of scientific impact.

Several of us have been fortunate enough to have followed the development of microbiology in Spain from its early beginnings. We look back and remember the activities of professors and researchers in the Faculties of Medicine, Pharmacy, Veterinary, Biology in our Universities, Schools of Agronomics and Forestry, and CSIC centres. The time has come to acknowledge the early initiatives of those pioneering professors who introduced this new science into their centres and stimulated general awareness of it. Together with biochem-



**Fig. 1** Cover of the book *Historia de la Sociedad Española de Microbiología a lo largo del siglo XX*. C. García Mendoza (coordinator). Madrid, 2002

istry and genetics, it rapidly became a developing tool for cellular and molecular biology, giving it equal footing with other top-level sciences. The best example of this is the fascinating results in the new fields of genomics and proteomics, areas in which micro-organisms have become the fundamental research tools.

We believe that the information found in *Historia de la SEM* (Fig. 1) will be of great interest to the younger generations. It is written in clear, simple language and contains a complete description of the authentic pioneers in the history of microbiology in Spain. The SEM developed in the second half of the twentieth century, and has provided a base from which to contact other groups or societies in other countries, including the

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This text is a translation of the preface from the book *Historia de la Sociedad Española de Microbiología a lo largo del siglo XX* (History of the Spanish Society for Microbiology through the twentieth century), coordinated by C. García Mendoza and published by Editorial Centro de Estudios Ramón Areces, S.A. Madrid, 2002, 182 pp.

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United States and Latin America, where so many groups are carrying out excellent work both in the classroom and in the laboratory.

In recent decades, some of us have had the honour and good fortune of being able to contribute to the development of microbiology in Spain both in CSIC centres and in Universities. Not only have we made acquaintance with many world-renowned figures in the field of international microbiology, but we have also participated in the training and education of new generations of Spanish microbiologists by supplying them with outstanding publications—classic works in scientific circles related to microbiology—in their own language. Two examples that come to mind are *Microbiología* by Roger Y. Stanier and *Biología de los Microorganismos* by Thomas Broock. It has given us great satisfaction to see how these works, read worldwide in numerous reprints and translations, have also been read by thousands of our students and teachers, who have greatly benefited from their extensive content and modern outlook.

We have also had the good fortune to contribute, from the 1970s onward, with ideas that facilitated the organisation of meetings, courses and seminars, which in their own way helped bring about closer relationships between teachers and research scientists in the area of microbiology. We especially remember the effort it took to organise, with the collaboration of Dr. García Acha, the “First Meeting of Spanish Microbiologists” in 1962. This first meeting was held at the headquarters of the CSIC at 117 Serrano St. in Madrid and was actually the

first congress of the SEM. Later, at the University of Salamanca, we organised other gatherings and national conferences on microbiology at a time when groups of microbiologists were consolidating and spreading throughout the country. Our greatest satisfaction, however, comes from knowing that we have been part of the training of a large school of microbiologists currently working in CSIC centres and in a good number of Spanish universities, as well as those working in the Spanish pharmaceutical industry.

Without doubt, the information found in *Historia de la SEM* is both interesting and useful, but the volume could hardly have been compiled without the interest and the efforts of microbiologists from the CSIC Centro de Investigaciones Biológicas (CIB), and, in a very special way, Dr. Concepción García Mendoza. Its pages offer an excellent account of the different phases microbiology underwent as it developed in institutions in the area of Madrid and other Spanish university cities. The reader will easily appreciate the numerous obstacles and difficulties that had to be overcome, due mainly to lack of resources, and at times also to the lack of an adequate scientific milieu in our institutions. Several research teams in Madrid, and in particular those working at the CIB, were the key factor in the early development of Spanish microbiology before it spread to the universities, the CSIC centres, the state public hospitals and some pharmaceutical firms with outstanding teams doing biomedical research. Microbiology in Spain today is fortunately enjoying a prosperous present, which makes us confident in predicting it a bright future.