

Foreword

Schistosomiasis is a neglected tropical disease that affects at least 240 million people worldwide. The infection is prevalent in tropical and sub-tropical areas and particularly in communities without adequate sanitation. It is estimated that more than 200,000 deaths are caused by schistosomiasis in sub-Saharan Africa each year.

The vectors and associated parasites, which include *Biomphalaria/Schistosoma mansoni*; *Bulinus/S. haematobium/S. intercalatum*; *Oncomelania/S. japonicum*; *Tricula/S. mekongi*, are the major components considered for the prevention, control and treatment of this vector-borne disease. Additional efforts involve the improvement of water quality and sanitary systems.

This schistosomiasis-specific issue of *Memórias do Instituto Oswaldo Cruz* consists of 16 articles written by 87 leading scientists from 28 national and international institutions, with an emphasis on recent advances in immunopathology, biochemistry, molecular biology, diagnosis, treatment, epidemiology, malacology and control of this parasitic disease. The great majority of papers published herein were communications or topics addressed at the 12th International Symposium on Schistosomiasis, held in October 2010 in Rio de Janeiro, Brazil, and organized by the Integrated Schistosomiasis Program of the Oswaldo Cruz Foundation (PIDE/Fiocruz). The present schistosomiasis-specific issue is dedicated to the memory of the late Professor Henrique Lenzi MD, PhD (26 Jun 1943-15 Sep 2011), who made outstanding contributions to PIDE/Fiocruz.



PHOTO BY GENILTON J. VIEIRA

Together with his wife, Dr. Jane Arnt Lenzi, Prof. Henrique Lenzi entered the Instituto Oswaldo Cruz (IOC) in 1984 to head the Department of Pathology. With a background in Philosophy, a degree in Medicine and specializations in Pathology and Immunology, Prof. Lenzi was an enthusiastic and charismatic scientist. During his scientific career, he worked with many different subjects, most of which were related to the pathology and immunopathology of tropical diseases in humans and experimental models, as well as the co-habitation aspect of host-parasite interactions. He published many papers and supervised several students on a variety of subjects, including experimental schistosomiasis, abdominal angiostrongyliasis, trypanosomiasis, paracoccidiodomycosis and cryptococcosis. In addition, he also addressed the various physiological and pathological aspects of the lymphohaematopoietic system, such as its ontogeny in mice and humans and its implications for the infections mentioned above. Moreover, he was responsible for safeguarding the Histopathological Collections of IOC and was one of the most important disseminators of confocal laser microscopy technology in Brazil.

With regard to schistosomiasis, Prof. Lenzi provided deep scientific contributions on the different aspects of this helminthiasis. These contributions ranged from the biology of *S. mansoni* to the pathology of the experimental infection, both in the definitive (mice) and in the intermediate hosts. In particular, his work on the assembly and histological architecture of the murine hepatic schistosomal granuloma, which he proposed to be a metazoan being, emerged from the interaction between the host and the worm. He also explored the kinetics of the cellular and extracellular composition of this dynamic structure, including the collagen synthesis, fibrosis establishment and involution, the tridimensional interactions among these elements, the role of eosinophils as anti-toxic cells and the extramedullary haematopoiesis in the peripheral zone. More recently, he was concentrating his efforts on analyzing schistosomal granuloma and other biological subjects as complex systems by applying mathematical and physical methodologies. Many of these contributions are compiled in two extensive chapters written by him and colleagues. Both chapters are included in the book *Schistosoma mansoni e esquistossomose: uma visão multidisciplinar*, which he also edited together with two other eminent Brazilian researchers in 2008.

In addition to being a brilliant researcher, Prof. Lenzi was an inspiring teacher and a guiding motivator who combined his vast biological knowledge with a love for literature, philosophy, arts, music and life. For those who had the pleasure of having contact with him, he will be remembered not only for his scientific competence and enthusiasm, but also for his kindness and helpfulness. In addition to an important scientific legacy, he leaves a striking example to be followed in science and in life.

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