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Editorial

The Third Latin American Congress on Rickettsial Diseases is a critically important event. The first congress held in Ouro Preto, Brazil, in 2004 marked the birth of sharing newly created knowledge of rickettsiae and rickettsial diseases in Latin America with the enthusiastic participation of scientists from México, Colombia, Perú, Brazil, and Uruguay. In the second congress held in Ribeirão Preto, Brazil, witnessed a tremendous increase in the number of participants and presentations. The generous hosting of the current congress in Bogotá, Colombia, represents the landmark extension of these valuable opportunities to discuss research progress and establish collaborations to a widening community of Latin American scientists.

Latin American medical scientists identified spotted fever rickettsiosis in Brazil, Colombia, and México during the late 1920s through the early 1950s. Epidemic typhus had been known as a disease particularly in the Andean countries and regions of México and Central America from the Spanish colonial era, and knowledge of the relationship of typhus to louse transmission and *Rickettsia prowazekii* led to a tremendous reduction in the burden of disease by use of insecticides and antirickettsial therapy.

There were few scientists who investigated rickettsiae during the 1960s to 1980s. By the 1990s, investigations of Brazilian spotted fever by Marcio Galvão and of rickettsiosis by Jorge Zavala-Velásquez in México were among the few signs of renewed interest in these problems. The chapter on spotted fever group rickettsioses in the first edition of *Tropical Infectious Diseases: Principles, Pathogens and Practice* in 1999 contained a paucity of contemporary factual information on rickettsial diseases in Latin America. The third edition published in 2011 reflects the flowering of new information that is being generated in excellent laboratories in Latin America. Currently data on rickettsial etiology and ecology are flowing from scientists in Brazil, México, Colombia, Argentina, Venezuela, Panamá, Costa Rica, Uruguay, Perú, and Chile. Isolates of *Rickettsia* have been established and characterized. Molecular technology is being applied effectively. The world's leading studies of the ecologic cycles of *R. rickettsii* in nature are advancing impressively in Brazil.

It is an exciting time in the field of rickettsiology, and Latin America is at the forefront of studies of the rickettsial agents in nature. However, much remains to be accomplished. Our knowledge of the true incidence and complete geographic distribution of human infections with life threatening infections with *R. rickettsii*, *R. parkeri* infections, murine typhus, and louse-borne typhus is undoubtedly incomplete. It also remains to be determined the level of pathogenicity of other rickettsiae found in ticks, such as *R. amblyommii*. There are woefully inadequate availability and appropriate application of diagnostic tools for rickettsioses. There is a critical need for inexpensive point-of-care diagnostic tests for rickettsial diseases that provide an accurate diagnosis at the time of the patient's presentation for medical care in order to guide the selection of effective therapy. The assembly of these diagnostic data from such tests would yield knowledge of the epidemiology and actual impact of rickettsioses on the public health. An excellent example of crucial information that is lacking and should be determined are the risk factors for reactivation of latent *R. prowazekii* in Andean individuals and for spread through the population resulting in outbreaks of louse-borne typhus.

There is a need for more centers of excellence in research on rickettsiae and ehrlichiae in Latin America and for a collaborative network for characterization of novel isolates, studies of the epidemiology of rickettsioses and ecology of rickettsiae, and reference confirmation of diagnoses. Thus, this congress presents an important opportunity for establishing links of continuing communication via contemporary digital technology for the expansion of productive collaboration and the spirit of collegial cooperation.

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