
Meeting Summary

The 5th International Conference on Legionella Ulm, Germany September 26-29, 2000

Twenty-five years after the first recognized outbreak of Legionnaires' disease, the bacterium *Legionella pneumophila* is clearly established as an enduring agent of pneumonia and respiratory disease. This organism causes an estimated 15,000 cases of pneumonia in the United States each year. Since *L. pneumophila* was first recognized, numerous advances have occurred in our understanding of how this unique intracellular pathogen affects humans and how to control it and prevent disease.

These advances were highlighted at the 5th International Conference on *Legionella*, the first international symposium on this organism since 1992. Sponsored by the University of Ulm, Deutsche Gesellschaft für Hygiene und Mikrobiologie, Vereinigung für Allgemeine und Angewandte Mikrobiologie, American Society for Microbiology, and Deutsche Forschungsgemeinschaft, the symposium had more than 200 attendees representing 35 countries. The meeting was held in conjunction with the annual meeting of the European Working Group on *Legionella* Infections.

Scientific sessions covered recent developments in pathogenesis, immunology, ecology, clinical microbiology, epidemiology, surveillance, and prevention. The opening lecture was by Joseph McDade, Editor-in-Chief of *Emerging Infectious Diseases* at the Centers for Disease Control and Prevention, who first identified the bacterium in 1977.

Substantial progress has been made in the areas of pathogenesis, development of policies and guidelines to control legionellosis, and potential alternative biocide treatments to prevent colonization of water systems by the bacterium. *L. pneumophila* survives as an intracellular parasite of protozoa and human macrophages. Researchers presented data that further define the mechanisms by which this bacterium enters the host cell, subverts endosomal-lysosomal pathways, acquires

nutrients for multiplication, and escapes the host cell. Investigators have identified many novel genes that constitute an unprecedented model for intracellular pathogens. In addition, sequencing of the *L. pneumophila* genome is now >80% complete, with more than 2,000 open reading frames identified. Information on the genome project is available at <http://genome3.cpmc.columbia.edu/~legion/>.

The meeting also highlighted two large outbreaks of Legionnaires' disease that occurred in the past year: one associated with a cooling tower at the Melbourne Aquarium and the other with a whirlpool spa at a Dutch flower show. Although substantial progress has been made in implementing guidelines to prevent legionellosis, it remains unclear if such preventive measures can suppress the occurrence of large focal outbreaks such as the ones in Australia and the Netherlands. The use of chlorination, copper-silver ionization, monochloramine, and heat to control the bacterium continues to be the subject of controversy. Several presentations focused on the issue of travel-related legionellosis, with much discussion on the best means of detecting and preventing its occurrence. The meeting hosted a formal debate on the use of copper-silver ionization with a panel of five experts in this area.

The proceedings of the meeting will be published by ASM Press, Washington, DC, in 2001. Chicago will host the 6th International Conference on *Legionella* in 2004.

Conference Announcement

Fourth Annual Conference on Vaccine Research: Basic Science-Product Development-Clinical and Field Studies Hyatt Regency Crystal City, Arlington, Virginia April 23-25, 2001

The conference is sponsored by the National Foundation for Infectious Diseases, in collaboration with the Centers for Disease Control and Prevention; National Institute of Allergy and Infectious Diseases, National Institutes of