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Legionellosis Diagnosis and Control in the Genomic Era



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Legionella bacteria are a leading cause of infectious morbidity and mortality worldwide. The study of Legionella is inherently multidisciplinary, the bacteria interact with freshwater and other ecosystems, protozoa, complex secretion systems, man-made water systems and can cause human infection via environmental exposure. These multifaceted interactions suggest Legionella as a potential model for the prevention, assessment and control of other infectious diseases.

With chapters written by a diverse array of specialists, this book exemplifies the dynamic nature of *Legionella* and illustrates many new methods such as genomics that have revolutionised this area of science. Written by internationally-recognised scientists under the expert guidance of the editors this volume covers the epidemiology and ecology of *Legionella*, diagnosis and treatment of legionellosis and presents reviews of current and emerging concepts and new advances in *Legionella* research.

This detailed and topical book is an important reference volume for anyone involved in the study of legionellosis or other infectious diseases and is a recommended acquisition for all science and medical libraries.

Chapter 1. Introduction to Legionellosis Diagnosis and Control in the Genomic Era (*Rachel E. Gibbs and Jacob Moran-Gilad*)

Chapter 2. Freshwater Ecology of Legionella pneumophila (Rafael A. Garduño)

Chapter 3. A 'Secreted Army' for the Invasion and Survival of Legionella pneumophila Within Host Cells (Elisabeth Kay, Virginie Lelogeais, Sophie Jarraud and Christophe Gilbert and Patricia Doublet)

Chapter 4. Epidemiology of Legionellosis and a Historical Perspective on *Legionella pneumophila* Strains for the Genomic Era (*Natalia A. Kozak-Muiznieks, Jeffrey W. Mercante and Brian H. Raphael*)

Chapter 5. Clinical Symptoms and Treatment of Legionellosis (Giancarlo Ceccarelli, Mario Venditti, Maria Scaturro and Maria Luisa Ricci)

Chapter 6. Laboratory Diagnosis of Legionellosis (Giancarlo Ceccarelli, Mario Venditti, Maria Scaturro and Maria Luisa Ricci)

Chapter 7. Clinical Significance of (non-Legionella pneumophila) Legionella Species (Diane S.J. Lindsay)

Chapter 8. Regulatory and Risk Management Strategies for Control of *Legionella (Susanne Surman-Lee and James T. Walker)*

Chapter 9. European Surveillance of Legionnaires' Disease (Birgitta de Jong and Lara Payne Hallström)

Chapter 10. Epidemiological Genotyping of *Legionella pneumophila*: from Plasmids to Sequence-Based Typing (*Norman K. Fry and Sophie Jarraud*)

Chapter 11. Typing of Legionella Isolates in the Genomic Era (Daniel Wüthrich, Helena M.B. Seth-Smith and Adrian Egli)

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