

# Preface

Our understanding of the pathogenesis and etiology of new and venerable diseases has progressed tremendously in the past 30 years, due to improved technology and advances in genomics and molecular science. However, there are several common diseases where the exact causation still eludes investigators, but intensive research over the past decade has provided clues to implicate a microbial role in pathogenesis and causation.

These medical conditions include common nonlife threatening illnesses that affect the daily function and quality of life, such as irritable bowel syndrome and chronic fatigue syndrome. But also microbial pathogenesis has been postulated for more serious disorders such as multiple sclerosis, diabetes mellitus, Crohn's disease, asthma, and rheumatoid arthritis; to potentially fatal and catastrophic conditions such as Alzheimer's disease, colon cancer, and atherosclerosis that leads to heart attacks and strokes.

A brief outline of these clinical conditions and others will be provided, with in-depth review of current understanding of the mechanisms and pathogenesis. The links to microbial pathogenesis will be reviewed from ongoing research, with exploration of theoretical microbial causes and potential for future clinical research and development of novel therapies.

This new volume in the series "Emerging Infectious Diseases of the 21st Century" should provide fodder for investigators and clinicians faced with these conditions, but more importantly to stimulate interest of new investigators and trainees to take a new and novel approach for investigating the mechanisms and causation of these baffling common disorders.

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Diseases

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