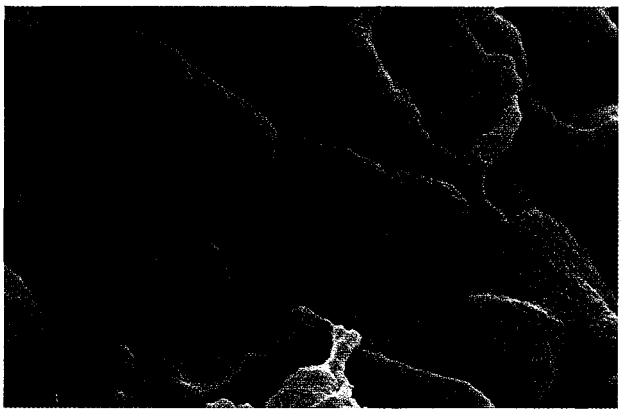
Melioidosis – A Century of Observation and Research

Dedicated to the
Pioneers and Teachers
who went before us



Burkholderia pseudomallei adhered to HeLa cell surface
(M. Rohde, Helmholtz Centre for Infection Research, Braunschweig, Germany)

Melioidosis
– A Century of Observation and Research –

Edited by

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Front cover image: Scanning electron micrograph of *Burkholderia pseudomallei.*

Preface

While organising the VIth World Melioidosis Congress in 2010 which coincided with the centenary of the description of melioidosis by Whitmore and Krishnaswami, a few colleagues suggested that we should consider compiling a monograph with information accumulated over a century. With the support of authors and section editors who devoted many hours of their time we have compiled and synthesised data on diverse aspects of melioidosis which we present in the ten different sections of this monograph.

The information presented in this monograph is not intended to be an up to date review on melioidosis; rather, we have endeavoured to provide the reader with a comprehensive insight into what has been achieved in the last hundred years. It is considered frivolous in today's electronic age, where research excellence is judged by impact factors and citation indices, to request researchers to contribute to monographs that would be outdated even before being typeset. However, several investigators and clinicians, especially those working in melioidosis-endemic regions, recognise a need for such a publication.

Significant research funding has been made available in the last few years, since *Burkholderia pseudomallei* was classed as a potential bioterrorism agent. This has certainly provided a major impetus to better understand the pathogen and the host responses, providing an opportunity for development of novel diagnostic tools and treatment options. However, it is the delivery of affordable detection and treatment modalities that would have a positive impact on the significant majority of patients who contract the infection in endemic areas. Scientific innovations in this field should therefore be applicable in the ever expanding *B. pseudomallei*-endemic areas, which are mostly in low- to middle-income countries in the tropics.

Even as several important facets of the pathogen and the host response are being unravelled, there is still much that is unknown. Many controversial issues related to basic concepts on infection route, pathogenesis, detection methods and optimal treatment protocols have yet to be resolved. Our current knowledge of melioidosis has to be scrutinised and gaps in our understanding of the disease process that would significantly contribute to patient welfare have to be identified. This requires a multidisciplinary approach involving microbiologists, geneticists, pathologists, immunologists, pharmacologists, clinicians, intensivists, epidemiologists, and public-health experts. This compendium brings together a multidisciplinary panel of authors who have summarised the literature and suggest avenues for further research where appropriate.

It is hoped that to some readers the material in this monograph will provide adequate information and stimulate enthusiasm to carry out much needed research to answer many

of the unanswered questions that will ultimately aid in timely diagnosis and provide effective and affordable treatment options to patients.

I would like to take this opportunity to thank all the authors and section editors for their contribution and for the long hours devoted to this project. Thanks are also due to those who provided illustrations and figures for this monograph. Without the financial support provided for the VIth World Melioidosis Congress and the publication of this monograph by sponsors, this project would not have been possible. I would also like to acknowledge and thank those colleagues and students who proof read several sections of this monograph to reduce the number of errors. We would like to express our appreciation to the staff members of Elsevier who helped with the publication process.

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December 2011

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