

MEMBRANES & MOLECULES

Jeudi 28 juin 2018, 11h30

Mickaël Blaise

Institut de Recherche en Infectiologie de Montpellier (IRIM), UMR9004-CNRS, université de Montpellier

Molecular insights into the versatile roles of Mycobacterial Membrane Protein Large: from lipid transport to drug resistance and pathogenicity

Abstract

Mycobacterium abscessus (*Mabs*) is an emerging pathogenic rapidly-growing mycobacteria (RGM) responsible for lung, skin, soft tissues and even disseminated infections. It represents the most common RGM in the bronchial secretions of cystic fibrosis patients. Treatment of the pulmonary forms of the infection is challenging and often leads to therapeutic failure, due to the intrinsic resistance of *Mabs* to most antibiotics. This very high antibiotics resistance is intrinsic to all mycobacterium, as they possess an atypical and highly hydrophobic cell wall that is very difficult to cross by drugs. *Mabs* is nonetheless even more resistant to antibiotics than other mycobacterium species. The reasons are not well understood but the Mycobacterial Membrane Protein Large (MmpL) protein family seems to play a key role in drug efflux. MmpL belonging to the RND efflux pump family are not only dedicated to antibiotics efflux but they are also involved in giant lipid(s) transport important for cell wall building and as such they do also modulate the virulence of *Mabs*. As MmpL play key roles in virulence and drug resistance they also appear as interesting drug targets to explore. Our recent work covering the roles of MmpL in lipid transport, drug resistance and virulence as well as their investigation as drug targets will be presented.

Institut de Biologie Physico-Chimique
Bibliothèque - RdC
13, rue Pierre et Marie Curie
75005 PARIS
Invité par Martin Picard
Martin.Picard@ibpc.fr



