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MmpS5/MmpL5 as an efflux pump in Mycobacterium species

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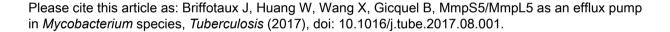
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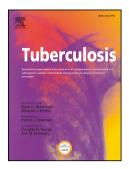
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ACCEPTED MANUSCRIPT

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10 Keywords: *Mycobacterium*, MmpL, efflux pump, drug resistance mechanism

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12 **SUMMARY**

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Tuberculosis remains an important cause of morbidity and mortality throughout the world, 14 amplified by the expansion of antibiotic resistance. Increasing active efflux of the antibiotic is 15 one of the several strategies used by bacteria to resist to antibiotics. After showing the 16 importance of the RND superfamily of efflux pumps in drug resistance, this review focuses on 17 the protein MmpL5, a transmembrane transporter of Mycobacterium. These exporters should 18 be involved in the variety of roles in bacterial cells, including expelling various drugs. The 19 20 mutation in the transcriptional regulator, linked to the upregulation of MmpL5 can lead to resistance of antibiotics. The study of these mechanisms should be considered in order to 21

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Introduction

improve the treatment of tuberculosis.

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