

1 **Matrusiak I. et al. - movie legends**

2 **Movie 1. papM deletion alters EGFP-ParA fluorescence dynamics - the time-lapse analysis.** The series  
3 of time-lapse images (taken at 10 min intervals) showing representative *M. smegmatis* cells producing  
4 **(A)** EGFP-ParA in the control strain ( $\Delta parA + pMV_{nat} egfp-parA$ ) and **(B)** the  $\Delta papM$  background  
5 ( $\Delta parA \Delta papM + pMV306_{nat} egfp-parA$ ). The images show EGFP-ParA fluorescence (green) merged with  
6 a brightfield image (magenta). The cell division is marked with a yellow arrowhead, the appearance of  
7 EGFP-ParA at the site of cell division with white arrowheads. Scale bar 5  $\mu m$ .

8 **Movie 2. The mCherry-DivIVA redistribution during the cell cycle is affected by parA and papM**  
9 **deletion.** The series of time-lapse images (taken at 10 min intervals) showing representative  
10 *M. smegmatis* cells mCherry-DivIVA in the **(A)** wild type (WT) control strain, **(B)**  $\Delta parA$  and **(C)**  $\Delta papM$   
11 strains producing mCherry-DivIVA (apart of the wild type DivIVA). The time of DivIVA appearance in  
12 the mid-cell is marked with red triangle and the time of new poles separation by black triangle.

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