

## Figure 1 - source data

### B - iMT dwell time at cell ends

	mean $\pm$ standard deviation (s)	number of observations	Kolmogorov-Smirnov test (p)
<i>control</i>	54.2 $\pm$ 25.2	104	5.154 $\times 10^{-5}$   0.8146   0.791
$\Delta klp5 \Delta klp6$	84.6 $\pm$ 58.9	97	
$\Delta mcp1$	87.5 $\pm$ 61.3	100	
$\Delta klp5 \Delta klp6 \Delta mcp1$	96.4 $\pm$ 65.4	102	

### D - MT growth speed & Klp5/Klp6 speed on MT lattice

	mean $\pm$ standard deviation (nm/s)	number of observations	Kolmogorov-Smirnov test (p)
MT growth speed	<i>control</i>	69.0 $\pm$ 19.9	0.7648   5.96 $\times 10^{-9}$
	$\Delta mcp1$	68.8 $\pm$ 22.8	
Klp5/Klp6 speed on MT lattice	<i>control</i>	133.5 $\pm$ 27.6	1.258 $\times 10^{-4}$
	$\Delta mcp1$	168.0 $\pm$ 36.7	

### F - Klp5/Klp6 fluorescence intensity

	mean $\pm$ standard deviation (AU)	number of observations	Kolmogorov-Smirnov test (p)
nuclear	<i>control</i>	787.5 $\pm$ 222.0	0.5435
	$\Delta mcp1$	816.7 $\pm$ 212.8	
MT +tip	<i>control</i>	495.9 $\pm$ 214.7	1.287 $\times 10^{-7}$
	$\Delta mcp1$	234.4 $\pm$ 177.2	