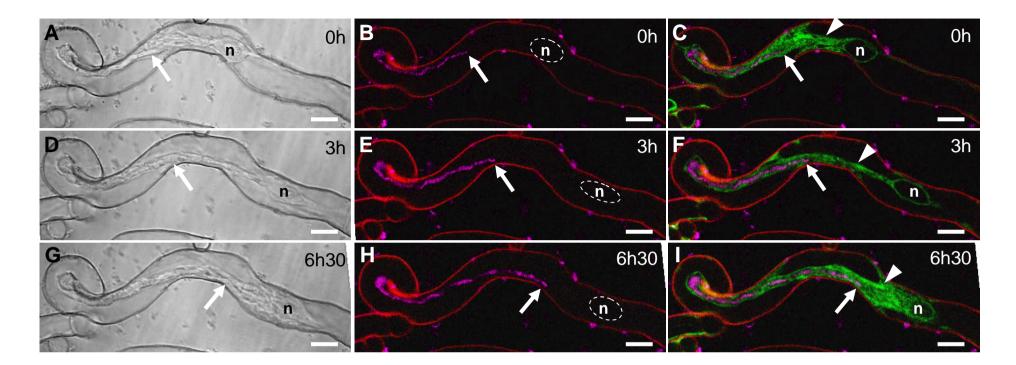
## Supplemental Figure S2



## Supplemental Figure S2 : Conformational changes of the cytoplasmic bridge linking the nucleus to the infection thread tip during growth in a *M. truncatula* root hair.

Three successive stages (0h, 3h, 6.5h) of IT growth in a curled infected root hair of a WT transgenic line expressing the ER-targeted GFP-HDEL. Bright field images are shown on the left (A, D, G). The corresponding confocal images (single optical sections) showing the cCFP fluorescence of the rhizobia (magenta) are presented in B, E and H, and combined with the ER-targeted GFP-HDEL (green) in C, F and I. Cell wall autofluorescence in the confocal images is in red. Note the striking elongation of the cytoplasmic bridge (arrowhead) connecting the nucleus (n) to the IT (arrow) and the corresponding increase in the nuclear-IT distances at the 3h time point (F). The average rate of IT progression is clearly superior over the second 3h period, and this may correlate with the associated root hair cytoarchitecture.

Note that in  $\mathbf{E}$ ,  $\mathbf{F}$ , although a doubling of the bacterial file can be seen along several segments of the file, the leading bacteria closest to the apex of the IT tip are still organised in a single file. It is unusual that such doubling occurs so close to the tip, and may reflect the slow extension of the tip during the previous growth period.

Bars =  $10 \mu m$ .