

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: NT constriction upon addition of 0.5 μ M WT Drp1 in the presence of 1 mM GTP, corresponding to the kymograph in Fig. 4a. RhPE fluorescence is shown. Background was subtracted using background subtraction plugin in ImageJ.

File Name: Supplementary Movie 2

Description: NT constriction and fission upon addition of 0.5 μ M DCT4 Drp1 in the presence of 1 mM GTP, corresponding to the kymograph in Fig. 4a. RhPE fluorescence is shown. Background was subtracted using background subtraction plugin in ImageJ.

File Name: Supplementary Movie 3

Description: NT constriction and fission upon addition of 0.5 μ M by DCT6 Drp1 in the presence of 1 mM GTP, corresponding to the kymograph in Fig. 4a. RhPE fluorescence is shown. Background was subtracted using background subtraction plugin in ImageJ.

File Name: Supplementary Movie 4

Description: NT constriction and fission upon addition of 0.5 μ M CT+ Drp1 in the presence of 1 mM GTP, corresponding to the kymograph in Fig. 4a. RhPE fluorescence is shown. Background was subtracted using background subtraction plugin in ImageJ.

File Name: Supplementary Movie 5

Description: NT constriction and fission upon addition of equimolar concentrations (0.5 μ M each) of WT Drp1 and GIPC-1, corresponding to the kymograph in Fig. 5e. RhPE fluorescence is shown. Background was subtracted using background subtraction plugin in ImageJ.