

Legends for Supporting Movies:

Movie s1

Spindle positioning and elongation in dividing QR.p cell. Centrosome in green, chromosome and plasma membrane in red (Strain RV83). The display rate is 7 frames/sec with total elapsed time of 960 sec. Anterior, left.

Movie s2

Spindle positioning and elongation in dividing QR.a cell. Centrosome in green, chromosome and plasma membrane in red (Strain RV83). The display rate is 7 frames/sec with total elapsed time of 1212 sec. Anterior, left.

Movie s3

Spindle positioning and elongation in dividing QR.a cell. Microtubules in green, chromosome and plasma membrane in red (Strain RV70). The display rate is 7 frames/sec with total elapsed time of 1680 sec. Anterior, left.

Movie s4

Myosin II dynamics in cytokinetic QR.p cell. Myosin II in green, chromosome and plasma membrane in red (Strain RV84). The display rate is 7 frames/sec with total elapsed time of 460 sec. Anterior, left.

Movie s5

Myosin II dynamics in cytokinetic QR.a cell. Myosin II in green, chromosome and plasma membrane in red (Strain RV84). The display rate is 7 frames/sec with total elapsed time of 480 sec. Anterior, left.

Movie s6

Membrane dynamics in dividing QR.p cell. Plasma membrane in red (Strain RV53). The display rate is 15 frames/sec with total elapsed time of 955 sec. Anterior, left.

Movie s7

Membrane dynamics in dividing QR.a cell. Plasma membrane in red (Strain RV53). The display rate is 15 frames/sec with total elapsed time of 935 sec. Anterior, left.

Movie s8

Myosin II dynamics in cytokinetic QR.a cell of *pig-1* mutant. Myosin II in green, chromosome and plasma membrane in red (RV200). The display rate is 5 frames/sec with total elapsed time of 460 sec. Anterior, left.

Movie s9

QR.aa cell undergoes programmed cell death. Aster is adjacent to QR.aa cell. Chromosome and plasma membrane in red. The display rate is 7 frames/sec with total elapsed time of 111 min. Anterior, left.

Movie s10

QR.aa cell migrates and forms neuritis after CALI of myosin II during cytokinesis. Aster is adjacent to QR.aa cell. Chromosome and plasma membrane in red. The display rate is 7 frames/sec with total elapsed time of 165 min. Anterior, left.