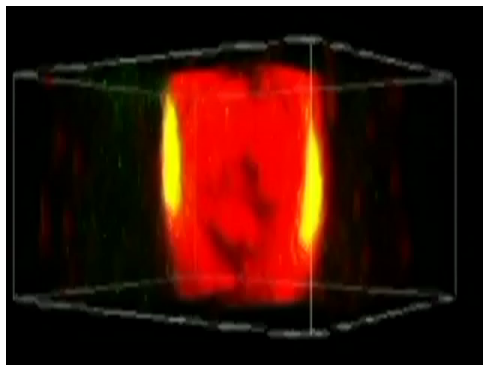
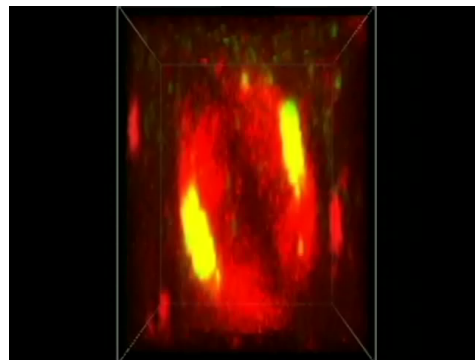


Supplement S5. Spindle tilt defects in BCCIP deficient cells.

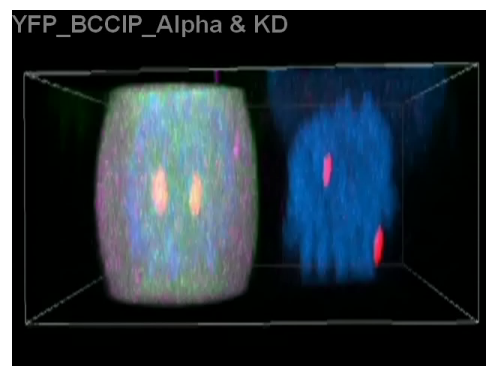
Three-dimensional films are reconstructed from a set of confocal Z-stacks of cells grown parallel to the cell culture surface. Representative 3D spindle images of control (**Supplement Movies M3**) and BCCIP knockdown (**Supplement Movies M4**) cells are shown. In a separate experiment, GFP-negative BCCIP knockdown cells were transfected with YFP-BCCIP α (**Supplement Movies M5**), YFP-BCCIP β (**Supplement Movies M6**), and YFP (**Supplement Movies M7**). Shown are representative images of the both BCCIP knockdown (YFP-negative) and BCCIP expressing (YFP-positive) cells on the same viewing field. BCCIP α expression restores spindle orientation in BCCIP-KD cells, but this rescue is not observed during BCCIP β and control re-expression.



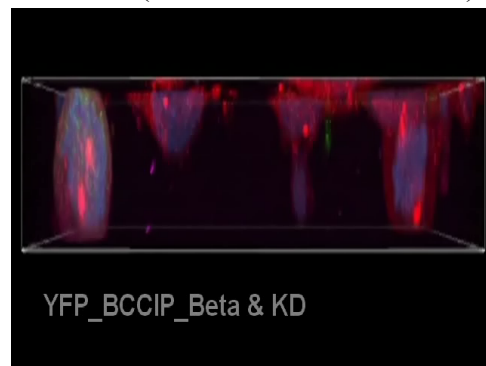
Movie M3 (control cells)



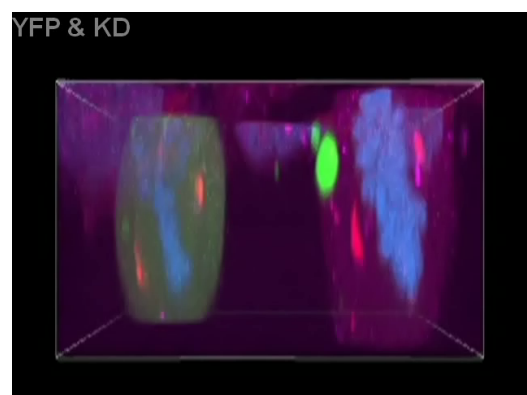
Movie M4 (BCCIP knockdown cells)



Movie M5:
BCCIP-KD (cell on the right)
BCCIP-KD + YFP-BCCIP α (cell on the left)



Movie M6
BCCIP-KD (cell on the right)
BCCIP-KD + YFP-BCCIP β (cell on the left)



Movie M7:
BCCIP-KD (cell on the right)
BCCIP-KD + YFP (cell on the left)