

Figure S4 Electron micrographs of phosphotungstic acid (PTA)-stained SCs from a Heinz 1706 X Cherry LA4444 tomato hybrid. A. Complete SC spread showing no synaptic irregularities that would indicate structural heterozygosities between the two lines. Chromosomes 5 and 12 (indicated by arrowheads at kinetochores) are structurally indistinguishable. B. and C. Higher magnification views of pericentric regions of SCs 5 and 12 from (A). Both chromosomes show straight synapsis through the kinetochore, even though the hybrid is probably heterozygous for an inversion involving the kinetochore of chromosome 12. SC spreading and PTA staining was performed as described by Stack and Anderson (2009). Bar in A = 2  $\mu$ m, bar in B (and C) =  $0.5 \mu$ m