

Figure S1 Generating an embryo from asl<sup>mecD</sup> homozygote oocytes (related to Figure 4). We recently showed that asl<sup>mecD</sup>, unlike any other Drosophila mutant, completely blocks centriole duplication (Blachon et al. 2008). Since the asl<sup>mecD</sup> flies die shortly after emerging from pupa, these flies are not suitable for mating. This lethality can by avoided by using heterozygous asl<sup>mecD</sup> females. However, these females provide wild type asl mRNA to their oocytes via the maternal contribution; thus, centriole duplication will not be completely blocked in these oocytes. To address this, we generated oocytes that completely lack the Asl protein except in heterozygous asl<sup>mecD</sup> females. For this, we created germline asl mutant fly lines that lacked any asl maternal contribution. This was done using a FLP-FRT recombination technique and ovo<sup>D1</sup> mutation that blocks the formation of oocytes that are not asl<sup>mecD</sup> homozygotes (Chou and Perrimon 1996). Recombination was induced in larvae via a heat shock-inducible Flippase enzyme. Thus, as adults, they produced homozygous asl<sup>mecD</sup> oocytes that lacked any Asl protein. Adult females were then mated to wild type males and their zygotes were analyzed.