SUPPLEMENTAL FIGURE LEGENDS

Figure S1. Analysis of *arc40-118* temperature sensitivity. (A) *ARC40* and *arc40-118* strains were grown in liquid medium, serially diluted, plated on YPD, and grown for two days at 25, 34, and 37ºC. (B) The same cells were grown to log phase at 25°C in YPD medium, grown for an additional 4 hr at 25 or 37ºC, then fixed and stained with alexa-488 phalloidin and imaged.

Figure S2. Complementation analysis of *arc40-139, arc40-141, and arc40-140* alleles. Haploid strains with integrated lethal *arc40* alleles covered by a *URA3*-marked *ARC40* plasmid were crossed to generate heterozygous diploid strains of the indicated genotypes. The diploids were plated on synthetic complete media, -uracil, or 5-FOA containing media, and grown for 3 days at 25°C.

Figure S3. Actin nucleation activities of wild type and *arc40-140* Arp2/3 complexes. (A) Actin assembly reactions containing 2µM monomeric rabbit muscle actin (5% pyrene labeled) and variable concentrations of wild type (blue) or mutant (red) Arp2/3 complex and 10nM Las17. (B) Actin assembly reactions containing 1 µM monomeric yeast actin (plus 5% pyrene labeled RMA), 10nM Las17/WASp, and variable concentrations of wild type (blue) or mutant (red) Arp2/3 complex.

Figure S1 (Balcer et al.)

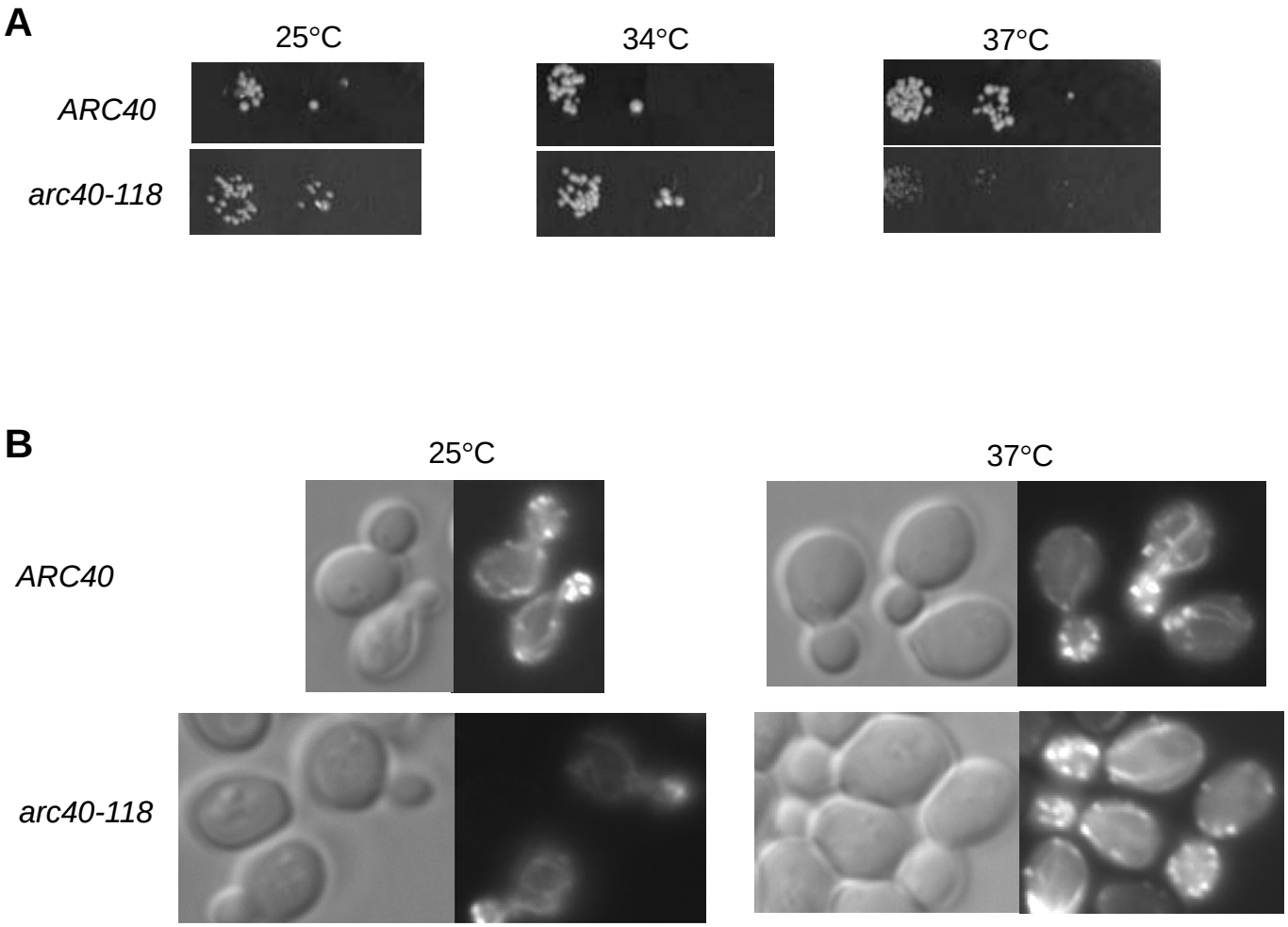

Figure S2 (Balcer et al.)

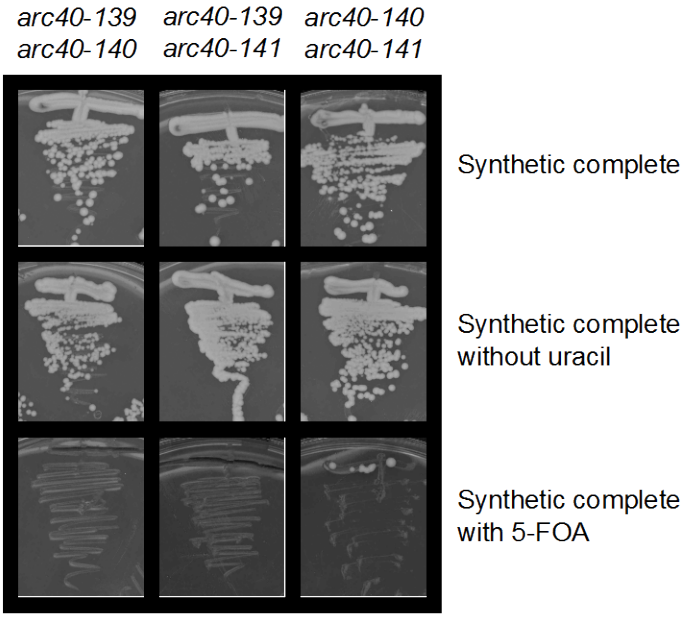

Figure S3 (Balcer et al.)