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**Cover photo:** Variation in colony shape, a complex phenotype, among a 'family' of budding yeast strains. Pictured are a subset of false-colored 768 meiotic segregants derived from a cross between two divergent *Saccharomyces cerevisiae* strains (S96 with smooth colonies, and SK1 with wrinkled colonies) grown on agar plates containing rich glucose media. This individual phenotyping of the complete set of segregants coupled with whole-genome sequencing enabled the mapping of quantitative trait loci (QTL), from which three genes (*AMN1*, *MUC1*, *SFL1*) were confirmed to play a causative role in this phenotype. Colony shape is one of eleven phenotypes analyzed in this study, in which three independent high-throughput approaches for QTL mapping are evaluated. Image credit: P. Riedinger / S. Wilkening / Steinmetz lab. (Wilkening *et al.*, *GENETICS* 196:853–865).

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