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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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