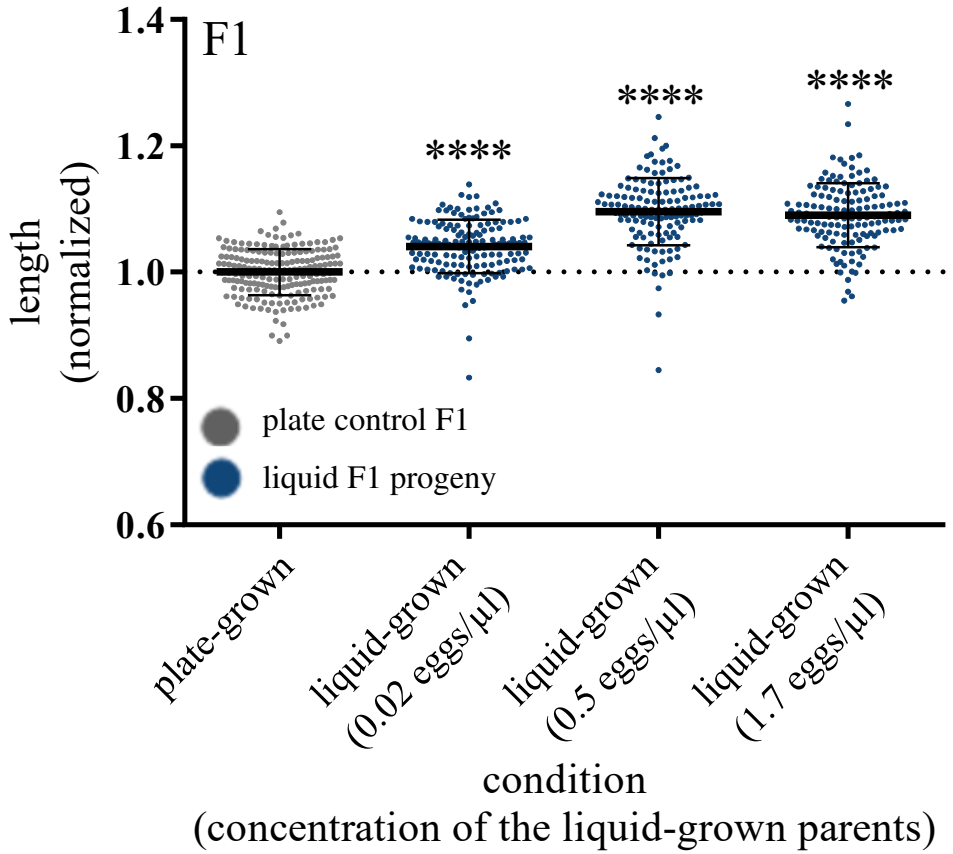


**Figure S1.** F1 progeny of liquid-grown worms are longer irrespectively of the concentration in which their parents were grown. The normalized lengths of F1 progeny of plate-grown worms and liquid-grown worms (grown in various concentrations) are shown. The measured length was normalized to that of the plate-grown worms. ****p-value <0.0001. One-way ANOVA, Sidak's multiple comparisons test p-values are presented. Error bars represent standard deviations.

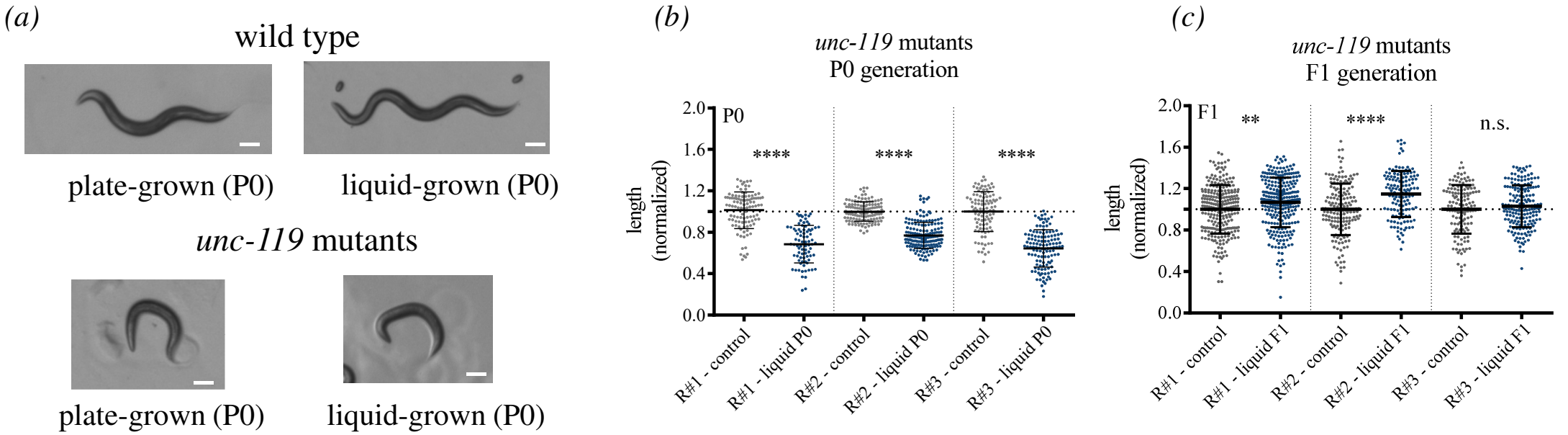


**Figure S2.** Immobile mutant worms do not alter their morphology when grown in liquid, but their progeny are longer. *(a)* Representative photographs of plate- and liquid-grown wild type and *unc-119* adult worms. The white scale bar represents 100µm. The length of the parental *(a)* and F1 progeny *(b)* of *unc-119* mutants grown either on plates or in liquid. The measured length was normalized to that of the plate-grown worms. Data from three independent biological repeats are presented (N>80 worms per group). ****p-value<0.0001, **p-value= 0.0027. Two-Way ANOVA, Sidak's multiple comparisons test p-values are presented. For figure *(c),* the biological condition factor was significant (2.7% of variance, p<0.0001). The biological repeat factor and interaction effect were also significant (1% of variance, p=0.0024 for both).

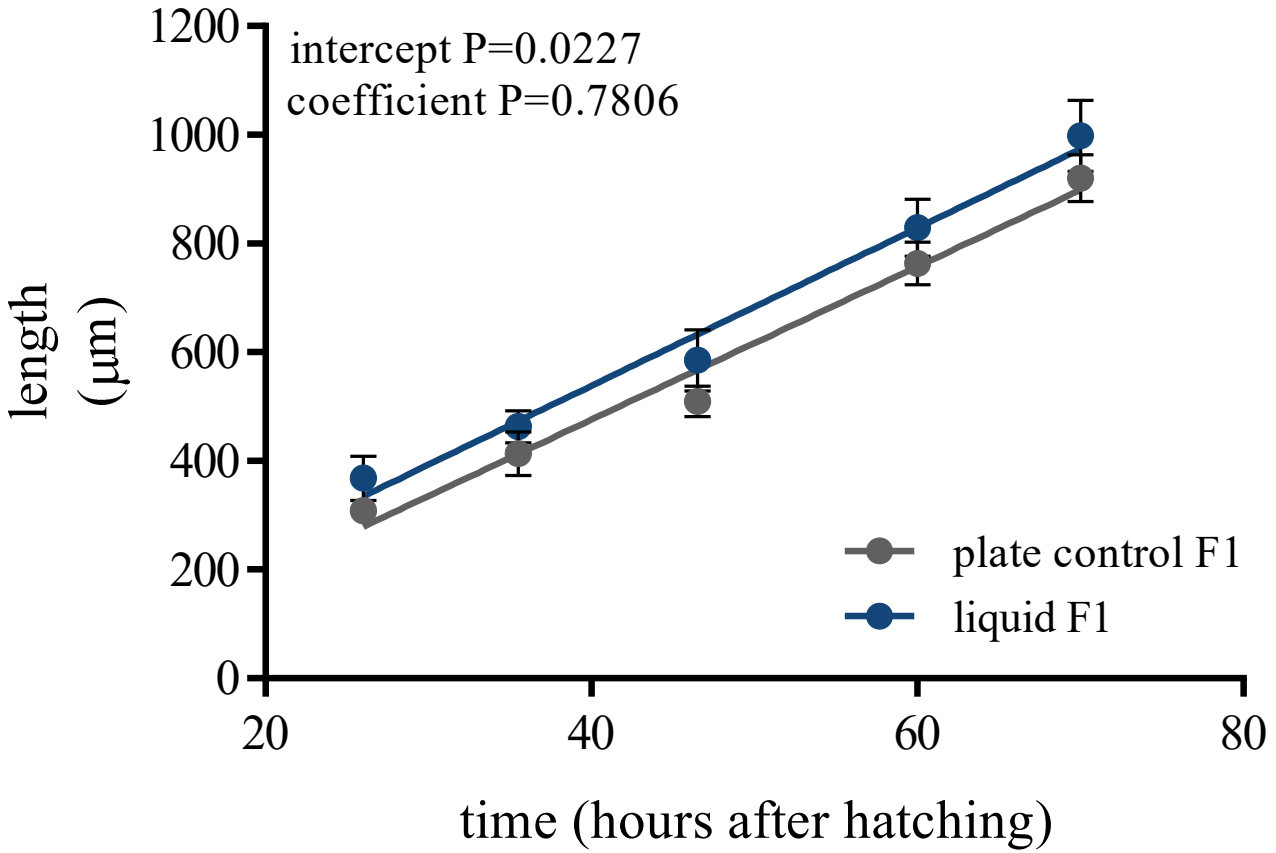


**Figure S3.** Linear regression analysis of the length of progeny of liquid-grown worms and control worms at different time-points during the worm's development. While the intercepts were significantly different (p=0.022), the rate of growth, or regression coefficients were identical (p=0.7806). Error bars represent standard deviations.