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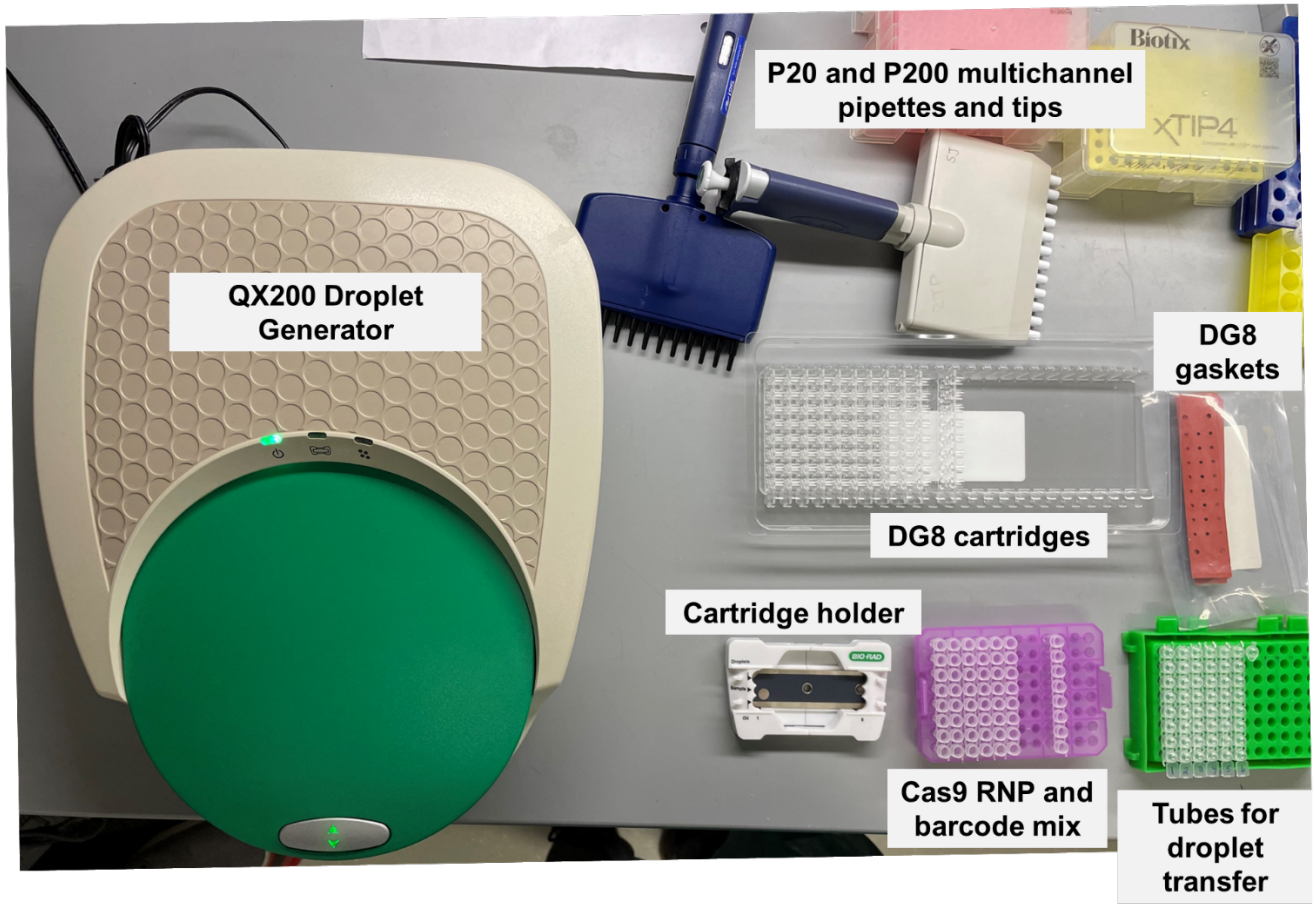
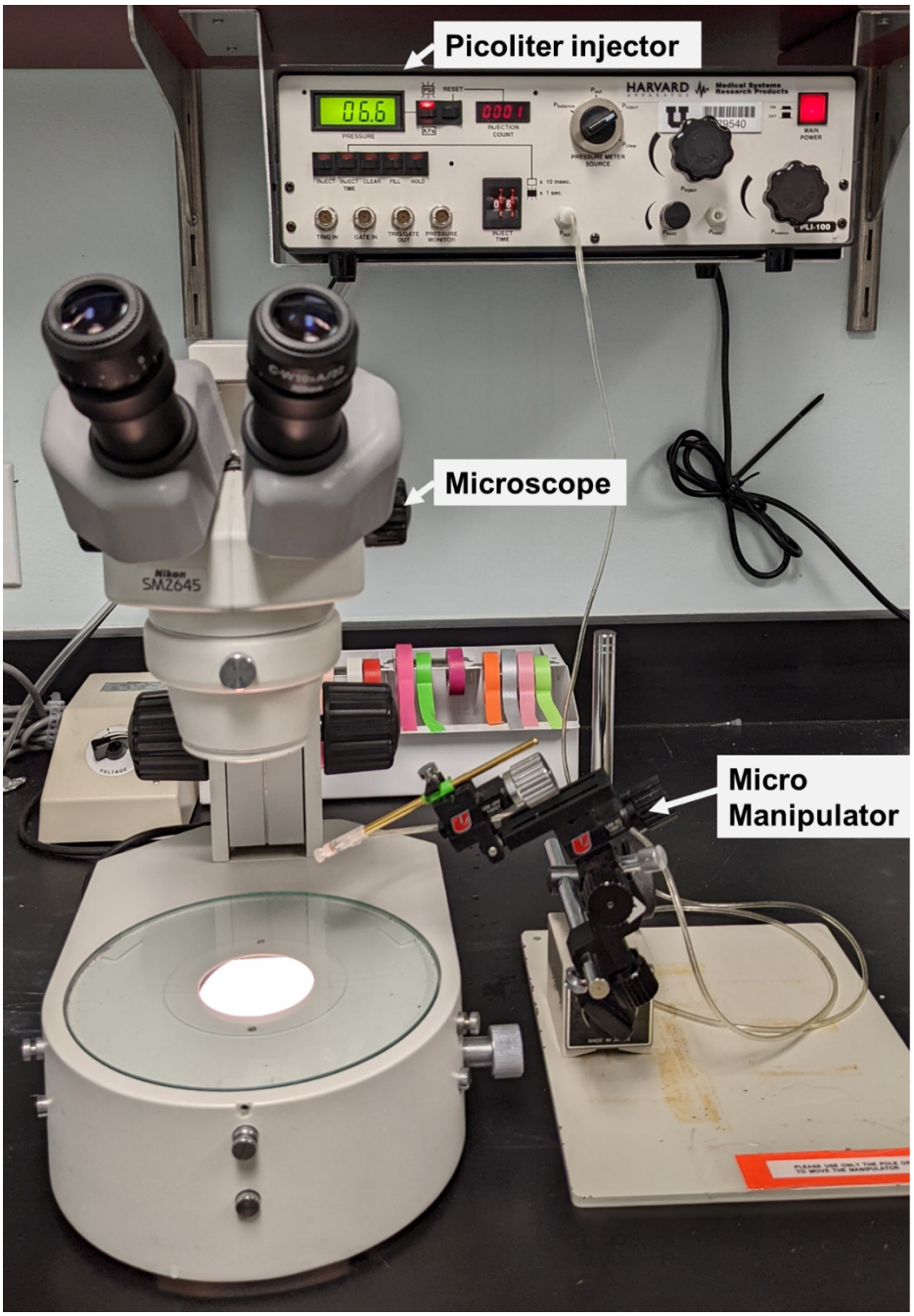
Supplementary information

Large-scale F0 CRISPR screens in vivo using MIC-Drop

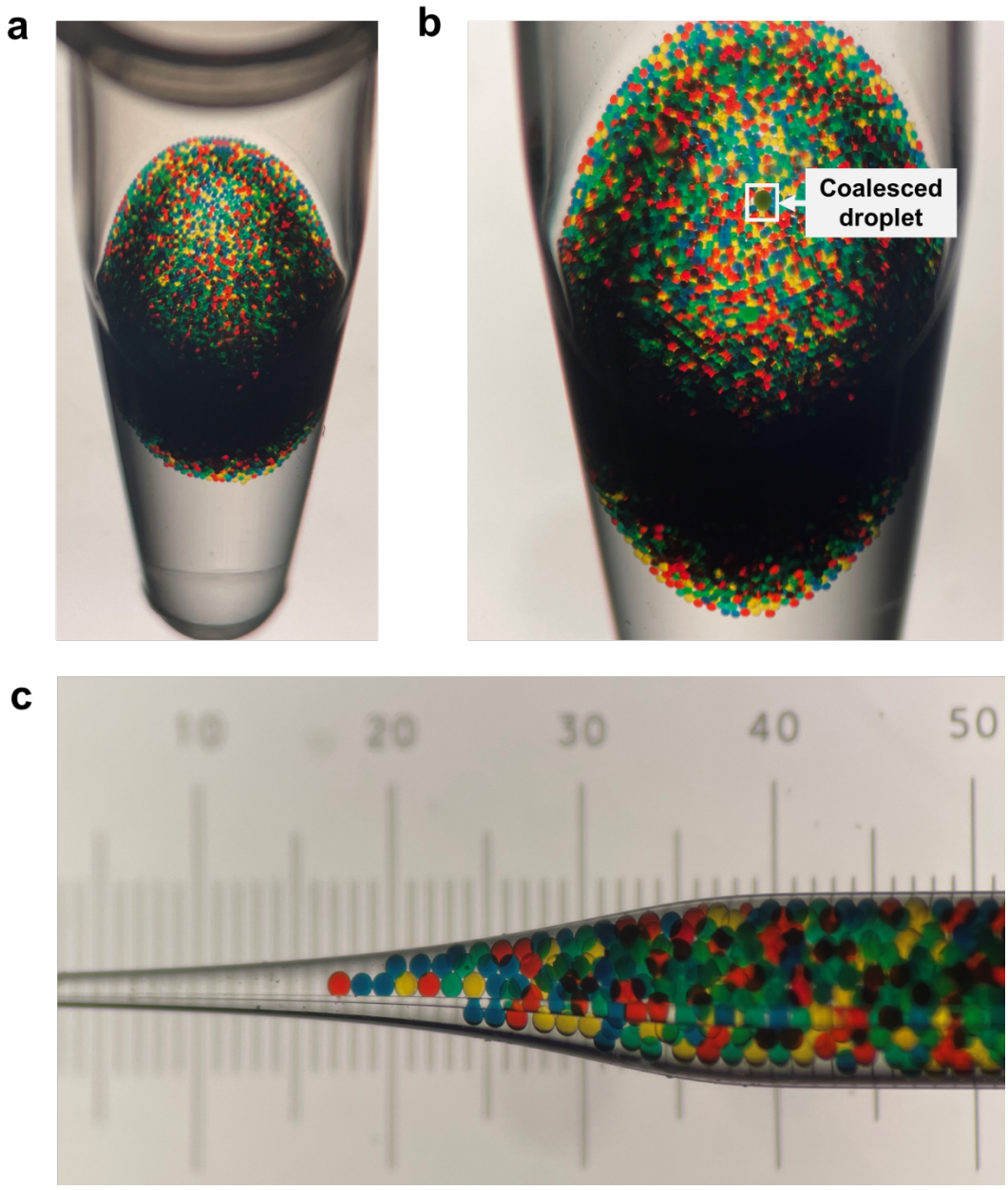
In the format provided by the authors and unedited



Supplementary Figure 1. Set up for droplet generation. Droplets are generated using a QX200 droplet generator per manufacturer's instruction.



Supplementary Figure 2. Instrument setup for microinjection. A picoliter injector is connected to an air flow and an injector mounted on a micromanipulator. The picoliter injector is also connected to a foot pedal (not shown) that delivers a calibrated amount of air pressure when pressed. A dissecting microscope with a light source is used for observing and injecting zebrafish embryos.



Supplementary Figure 3. Cas9-sgRNA containing droplets are stable during handling. (a) Aqueous droplets are less dense than 3% FS-HFE, and hence float on the surface of the oil. In this figure, aqueous droplets containing food coloring are used as proxies for droplets targeting different genes. In MIC-Drop screens, phenol red dye is used to track droplet injection. Food coloring may be toxic to developing embryos and should not be used in experiments. (b) Droplet generation and handling results in occasional coalescing of a couple of droplets. (c) Droplets transferred to a microinjection needle are intact.