

**Pellet and Supernatant Hi-C**

*in situ* Hi-C was performed in the usual fashion, but with an additional centrifugation step added after restriction (step 12) and prior to fill-in. We pelleted nuclei after restriction, transferred the supernatant to another tube, resuspended the nuclei in fresh buffer and proceeded with the rest of the protocol simultaneously on both the nuclei and the supernatant