



Supplementary information, Fig. S11. Competition between MeCP2 and H1 in chromatin LLPS.

a In vitro phase separation assays for human linker histone H1.4 protein alone in the presence of increasing salt concentrations. Scale bar, 20 μm. **b** Phase diagram of H1.4

with 4x601 DNA. Scale bar, 20 μm . **c** Fusion upon contact of droplets formed by H1.4 with 4x601 NA in Supplementary information, Fig. S11b. Scale bar, 2 μm . **d-e** Top panel, snapshots of puncta formed by H1.4 with 4x601 NA in Fig. 6a or 4x601 DNA in Supplementary information, Fig. S11b during FRAP analysis. Scale bars, 2 μm . Bottom panel, average fluorescence recovery traces for histone H1.4 in puncta (n=6). All data are presented as mean \pm SD. **f** Snapshots of fission or fusion of MeCP2 puncta or H1.4 puncta during simultaneous formation of MeCP2-4x601 NA and H1.4-4x601 NA droplets in the presence of a high 4x601 NA concentration. Scale bar, 2 μm .