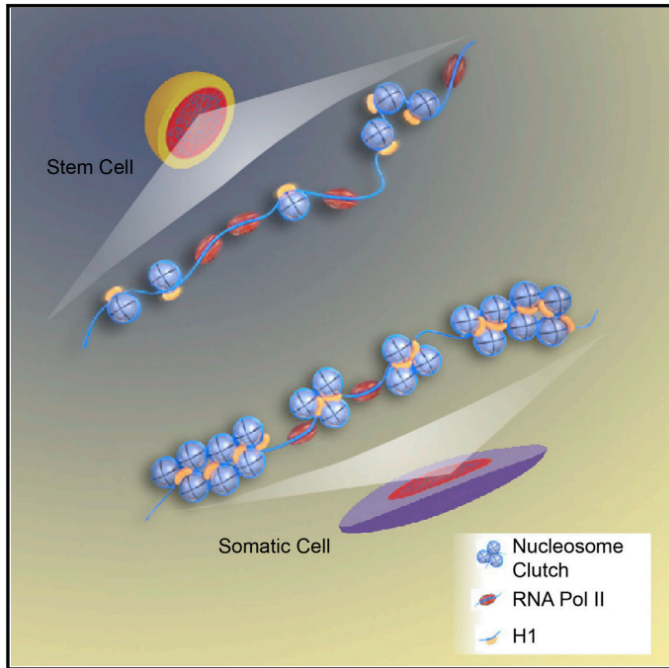


# Chromatin Fibers Are Formed by Heterogeneous Groups of Nucleosomes In Vivo

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*Ricci et al. Chromatin Fibers Are Formed by Heterogeneous Groups of Nucleosomes In Vivo. Cell 2015*

Figure 1. Nucleosomes Are Arranged in Discrete Nanodomains in Interphase Nuclei of Human Somatic Cells

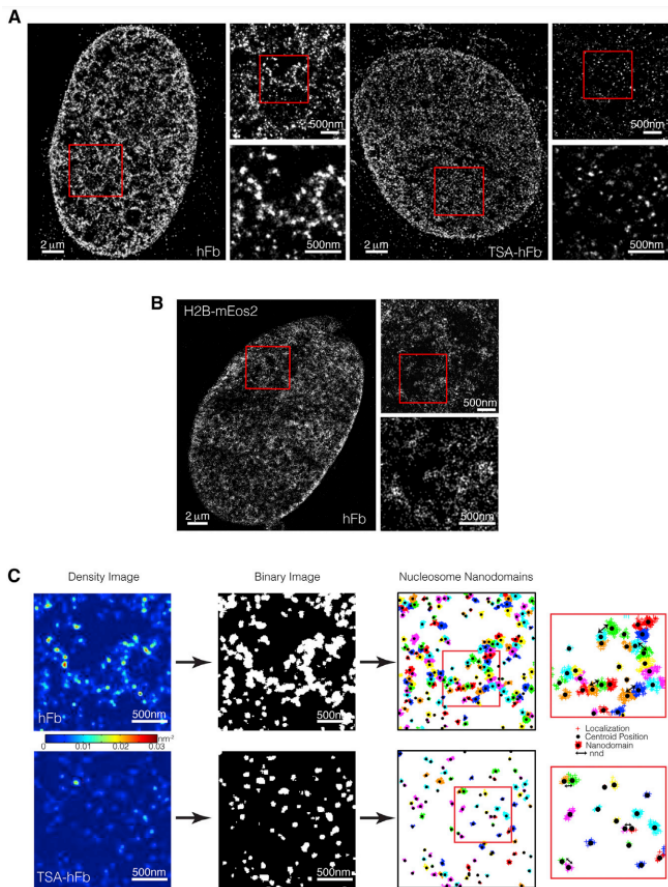
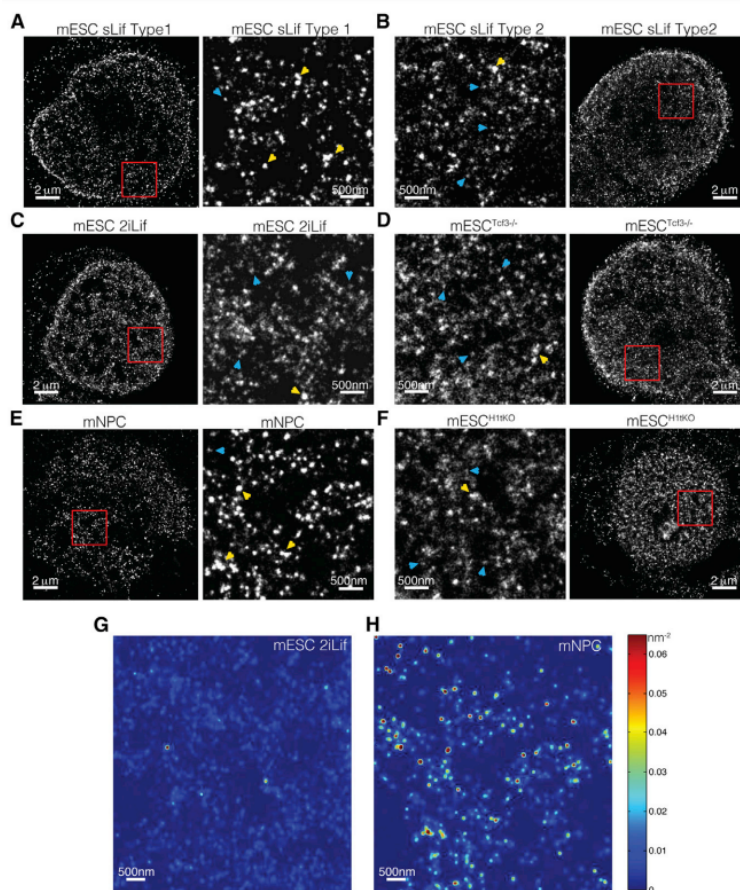


Figure 2. Nucleosomes Are Arranged in Discrete Nanodomains in Interphase Nuclei of Mouse Embryonic Stem Cells



## Figure 2. Treatment Conditions

Transcriptional programs such as cell differentiation are linked to higher order DNA structure. So they manipulate differentiation and analyze structure:

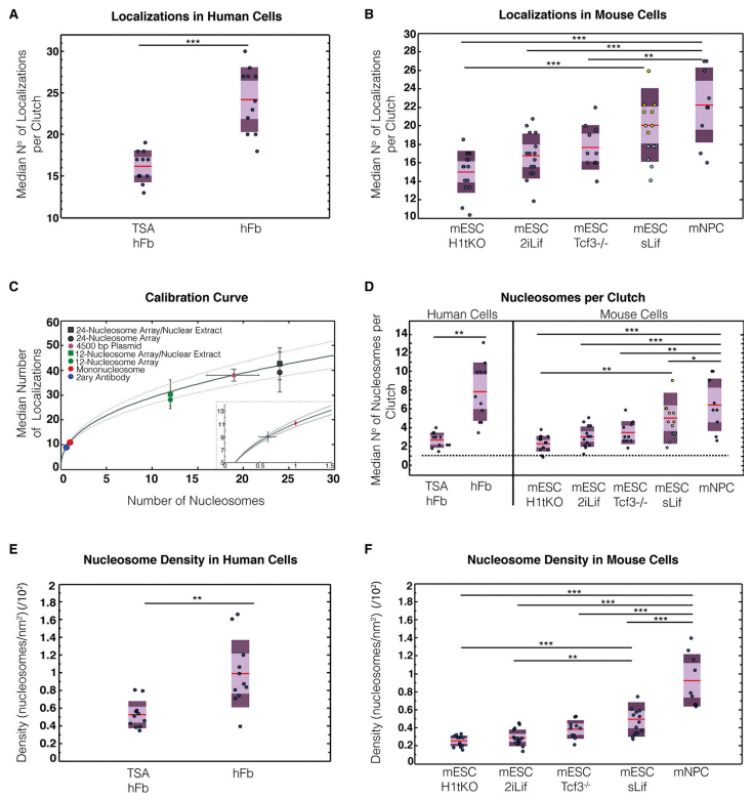
Human:

- ▶ hFb - Human Fibroblast
- ▶ TSA hFB - Human Fibroblast treated with deacetylation inhibitor (decondensation)

Mouse:

- ▶ mESC sLif (maintains ground state but heterogeneous)
- ▶ mESC 2iLif (maintains ground state)
- ▶ mESC Tcf3 -/- (maintains ground state)
- ▶ mESC NPC (differentiated cell)
- ▶ mESC H1tKO (KO histone H1 promotes compaction)

Figure 3. The Number of Nucleosomes Inside Clutches Correlates with Cellular State



# Figure 4. Clutch Size Correlates with Pluripotency Grade in Human-Induced Pluripotent Stem Cells Clones

\*\*Skip

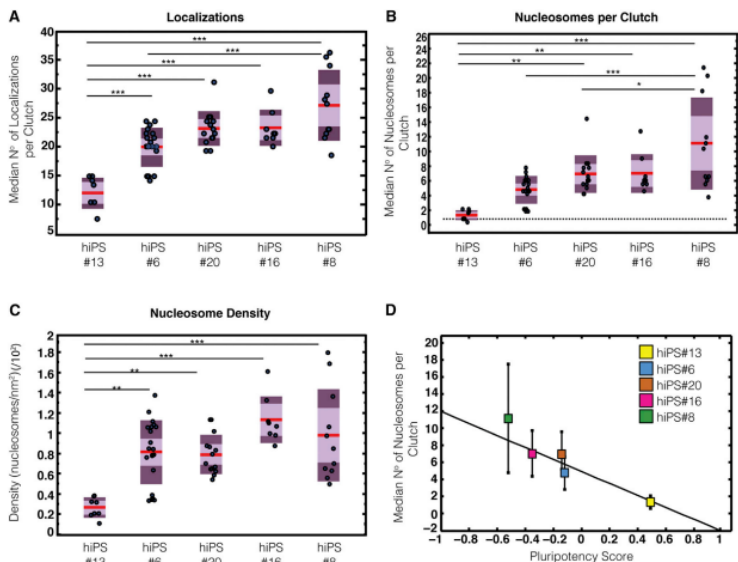


Figure 5. The Linker Histone H1 Increases in Large Clutches and These Correlate with Heterochromatin Markers

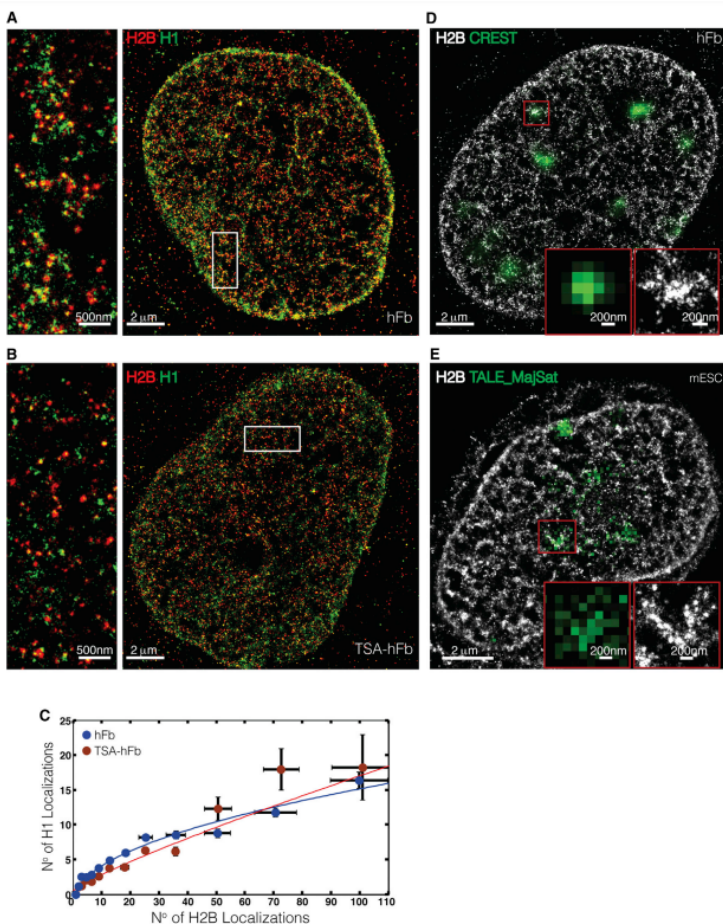




Figure 6. RNA Polymerase II Associates with the Small Clutches

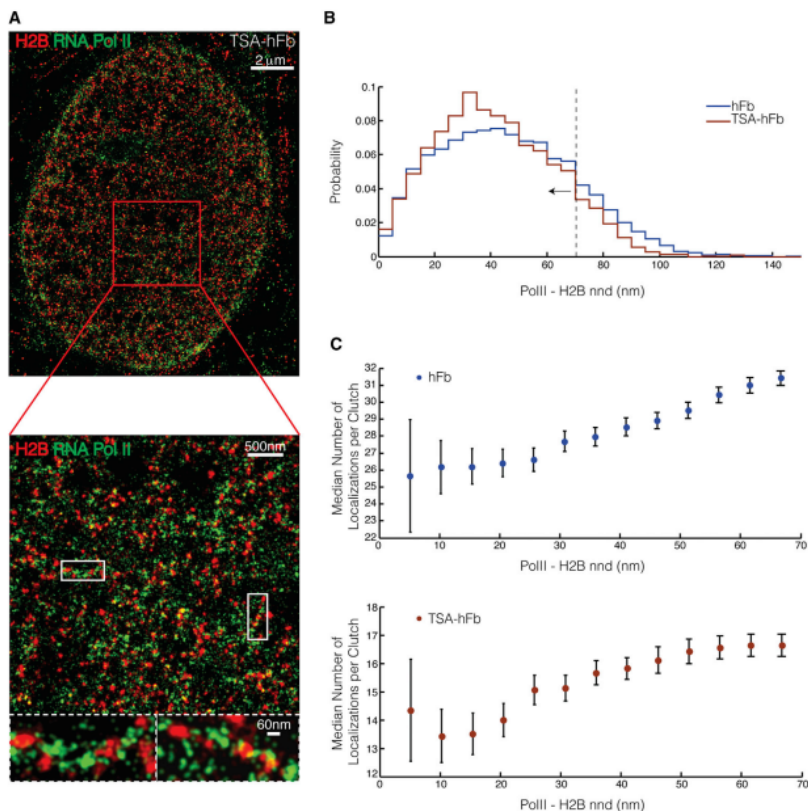


Figure 7. Computer Simulations of Nucleosome Occupancy

