

## SI Guide

### Phase separation directs ubiquitination of gene body nucleosomes

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### Supplemental Information

Supplemental Information includes two Videos, Supplemental Table (strains and plasmids), and two Supplemental Figures with uncropped gels and blots.

**Video S1. Lge1 condensates grow by fusion.** DIC imaging of 6His-Lge1 (5  $\mu$ M) diluted in 20 mM Tris pH 7.5, 100 mM NaCl, 1 mM DTT. Protein solution was pipetted into a 16-well  $\mu$ -slide chamber and incubated at 20 °C. Imaging was started after 15 min and images were taken every 2 sec for 2 min. Scale bar, 5  $\mu$ m.

**Video S2. Bre1 shell prevents Lge1 condensate fusion.** DIC imaging of 6His-Lge1 (1.5  $\mu$ M) with Bre1 shell (1.5  $\mu$ M). Proteins were mixed and treated as in **Video S1**. Scale bar, 5  $\mu$ m.

**Supplemental Figure 1.** Uncropped scans related to Main Figures.

**Supplemental Figure 2.** Uncropped scans related to Extended Data Figures.