

**Supplementary materials**

**Figure S1. G9a silencing suppresses cell proliferation in A549 and H1299 NSCLCs**

**a.** G9a was suppressed in NSCLC cell lines transfected with G9a siRNA. **b.** Cell proliferation was suppressed upon silence of G9a in NSCLCs. \*\* P < 0.01 (compared to control siRNA).

**Figure S2. Cell migratory and invasive ability are suppressed by G9a inhibitor UNC0638 in NSCLCs.**

**a.** Representative images of invasive cells showed that cell migration was suppressed in NSCLC cell lines treated by UNC0638. Scale bar refers to 200µm. **b.** Representative image of invasive cells showed that cell invasive ability was suppressed in NSCLC cell lines treated by UNC0638. Scale bar refers to 2000µm.

**Figure S3. G9a overexpression increases cell proliferation in NSCLCs.**

**a.** Western blots showed that G9a was overexpressed in NSCLCs. **b.** Cell proliferation was enhanced upon overexpression of G9a in NSCLCs. \* P < 0.05 (Compared to pcDNA 3.1).