Supplementary Information

Supplementary Figure legends:

**Supplementary Figure S1**: Eaf1p is required for recruitment of the NuA4 components (Swc4p, Epl1p, Yng2p and Eaf5p) to the promoters of the ribosomal protein genes. The ChIP analysis for the association of Swc4p (A), Epl1p (B), Yng2p (C) and Eaf5p (D) with the UASs of the RPS5, RPS2B and RPS11B genes in the wild type and Δeaf1 strains. Yeast strains expressing Myc-tagged Swc4p, Epl1p, Yng2p and Eaf5p were grown in YPD (yeast extract, peptone plus 2% dextrose) at 30 °C up to an OD600 of 1.0 prior to formaldehyde-based *in vivo* crosslinking. The ChIP assay was performed as described in the Materials and Methods section. Immunoprecipitation was performed using a mouse monoclonal antibody against the c-Myc epitope tag (9E10; Santa Cruz Biotechnology, Inc.). An anti-HA was used as a non-specific antibody. Primer pairs (see Materials and Methods section) located at the UASs of the RPS5, RPS2B and RPS11B genes and transcriptionally inactive region within the chromosome V (Chr.-V) were used for PCR analysis of the immunoprecipitated DNA samples.

**Supplementary Figure S2**: ChIP analysis of the NuA4 components (Swc4p, Epl1p, Yng2p and Eaf5p) to a transcriptionally inactive region within Chr.-V. Yeast cells were grown, crosslinked and immunoprecipitated as in Figure 1. The ratio of immunoprecipitate over the input in the autoradiogram was measured and represented as the ChIP signal. The ChIP signals for Myc-tagged Swc4p, Epl1p, Yng2p or Eaf5p in the wild type strain were set to 100. The ChIP signals for Myc-tagged Swc4p, Epl1p, Yng2p or Eaf5p in the Δeaf1 strain were normalized with respect to 100. Likewise, ChIP signals for HA in the wild type strain and Δeaf1 strains were normalized with respect to 100 (i.e., the ChIP signals of Myc-tagged Swc4p, Epl1p, Yng2p or Eaf1p in the wild type strain). Normalized signals were plotted in the form of a histogram. Statistical analyses between the ChIP signals of Myc and HA are included.
**Supplementary Figure S3:** Western blot analysis. (A) Western blot analysis of Myc-tagged Yng2p, Eaf5p, Swc4p and Epl1p in the Δeaf1 and wild type strains. (B) PCR analysis of input and immunoprecipitated DNA samples following 4-fold dilution of input and immunoprecipitated DNA samples with quantitation. For quantitation, the PCR signal of input DNA sample at dilution that was used in reported ChIP data was set to 100, and other PCR signals were normalized with respect to 100. The normalized PCR signals are presented below the autoradiogram.

**Supplementary Figure S4:** (A) ChIP analysis for the recruitment of TBP, TAF1p and RAF12p to the RPS5 promoter in the esa1-ts and wild type strains. Yeast cells were grown and crosslinked as in Figure 4. Immunoprecipitation was performed using anti-TBP, anti-TAF1p and anti-TAF12p antibodies (obtained from the Green laboratory, University of Massachusetts Medical School) against TBP, TAF1p and TAF12p, respectively. Immunoprecipitated DNAs were analyzed by PCR, using primer pair targeted to the core promoter of RPS5. (B) Real time PCR analysis of RPS11B mRNA relative to ACT1 in the Δeaf1 and wild type strains. Real time PCR analysis was performed in the Davie laboratory (Judith K. Davie; Southern Illinois University).
Supplementary Figure S2:
Supplementary Figure S3:

(A) 

(B) 

Supplementary Figure S3:

(A) 

(B) 

Supplementary Figure S3:
Supplementary Figure S4:

(A) [Western blot data showing protein expression comparison between WT and esa1-ts conditions for RPS5 and TBP, TAF1p, and TAF12p.

(B) [Bar graph showing normalized mRNA levels for WT and leafy conditions for RPS11B, with a p-value of 0.3755.]