

Paper 1 Terminology

Model Study Organisms:

S. cerevisiae - baker's yeast
Tetrahymena - ciliate (single-celled Eucarya)
Xenopus - African clawed frog
(Metazoan - Multi-celled organism)

HATs (Histone acetyltransferases):

Gcn5 - HAT gene family
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PCAF (p300/CBP Associated Factor)
MYST - HAT gene family
Esa1
CBP/p300 - HAT gene family
CBP - CREB Binding Protein
p300 - a 300 kiloDalton protein that binds CREB

HAT Complexes: These complexes are recruited to gene promoters by transcription activators

SAGA complex - contains Gcn5
ADA complex - different HAT complex containing Gcn5
NuA4 complex - contains Esa1
NuA3 complex - contains uncharacterized HAT that acetylates histone H3

HDAC - Histone deacetylase complex

Kinases:

PKA - Protein Kinase A
Rsk2 - Histone H3 Serine-10 Kinase
yKIN - a yeast Kinase

Transcription Factors:

TBP - TATA Binding Protein
CREB - cAMP response element binding protein
GNC4 - yeast transcription factor that requires Gcn5 to activate transcription
HAP4 - yeast transcription factor that does not require Gcn5 to activate transcription
LexA - bacterial transcription factor that activates β -Galactosidase gene
LexA-GCN4 - protein fusion between DNA binding domain of LexA and activation domain of GCN4
LexA-HAP4 - same as above but with activation domain of HAP4

Yeast Genes: Commonly used to assess transcription

HIS3
HO (All well-characterized. Specific function not important for this paper.)
PCL2
CDC6