

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

Histone modification in heterochromatin

ArticleInfo		
ArticleID	:	4409
ArticleDOI	:	10.1186/gb-spotlight-20020225-01
ArticleCitationID	:	spotlight-20020225-01
ArticleSequenceNumber	:	75
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2002-2-25 OnlineDate : 2002-2-25
ArticleCopyright	:	BioMed Central Ltd2002
ArticleGrants	:	
ArticleContext	:	130593311

Jonathan B Weitzman

Email: jonathanweitzman@hotmail.com

Modification of [histone tails](#), by acetylation, methylation or phosphorylation, affects the local chromatin structure and the transcriptional regulation of adjacent genes. Pericentric heterochromatin contains hypoacetylated and methylated histone H3 that result in transcriptional silencing. In an Advanced Online Publication from [Nature Genetics](#), Maison *et al.* describe the use of antibodies recognizing specific histone modifications to explore the nature of pericentric heterochromatin organisation (19 February 2002, DOI:10.1038/ng843). Antibodies raised against methylated branched H3 peptides recognized nuclear dots that localized at pericentric heterochromatin domains in mouse cells. Treatment with histone deacetylase inhibitors affected the pattern of antibody staining and pericentric heterochromatin, suggesting that deacetylation plays a role in maintaining higher-order chromatin structure and spatial organization. Maison *et al.* also report that an RNA component is required for this structural organization.

References

1. Translating the histone code.
2. *Nature Genetics*, [<http://www.nature.com/ng>]