

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

## Chromodomains bind RNA

ArticleInfo		
ArticleID	:	3780
ArticleDOI	:	10.1186/gb-spotlight-20000927-01
ArticleCitationID	:	spotlight-20000927-01
ArticleSequenceNumber	:	217
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2000-09-27 OnlineDate : 2000-09-27
ArticleCopyright	:	BioMed Central Ltd2000
ArticleGrants	:	
ArticleContext	:	130591111

Male flies **compensate** for having a single X chromosome by doubling the single X chromosome's level of expression. This increase is mediated by MOF, a **histone H4 acetyltransferase**. MOF, along with other proteins and an RNA called **roX2**, binds to the male X chromosome. In the 21 September **Nature** Akhtar *et al.* find that MOF and another dosage compensation protein called MSL-3 use their chromodomains to bind to roX2 and thus to the male X (*Nature* 2000, **407**:405-409). Other chromodomain proteins, which function as chromatin regulators, may also have RNA-binding activity. If this is the case, non-coding RNAs may be more commonly involved in organizing regulatory complexes than has been appreciated to date.

## References

1. Dosage compensation in flies and worms: the ups and downs of X-chromosome regulation.
2. Activation of transcription through histone H4 acetylation by MOF, an acetyltransferase essential for dosage compensation in *Drosophila*.
3. The rox1 and rox2 RNAs are essential components of the compensasome, which mediates dosage compensation in *Drosophila*.
4. Nature, [<http://www.nature.com/nature/>]