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

Bloom-in' flies

ArticleInfo		
ArticleID	:	4039
ArticleDOI	:	10.1186/gb-spotlight-20010403-04
ArticleCitationID	:	spotlight-20010403-04
ArticleSequenceNumber	:	110
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2001–04–03 OnlineDate : 2001–04–03
ArticleCopyright	:	BioMed Central Ltd2001
ArticleGrants	:	
ArticleContext	:	130592211

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Bloom syndrome is a disease characterized by increased tumorigenesis, immunodeficiency and partial sterility. It is caused by mutations in the BLMgene, which encodes a helicase. In the March 30th Science, Kusano *et al*. describe characterization of the Drosophila Dmblm homolog of *BLM* (*Science* 2001, **291:**2600-2602). They show that *Dmblm* corresponds to mus309, which was originally identified in a mutagen-sensitivity screen. Disrupting the *Dmblm* gene causes mutagen sensitivity and female sterility, whereas transgenic flies expressing *Dmblm* rescue the *mus309* phenotypes. Kusano *et al*. also show that transgenic flies expressing the DNA-repair gene *Ku70* could rescue *mus309* phenotypes, implicating Dmblm in the pathways that repair double-strand DNA breaks. Consistently, *mus309* male sperm show evidence for increased nondisjunction and chromosome loss.

References

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5. Third-chromosome mutagen-sensitive mutants of Drosophila melanogaster.