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

Mono-allelic expression in trypanosomes

ArticleInfo		
ArticleID	:	4279
ArticleDOI	:	10.1186/gb-spotlight-20011217-02
ArticleCitationID	:	spotlight-20011217-02
ArticleSequenceNumber	:	350
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2001–12–17 OnlineDate : 2001–12–17
ArticleCopyright	:	BioMed Central Ltd2001
ArticleGrants	:	
ArticleContext	:	130592211

Jonathan B Weitzman
Email: jonathanweitzman@hotmail.com

The parasite *Trypanosoma brucei* can exploit antigenic variation of its VSG coat proteins to avoid detection by the mammalian host. In the December 13 Nature, Navarro and Gull from the University of Manchester, UK, provide a mechanism for mono-allelic VSG expression (Nature 2001, **409:**303). They investigated the role of RNA polymerase I (pol I) and nuclear compartmentalization in VSG expression. They used antibodies against *T. brucei* pol I to identify a 'pol I body' outside the nucleolus in the bloodstream-form of the parasite. This extranucleolar body was transcriptionally active and was absent in the procyclic-tsetse form. They used *lac* operator sequences to tag the active expression site locus to allow detection with a LacI-GFP fusion protein. Only active expression site loci were associated with the pol I extranucleolar body. Thus, localization to the extranucleolar body determines the VSG allele choice and defines a mechanism for pol I mono-allelic expression.

References

1. Mechanisms of antigenic variation in African trypanosomes.

2. *Nature*, [http://www.nature.com]

3. University of Manchester, [http://www.man.ac.uk]