

**Condensed chromosomes of the sexually transmitted protozoa,  
*Trichomonas vaginalis***

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Detailed studies of the *Trichomonas vaginalis* genome have been inhibited due to potent nucleases and only recently have we achieved pulsed field gel chromosome separations and commenced preliminary mapping studies. However, both the large genome and individual chromosome size prevent convincing gel separations leaving restriction enzyme cleaved chromosomes our most informative method. Perhaps as a consequence of their size, colchicine treated *T. vaginalis* trophozoites visibly undergo chromosome condensation and division via a mitotic spindle typically observed in higher eukaryotes. Chromosome condensation among the protozoa is an exception rather than the rule. In *Giardia duodenalis*, for example, some chromosomes are duplicated and aneuploid with partial chromosome duplications arising as a result of environmental stress, and *Entamoeba histolytica* displays multiple circular chromosomes carrying rRNA and other genes. Comparison of chromosome spreads of 6 different *T. vaginalis* strains indicate a minimum number of X chromosomes per haploid genome and a maximum of XX in enlarged possibly multinucleate cells blocked in metaphase. No differences were apparent in isogenic lines or isolates freshly committed to *in vitro* culture. In situ hybridisation of chromosome spreads with gene probes will reveal the identity and integrity of individual chromosomes.