



## Nucleolar behavior during meiosis in four species of phyllostomid bats (Chiroptera, Mammalia)

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Genet. Mol. Res. 10 (2): 552-565 (2011)

Received September 13, 2010

Accepted November 5, 2010

Published April 5, 2011

DOI 10.4238/vol10-2gmr1060

**ABSTRACT.** We analyzed the behavior of the nucleolus, nucleolar structures and nucleolus organizer regions (NORs) during meiotic division in four species of phyllostomid bats that have different numbers and locations of NORs. Nucleoli began disassembly at leptotene, and the subcomponents released from the nucleolus were dispersed in the nucleoplasm, associated with perichromosomal regions, or they remained associated with NORs throughout division. In *Phyllostomus discolor*, a delay in nucleolus disassembly was observed; it disassembled by the end of pachytene. The RNA complexes identified by acridine orange staining were observed dispersed in the nucleoplasm and associated with perichromosomal regions. FISH with rDNA probe revealed the number of NORs of the species: one NOR in *Carollia per-*

*spicillata*, one pair in *Platyrrhinus lineatus* and *P. discolor*, and three pairs in *Artibeus lituratus*. During pachytene, there was a temporary dissociation of the homologous NORs, which returned to pairing at diplotene. The variation in the number (from one to three pairs) and location of NORs (in sex or autosomal chromosomes, at terminal or interstitial regions) did not seem to interfere with the nucleolar behavior of the different species because no variation in nucleolar behavior that could be correlated with the variation in the number and chromosomal location of NORs was detected.

**Key words:** Nucleogenesis; Nucleolus; NORs; Chiroptera; Fluorescent *in situ* hybridization