

Ramsdell, C. M., A. A. Lewandowski, J. L. Weston, T. C. Glenn, G. Szalai, M. Felder, and M. J. Dewey. 2006. Comparative genomic mapping of the deer mouse (*Peromyscus maniculatus*) reveals much greater similarity to rat (*R. norvegicus*) than to the lab mouse (*M. musculus*). International Mammalian Genome Conference. Charleston, SC. November 12-15, 2006.

Abstract:

Despite the greater degree of morphological similarity to *Mus*, initial results from the deer mouse genome mapping project have surprisingly shown a very high degree of synteny and conserved gene order with that of the rat genome. Thus far, markers covering the majority of four rat chromosomes have yielded an almost identical genomic organization in the deer mouse when compared to rat and with very similar breakpoints as rat when compared to the *Mus* genome. These results were obtained using a 116 animal *P. maniculatus* x *P. polionotus* backcross panel and a 103 cell-line 5000 rad whole genome radiation hybrid panel, both developed in our lab, and may lend interesting insight into understanding the organization and evolution of the rodent and mammalian genomes.