

THE GENOMES OF RECOMBINANT INBRED LINES

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Recombinant inbred lines (RILs) can be valuable tools for genetic mapping. Recently, members of the Complex Trait Consortium have proposed the development of a large panel of eight-way RILs in the mouse, derived from eight genetically diverse parental strains. The use of such 8-way RILs will require a detailed understanding of the relationship between alleles at linked loci on an RI chromosome. We have extended the work of Haldane and Waddington (1931) on two-way RILs and describe the map expansion, clustering of breakpoints, and other features of the genomes of multi-way RILs as a function of the level of crossover interference in meiosis.