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# Chromosomal mapping of host resistance loci to Trichinella spiralis nematode infection in rats.

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## Abstract

The differences in host response among strains of rats to intestinal nematode parasite Trichinella spiralis infection could provide a powerful benefit for further elucidation of molecular interactions between the host and the parasite. Using several strains of rats, we previously observed that DA strain is a strong responder and F344 strain is a weak responder with respect to expulsion of the adult worm. To identify the host resistance loci, quantitative trait loci (QTLs) analysis in F2 population from crosses between DA and F344 strains was performed. One significant QTL (designated as Tspe) was mapped to the middle region of chromosome 9. In addition, the effect of DA allele at Tspe locus could act recessively and lead to the rejection of more adult worms from the gut. The results from the present study provide more insights on host-parasite interactions, which may be useful in facilitating the development of novel approaches for treatment and control of intestinal parasites in human and domestic livestock.

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