

Is *Strongyloides stercoralis* in people a zoonosis from dogs?

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It has been assumed that the parasitic nematode *Strongyloides stercoralis* transmits only among people. However, accumulating evidence suggests that *Strongyloides* from people and dogs are the same species, so that dogs can act as a source of human infection. To investigate the host range of *S. stercoralis* and the zoonotic potential of dog-derived *Strongyloides*, we sampled sympatric populations of worms from people and dogs in Bangladesh and in Thailand, which we then whole-genome sequenced. Population genomic analyses showed different genetic clusters of parasites, people in Bangladesh and Thailand were infected with closely related *S. stercoralis* genotypes, and the similar pattern was also found in infections of dogs. However, there was no evidence of *S. stercoralis* infection shared between people and dogs in Bangladesh and Thailand. Surprisingly, some parasites derived from people and dogs in Bangladesh were genomically identified as *S. venezuelensis*, a species normally thought to be a rat parasite, which we are continuing to investigate.