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Host-parasite interactions: from phenotype to genome and back

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The interaction between bumblebee hosts, *Bombus* spp, and its trypanosome parasite, *Crithidia bombi*, is a model case for social insects. The interaction has number of consequences for the host, and is highly specific at the level of the involved genotypes. Here, I will discuss how the synthesis of different approaches help to elucidate the underlying mechanisms, such as multiple infections, parasite genetic exchange or host immune and other defences. The ecological and evolutionary implications of these elements will be scrutinized.