Dear Prof. Dr. Wolf Blanckenhorn,

We wish to submit an original research article entitled “Decoupling of resistance and tolerance against one of two related parasites (*Eimeria*) in mice” for consideration by Journal of Evolutionary Biology. We build on previous research showing that resistance and tolerance should be studied jointly, and show that assumptions on coupling of the two can not be transferred across even closely related parasite taxa.

In our particular system, *Mus musculus domesticus* and *Mus musculus musculus*, two subspecies of the house mouse hybridizing in nature, our work provides ground to reconsider how to link hybrid resistance against parasites to actual impact on host’s fitness. More precisely, in the European hybrid zone between *M. m. domesticus* and *M. m. musculus*, it has been shown that hybrid mice are more resistant to the intracellular protozoans *Eimeria* spp. than their parents. In the present work, we measured jointly resistance and tolerance to the closely related *E. falciformis* and *E. ferrisi* in a laboratory infection of wild-derived mice. We found a trade-off between resistance and tolerance for the first parasite, and that these defense mechanisms were decoupled for the second parasite.

We think that this work will be of both general interest for evolutionary biologists working on parasites, and for specialised research on the house mouse hybrid zone. This work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere, we have no conflicts of interest to disclose.

Thank you for your consideration of this manuscript.

Sincerely,

Alice Balard for the authors