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Yes, it does

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We thank our colleagues for their interest in our article, and are glad to see both viewpoints finally aired in the same forum. Indeed, the last paragraph of the letter from Kekäläinen *et al.* would seem to indicate general concordance with our views. We do not, nor did our article, dispute the fact that there are disparities in the phenotype of mice and humans lacking AIRE, as one would certainly expect from two organisms of different size, life-span, diet, physiology, HLA/MHC-type and innumerable etceteras. The important issue is instead whether or not these disparities represent a difference in the function of this protein in the two species. We still maintain that there are no definitive data arguing for this.

A few specific comments on some of the points raised by Kekäläinen *et al.*:

One, most C57Bl/6, NOD and BALB/c mice that lack Aire expression are blind, and mutants on the NOD and BALB/c backgrounds exhibit ovarian failure and therefore cannot breed[1–3] — we believe that these are diseases.

Two, as stated in Jiang *et al.*[3], SJL mice that lack Aire, similar to their NOD counterparts, have significant wasting and early morbidity.

Three, humans are outbred. The genetic studies so far performed on APECED patients have nowhere near the power to detect the HLA or non-HLA gene associations reported for mice.

In conclusion, we repeat the last sentence of the relevant section of our article: "We would like to suggest that, whereas it is important to be aware of species-dependent disparities in AIRE function, to date no convincing evidence of this exists."

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