

CORRECTION

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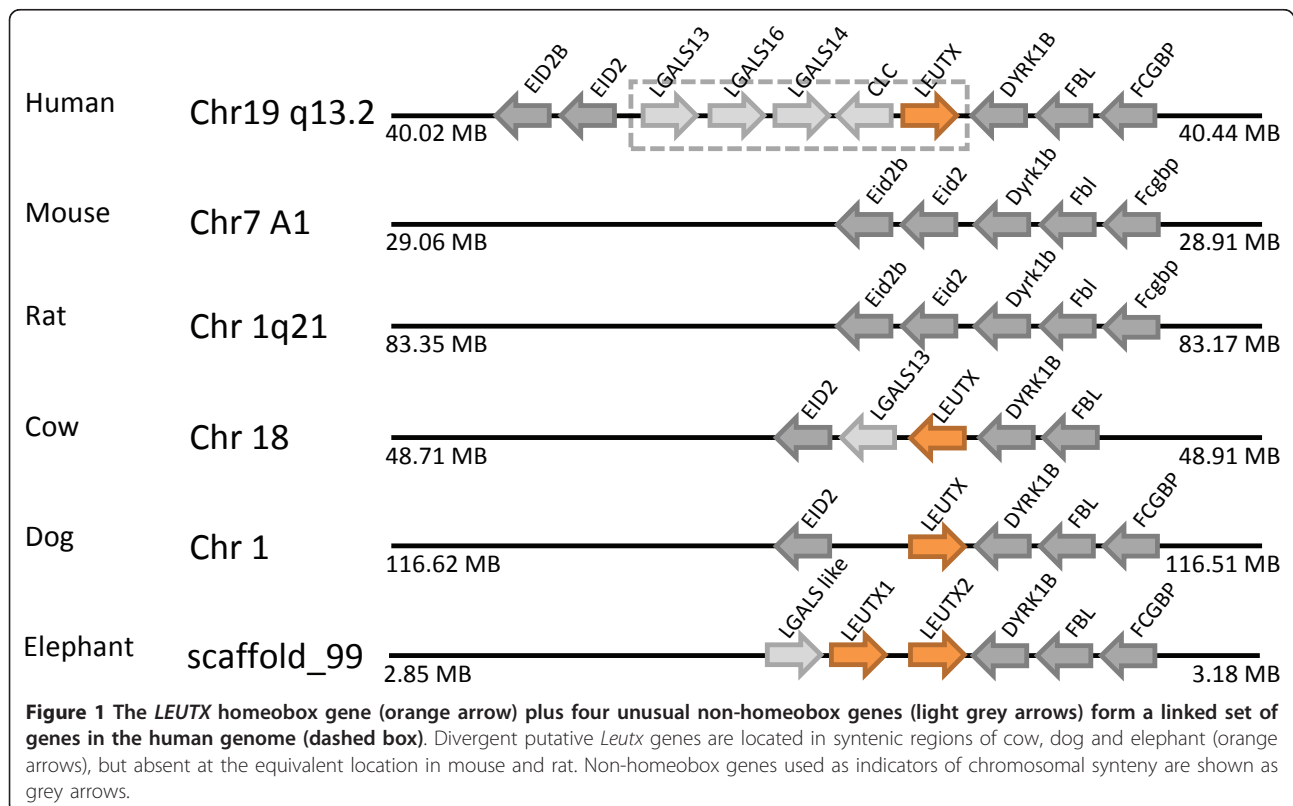
Correction: The dynamics of vertebrate homeobox gene evolution: gain and loss of genes in mouse and human lineages

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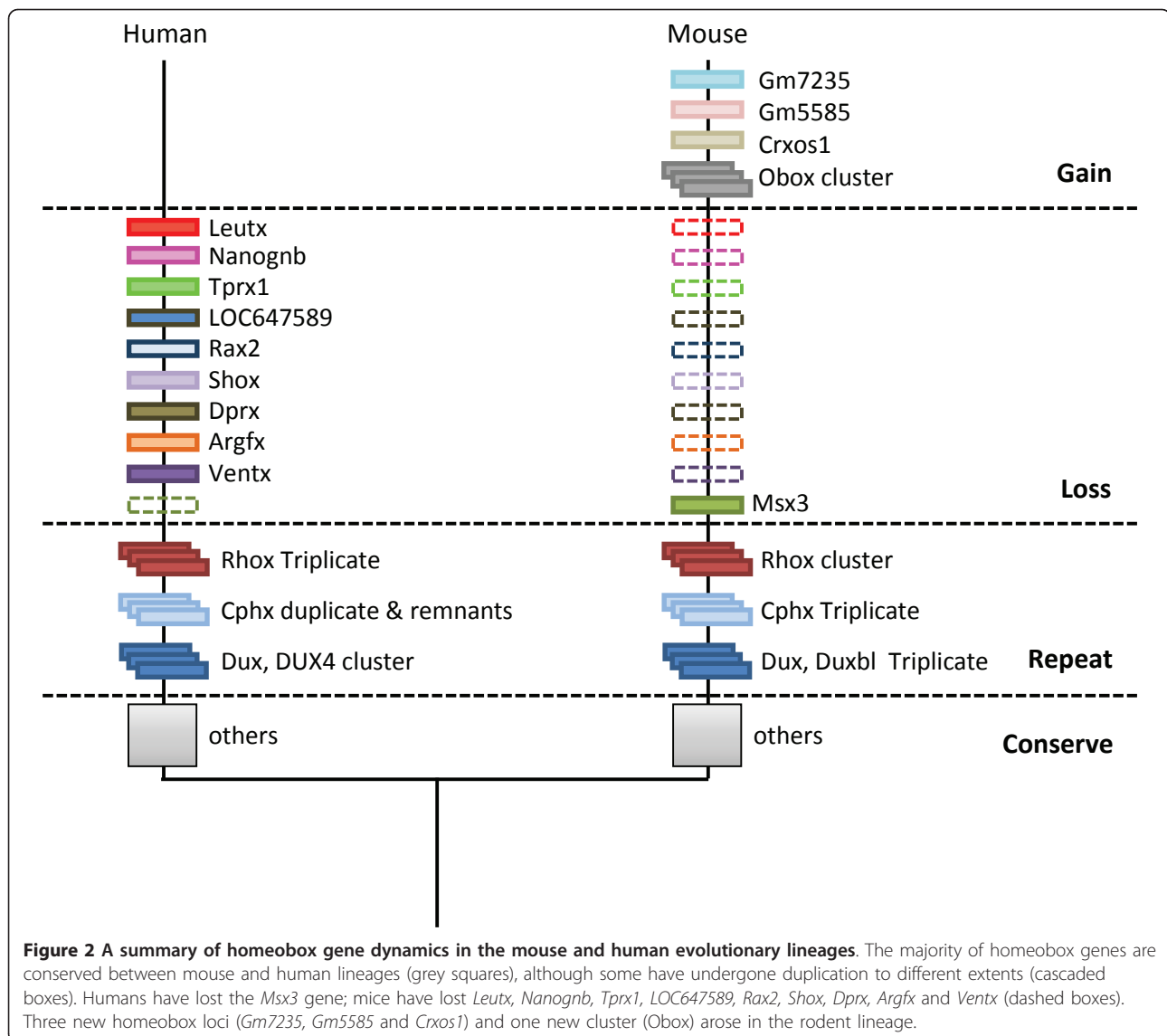
Correction

After publication of this work [1], we found evidence for a gene (or two tandem genes) orthologous to *Leutx* in a genome assembly for the African elephant produced by the Broad Institute and accessible on the UCSC Genome Browser, assembly version Broad/loxAfr3 [2]. Elephant *Leutx* homeodomain sequences are highly

divergent from that of human *LEUTX* (48% identity), but regions of identity outside the homeodomain plus genomic synteny (Figure 1) confirm orthology. We also found divergent putative *Leutx* orthologues in some other mammals including dog, cat, horse, pig and cow but, as reported in our original publication, not in rodents or outside the placental mammals. These find-



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ings imply that *Leutx* did not originate in primate evolution as we originally suggested [1], but arose early in the radiation of placental mammals and was secondarily lost from rodents. This finding strengthens our original conclusion that rodents have experienced far more homeobox gene loss than have primates. *Leutx* is added to *Ventx*, *Argfx*, *Dprx*, *Shox*, *Rax2*, *LOC647589*, *Tprx1* and *Nanognb* on the list of homeobox genes lost in the evolutionary lineage leading to rodents (Figure 2).

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References

1. Zhong Y-F, Holland PWH: The dynamics of vertebrate homeobox gene evolution: gain and loss of genes in mouse and human lineages. *BMC Evolutionary Biology* 2011, **11**:169.
2. UCSC Genome Browser. [<http://UCSC Genome Browser Home>].

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