

Review of manuscript entitled
" Pipeline to detect the positional and directional relationship between
transposable elements and adjacent genes in host genome "
round #2

General comments:

The new manuscript is entitled "Pipeline to detect the positional and directional relationship between transposable elements and adjacent genes in host genome" but I don't see anything in the manuscript that concerns the orientation of the genes. It seems to me that only the orientation of the TEs is taken into account. Even in the new figure 1, this is not clear because the orientation is not shown, neither for TEs nor for genes. This point needs to be clarified.

Regarding the same figure 1, I don't understand how genes can be inside transposable elements (gene 7 / TE9) and why many TEs are shown as partially overlapping genes (TEs 1, 3, 4, 5, 6, 9, 10, 11, and 13). TEs may insert into a gene, generally within introns or eventually 3'-UTRs, or they may insert up- or downstream of a gene. In the first case, the TE should be entirely comprised within the gene, in the second case the TE will be outside of the gene but never partially overlapping with a gene.

Errors that have not been corrected:

what type of TE are present → what types of TEs are present

replace " distance between LTRs and genes as shown on Figure 5, ..." with distance between LTRs and genes as shown in Figure 5,

Other errors to correct:

An error that I didn't see during the first round of review:

Transposable elements (TEs) were first discovered in maize by Barbara McClintock in 1948 [1]. (not in 1944)

citation errors, correct is:

PIRATE: ref. 10

REPET: ref. 11 and 12

Reference 14 is cited before reference 13.

sequences can be applied for any species → sequences that can be applied for any species

Legends to Figures 4 and 5:

"Number of TEs" has been replaced with "Number of sense LTRs (strand+) and antisense LTRs (strand-)" in the new manuscript.

Do the authors really mean LTRs, i.e. Long Terminal Repeats that are only part of a LTR transposon, or do they mean "LTR transposons" ? I already pointed to this confusion in the 1st round of review. If the authors mean the TEs, "LTRs" should be replaced either with "TEs" or with "LTR transposons" in the legends of figures 4 and 5.