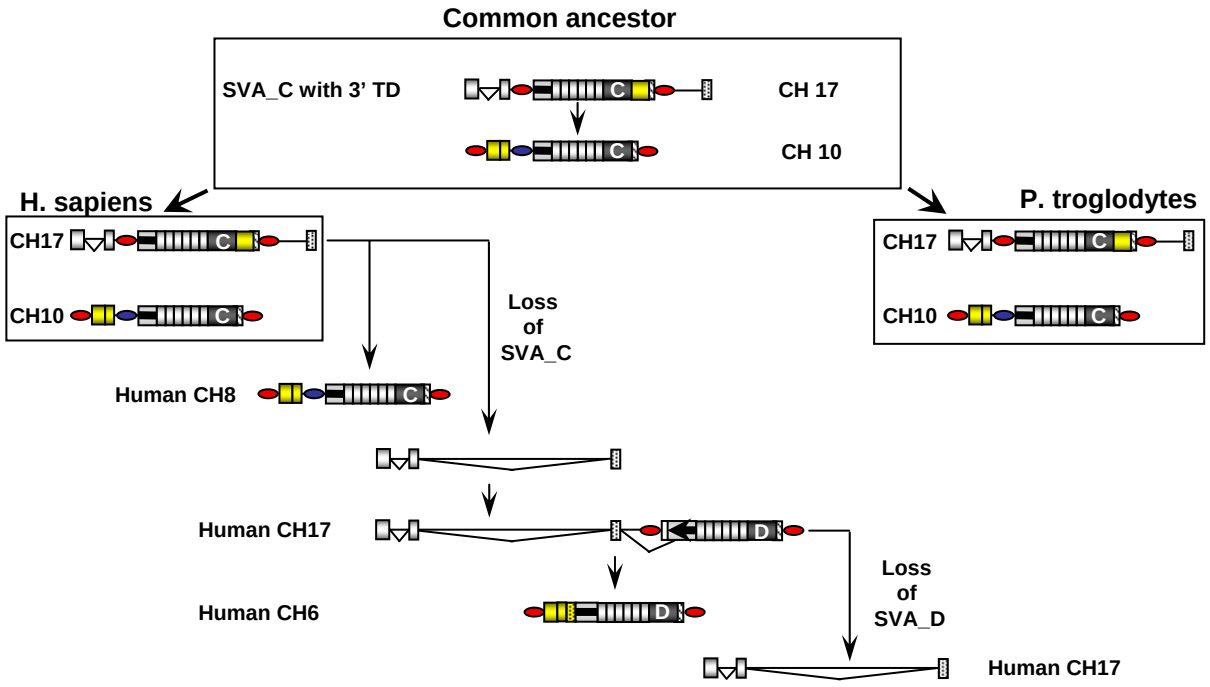

Supplemental Figure 2: **Origin and evolution of the 17p13.3 transduction group.**
In a common ancestor of humans and chimpanzees, the source locus on chromosome 17 contains a 5' truncated SVA_C element localized downstream of the splice donor of an exon. Retrotransposition of this source element gave rise to a copy on chromosome 10 carrying a 5' transduction which includes spliced host RNA sequences. As this element on chromosome 10 is found in both chimpanzees and humans, the retrotransposition event must have taken place before the divergence of the two species. The source element itself (no longer present in the human genome) must still have existed after the human-chimpanzee divergence, because the retrotransposed copy on chromosome 8 is present in the human but absent from the chimpanzee genome. Alternatively, the chromosome 8 insertion could have been lost in chimpanzees.
After the loss of the original SVA_C source element, a full-length SVA_D retrotransposed into the same locus but downstream of the SVA_C integration site. A retrotransposed copy of this SVA_D element is now found on chromosome 6. It displays a 5' transduction containing three exons, the 3' most of which is spliced to the SVA *Alu*-like region at position 387 of the SVArep consensus. The splicing pattern observed is consistent with EST BU941699 which is available in the database.
Transductions shared between SVA_C and SVA_D are shaded. The SVA_D specific transduction is dotted. Transduced sequences in yellow, TSDs in red, TSDs of source elements present in retrotransposed copies in blue.