



A conceptual model of the evolutionary strategy of *Tevenvirinae* ancestors for changing HGT (horizontal gene transfer) possibility in individual populations. Strategy is based on the accumulation of proteins required for the synthesis of non-canonical DNA bases and proteins that use those bases as substrates. Owing to this strategy, ancestors of *Tevenvirinae* with the highest frequency of HGT acquired genes that allowed them to exist in a certain niche, and ancestors with the lowest HGT frequency preserved the most adaptive of those genes.