

ABSTRACT

Lateral gene transfer is a relatively rare event in eukaryotes. Presence of a specific gene acquired by lateral transfer in multiple lineages can be therefore considered to be their common synapomorphy, defining them as a monophyletic group. In contrast to usual phylogenetic methods, this approach can potentially shed light even on the direction of evolution and therefore find the position of a root of a given group of organisms. In the first part of this work I discuss various aspects of lateral gene transfer utilisation in eukaryote phylogeny including advantages and disadvantages against common approaches. In the second part I present particular studies that have recently used this method.

Key words: Lateral gene transfer, rare genomic changes, long branch attraction artefact, endosymbiosis, phylogeny, eukaryots, protists.