

**Table S4 (Related to Figure 3 and 4):** A summary of the duration of some known gene conversion events. The duration time of each gene conversion event was estimated based on TreeTime if colored in blue, or from the indicated literatures.

<b>Genes</b>	<b>Domain</b>	<b>Duration of gene conversion (Myr)</b>	<b>Literatures</b>
<i>mtrA-1/mtrA-2a</i> Methanococcales	in Archaea	> 2216	This study
<i>mtrA-1/mtrA-2b</i> Methanomicrobials	in Archaea	> 2410	This study
<i>tuf</i>	Bacteria	> 2500	(Lathe and Bork 2001; Kondrashov, Gurbich and Vlasov 2007)
<i>gadA/B</i>	Bacteria	< 100	(Bergholz, et al. 2007)
type IV secretion system genes	Bacteria	< 0.5	(Nystedt, et al. 2008)
engrailed-family genes in beetles	Eukarya	~ 360	(Peel, Telford and Akam 2006)
silk genes in spiders	Eukarya	> 240	(Garb, et al. 2007)
<i>Csd</i> in ant/bee	Eukarya	115	(Schmieder, Colinet and Poirie 2012; Privman, Wurm and Keller 2013)
<i>spp120</i> in Cichlid fish	Eukarya	100	(Gerrard and Meyer 2007)
vitellogenin genes in mosquito	Eukarya	100	(Chen, et al. 2010)
<i>Nspb</i> and <i>Nspc</i> gene families in <i>C. elegans</i>	Eukarya	50	(Thomas 2006)
dumpy genes in <i>Drosophila</i>	Eukarya	30	(Carmon, et al. 2007)
<i>xq28</i> in primates	Eukarya	25	(Bagnall, et al. 2005)

*siglec-11/16* in Hominins

Eukarya

1-1.2

(Wang, et al. 2012)