Table S7. The *Spearman*'s correlation coefficients (*R*) between the MSN model parameters (θ, M) and the PT (phylogenetic timeline) of 179 host animal species or 10 animal classes

Host Taxon Level	*M vs.* PT		*θ vs.* PT		*M vs. θ*	
	R	*p*-value	*R*	*p*-value	*R*	*p*-value
AGM (Animal gut microbiome)						
Species	-0.326	0.000	-0.122	0.105	0.163	0.030
Class	-0.251	0.515	-0.469	0.203	0.189	0.608
AGM + AGP (American Gut microbiome Project) + CGP (Chinese Gut microbiome Project)						
Species	-0.335	0.000	-0.115	0.124	0.151	0.043