S2 Table. Example test of lambda values for 10 phylogenetic least squares models for average infection load. As phylogenetic signal is reduced, model fit improves as measured by AICc values. This same trend was observed for the two additional response variables, log response ratio (LRR) and hazard ratio (HR). Thus, all PGLS models were performed with reduced lambda values. AICc scores marked with identical superscripts (^, *, or #) represent identical models, showing the trend for better model fit with reduced values of lambda.

$\lambda=0.5$	AICc	$\lambda=0.1$	AICc	$\lambda=0.001$	AICc	$\lambda=0.0001$	AICc	$\lambda=0.00001$	AICc
	$74.64^{\wedge}$		73.95^{*}		72.77^{*}		72.76^{*}		72.76^{*}
	74.68		$74.12^{\wedge}$		$73.31^{\#}$		$73.30^{\#}$		$73.30^{\#}$
	75.44		$74.13^{\#}$		$73.71^{\wedge}$		$73.70^{\wedge}$		$73.70^{\wedge}$
	75.71		74.25		73.87		73.87		73.87
	$76.05^{\#}$		74.90		74.05		74.04		74.04
	76.79		75.30		74.20		74.19		74.19
	77.00^{*}		75.54		74.50		74.48		74.48
	77.09		75.80		74.99		74.98		74.98
	77.49		76.17		75.49		75.48		75.48
	77.50		76.21		75.99		75.99		75.99