

Table S1. Statistical analysis of the data displayed as Fig. 4. Correlations have been sought between the values for the changes in beat frequency (Δf), arc wave velocity (Δarcv_w) and swimming velocity (ΔU_c) and, in each case, the means of the individual values and the differences between the individual values

Comparison	Number of pairs	Correlation coefficient (R)	P value	Significance
Δf relative to $(f_A + f_B)/2$	32	0.19	0.30	NS
Δf relative to $ f_A - f_B $	32	-0.17	0.36	NS
Δarcv_w relative to $(\text{arcv}_{wA} + \text{arcv}_{wB})/2$	32	-0.36	0.04	*
Δarcv_w relative to $ \text{arcv}_{wA} - \text{arcv}_{wB} $	32	0.50	0.004	**
ΔU_c relative to $(U_{cA} + U_{cB})/2$	31	-0.11	0.54	NS
ΔU_c relative to $ U_{cA} - U_{cB} $	31	-0.04	0.84	NS
$\Delta \text{arcv}_w / \text{mean arcv}_w$ relative to $\Delta f / \text{mean } f$	32	0.49	0.004	**

Attention is drawn to the negative correlation between Δarcv_w and $(\text{arcv}_{wA} + \text{arcv}_{wB})/2$. This is suggestive of a metabolic limit to the rise in wave velocity. The positive correlation between the relative change in f and the relative change in arcv_w (bottom row) was perhaps to be expected. A and B refers to Sperm A and Sperm B, respectively. NS, not significant; * $P < 0.05$; ** $P < 0.01$.