



**Figure S1.** Changes in sperm viability in five hamster species during incubation without or with penicillamine, hypotaurine and epinephrine (PHE). A) *Cricetulus griseus*. B) *Mesocricetus auratus*. C) *Phodopus campbelli*. D) *P. sungorus*. E) *P. roborovskii*. Spermatozoa were collected in medium with (black squares) or without PHE (white squares) and incubated at 37°C under air for up to 4 hours. Values are means  $\pm$  standard errors. Different letters between times of incubation for the same treatment indicate statistically significant differences ( $p < 0.05$ ) in a DGC *post-hoc* test. Asterisks indicate statistical differences ( $p < 0.05$ ) between treatments for the same time in a DGC *post-hoc* test.