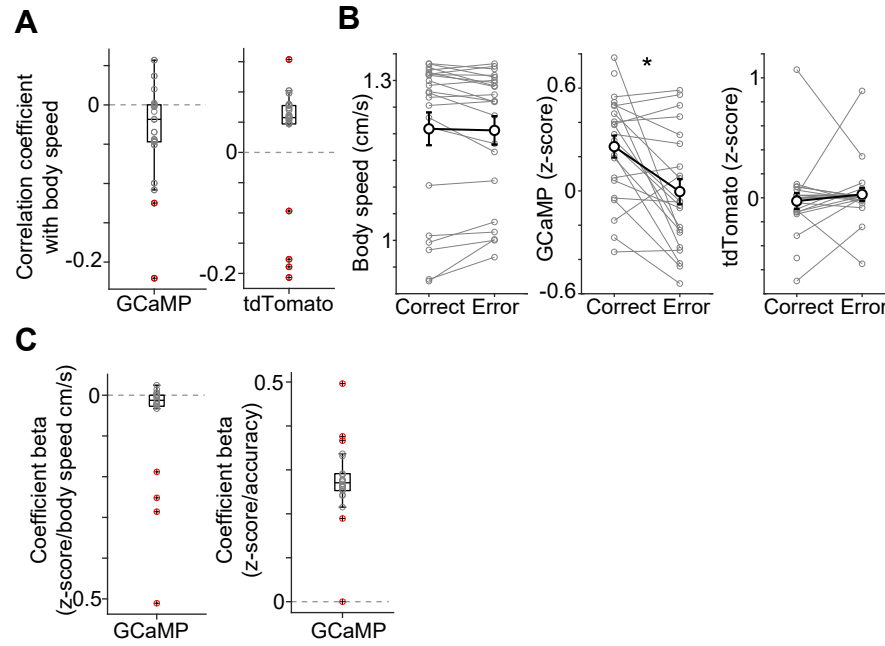


**Figure 7-figure supplement 6**



**Figure 7-figure supplement 6. Dopamine axon signals and body movement when a mouse waits for water** (A) GCaMP signals showed slight but significantly negative correlation with body speed, but tdTom did not (Pearson's correlation coefficient,  $t(21) = -2.6$ ,  $p=0.015$  for GCaMP;  $t(21) = 1.2$ ,  $p=0.20$  for tdTom,  $n = 22$  animals, one sample t-test). tdTom signals in some animals show significant correlation, indicating motion artifacts in recording. (B) GCaMP, but not body speed or tdTom were modulated by correct choice versus error ( $t(21) = 3.3$ ,  $p=0.0033$  for GCaMP;  $t(21) = 0.43$ ,  $p=0.66$  for body speed;  $t(21) = -0.4$ ,  $p=0.63$  for tdTom,  $n=22$  animals, paired t-test). (C) Linear regression of GCaMP signals with accuracy (correct or error) and body speed with elastic net regularization. GCaMP is modulated by accuracy ( $t(21) = 13.9$ ,  $p=4.2 \times 10^{-12}$ ,  $n = 22$  animals, one sample t-test) even after normalizing with body speed. Body speed is slightly correlated ( $t(21) = -2.2$ ,  $p=0.032$ ,  $n = 22$  animals, two-sided t-test). Red dots indicate significant ( $p < 0.05$ ) regression coefficient in each animal. 2 videos for 21 animals and 1 video for one animal were used.