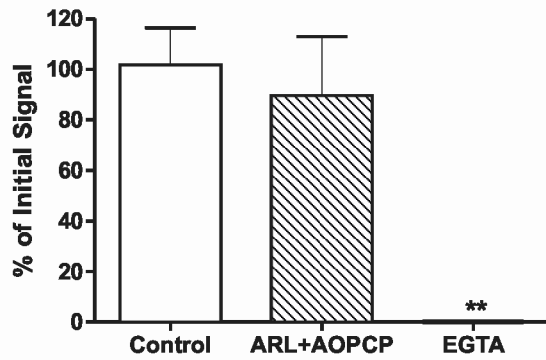


Supplemental Figure 1: Calibration current-voltage plots for 1 μ M adenosine, 1 μ M hypoxanthine and 100 μ M hydrogen peroxide (H_2O_2). Our carbon-fiber microelectrodes are at over two-fold more sensitive for adenosine as hypoxanthine and over 200 times more sensitive than hydrogen peroxide. Approximate limits of detection: Adenosine, 20 nM; hypoxanthine, 60 nM; hydrogen peroxide, 6 μ M.



Supplemental Figure 2: Effect of a combination of 50 μM ARL-67156 and 100 μM AOPCP, or 1 mM EGTA on adenosine release. Stimulations were 5 pulses at 60 Hz. Effects are plotted as a percentage of the predrug response. A combination of ARL-67156 and AOPCP ($n = 4$) had no significant effect on the adenosine signal. This data is similar to administering only ARL-67156. Adding 1 mM EGTA to preferentially chelate Ca^{2+} completely attenuated adenosine release ($n = 4$); the concentration of adenosine after the addition of EGTA was significantly different from the signal before EGTA ($p < 0.01$). This data is similar to EDTA data. Paired t-tests were used to determine the significance of changes.