



**Figure S7. The membrane potential of HEK293T cells transiently transfected with *Kcnj13* mutants.** Resting potential distribution showed that cells expressing the mutant T131A channel were significantly more depolarized than cells expressing wild type channels ( $P < 0.0001$ ). Distribution was plotted against current density at 50mV. Each colored dot is a data point. The P-value was calculated by the two-tailed student t-test. The results were against values measured in wild type channels. Error bars show standard error of the mean.