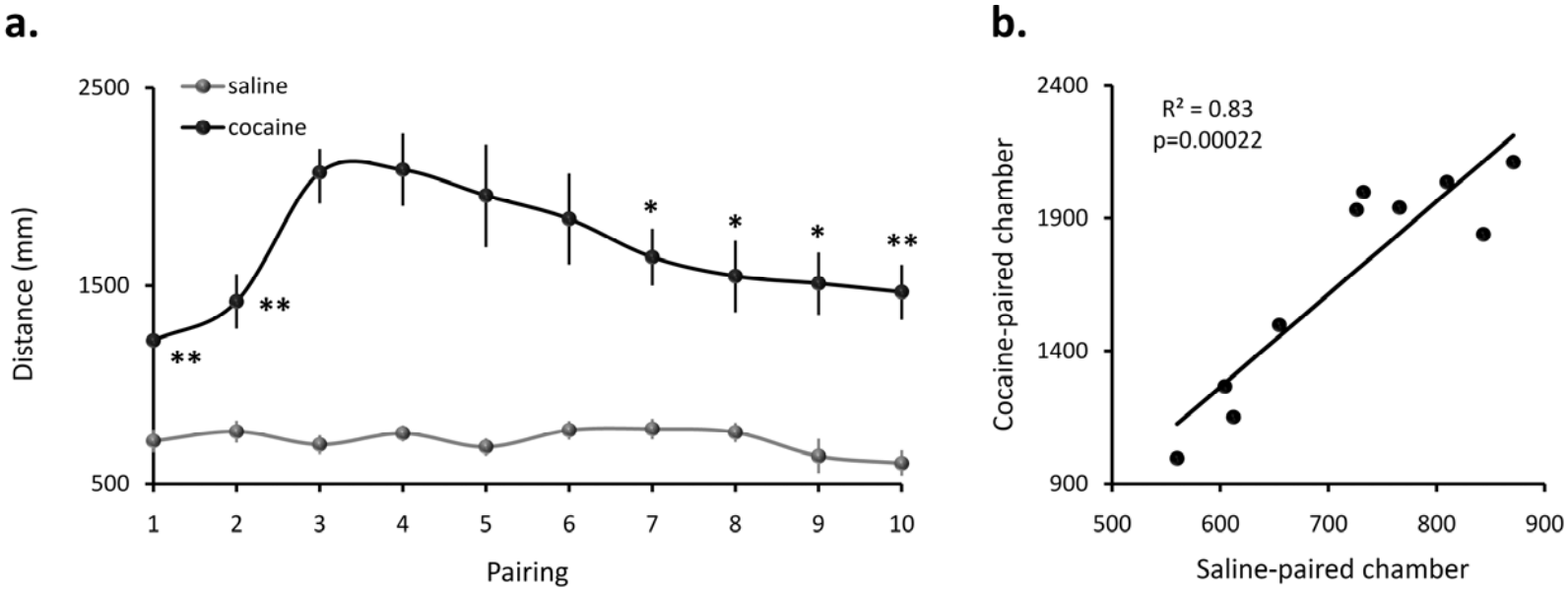
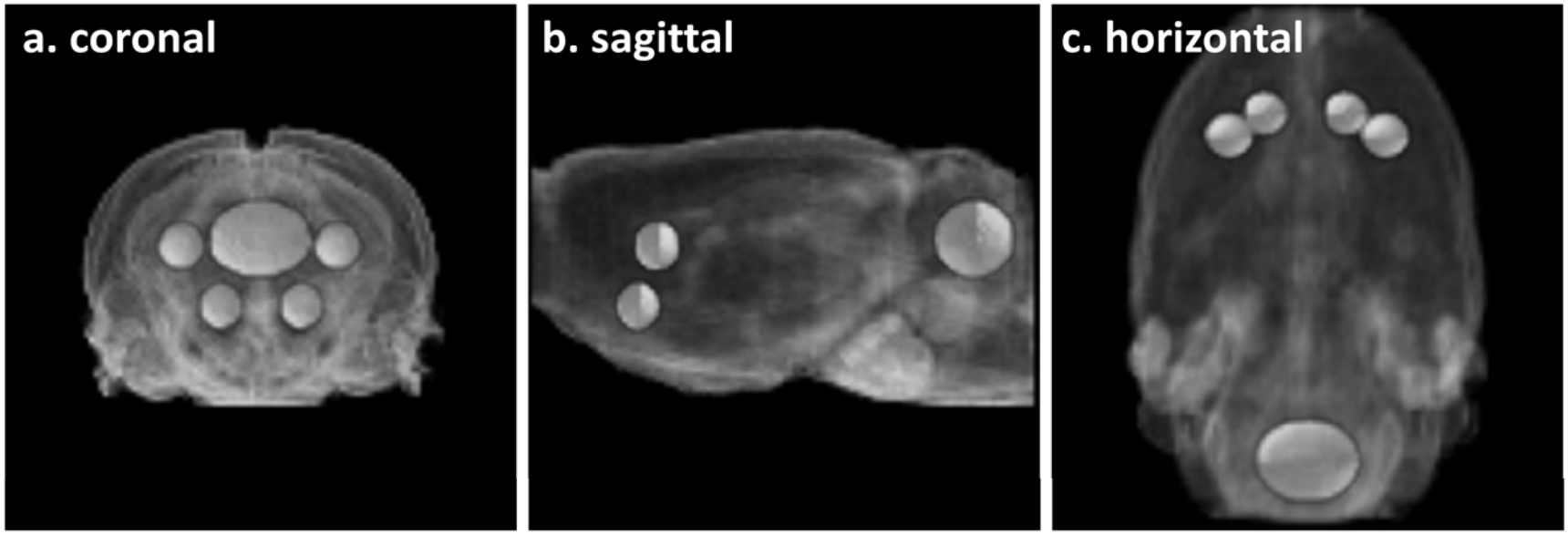


Supplementary Figure 1. Distance traveled during each pairing session in the cocaine or saline paired environments and the individual correlation between cumulative measurements. In (a), the total distance traveled (in millimeters) during each pairing session is plotted over the total number of pairings. Significant difference from peak effect was determined by a two-way ANOVA with factors of pairing drug (cocaine or saline) versus pairing number (one to ten), where **$p < 0.01$ and *$p < 0.05$. In (b), the relationship between mean distance traveled for each animal during cocaine pairings is juxtaposed with the mean distance traveled during saline pairings. These data show that animals who had larger increases in cocaine-induced locomotion were also the most active when given saline. The strength of the relationship was determined with a Pearson Product Correlation (R^2).



Supplementary Figure 2. Three dimensional volumetric rendering of the Regions of Interest (ROIs) used to determine [^{11}C]-raclopride concentrations in the present study. Depicted are (a) coronal, (b) sagittal and (c) horizontal views of the ROIs used in the present study overlayed on the Schweinhardt atlas (2003), to which all images were spatially coregistered. Dorsal striatal ROIs are lateral to ventral striatal ROIs with a distance of 0.7 mm separating their closest edge (measured using the line tool in the PMOD software package). Volumetric images were generated with Amide software.