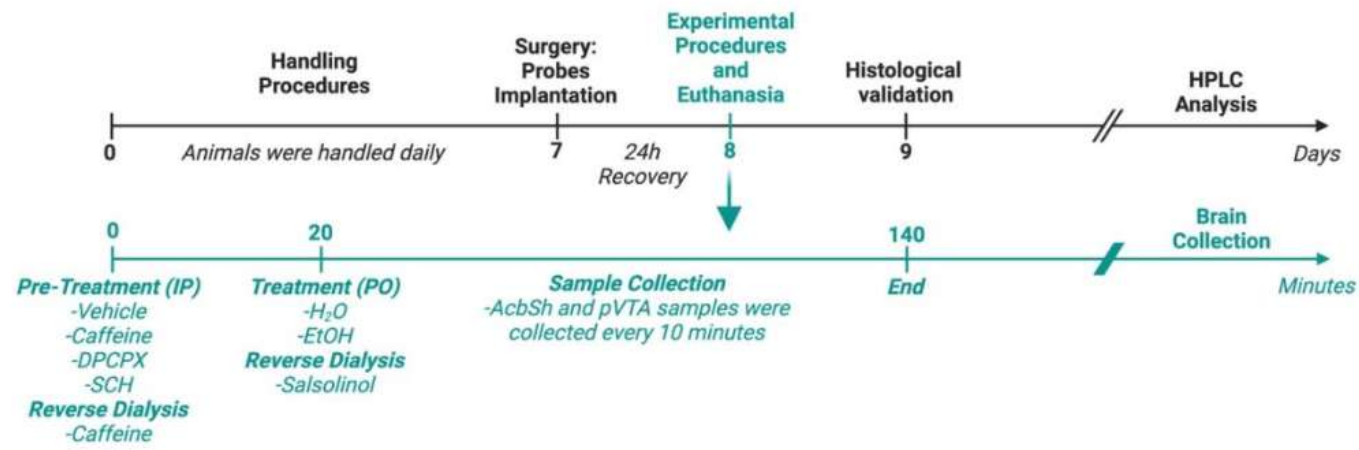
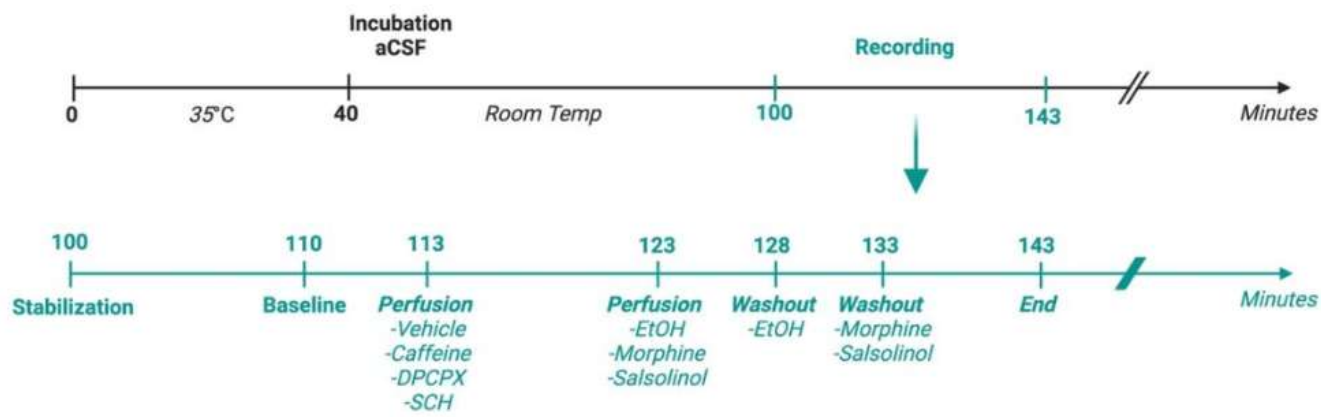


SUPPLEMENTARY INFORMATION

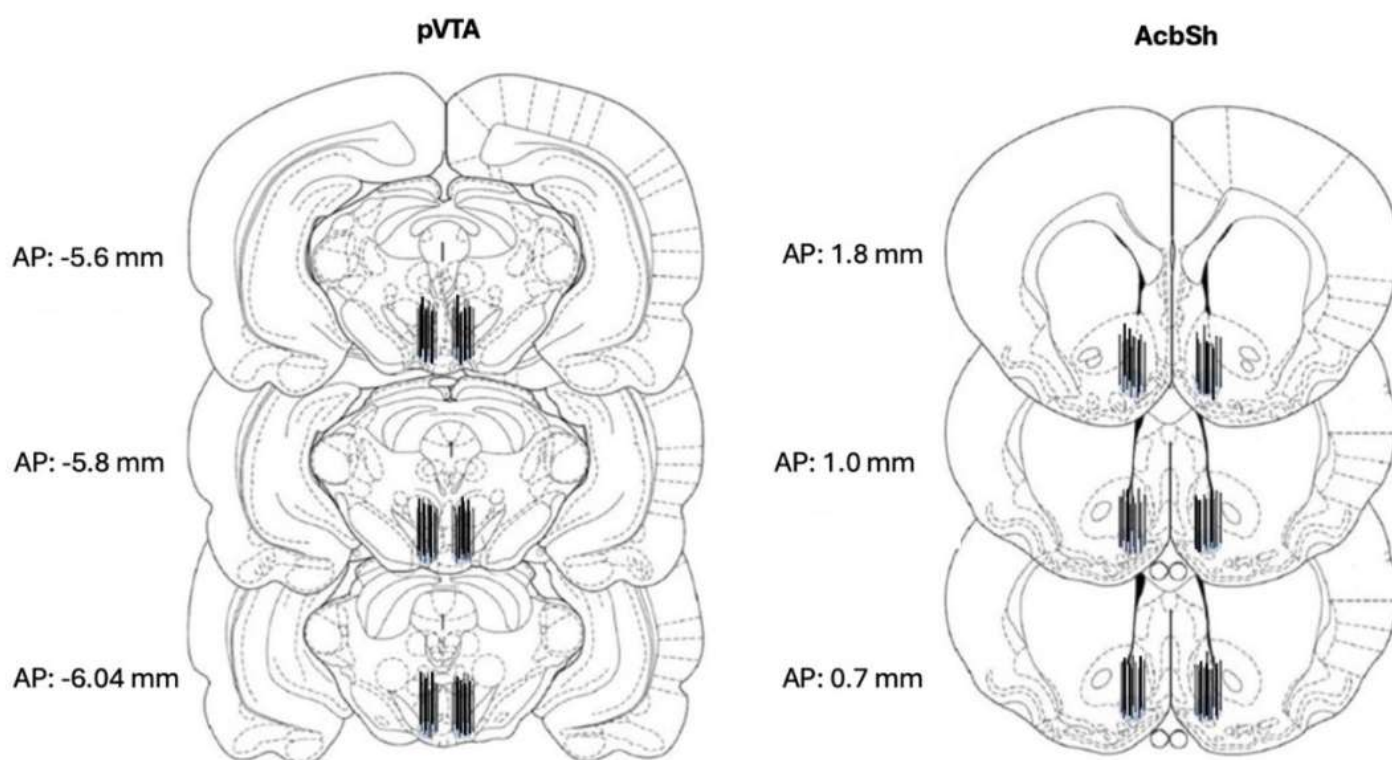
A Microdialysis Timeline



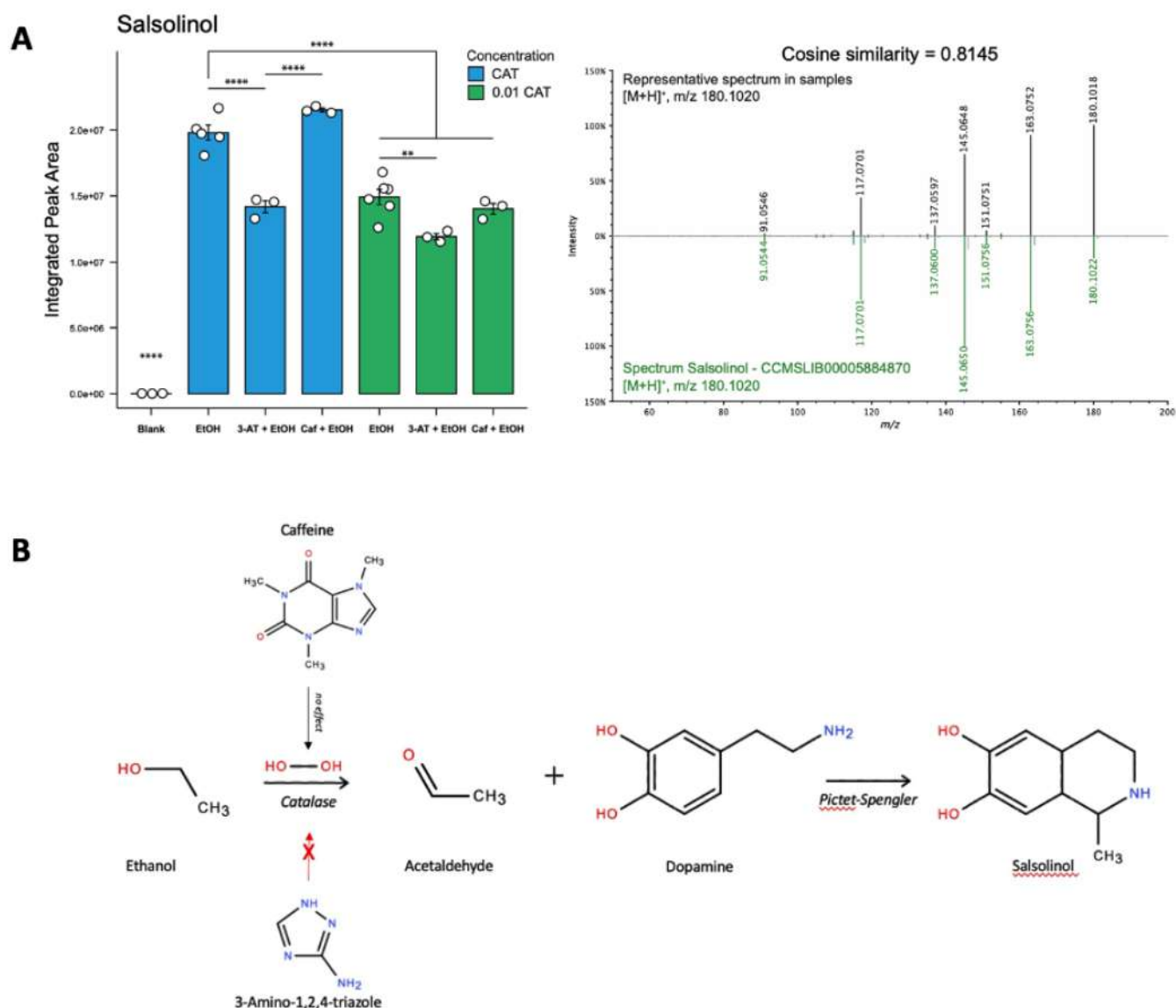
B Electrophysiology Timeline



Supplementary Figure 1: Detailed timeline of microdialysis (A) and electrophysiological (B) experimental procedures.



Supplementary Figure 2: Representative images of the localization, within the pVTA and the AcbSh, of the dialyzing portion of dialysis probes after histological examination.



Supplementary Figure 3: Caffeine does not inhibit salsolinol formation in-vitro

A) *In-vitro* synthesis of salsolinol was inhibited by the presence of 3AT but not caffeine. Additionally, salsolinol formation was dependent on catalase concentration. One-way ANOVA followed by Tukey's post hoc test. ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$. Error bars in the bar plots represent the mean standard error per group. Salsolinol detection was confirmed via LC-MS/MS through spectral library match (level 2 annotation). **B)** Schematic representation of catalase-mediated ethanol-dependent *in-vitro* synthesis of salsolinol. EtOH is oxidated into acetaldehyde by the enzyme catalase, and it spontaneously condenses with dopamine to generate salsolinol *via* Pictet-Spengler reaction. 3AT is a known non-competitive inhibitor of the catalase. Caffeine did not inhibit catalase. Abbreviations: EtOH = Alcohol, 3-AT = 3-amino-1,2,4-triazole, Caf = Caffeine, CAT = Catalase.