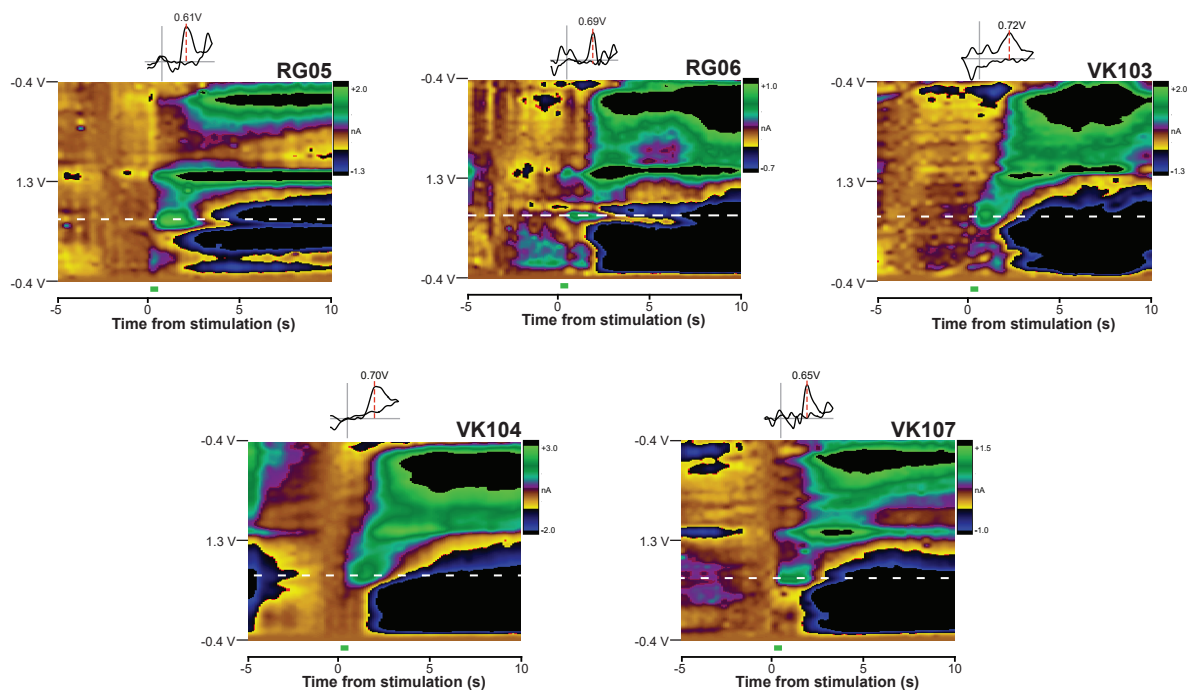
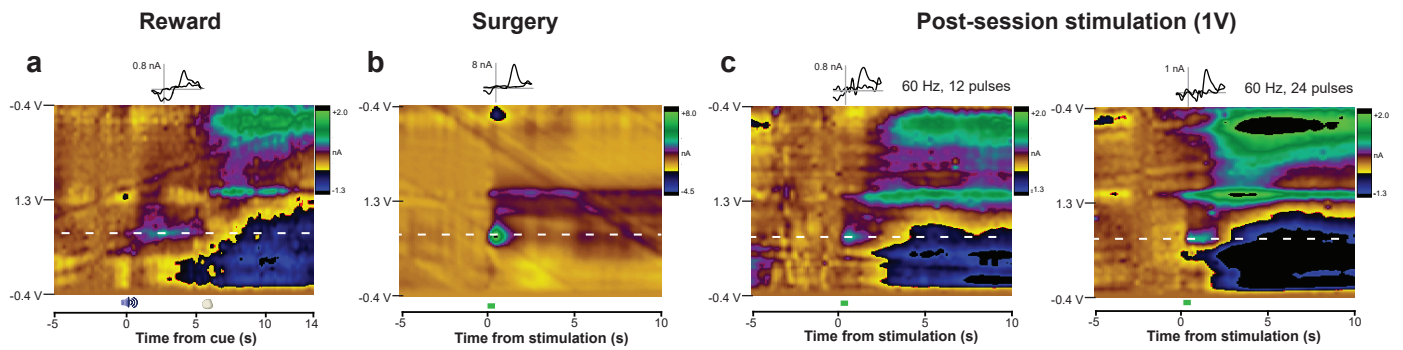


## Supplementary Figure 1



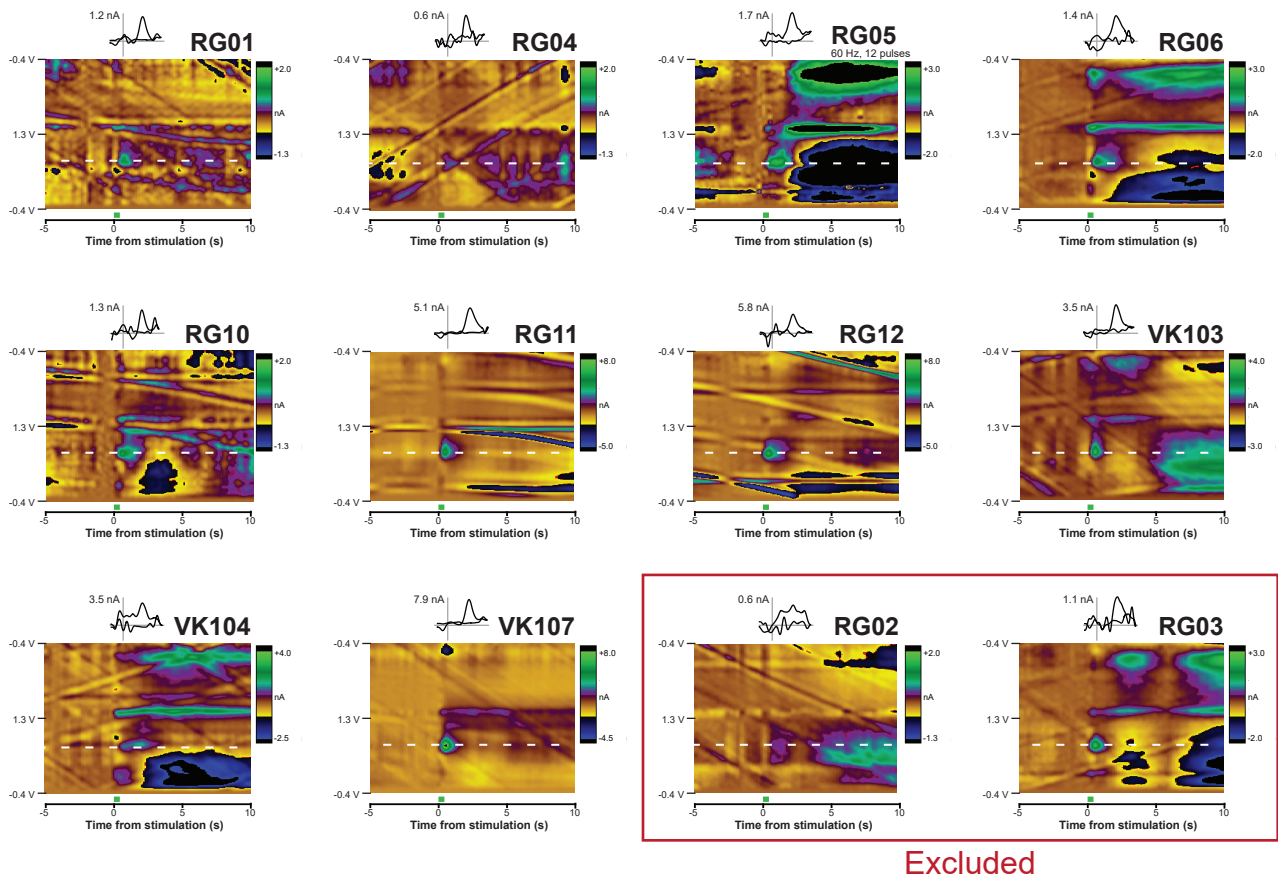
**Supplementary Figure 1.** Additional false-color examples showing dopamine release during five post-session stimulations. False-color plots indicate voltammetric current (z-axis) plotted against applied scan potential (y-axis) and time (x-axis) for representative press trials aligned to stimulation onset ( $t = 0$ ). Examples show dopamine release to the strongest stimulation parameter (1V, 24 pulses at 60 Hz) from the training set for each of five animals.

## Supplementary Figure 2



**Supplementary Figure 2.** Additional false-color examples showing dopamine release. False-color plots indicate voltammetric current (z-axis) plotted against applied scan potential (y-axis) and time (x-axis) for representative press trials aligned to cue onset for reward (a), as well as stimulated DA verification trials taken at final depth during surgery (b) and during two post-session stimulations from the session training set (c).

### Supplementary Figure 3



**Supplementary Figure 3.** False-color examples showing stimulated DA verification trials taken at final depth during surgery for all animals used during recordings. False-color plots indicate voltammetric current (z-axis) plotted against applied scan potential (y-axis) and time (x-axis). Two animals were excluded from analyses due to an unreliable waveform (RG02) and the loss of a headcap (RG03).

Supplementary Table 1

**a**  
**Poor Avoiders**

		Cue Epoch			Lever Epoch		
		Reward	Neutral	Shock	Reward	Neutral	Shock
PC	R <sup>2</sup>	0.25(+)	<b>0.60(-)</b>	<b>0.66(-)</b>	0.28(+)	<b>0.66(-)</b>	0.46(-)
	p	0.1667	<b>0.0145</b>	<b>0.0149</b>	0.1451	<b>0.008</b>	0.0646
RT	R <sup>2</sup>	0.08(-)	<b>0.62(+)</b>	0.21(+)	0.05(-)	<b>0.76(+)</b>	<b>0.58(+)</b>
	p	0.4604	<b>0.0120</b>	0.2557	0.5515	<b>0.0023</b>	<b>0.0276</b>

**b**  
**Good Avoiders**

		Cue Epoch			Lever Epoch		
		Reward	Neutral	Shock	Reward	Neutral	Shock
PC	R <sup>2</sup>	0.23(-)	0.00	0.28(-)	0.29(-)	0.00	0.04(+)
	p	0.1889	0.8862	0.1419	0.1350	0.9502	0.5897
RT	R <sup>2</sup>	0.07(+)	0.08(+)	0.23(+)	0.03(+)	0.00	0.07(-)
	p	0.4855	0.4490	0.1954	0.6815	0.8589	0.4813

**Supplementary Table 1.** Correlation between DA release and behavior in poor and good avoiders. R<sup>2</sup> values (top) and p values (bottom) for correlations between DA release during each trial type and behavior during cue and lever epochs for poor (**a**) and good (**b**) avoiders.