

# 5-HT<sub>2C</sub> receptors in the basolateral amygdala and dorsal striatum are a novel target for anxiolytic effects of exercise

P.V. Strong, A.B. Loughridge, M. Fleshner, B.N. Greenwood

Integrative Physiology & Center for Neuroscience, University of Colorado-Boulder



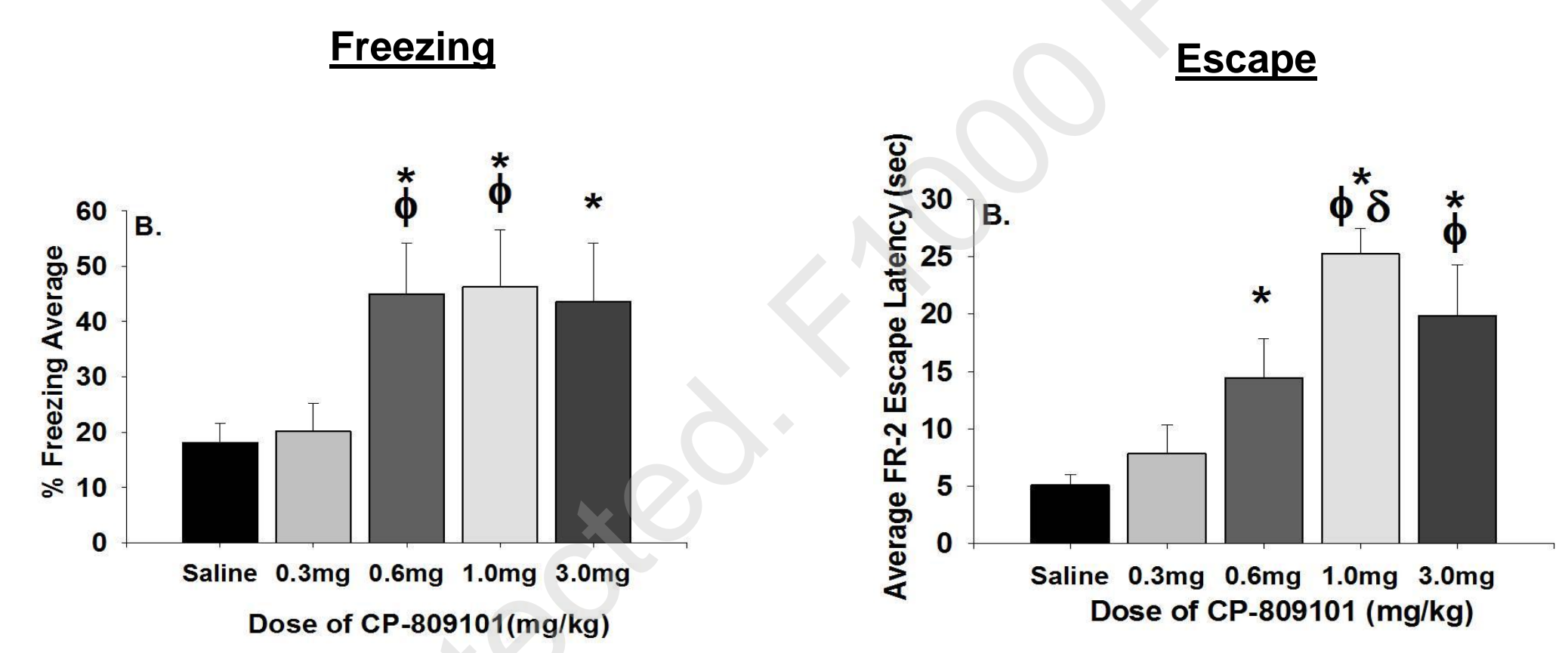
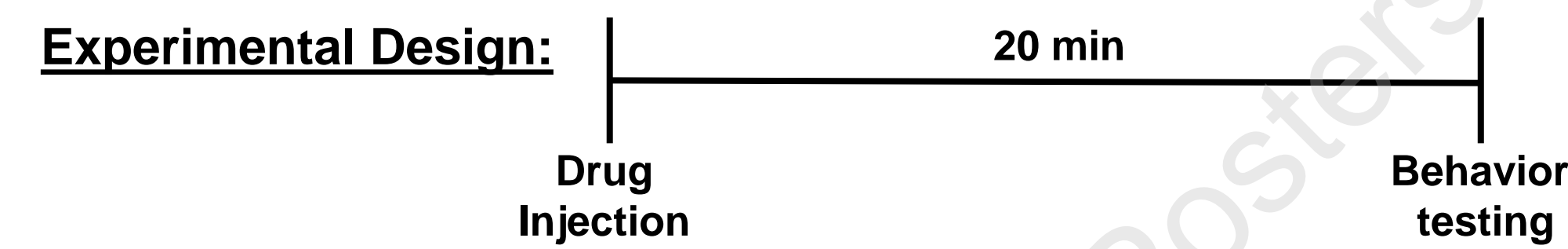
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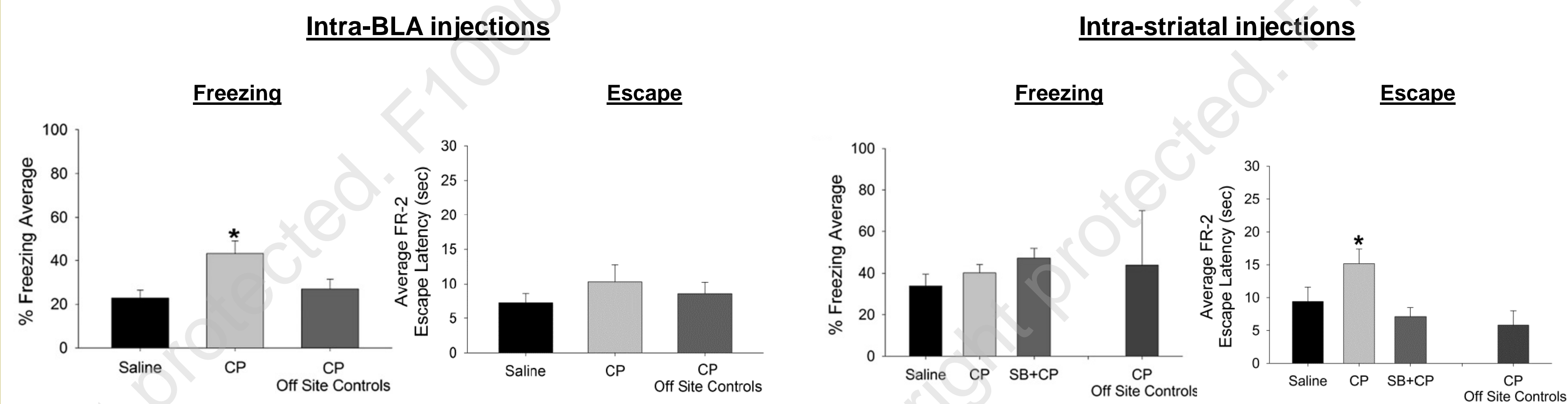
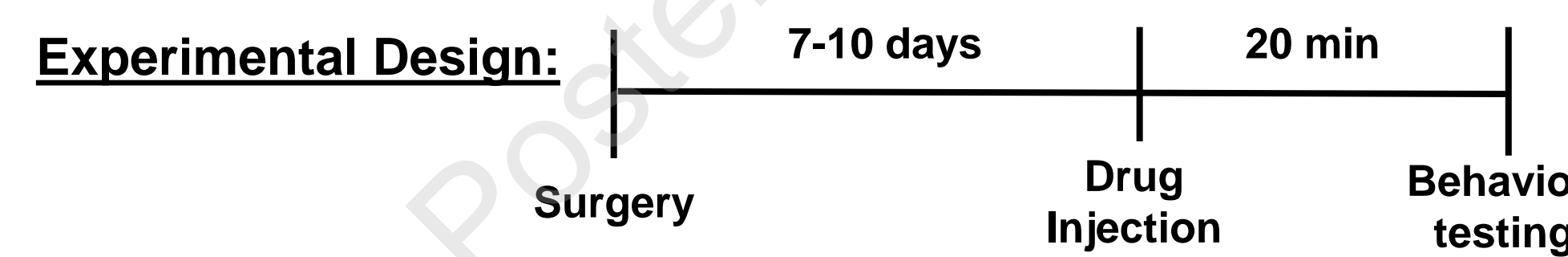
## 1) Systemic 5-HT<sub>2C</sub> receptor activation produces anxiety-like behaviors.

P.V. Strong, B.N. Greenwood, M. Fleshner. The effects of the selective 5-HT<sub>2C</sub> receptor antagonist SB 242084 on learned helplessness in male Fischer 344 rats. *Psychopharmacology*, 203 (2009)



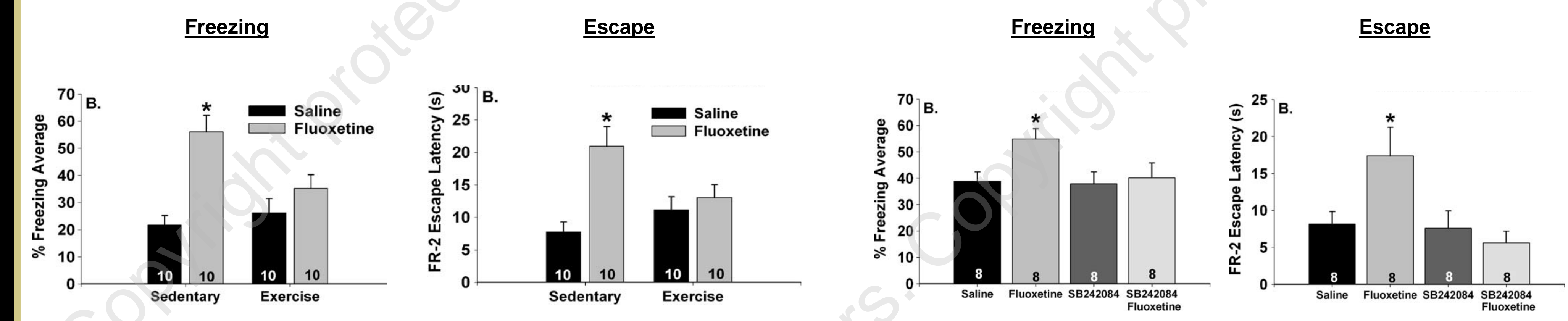
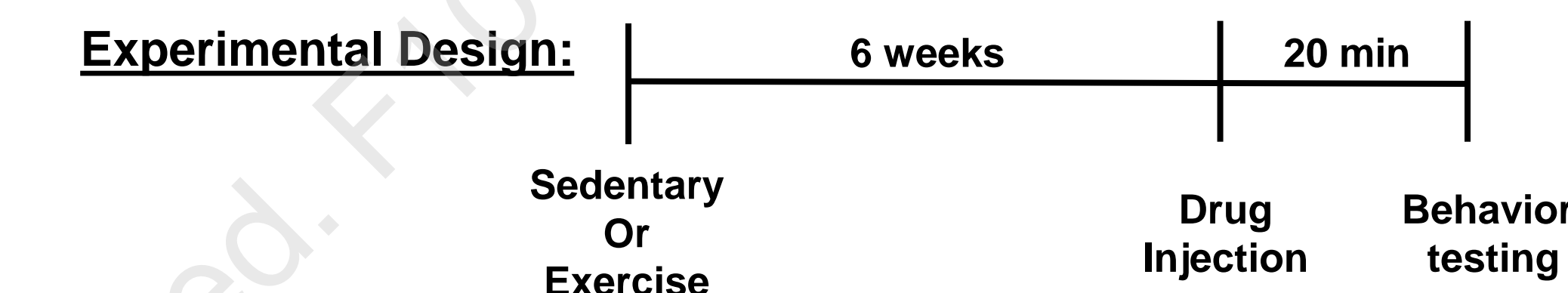
## 2) 5-HT<sub>2C</sub> receptor activation in discrete brain areas produces anxiety-like behaviors

Strong PV, et al., 5-hydroxytryptamine 2C receptors in the dorsal striatum mediate stress-induced interference with negatively reinforced instrumental escape behavior, *Neuroscience* (2011)

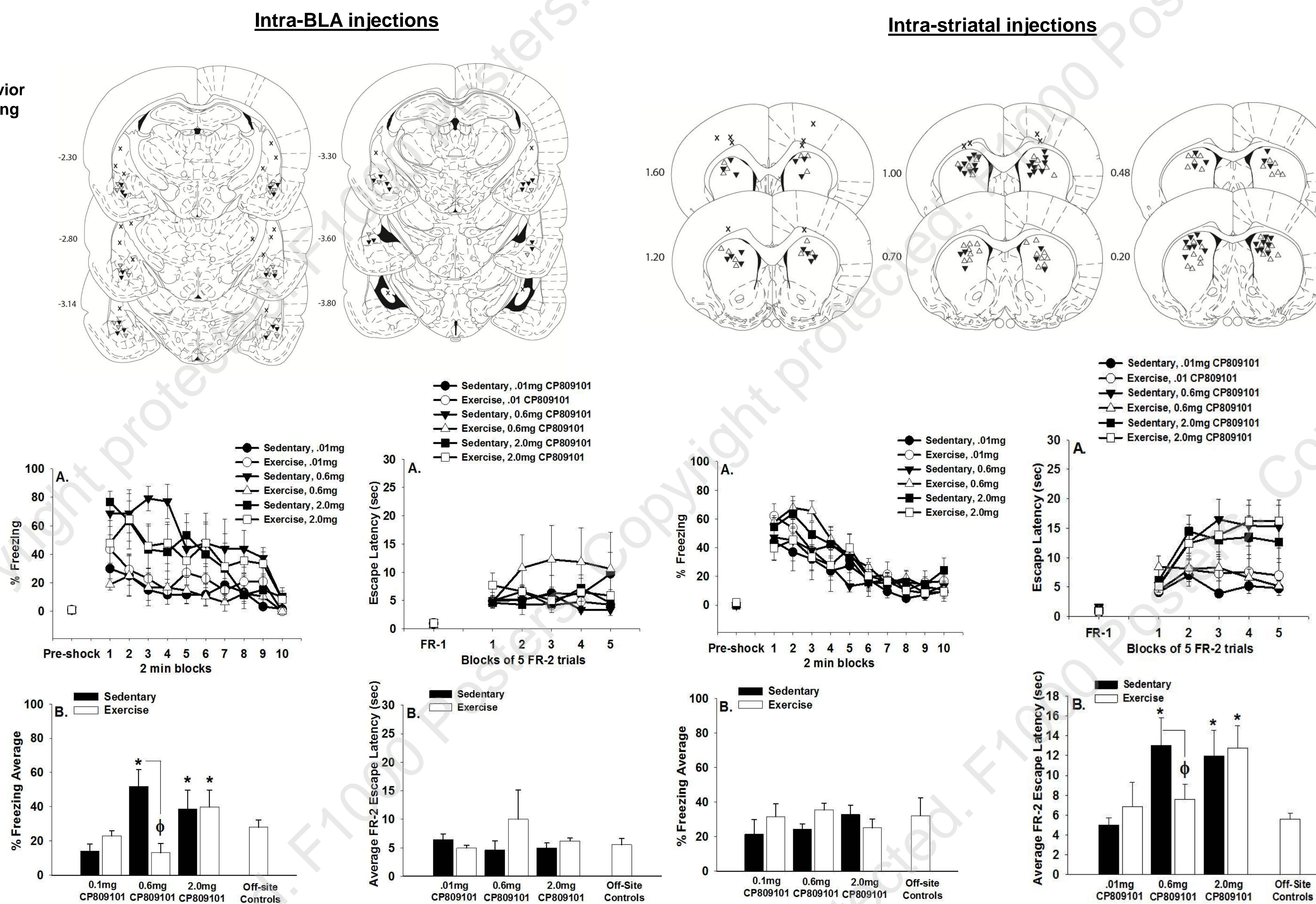
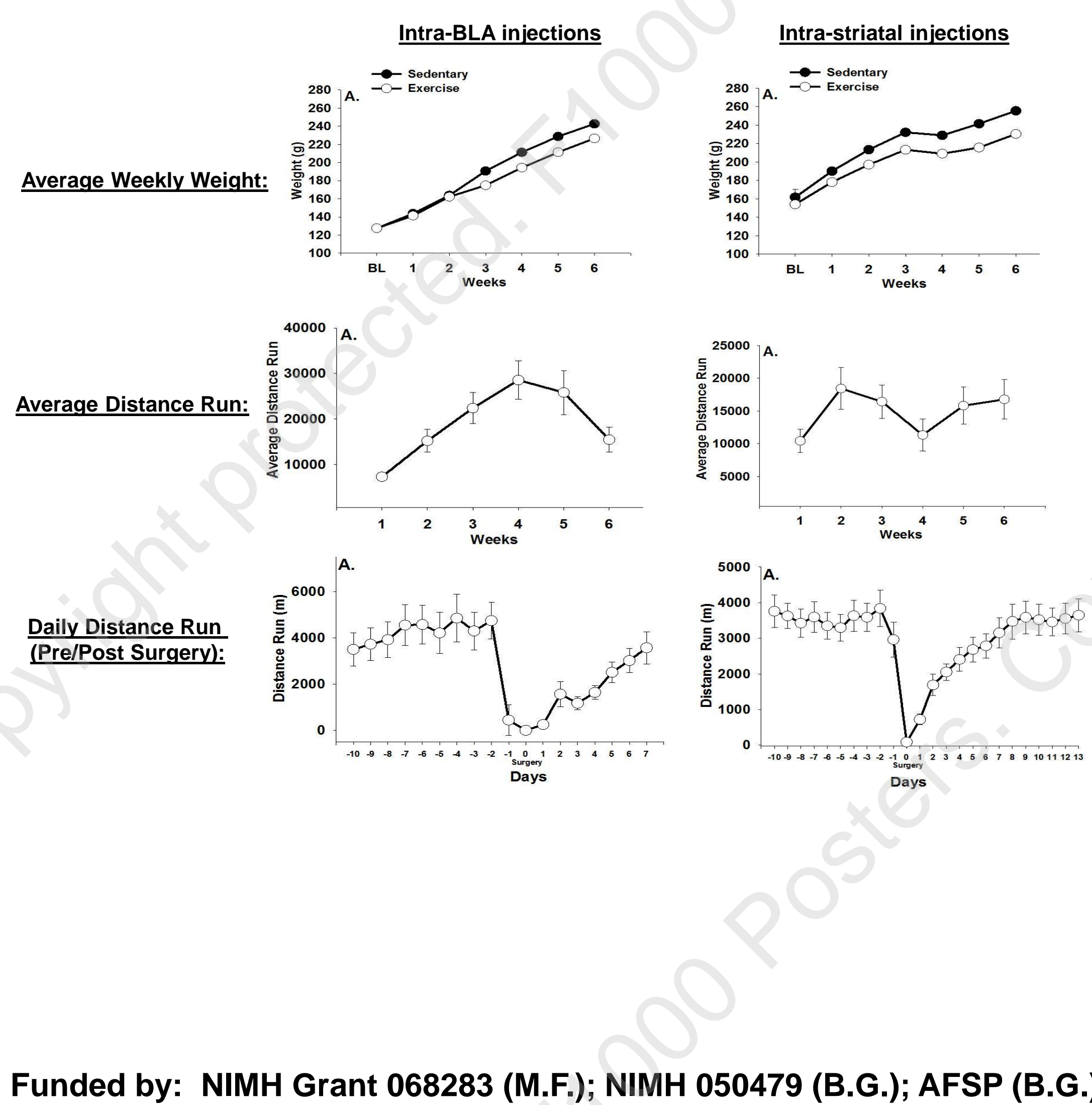


## 3) Six weeks of voluntary wheel running prevents 5-HT<sub>2C</sub>-dependent, anxiety-like behaviors

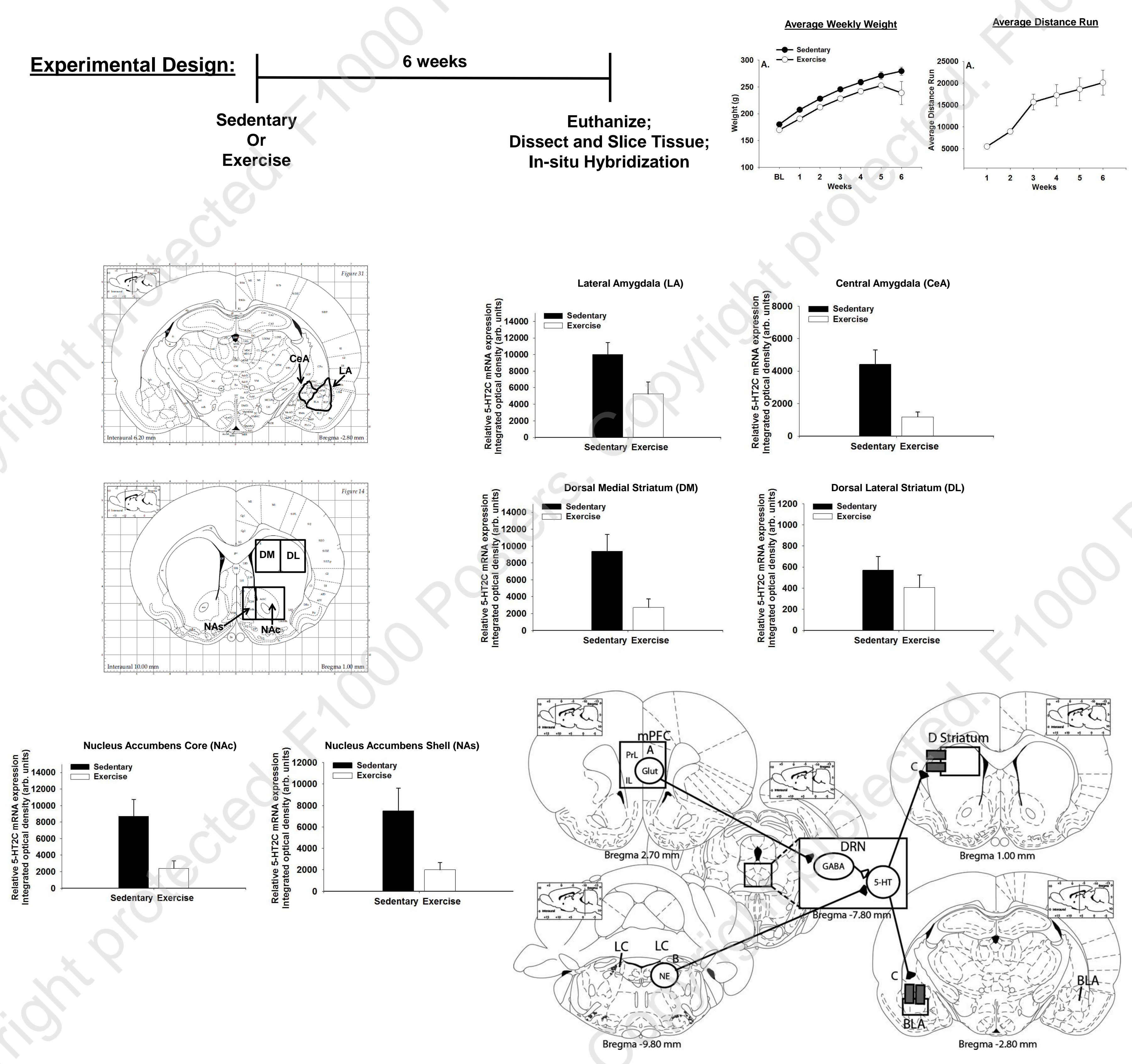
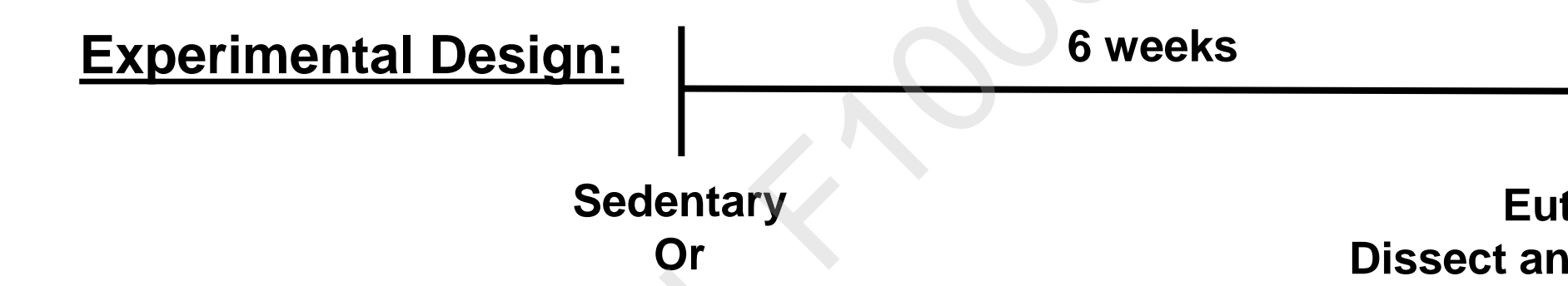
B.N. Greenwood, P.V. Strong, L. Brooks, M. Fleshner, Anxiety-like behaviors produced by acute fluoxetine administration in male Fischer 344 rats are prevented by prior exercise. *Psychopharmacology*, 199 (2008)



## 4) Six weeks of voluntary wheel running reduces the anxiogenic effects of 5-HT<sub>2C</sub> receptor activation in specific brain regions



## 5) Six weeks of voluntary wheel running decreases 5-HT<sub>2C</sub> receptor mRNA expression



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