Iemolo et al., CeA and BlA CRF-CRF<sub>1</sub>R system and excessive eating

CRF-CRF<sub>1</sub> receptor system in the Central and Basolateral nuclei of the Amygdala

differentially mediates excessive eating of palatable food

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## **Supplementary Tables and Figures**

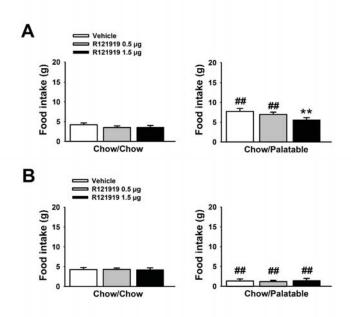
Supplementary Table 1. Number of subjects used in this study

Pharmacological experiments			Chow/Chow			Chow/Palatable		
			0 μg/side	0.5 μg/side	1.5 μg/side	0 μg/side	0.5 μg/side	1.5 µg/side
CeA	Food	P Phase	11*	11*	11*	8*	8*	8*
		C Phase	11*	11*	11*	7*	7*	7*
	Anxiety		8		8	6		6
	Food	P Phase	10*	10*	10*	14*	14*	14*
BlA		C Phase	11*	11*	11*	14*	14*	14*
	Anxiety		14		15	7		7
	Food	P Phase	11*	11*	11*	10*	10*	10*
BNST		C Phase	8*	8*	8*	11*	11*	11*
•	Anxiety		10		8	10		9

Immunohistochemistry	Chow/Chow	Chow/Po	Chow/Palatable		
CeA		C Phase	P Phase		
CCA	7	8	7		
BlA		C Phase	P Phase		
DIA	6	7	6		
BNST		C Phase	P Phase		
BNS1	7	8	7		

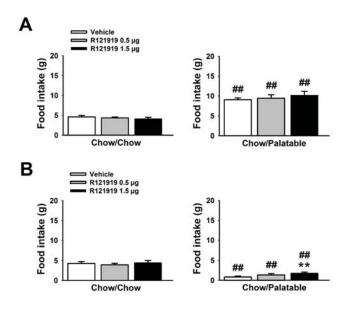
<sup>\*</sup> indicates within-subject experiment

## **Supplementary Figure 1**



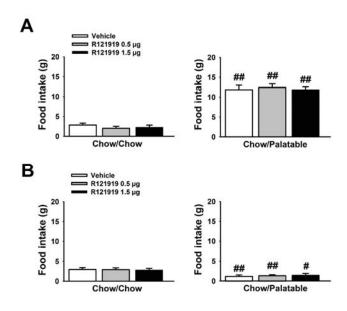
Effects of microinfusion of the selective CRF<sub>1</sub> receptor antagonist R121919 (0, 0.5, 1.5 µg/side) in the central nucleus of the amygdala (CeA) on excessive eating of palatable food, and hypophagia of regular chow diet (n=37). Rats were tested after 7 weeks of diet cycling. (**A**) Intra-CeA R121919 fully blocked the excessive eating of palatable food in *Chow/Palatable* rats (*right panel*), without affecting regular chow intake in control *Chow/Chow* rats (*left panel*); (**B**) Intra-CeA R121919 did not affect the intake of the regular chow diet in either *Chow/Chow* the (*left panel*) or *Chow/Palatable* (*right panel*) group; Panel represents  $M\pm$ SEM. Symbols denote: \*significant difference from vehicle condition p<0.05, \*\*p<0.01; \*#significant difference from *Chow/Chow* vehicle p<0.01.

## **Supplementary Figure 2**



Effects of microinfusion of the selective CRF<sub>1</sub> receptor antagonist R121919 (0, 0.5, 1.5  $\mu$ g/side) in the basolateral nucleus of the amygdala (BlA) on excessive eating of palatable food and hypophagia of regular chow diet (n=49). Rats were tested after 7 weeks of diet cycling. (**A**) Intra-BlA R121919 did not affect the intake of the regular chow diet in *Chow/Chow* (*left panel*) or the excessive eating of palatable food in *Chow/Palatable* (*right panel*); (**B**) Intra-BlA R121919 reduced the hypophagia of regular chow diet in *Chow/Palatable* rats (*right panel*), without affecting it in *Chow/Chow* rats (*left panel*); Panel represents M±SEM. Symbols denote: \*\*significant difference from vehicle condition p<0.01, \*\*#significant difference from *Chow/Chow* vehicle p<0.01.

## **Supplementary Figure 3**



Effects of microinfusion of the selective CRF<sub>1</sub> receptor antagonist R121919 (0, 0.5, 1.5 µg/side) in the bed nucleus of the stria terminalis (BNST) on excessive eating of palatable food, hypophagia of regular chow diet, and anxiety-like behavior in male Wistar rats (n=40). Rats were tested after 7 weeks of diet cycling. (**A**) Intra-BNST R121919 did not affect the intake of the regular chow diet in *Chow/Chow* (*left panel*) or excessive eating of palatable food in *Chow/Palatable* (*right panel*); (**B**) Intra-BNST R121919 did not affect the intake of the regular chow diet in either the *Chow/Chow* (*left panel*) or *Chow/Palatable* (*right panel*) group. Panel represents  $M\pm$ SEM. Symbols denote: \*significant difference from *Chow/Chow* vehicle p<0.05, \*#p<0.01.