Supplemental Material

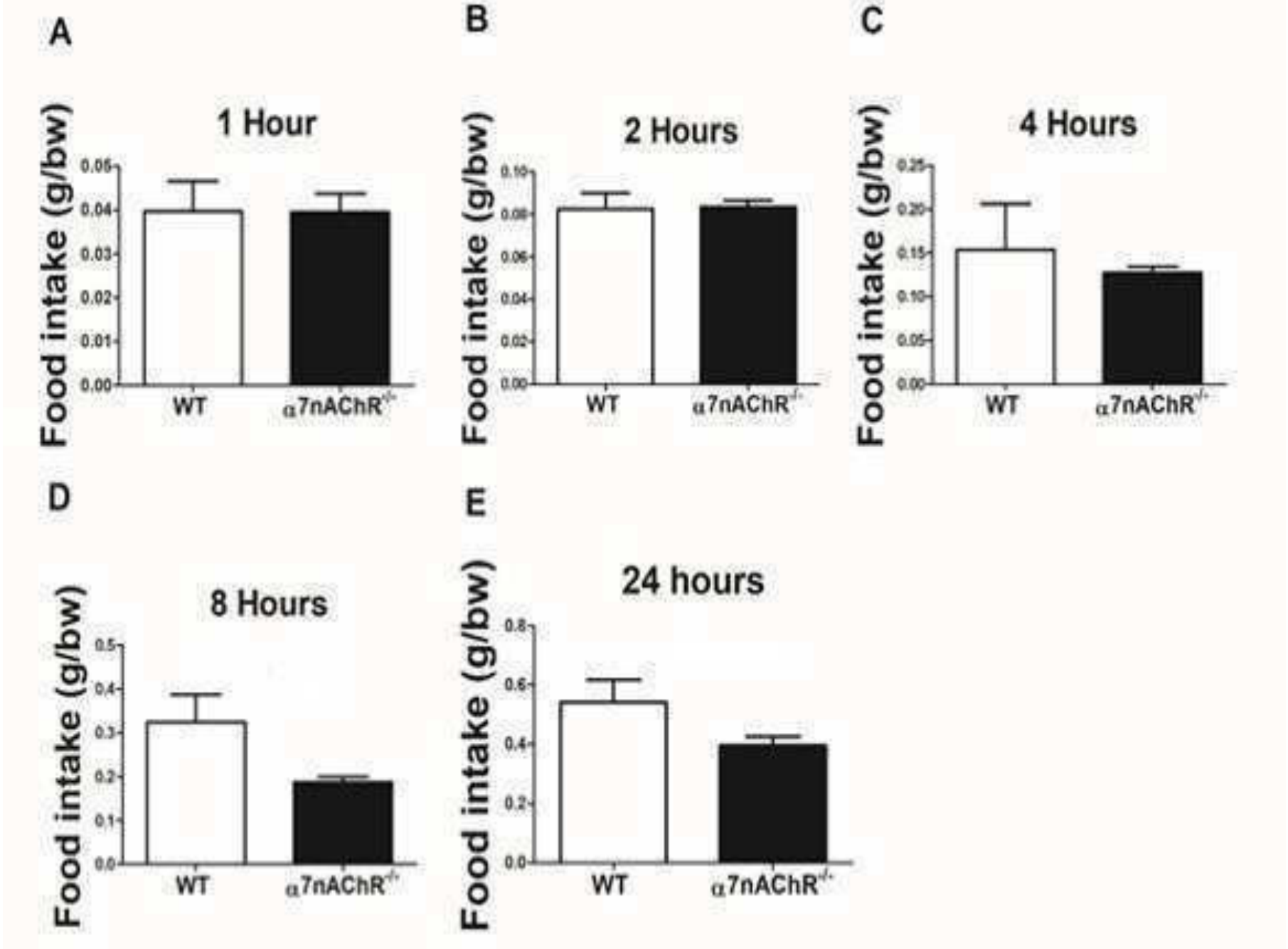
JAK2/STAT3 Pathway is Required for α7nAChR-Dependent Expression of POMC and AGRP Neuropeptides in Male Mice

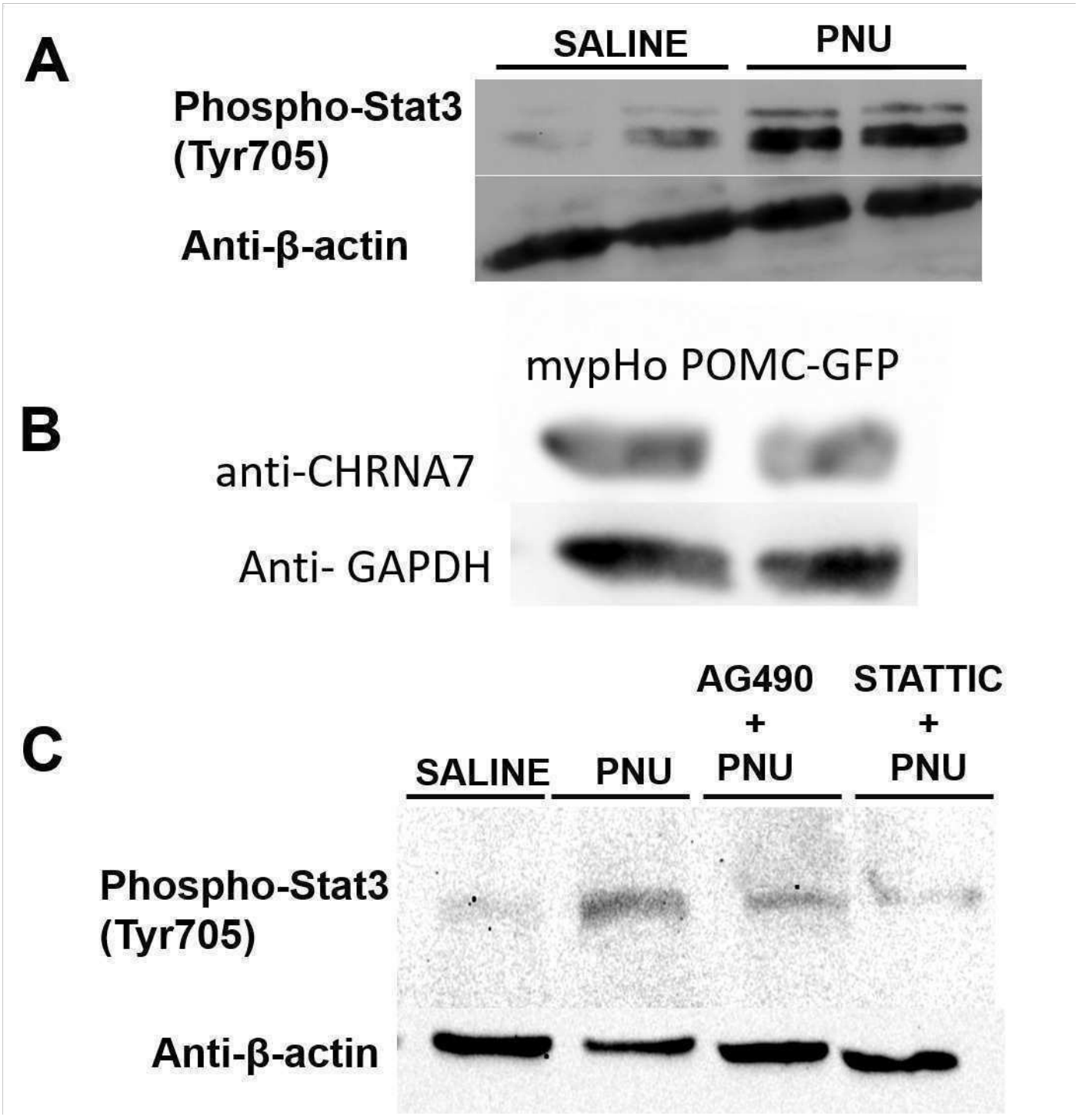
Camilla Mendes Souza[a] Camilla Libardi do Amaral[a] Suleyma Costa Souza[a]
Anelise Cristina Parras de Souza[a] Isis de Cássia Alves Martins[a]
Leticia Sanches Contieri[a] Marciane Milanski[a,b] Adriana Souza Torsoni[a,b]
Leticia Martins Ignacio-Souza[a,b] Marcio Alberto Torsoni[a,b]

[a]School of Applied Sciences, University of Campinas, Campinas, Brazil, [b]Obesity and Comorbidities Research Centre, University of Campinas, Campinas, Brazil

Fig. S1. Feed intake in α7nAChR knockout animals. The mice were fasted for 24 h and fed for 24 h. The cumulative food intake was analysed at (D) 4 h, (E) 8 h and (F) 24 h after refeeding (WT n = 4 α7KO = 4). Student's t-test was used.

Fig. S2. (A) Representative image of a pSTAT3 western blot (saline n = 2, PNU n = 2) after ICV injection of PNU (450 picomol/mouse). (B) Representative image of a CHRNA7 western blot in the mypHoA-POMC/GFP neuronal lineage. (C) Representative image of a pSTAT3 western blot in the hypothalamus of male mice given and ICV injection of 5 mM AG490 (2 µL/mouse) or 30 µM STATTIC (2 µL/mouse) before the injection of PNU (450 picomol/mouse).


A
1 Hour
Food intake (g/bw)
0.05
0.04
0.03
0.02
0.01
0.00
WT
α7nAChR-/-
B
2 Hours
Food intake (g/bw)
0.10
0.08
0.06
0.04
0.02
0.00
WT
α7nAChR-/-
C
4 Hours
Food intake (g/bw)
0.25
0.20
0.15
0.10
0.05
0.00
WT
α7nAChR-/-
D
8 Hours
Food intake (g/bw)
0.5
0.4
0.3
0.2
0.1
0.0
WT
α7nAChR-/-
m
24 hours
Food intake (g/bw)
0.8
0.6
0.4
0.2
0.0
WT
α7nAChR-/-


A
SALINE
PNU
Phospho-Stat3
(Tyr705)
Anti-β-actin
mypHo POMC-GFP
B
anti-CHRNA7
Anti- GAPDH
AG490
+
PNU
STATTIC
+
PNU
C
SALINE
PNU
Phospho-Stat3
(Tyr705)
Anti-β-actin