

Supplemental Table 1. RT-qPCR Gene Targets

Gene Name	Gene Symbol	Assay ID	Catalog #
corticotropin releasing hormone	<i>Crh</i>	Mm04206019_m1	4331182
estrogen related receptor alpha	<i>Esrra</i>	Mm00433143_m1	4331182
insulin receptor	<i>Insr</i>	Mm01211875_m1	4331182
leptin receptor	<i>Lepr</i>	Mm00440181_m1	4331182
melanocortin 4 receptor	<i>Mc4r</i>	Mm00457483_s1	4331182
neuropeptide Y	<i>Npy</i>	Mm01410146_m1	4331182
nuclear receptor subfamily 3, group C, member 1	<i>Nr3c1</i>	Mm00433832_m1	4331182
pro-opiomelanocortin-alpha	<i>Pomc</i>	Mm00435874_m1	4331182

TaqMan gene expression assays purchased from ThermoFisher Scientific, Carlsbad, CA.

Supplemental Table 2. Maternal Relationship with Male Offspring Energy Homeostasis

	Meal Size (g)	Meal Frequency (#)	Energy Expenditure	Hypothalamic <i>Insr</i>	Hypothalamic <i>Lepr</i>	Hypothalamic <i>Nr3c1</i>	Hypothalamic <i>Pomc</i>	Hypothalamic <i>Npy</i>
Pregnancy								
Body weight (conception), g	NS	NS	NS	(-) 0.57**	NS	NS	NS	NS
Body weight (delivery), g	NS	NS	(+) 0.94*	NS	(+) 0.56**	NS	NS	(-) 0.58**
Consumption								
Energy intake (pregnancy), kcal/day	NS	NS	(+) 0.94*	(-) 0.56**	(+) 0.55**	NS	NS	NS
Energy intake (lactation), kcal/day	NS	NS	(+) 0.94*	(-) 0.54**	NS	NS	NS	NS
Metabolic								
Cholesterol, mg/dL	NS	NS	NS	NS	NS	NS	NS	NS
Insulin, ng/mL	NS	NS	NS	NS	NS	NS	NS	NS
Leptin, ng/dL	NS	NS	NS	NS	(+) 0.46*	NS	(-) 0.46*	NS
NEFA, mEq/L	NS	NS	NS	NS	NS	NS	NS	NS
Phospholipids, mg/dL	NS	NS	NS	NS	NS	NS	NS	NS
Triglycerides, mg/dL	NS	NS	NS	NS	NS	NS	NS	NS

Results are expressed as correlation coefficient (R), ** p<0.05, *p=0.05-0.09, p>0.1 recorded as nonsignificant (NS). NEFA: nonesterified fatty acids; *Insr* : mRNA expression of hypothalamic insulin receptor; *Lepr*: mRNA expression of hypothalamic leptin receptor; *Nr3c1* : mRNA expression of hypothalamic glucocorticoid receptor; *Pomc*: mRNA expression of hypothalamic proopiomelanocortin (satiety neuropeptide); *Npy* : mRNA expression of hypothalamic neuropeptide y (hunger neuropeptide). N=3-5 (meal size, meal frequency, and energy expenditure); N=13-16 (*Insr*, *Lepr*, *Nr3c1*, *Pomc*, *Npy*).

Supplemental Table 3. Offspring Energy Homeostasis Relationship with Hypothalamic Appetite Signaling

	Meal Size (g)	Meal	Energy
Appetite Hypothalamic Receptor			
Hypothalamic <i>Insr</i>	NS	(-) 0.89**	NS
Hypothalamic <i>Lepr</i>	NS	NS	NS
Hypothalamic <i>Nr3c1</i>	NS	NS	NS
Appetite Neuropeptide			
Hypothalamic <i>Pomc</i>	NS	NS	NS
Hypothalamic <i>Npy</i>	NS	NS	NS
Peripheral Hormone			
Insulin, ng/mL	NS	(+) 0.99*	NS
Leptin, ng/dL	NS	NS	NS
Corticosterone, ng/dL	(+) 0.99**	NS	NS
NEFA, mEq/L	NS	NS	(-) 0.99*
Phospholipids, mg/dL	NS	NS	(+) 0.99**

Results are expressed as correlation coefficient (R), ** p<0.05, *p=0.05-0.09, p>0.1 recorded as nonsignificant (NS). NEFA: nonesterified fatty acids; *Insr* : mRNA expression of hypothalamic insulin receptor; *Lepr*: mRNA expression of hypothalamic leptin receptor; *Nr3c1* : mRNA expression of hypothalamic glucocorticoid receptor; *Pomc*: mRNA expression of hypothalamic proopiomelanocortin (satiety neuropeptide); *Npy* : mRNA expression of hypothalamic neuropeptide y (hunger neuropeptide). N=3-5.