Supplementary Table 1

Mouse Model	Body Weight/Length/Composition	Food Intake/Energy Expenditure	Reference
Paternal *Snord116* deletion (Brosius)	**Growth retardation** **Small body size** •Growth retardation from P5 •Low BW into adulthood •No obesity	N/A	Skryabin et al. 2007 (1) Lassi et al. 2015 (2)
Paternal *Snord116* deletion (Francke)	**Growth retardation** **Small body size** •Growth retardation from P2; growth rate normalizes post-weaning, but weight differences remain. •Smaller BW (40% smaller than WT) through adulthood •Decreased body length •Lower fat mass (DEXA) •Low liver/stomach weight postnatally.	**↑ Food intake*** **↑ Energy expenditure*** **Resistant to HFD and calorie restriction** •Ding: No difference in fast-refeeding; males 48 hours from food reintroduction have slightly higher cumulative FI •Lin: Higher fast-refeeding FI from 100mins post food re-introduction	Ding et al. 2008 (3) Lin et al. 2014 (4)
Paternal *Snord116* deletion (Francke)	**Small body size** **All mass components ↓** •Low BW through 22 weeks of age. •Weight lower across fat, lean and total mass.	**No diffs in food intake (12h average)** **↑ Energy expenditure*** •Increased day and night EE, but not independent of BW via ANCOVA. •Decreased RER in light hours, normal RER cycling.	Powell et al. 2013 (5)
Biallelic *Snord116* deletion (Francke)	**Small body size** **↓ fat mass; ↑ lean mass** •Low BW through 33 weeks of age. •Altered body composition in late adulthood (lower fat mass; slightly increased lean mass) <u>At 30°C:</u> **Low body weight remains** **No difference in body length**	**↑ Food intake*** **↑ Energy expenditure*** **Resistant to HFD and calorie restriction** •Increased EE (light hours) only in early adulthood. •Increased fast-refeeding food intake only 48hrs from food re-introduction. <u>At 30°C:</u> **No differences in food intake*** **No differences in energy expenditure***	Qi et al. 2016 (6) Qi et al. 2017 (7)
Biallelic *Snord116* deletion (Francke) in NPY neurons	**Small body size** **↓ fat mass** •Lower BW through 17 weeks of age. •Shorter body length <u>At 30°C:</u> **No difference in body length**	**↑ Food intake*** **↑ Energy expenditure*** •Increased daytime RER <u>At 30°C:</u> **No differences in food intake*** **No differences in energy expenditure*** •Lower RER and increase physical activity	Qi et al. 2016 (6) Qi et al. 2017 (7)
Snord116* deletion (Brosius); HPRT knock-in upstream maternal *Snord116	**"Rescue" growth delay** •Slight growth delay between P7-P19. •No difference in body weight compared to WT pups from 3 weeks old.	N/A	Rozhdest-vensky et al. 2016 (8)
Tamoxifen-induced *Snord116* deletion	**No difference in total body weight** **↑ White adipose tissue**	**↓ Food intake*** **↓ Refeeding food intake***	Purtell et al. 2017 (9)
Hypothalamic re-expression of *Snord116* in biallelic *Snord116* deletion	**↓ Body weight gain** **↓ Body length** •No difference in fat or lean mass	<u>At room temperature:</u> **No difference in food intake*** **No difference in refeeding food intake*** **↑ EE*** <u>At 30°C:</u> **↑Refeeding food intake at 48 hours*** **↑ EE***	Qi et al. 2017 (10)

Supplementary References

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