

**Table S3.** *P*-value for interaction between *TFAP2B* and fat group, and beta (95% confidence interval) for fat group by *TFAP2B* variant\*, in relation to weight loss, in analyses varying in fat group definition and adjustments, in NUGENOB.

Weight loss effect <sup>†</sup>	A. Original analyses of randomized fat group ( <i>n</i> =642)	B. Same as A but only including participants as in case C ( <i>n</i> =580)	C. Same as A but including adjustment for baseline fat% intake and change in energy intake ( <i>n</i> =580)	D. Same as A but only including participants as in case E ( <i>n</i> =519)	E. Analyses of reported fat% intake during the intervention of >35 versus <30 ( <i>n</i> =519)
<i>P</i> -value	0.00007	0.0001	0.00007	0.005	0.008
Beta: AA	0.99 (0.40; 1.58)	1.15 (0.53; 1.77)	1.08 (0.46; 1.69)	1.06 (0.41; 1.71)	0.99 (0.37; 1.61)
Beta: AG	-0.80(-1.54;-0.06)	-0.67 (-1.43; 0.10)	-0.78 (-1.54; -0.02)	-0.35 (-1.18; 0.48)	-0.15 (-0.95; 0.66)

\*Results are not reported for the rare GG variant because results were not applicable in this group after further sample size reduction in analyses B-E.

<sup>†</sup>*P*-value for interaction between *TFAP2B* and fat group; beta; estimates for comparison between the high-fat versus the low-fat group.