

Supplementary Table SIV An association analysis under dominant model between four SNPs and semen parameters in fertile men, and young men from the general population in Japan.

SNP	Semen Parameter	Fertile		Young		Combined		Heterogeneity	
		β (SE)	P	β (SE)	P	β (SE) [model] ^a	P _{meta}	P _{het}	I ² (%)
rs7867029	Conc.	0.24 (0.27)	0.37	−0.10 (0.18)	0.58	0.0075 (0.15) [F]	0.96	0.29	10.8
	Vol.	0.077 (0.031)	0.014	0.0095 (0.024)	0.69	0.040 (0.034) [R]	0.23	0.86	66.0
	TSN	0.95 (0.53)	0.070	−0.074 (0.32)	0.81	0.35 (0.51) [R]	0.49	0.094	64.4
	TMSN	1.033 (0.41)	0.012	−0.21 (0.26)	0.42	0.37 (0.62) [R]	0.55	0.011	84.7
	Motility (%)	4.4 (2.60)	0.091	−1.98 (0.89)	0.026	0.74 (3.16) [R]	0.81	0.020	81.5
rs12870438	Conc.	0.53 (0.33)	0.11	0.051 (0.22)	0.82	0.20 (0.18) [F]	0.28	0.23	31.3
	Vol.	−0.061 (0.038)	0.11	−0.0076 (0.029)	0.79	−0.027 (0.023) [F]	0.28	0.27	19.3
	TSN	−0.054 (0.64)	0.93	−0.0055 (0.38)	0.99	−0.018 (0.33) [F]	0.96	0.95	0.0
	TMSN	−0.045 (0.50)	0.93	−0.11 (0.31)	0.72	−0.095 (0.27) [F]	0.72	0.91	0.0
	Motility (%)	1.16 (1.88)	0.54	−0.52 (1.08)	0.63	−0.10 (0.94) [F]	0.91	0.44	0.0
rs7174015	Conc.	−0.28 (0.32)	0.38	0.11 (0.22)	0.61	−0.014 (0.18) [F]	0.94	0.31	2.1
	Vol.	0.079 (0.037)	0.031	−0.0002 (0.028)	0.99	0.036 (0.040) [R]	0.36	0.085	66.3
	TSN	0.44 (0.62)	0.48	0.13 (0.37)	0.73	0.21 (0.32) [F]	0.51	0.66	0.0
	TMSN	0.41 (0.48)	0.40	0.079 (0.31)	0.80	0.17 (0.26) [F]	0.51	0.57	0.0
	Motility (%)	1.00 (1.82)	0.58	−0.032 (1.05)	0.98	0.23 (0.91) [F]	0.80	0.62	0.0
rs724078	Conc.	0.093 (0.26)	0.72	0.069 (0.17)	0.69	0.076 (0.14) [F]	0.60	0.94	0.0
	Vol.	−0.049 (0.030)	0.87	0.019 (0.023)	0.40	0.011 (0.018) [F]	0.56	0.52	0.0
	TSN	0.17 (0.50)	0.74	0.15 (0.30)	0.61	0.16 (0.26) [F]	0.55	0.98	0.0
	TMSN	−0.24 (0.40)	0.55	0.25 (0.25)	0.31	0.12 (0.21) [F]	0.58	0.30	8.5
	Motility (%)	−1.33 (1.48)	0.37	0.84 (0.85)	0.32	0.31 (0.74) [F]	0.68	0.20	38.3

Data are shown as the estimated liner regression statistic β , standard error (SE) and P-value with adjustments for age, BMI and ejaculation abstinence. Motility and total motile sperm number were additionally adjusted for time from masturbation to test. The sperm concentration, semen volume, total sperm number and total motile sperm number were processed using square-root-transformed values. Bold numbers indicate P-values of <0.05.

Conc., sperm concentration; Vol., semen volume; TSN, total sperm numbers; TMSN, total motile sperm numbers; P_{het}, P-value for heterogeneity.

^aThe β -coefficient and its SE were summarized using an inverse variance-weighted meta-analysis under fixed-effects model [F] or the DerSimonian and Laird method under random-effects model [R].

Reference

1. Gabriel SB, Schaffner SF, Nguyen H, Moore JM, Roy J, Blumenstiel B, Higgins J, DeFelice M, Lochner A, Faggart M *et al.* The structure of haplotype blocks in the human genome. *Science* 2002;**296**:2225–2229.