

**Supplementary Table 4. Association between variants in or near its target genes and disease and traits in NHGRI-EBI GWAS**

Trait	SNP	Chr:Pos	Phenotype, disease, and trait	Reported gene(s)	Associated allele	p value	β Coefficient
FEV <sub>1</sub>	rs7742369	6:34,165,721	Birth weight	HMGA1	G	1.00E-08	0.0268 unit increase
			Height	HMGA1	G	1.00E-13	0.11 cm increase
Height	rs2780226	6:34,199,092	Height	HMGA1	T	8.00E-28	0.076 unit decrease
			Waist circumference adjusted for BMI	CYCSSL1, HMGA1	C	8.00E-10	0.0504 cm increase
Height	rs1150781	6:34,214,322	Height	HMGA1, C6orf1	C	2.00E-08	0.0048 unit increase
	11:130,247,700	11:130,247,700	-	-	-	-	-
	12:110,390,979	12:110,390,979	-	-	-	-	-
	rs114591848	14:21,550,212	-	-	-	-	-
FEV <sub>1</sub> /FVC	rs7671167	4:89,883,979	COPD	FAM13A	-	1.00E-11	Odd ratio = 1.32
			Post bronchodilator FEV <sub>1</sub>	FAM13A	T	9.00E-08	0.046 unit decrease
			Post bronchodilator FEV <sub>1</sub> /FVC ratio	FAM13A	T	2.00E-10	0.011 unit decrease
	rs2239688	6:32,054,212	-	-	-	-	-
	rs2070600	6:32,151,443	COPD	AGER	C	6.00E-10	Odd ratio = 1.24
			Emphysema imaging measurement	AGER	T	5.00E-09	0.14 unit decrease
			FEV <sub>1</sub> /FVC ratio	AGER	T	3.00E-25	0.14 unit increase
			FEV <sub>1</sub> /FVC ratio, forced expiratory volume, PF measurement	AGER, PPT2	T	3.00E-14	Odd ratio = 1.0

NHGRI-EBI, National Human Genome Research Institute-European Bioinformatics Institute; GWAS, genome-wide association study; SNP, single nucleotide polymorphism; Chr, chromosome; Pos, position; FEV<sub>1</sub>, forced expiratory volume in 1 second; HMGA1, high mobility group AT-hook 1; BMI, body mass index; CYCSSL1, cytochrome C, somatic-like 1; FVC, forced vital capacity; COPD, chronic obstructive pulmonary disease; FAM13A, family with sequence similarity 13 member A; AGER, advanced glycosylation end-product specific receptor; PF, pulmonary function; PPT2, palmitoyl-protein thioesterase 2.