rs34210653 significantly associates with reduced eosinophils in UK Biobank 50K exomes

Variant	Hgvs c.	Hgvs p.	Number individuals	Number Carriers (Ref/Ref|Ref/Alt|Alt/Alt)
17:4632019:G:A	c.1679C>T	p.Thr560Met	44,147	42,305|1,816|26

Variant	Effect (SD units)	Trait Mean Ref/Ref	Trait Mean Ref/Alt	Trait Mean Alt/Alt	AAF	p-value
17:4632019:G:A	-0.1528	0.1665	0.1495	0.1658	0.021	3.49E-11

Figure 1

rs34210653 significantly associates with reduced eosinophils in UK Biobank 500K genotyping

Variant	Hgvs c.	Hgvs p.	Number individuals	Number Carriers (Ref/Ref/Ref/Alt/Alt/Alt)	Effect (SD units)	AAF	p-value
17:4632019:G:A	c.1679C>T	p.Thr560Met	440,966	422,660/18,163/141	-0.1716	0.021	3.81E-117

Figure 2

**rs34210653 significantly associates with decreased odds of nasal polyp and allergic rhinitis and
associates with doctor diagnosed asthma in UK Biobank 500K genotyping**

Phenotype	Variant	Cases Ref/Ref|Ref/Alt|Alt/Alt	Controls Ref/Ref|Ref/Alt|Alt/Alt
Nasal polyp	17:4632019:G:A	2,971|33|0	429,401|18,503|14
Doctor diagnosed hayfever or allergic rhinitis	17:4632019:G:A	25,189|913|7	85,228|3,822|33
Doctor diagnosed asthma	17:4632019:G:A	47,143|1,828|10	396,069|17,138|135

Figure 3

rs34210653 significantly associates with decreased odds of nasal polyp and allergic rhinitis and associates with doctor diagnosed asthma in UK Biobank 500K genotyping

Phenotype	Variant	Het OR (95% CI)	Hom OR (95% CI)	AAF	p-value
Nasal polyp	17:4632019:G:A	0.258 (0.183, 0.363	NA	0.021	5.27E-15
Doctor diagnosed hayfever or allergic rhinitis	17:4632019:G:A	0.808 (0.751, 0.870)	0.718 (0.317, 1.623)	0.021	2.99E-8
Doctor diagnosed asthma	17:4632019:G:A	0.896 (0.853, 0.941)	0.622 (0.327, 1.183)	0.021	4.41E-6

Figure 3 (cont.)

rs34210653 significantly associates with decreased eosinophils in GHS 90K exomes

Variant	Hgvs c.	Hgvs p.	Number individuals	Number Carriers (Ref/Ref|Ref/Alt|Alt/Alt)
17:4632019:G:A	c.1679C>T	p.Thr560Met	69,469	67,320|2,132|17

Variant	Effect (SD units)	Trait Mean Ref/Ref	Trait Mean Ref/Alt	Trait Mean Alt/Alt	AAF	p-value
17:4632019:G:A	-0.0904	0.1827	0.1750	0.1596	0.016	4.24E-3

Figure 4

ALOX15 associates with decreased odds of nasal polyp in GHS 90K exomes

Phenotype	Cases Ref/Ref|Ref/Alt|Alt/Alt	Controls Ref/Ref|Ref/Alt|Alt/Alt
Nasal polyp	533|13|0	66,373|3,085|19

Phenotype	Het OR (95% CI)	Hom OR (95% CI)	AAF	p-value
Nasal polyp	0.536 (0.309, 0.930)	NA	0.022	2.99E-2

Figure 5

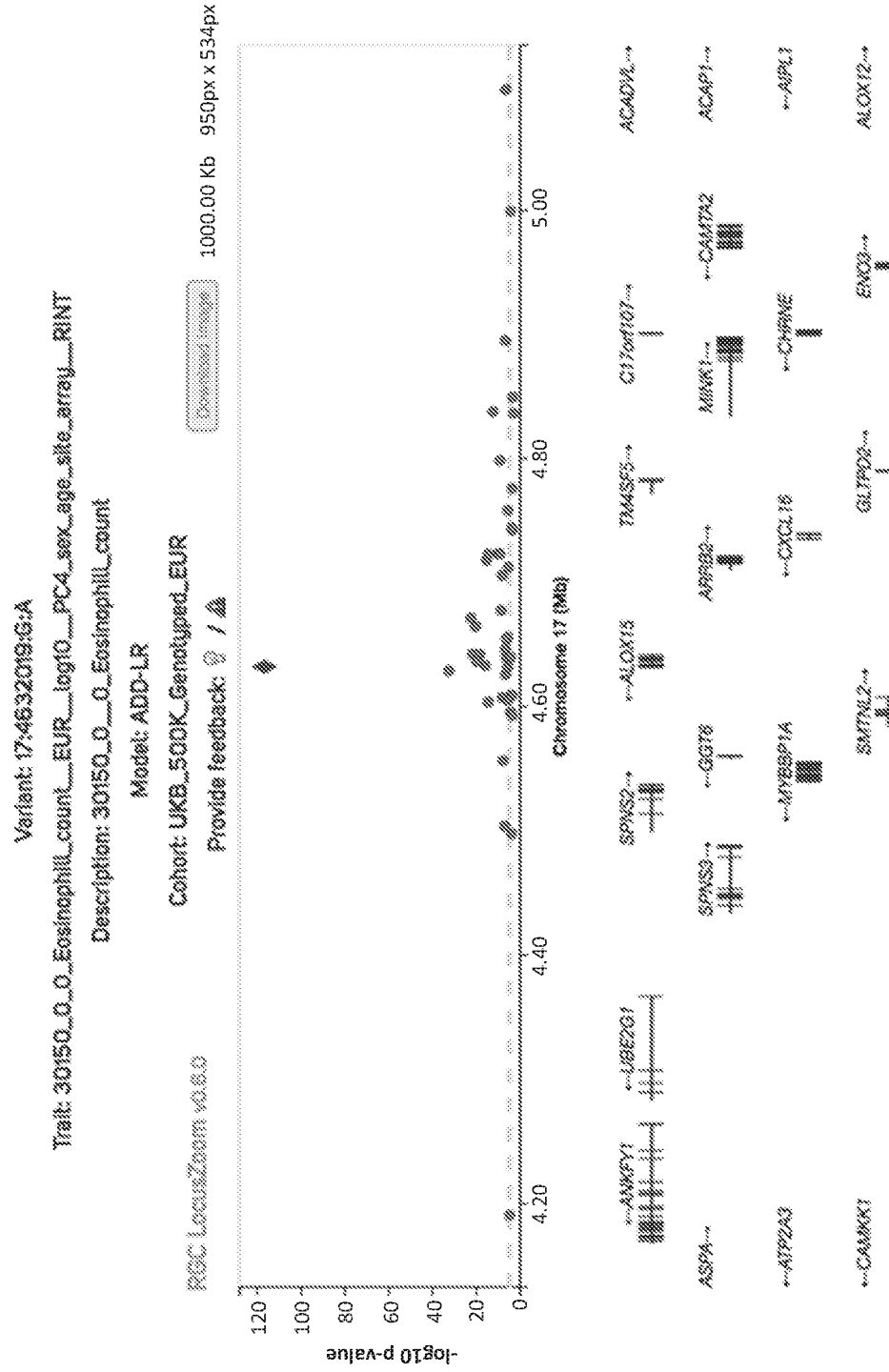

Variant: 17:46320196:G:A
Trait: 30150_0_0_Eosinophill_count__EUR__log10__PC4_sex_age_site_array__RINT
Description: 30150_0__0_Eosinophill_count
Model: ADD-LR
Cohort: UKB_500K_Genotyped_EUR
Provide feedback:
1000.00 Kb 950px x 534px
RGC LocusZoom v0.8.0
-log10 p-value
Chromosome 17 (Mb)
4.20
4.40
4.60
4.80
5.00
ASPA
ANKFY1
UBE2G1
ATP2A3
CAMKK1
SPNS3
SPNS2
GGT6
MYBSP1A
SMTNL2
ALOX15
ARHGAP
CXCL16
TM4SF5
GLTPD2
MMP1
C17orf107
CHRNE
CAMTA2
ENO3
ACADVL
ACAP1
APOL1
ALOX12

Figure 6

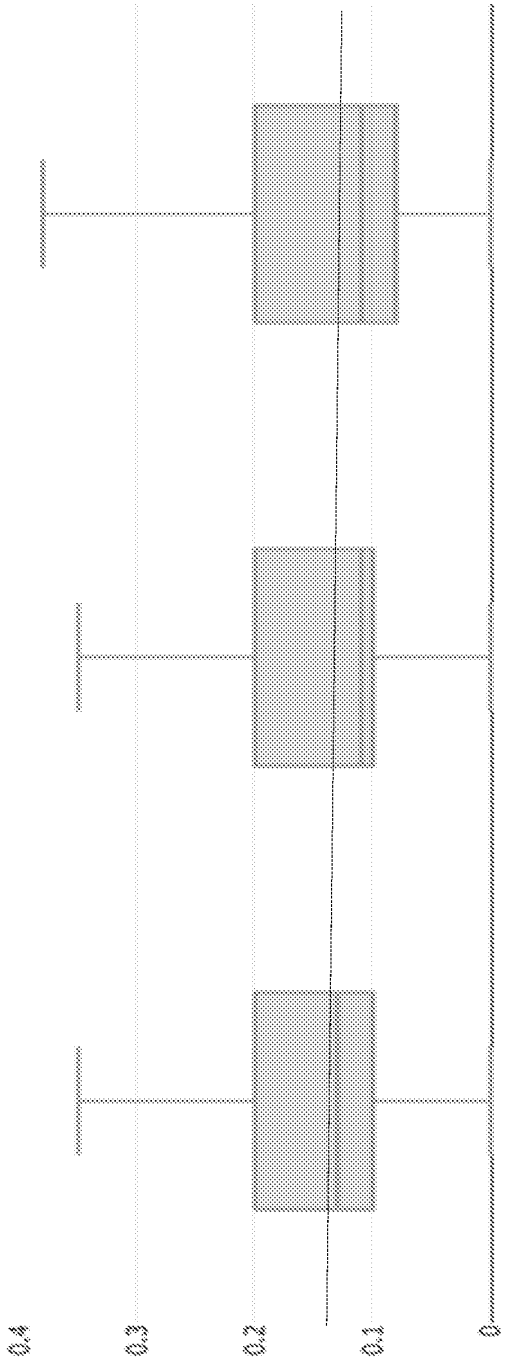

Clinical Scale: 30150_0_0_Eosinophil_count__ALL__None__None__RAW
0.4
0.3
0.2
0.1
0
HomRR
N: 422660
mean: 0.16526
sd: 0.106
mad: 0.0600
HetRA
N: 18165
mean: 0.14690
sd: 0.0947
mad: 0.0500
HomAA
N: 141
mean: 0.14745
sd: 0.103
mad: 0.0400

Figure 7

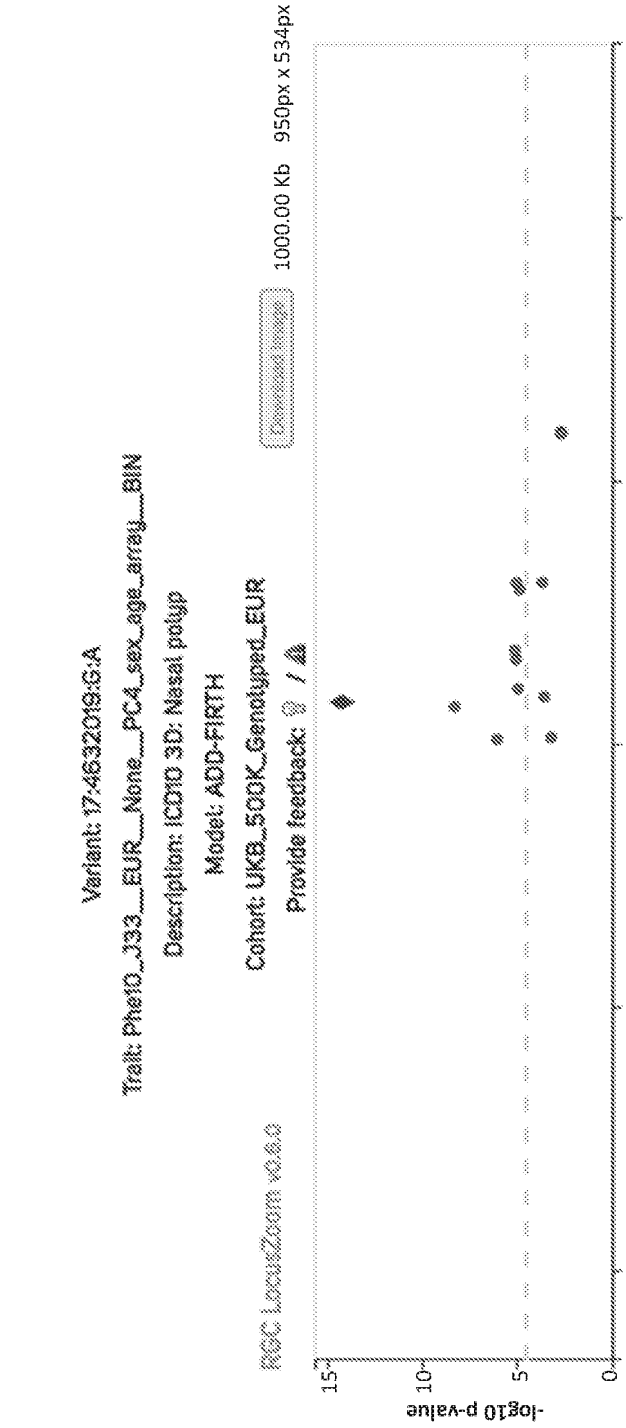

Variant: 17:46322019:G:A
Trait: Phe10_J33___EUR___None___PC4_sex_age_array____BIN
Description: ICD10 3D: Nasal polyp
Model: ADD-FIRTH
Cohort: UKB_500K_Genotyped_EUR
Provide feedback:
1000.00 Kb
950px x 534px
LocusZoom v0.6.0
-log10 p-value
15
10
5
0
4.20
4.40
4.60
4.80
5.00
Chromosome 17 (Mb)
ANKFY1
UBE2G1
SPNS2
ALOX15
TMEM135
C17orf107
ACADVL
ASPA
SPNS3
GSTI6
ARRB2
MINK1
CAMTA2
ACAP1
ATP5A3
MYBBP1A
CXCL16
CHRNE
AIPL1
CAMKK1
SMTNL2
GLTPD2
ENO3
ALOX12

Figure 8