

**Supplementary file 1: Table of selected SNVs, risk alleles and risk allele frequencies**

<b>SNV or gene</b>	<b>Risk allele</b>	<b>Chromosome</b>	<b>Risk allele frequency*</b>
<i>FLG</i>	Any of 4 loss of function mutations	1	
rs10214237	T	5	0.72
rs1057258	C	2	0.82
rs10995251	C	10	0.62
rs112111458	A	2	0.87
rs11657987	T	17	0.51
rs12153855	T	6	0.88
rs12295535	T	11	0.03
rs16948048	G	17	0.37
rs17389644	A	4	0.24
rs17881320	T	17	0.08
rs2041733	T	16	0.47
rs2143950	T	14	0.17
rs2164983	A	19	0.19
rs2227483	T	12	0.55
rs2228145	C	1	0.29
rs2897442	C	5	0.30
rs479844	G	11	0.56
rs6010620	G	20	0.77
rs6473227	C	8	0.38
rs7127307	T	11	0.53
rs7146581	C	14	0.74
rs7927894	T	11	0.35
rs13015714	G	2	0.21

\* Allele frequencies derived from

[http://snipa.helmholtz-muenchen.de/snipa/index.php?task=snp\\_annotation](http://snipa.helmholtz-muenchen.de/snipa/index.php?task=snp_annotation),

except rs2228145 which is derived from

[https://www.ncbi.nlm.nih.gov/snp/rs2228145#frequency\\_tab](https://www.ncbi.nlm.nih.gov/snp/rs2228145#frequency_tab)

**Supplementary file 2:**

**Cohort descriptions for 'Gene-environment interaction affects risk of atopic eczema: population and *in vitro* studies'**

**Standl *et al.* 2025.**

## **ALSPAC**

### **Recruitment**

Pregnant women resident in Avon, UK with expected dates of delivery between 1st April 1991 and 31st December 1992 were invited to take part in the study. 20,248 pregnancies have been identified as being eligible and the initial number of pregnancies enrolled was 14,541. Of the initial pregnancies, there was a total of 14,676 fetuses, resulting in 14,062 live births and 13,988 children who were alive at 1 year of age. When the oldest children were approximately 7 years of age, an attempt was made to bolster the initial sample with eligible cases who had failed to join the study originally. As a result, when considering variables collected from the age of seven onwards (and potentially abstracted from obstetric notes) there are data available for more than the 14,541 pregnancies mentioned above: The number of new pregnancies not in the initial sample (known as Phase I enrolment) that are currently represented in the released data and reflecting enrolment status at the age of 24 is 906, resulting in an additional 913 children being enrolled (456, 262 and 195 recruited during Phases II, III and IV respectively). The phases of enrolment are described in more detail in the cohort profile paper and its update (see footnote 5 below). The total sample size for analyses using any data collected after the age of seven is therefore 15,447 pregnancies, resulting in 15,658 fetuses. Of these 14,901 children were alive at 1 year of age. Further details of enrolment have been described previously<sup>1,2</sup>. "Please note that the study website contains details of all the data that is available through a fully searchable data dictionary and variable search tool" and reference the following webpage: <http://www.bristol.ac.uk/alspac/researchers/our-data/>. Ethical approval for the study was obtained from the ALSPAC Ethics and Law Committee and the Local Research Ethics Committees. Consent for biological samples has been collected in accordance with the Human Tissue Act (2004). Informed consent for the use of data collected via questionnaires and clinics was obtained from participants following the recommendations of the ALSPAC Ethics and Law Committee at the time.

### **Definition of eczema cases and controls**

The children have been followed up with regular questionnaires and clinic visits. Data collected from the questionnaires was used to classify children as AD cases or controls. When the children were approximately 81, 91, 103 months, 10, 13, 14 years, parents were asked the following questions [possible answers]:

1. Has your child in the past 12 months had eczema? [Yes and saw a Dr; Yes, but did not see a Dr; No]
2. Has a doctor ever actually said that your child has eczema? [yes; no] (10 & 14 years only)

We defined cases as the children whose parents answered "Yes and saw a Dr" to Q1 or "yes" to Q2. We defined controls as the children who were not a case and whose parents answered "No" to Q2 at 14 years.

### **Definition of environmental exposures**

#### Antibiotics (in utero / up to 6 months / up to 12 months)

At 32 weeks gestation, pregnant mothers were asked if they had taken medication for infection in the last 3 months, where parents answered either "yes" or "no". When children were approximately 6 months parents were asked if their child had taken antibiotics in the past 6 months. Again at 15 months, parents were asked of the frequency of antibiotic use, where they indicated that the child had never taken antibiotics, or had been administered for 1 episode, or more than 1 episode.

#### Cesarean section

When children were approximately 8 weeks old mothers were asked if they had delivered via a caesarean section, to which they answered "yes" or "no".

### Cat ownership

At 8 weeks gestation pregnant mothers were asked of the number of cats in their household.

### Dog ownership

At 8 weeks gestation pregnant mothers were asked of the number of dogs in their household.

### Breastfeeding (duration / ever any / ever exclusive)

When children were approximately 4 weeks old parents were asked if their child was exclusively breastfed during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> week of life, to which they indicated “bottle and breast”, “bottle only”, “breast only” or other.

When children were approximately 4 weeks parents were asked if their child had ever been breastfed to which they answered “yes” or “no”. Again at around 6 months, parents were asked if their child had ever been breastfed where they answered “never”, yes and still breastfeeding, or yes and had stopped breastfeeding.

When children were roughly 6 months parents were asked of the duration of breastfeeding where they indicated “never”, “less than 1 month”, “1 to 3 months”, “3 to 6 months” or “6 or more months”.

### Presence of older siblings

When children were approximately 6 months old, parents were asked of the number of other children in the household.

### Environmental tobacco smoke exposure (in utero / up to 2 years)

At 18 weeks gestation pregnant mothers were asked if they had smoked tobacco during the first 3 months of pregnancy and in the last 2 weeks. When children were around 8 weeks old mothers were asked if they had smoked cigarettes during the last 2 months of pregnancy and if they had smoked since giving birth.

### Washing practices (up to 6 months / up to 2 years)

When children were approximately 6 months and 24 months, parents were asked of the frequency that the child bathed or showered.

### **Definition of parental education (as a measure of socioeconomic status)**

Parental education was defined as the highest qualification of the mother at 32 weeks pregnant. Levels included “CSE”, “Vocational qualification”, “O-levels”, “A-levels”, “Degree”.

### **Definition of family history of atopic disease**

Mothers were asked if they had ever had eczema where they responded “no” or “yes” to having had eczema currently or in the past.

### **Genotyping**

ALSPAC children were genotyped using the Illumina HumanHap550 quad chip genotyping platforms by 23andme subcontracting the Wellcome Trust Sanger Institute, Cambridge, UK and the Laboratory Corporation of America, Burlington, NC, US. The resulting raw genome-wide data were subjected to standard quality control methods. Individuals were excluded on the basis of gender mismatches; minimal or excessive heterozygosity; disproportionate levels of individual missingness (>3%) and insufficient sample replication (IBD < 0.8). Population stratification was assessed by multidimensional scaling analysis and compared with Hapmap II (release 22) European descent (CEU), Han Chinese, Japanese and Yoruba reference populations; all individuals with non-European ancestry were removed. SNPs with a minor allele frequency of < 1%, a call rate of < 95% or evidence for violations of Hardy-Weinberg equilibrium ( $P < 5E-7$ ) were removed. Cryptic relatedness was measured as proportion of identity by descent (IBD > 0.1). Related subjects that passed all other quality control

thresholds were retained during subsequent phasing and imputation. 9,115 subjects and 500,527 SNPs passed these quality control filters.

ALSPAC mothers were genotyped using the Illumina human660W-quad array at Centre National de Génotypage (CNG) and genotypes were called with Illumina GenomeStudio. PLINK (v1.07) was used to carry out quality control measures on an initial set of 10,015 subjects and 557,124 directly genotyped SNPs. SNPs were removed if they displayed more than 5% missingness or a Hardy-Weinberg equilibrium P value of less than  $1.0 \times 10^{-6}$ . Additionally, SNPs with a minor allele frequency of less than 1% were removed. Samples were excluded if they displayed more than 5% missingness, had indeterminate X chromosome heterozygosity or extreme autosomal heterozygosity. Samples showing evidence of population stratification were identified by multidimensional scaling of genome-wide identity by state pairwise distances using the four HapMap populations as a reference, and then excluded. Cryptic relatedness was assessed using a IBD estimate of more than 0.125 which is expected to correspond to roughly 12.5% alleles shared IBD or a relatedness at the first cousin level. Related subjects that passed all other quality control thresholds were retained during subsequent phasing and imputation. 9,048 subjects and 526,688 SNPs passed these quality control filters.

We combined 477,482 SNP genotypes in common between the sample of mothers and sample of children. We removed SNPs with genotype missingness above 1% due to poor quality (11,396 SNPs removed) and removed a further 321 subjects due to potential ID mismatches. This resulted in a dataset of 17,842 subjects containing 6,305 duos and 465,740 SNPs (112 were removed during liftover and 234 were out of HWE after combination). We estimated haplotypes using ShapeIT (v2.r644) which utilises relatedness during phasing. The phased haplotypes were then imputed to the Haplotype Reference Consortium (HRCr1.1, 2016) panel of approximately 31,000 phased whole genomes. The HRC panel was phased using ShapeIT v2, and the imputation was performed using the Michigan imputation server.

This gave 8,237 eligible children and 8,196 eligible mothers with available genotype data after exclusion of related subjects using cryptic relatedness measures described previously.

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Genome-wide genotyping data was generated by Sample Logistics and Genotyping Facilities at Wellcome Sanger Institute and LabCorp (Laboratory Corporation of America) using support from 23andMe. A comprehensive list of grants funding is available on the ALSPAC website (<http://www.bristol.ac.uk/alspac/external/documents/grant-acknowledgements.pdf>).

## References

1. Fraser A, Macdonald-Wallis C, Tilling K, Boyd A, Golding J, Davey Smith G, et al. Cohort Profile: The Avon Longitudinal Study of Parents and Children: ALSPAC mothers cohort. *Int J Epidemiol* [Internet]. 2013 [cited 2021 Jul 20];42:97–110. Available from: <https://academic.oup.com/ije/article/42/1/97/694445>

2. Boyd A, Golding J, Macleod J, Lawlor DA, Fraser A, Henderson J, et al. Cohort Profile: The 'Children of the 90s'—the index offspring of the Avon Longitudinal Study of Parents and Children. *Int J Epidemiol* [Internet]. 2013 [cited 2021 Jul 20];42:111–27. Available from: <https://academic.oup.com/ije/article/42/1/111/694290>

## ***COPSAC2000 & COPSAC2010***

### **Recruitment**

The COPSAC2000 birth cohort study is a prospective clinical study of a birth cohort of 411 infants born to mothers with a history of asthma. The newborns were enrolled at the age of 1 month, the recruitment of which was previously described in detail (1-3). The study was approved by the Ethics Committee for Copenhagen (KF 01-289/96) and The Danish Data Protection Agency (2008-41-1754) and informed consent was obtained from both parents.

COPSAC2010 is a mother child cohort comprising 700 children born to unselected mothers from Denmark as described previously in detail (4). The study is conducted in accordance with the Declaration of Helsinki and was approved by the Danish Ethics Committee (H-B-2008-093) and the Danish Data Protection Agency (2008-41-2599).

### **Definition of eczema cases and controls**

The families used doctors employed at the clinical research unit, and not the family practitioner, for diagnosis and treatment of AD and other skin-related symptoms. Skin lesions were described at both scheduled visits at 6-monthly intervals and acute visits with skin symptoms according to pre-defined morphology and localization; AD was defined based on the Hanifin-Rajka criteria as previously detailed (5).

Children without any eczema diagnosis were used as controls. Cases from the COPSAC2000 dataset is based on an eczema diagnosis during the first 17 years of life. Cases from the COPSAC2010 dataset is based on an eczema diagnosis during the first 7 years of life.

### **Definition of environmental exposures**

#### Antibiotics (in utero / up to 6 months / up to 12 months)

Use of antibiotics in utero was determined if the mother had used any antibiotics during one of the three trimesters. The 6- and 12-months variables were made similar using medical prescription history for the child. Antibiotic was classified using the following atc codes: J01+P01AB01 and J01+G04A C01.

#### Cesarean section

Mode of delivery is based on the mother's information and validated using medical records. 1 indicate that a cesarean section occurred, regardless of it being planned or acute. Natural births are 0.

#### Cat ownership

Using data on how many days a child was exposed to a cat at home during the first year of life. Exposure is being in the same room if indoor, touching if outdoor. Children with recordings of a cat in their home during the first year of life was set to 1, else 0.

#### Dog ownership

Similar to the cat ownership variable.

#### Breastfeeding (duration / ever any / ever exclusive)

Based on information from the mother. The duration of breastfeeding was calculated as the difference between the birthday and the reported end date for breastfeeding. The ever-breastfeeding variable is 1 if the difference between the birthday and the breastfeeding end date is more than 7 days. If the children were breastfed more than 7 days, then the exclusive breastfed variable is 1 otherwise it is 0.

### Presence of older siblings

Sibling information is based on whether any older children is in the household. The presence of older children isn't necessarily blood relatives of the children.

### Environmental tobacco smoke exposure (in utero / up to 2 years)

Passive smoking for the child in the first 2 years is based on the parent's own answer to "Days of smoking" and "child exposed to passive smoking". For each child we have the number of days with exposure to passive smoking, and the binary variable is 1 if the child had any passive smoke exposure, and 0 otherwise. The in-utero exposure is based on whether the mother was actively smoking during pregnancy. If any active smoking was recorded, the variable was set to 1, otherwise 0.

### **Definition of parental education (as a measure of socioeconomic status)**

The educational definition is based on the mother's longest completed education at time of 6-year visit. If the mothers had completed university, then these are coded as 1, otherwise 0.

### **Genotyping**

COPSAC cohorts were genotyped on the Illumina HumanOmniExpressExome 8 v1-2 BeadChip (951,117 SNPs) at the AROS Applied Biotechnology AS center, Aarhus, Denmark. SNP genotype calling for COPSAC cohorts was performed using the GenCall <sup>51</sup> followed by zCall <sup>52</sup>. SNPs with a) minor allele frequency (MAF) > 0.01, b) cluster separation score  $\geq 0.3$ , c) individual call rate > 99%, d) SNP call rate > 99% and e) Hardy Weinberg Equilibrium (HWE) p-values > 1e-6 were included. Individuals with a sex mismatch along with genetic duplicates or related individuals were excluded using identity by descent (IBD) analyses. In addition, heterozygosity outliers (>0.37 and <0.27) were removed from the analysis. Individuals not clustering with the European ancestry (Utah residents with ancestry from Northern or Western Europe (CEU)) were excluded using the multidimensional scaling analyses seeded with individuals from the International HapMap 3 project.

### **Acknowledgments and Funding**

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All funding received by COPSAC is listed on [www.copsac.com](http://www.copsac.com). The Lundbeck Foundation (Grant no R16-A1694); The Ministry of Health (Grant no 903516); Danish Council for Strategic Research (Grant no 0603-00280B) and The Capital Region Research Foundation have provided core support to the COPSAC research center.

### **References**

1. Bisgaard H. The Copenhagen Prospective Study on Asthma in Childhood (COPSAC): design, rationale, and baseline data from a longitudinal birth cohort study. *Ann Allergy Asthma Immunol.* 93, 381–389 (2004)
2. Bisgaard H, Hermansen MN, Loland L, Halkjaer LB, Buchvald F. Intermittent inhaled corticosteroids in infants with episodic wheezing. *N Engl J Med.* **354**, 1998–2005 (2006).
3. Bisgaard H *et al.* Childhood asthma after bacterial colonization of the airway in neonates. *N Engl J Med.* **357**, 1487–1495 (2007).
4. Bisgaard, H. *et al.* Deep phenotyping of the unselected COPSAC2010 birth cohort study. *Clin. Exp. Allergy* **43**, 1384–1394 (2013).
5. Bisgaard H *et al.* Gene-environment interaction in the onset of eczema in infancy: filaggrin loss-of-function mutations enhanced by neonatal cat exposure. *PLoS Med.* **5**, e131 (2008).



## ***Danish National Birth Cohort (DNBC)***

### **Recruitment**

Cited from previous paper:<sup>1</sup>

The Danish National Birth Cohort (DNBC) is a population-based cohort of more than 100,000 pregnancies, recruited in the years 1996-2002<sup>2</sup> Extensive phenotype information was collected by computer-assisted telephone interviews twice during pregnancy as well as 6 and 18 months after delivery. Additional questionnaire-based follow-up surveys are conducted at regular intervals. The DNBC mothers provided written informed consent on behalf of themselves and their children. The study protocol was approved by the Danish Scientific Ethical Committee and the Danish Data Protection Agency.

### **Definition of eczema cases and controls**

Cited from previous paper:<sup>1</sup>

Cases with early onset eczema were identified from the 18 months telephone interview data using an algorithm specifically developed for this purpose.<sup>3</sup> In addition, children with a positive response to both of the following two questions from the 7 year survey were included in the case group: 1) "Has a doctor ever said that your child had eczema, also known as allergic rash?" and 2) "Has your child ever had an itchy *rash which was coming and going for at least 6 months?*". Finally, children with ICD10 diagnosis code L20 in the Danish Hospital Discharge Register were also included in the case group. Controls were required not to have any eczema or eczema symptoms recorded in interview, questionnaire, or register data.

### **Definition of environmental exposures**

#### Cesarean section

Information on mode of delivery (specifically cesarean and vaginal delivery) was obtained by person-linkage of the DNBC with the Danish Medical Birth Register. Since 1973, the Medical Birth Register has contained nationwide computerized information about birth characteristics, including mode of delivery, which are required to be recorded shortly after birth.<sup>4</sup>

#### Cat and/or dog ownership

Children with cat and/or dog ownership since birth was identified from the 18 months telephone interview data, as children whose mothers chose "cat(s)" and/or "dog(s)" as affirmative answer to the question (D033) "What animals or pets have you had since his/her birth" excluding "Animals not in contact with the child" or "Animals kept outside".

#### Breastfeeding (duration / ever any / ever exclusive)

Information on breastfeeding was based on responses to the following questions from the 6 months telephone interview data, available for >70% of cases and controls: (C001) "Do you breast feed your boy/girl now?", (C004) "How old was your child when you stopped breast feeding her/him every day?" (C003) "For how long have you been breast feeding him/her without giving him/her anything else except for water and vitamins?"

#### Presence of older siblings

Information on presence of older siblings at birth was obtained from the Danish family relations database, which is based on individual kinship information in the Danish Civil Registration system, and permits the identification of relatives for persons with family in Denmark, e.g. siblings to all persons born since 1950.<sup>5</sup>

### Environmental tobacco smoke exposure (in utero/up to 2 years)

Exposure up to 18 months (~2 years) was based on positive responses to the following questions from the 6 and/or 18 months telephone interview data, respectively: (C062) “Smoking in the home while the child is present?” and/or (D031) “After your child has turned 6 months old, has there been anyone smoking daily in your home (for periods of at least one week) while the child was present?”.

In utero exposure was based on positive responses to the following questions in the telephone interview data from twice in pregnancy and at 18 months of age: ~ Week 12, (A127) “Did you smoke during pregnancy – please also think back to the very beginning of the pregnancy? ”, (A128) “Do you smoke now?”; ~week 30, (B074) “Have you smoked since last interview?”, (B075) “Do you smoke now?”; child aged 18 months, (P094) “Did you smoke during the last part of pregnancy or after the birth?” (yes, last part).

### **Genotyping and imputation**

Cited from previous paper:<sup>1</sup>

GWAS data were generated for 3,840 individuals from the DNBC (mothers and their children) in a study of prematurity and its complications within the Gene Environment Association Studies (GENEVA) consortium. Genotyping was performed using the Illumina Human660W-Quad BeadChip. Prior to imputation, we required participants to have a genotype call rate >97%, and we excluded SNPs based on a missing rate >2%, deviation from Hardy-Weinberg equilibrium in controls ( $P < 10^{-3}$ ), minor allele frequency <0.5%. We also converted the genotype data from NCBI build 36 to NCBI build 37 and aligned all genotypes to the forward strand. Finally, we excluded SNPs that did not match known variant positions in the 1000 Genomes project reference data. The remaining 529128 SNPs were used for imputation.

We used a two-step procedure to impute unobserved genotypes using phased haplotypes from the integrated Phase I release of the 1000 Genomes Project<sup>6</sup> (v3.20101123, ALL populations, no monomorphic/singletons). In a first prephasing step, we used SHAPEIT<sup>7</sup> to estimate the haplotypes for our study samples. In a second step, we imputed the missing alleles for additional SNPs directly onto these phased haplotypes using IMPUTE2<sup>8</sup>. Eczema information and genome-wide genotype and imputed data were available for 1,631 children.

Four filaggrin mutations (R501X, 2282del4, R2447X and S3247X) were genotyped by LGC Genomics using KASP™ genotyping technology, as described for ALSPAC.

### Statistical Analysis

Cited from previous paper:<sup>1</sup>

Genome-wide association analysis was carried out using SNPTEST<sup>9</sup> for the 224 cases and 1407 controls with genetic and phenotypic data. Summary statistics were available for 30,071,690 variants that were successfully analyzed.

### **Acknowledgments and Funding**

Cited from previous paper:<sup>1</sup>

We are very grateful to the women and children taking part in the DNBC. The DNBC was established with the support of a major grant from the Danish National Research Foundation. Additional support for the DNBC has been obtained from the Danish Pharmacists’ Fund, the Egmont Foundation, the March of Dimes Birth Defects Foundation, the Augustinus Foundation and the Health Fund of the Danish Health Insurance Societies. The generation of GWAS genotype data for the DNBC samples was carried out within the GENEVA consortium, with funding provided through the NIH Genes, Environment and Health Initiative (GEI) (U01HG004423, U01HG004438, U01HG004446). FLG genotyping was funded by an MRC centenary award (awarded to L Paternoster).

## Reference List

- (1) Paternoster L, Standl M, Chen CM, Ramasamy A, Bonnelykke K, Duijts L et al. Meta-analysis of genome-wide association studies identifies three new risk loci for atopic dermatitis. *Nat Genet* 2012; 44(2):187-192.
- (2) Olsen J, Melbye M, Olsen SF, Sørensen TI, Aaby P, Andersen AM et al. The Danish National Birth Cohort--its background, structure and aim. *Scand J Public Health* 2001; 29(4):300-307.
- (3) Benn CS, Benfeldt E, Andersen PK, Olesen AB, Melbye M, Bjorksten B. Atopic dermatitis in young children: diagnostic criteria for use in epidemiological studies based on telephone interviews. *Acta Derm Venereol* 2003; 83(5):347-350.
- (4) Bliddal M, Broe A, Pottegård A, Olsen J, Langhoff-Roos J. The Danish Medical Birth Register. *Eur J Epidemiol* 2018; 33(1):27-36.
- (5) Bager P, Corn G, Wohlfahrt J, Boyd HA, Feenstra B, Melbye M. Familial aggregation of tonsillectomy in early childhood and adolescence. *Clin Epidemiol* 2018; 10:97-105.
- (6) Abecasis GR, Altshuler D, Auton A, Brooks LD, Durbin RM, Gibbs RA et al. A map of human genome variation from population-scale sequencing. *Nature* 2010; 467(7319):1061-1073.
- (7) Delaneau O, Marchini J, Zagury JF. A linear complexity phasing method for thousands of genomes. *Nat Methods* 2011; 9(2):179-181.
- (8) Howie BN, Donnelly P, Marchini J. A flexible and accurate genotype imputation method for the next generation of genome-wide association studies. *PLoS Genet* 2009; 5(6):e1000529.
- (9) Marchini J, Howie B. Genotype imputation for genome-wide association studies. *Nat Rev Genet* 2010; 11(7):499-511.

## **Generation R**

### **Recruitment**

The Generation R Study is a population-based prospective cohort study of pregnant women and their children from fetal life onwards in Rotterdam, The Netherlands. All children were born between April 2002 and January 2006, and currently followed until young adulthood. Of all eligible children in the study area, 61% were participating in the study at birth.

### **Definition of eczema cases and controls**

Postnatal data about eczema was collected via questionnaires at the ages of 1 to 5 years, and at the age of 9 years. Cases of eczema were defined by answering 'Yes, my child has eczema and has seen a doctor' to the questions 'Has your child in the past 6 months or 12 months had eczema?' at age 6 months, or age 1, 2, 3, 4 and 9 years, respectively. We defined controls as those children of whom parents answered that their child 'Yes, had eczema, but did not see a doctor/No, did not have eczema' at the same ages as cases of eczema.

### **Definition of environmental exposures**

#### Antibiotics (during pregnancy / up to 6 months / up to 12 months)

Via questionnaires.

Have you used antibiotic during pregnancy? (y/n)

Has your child ever used antibiotic/penicillin at the age of age 1 year? (y/n)

Has your child ever used antibiotic/penicillin at the age of age 6 months? ( y/n)

#### Cesarean section

Information on mode of delivery was obtained from midwife and hospital records at birth. Mode of delivery was categorized as (1) vaginal delivery or (2) caesarean section.

#### Cat ownership

Via a questionnaire at enrolment.

Do you have a cat at home? (y/n)

#### Dog ownership

Via questionnaires at enrolment.

Prenatal. Do you have a dog at home? (y/n)

#### Breastfeeding (duration / ever any / ever exclusive)

Detailed information on breastfeeding initiation and continuation was obtained from parental postal questionnaires at the ages of 2, 6 and 12 months after birth. Mothers were asked whether they ever breastfed their child (no; yes) and at what age (in months) they stopped breastfeeding.

#### Presence of older siblings

Via a questionnaires at enrolment.

How many living children have you given birth to? (none or 1 or more).

#### Environmental tobacco smoke exposure (during pregnancy / up to 2 years)

Via multiple questionnaires during pregnancy and at the age of 2 years.

Do you smoke (never, until pregnancy was known/continuously during pregnancy)? (y/n)

Do people smoke occasionally in your house? (y/n)

### Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

Individual exposures to PM<sub>10</sub> and NO<sub>2</sub> between 0 and 6 months after birth were assessed at the home address, using a combination of continuous monitoring data and dispersion modeling techniques, taking into account both the spatial and temporal variation in air pollution (van den Hooven, de Kluizenaar, Pierik, Hofman, van Ratingen, Zandveld Air pollution, blood pressure, and the risk of hypertensive complications during pregnancy: the generation R study).

### **Definition of parental education (as a measure of socioeconomic status)**

Maternal education was asked by a questionnaire at enrollment (primary or secondary school versus higher than secondary school).

### **Definition of family history of atopic disease**

Parental history of eczema, allergy or asthma (no; yes) was available from a parental questionnaire obtained at enrolment.

### **Genotyping and Imputation**

The most prevalent FLG mutations in Caucasians (2282del4, R2447X, R501X, and S3247X) were genotyped by modified Taqman allelic discrimination assays, using previously described primers (Irvine, McLean and Leung Filaggrin mutations associated with skin and allergic diseases; Kezic, O'Regan, Yau, Sandilands, Chen, Campbell Levels of filaggrin degradation products are influenced by both filaggrin genotype and atopic dermatitis severity). Children without any mutant alleles were classified as wild type. Information on single nucleotide polymorphisms (SNPs) was available from the GWA screen performed on DNA isolated from cord blood leukocytes and genotyped in the Illumina HumanHap 610 microarray or, in a small minority of children with missing cord blood samples, at age 6 years using the Illumina 670K microarray. Stringent quality control of the genotype data was performed (Medina-Gomez, Felix, Estrada, Peters, Herrera, Kruithof Challenges in conducting genome-wide association studies in highly admixed multi-ethnic populations: the Generation R Study). Imputation to the HRC1.1. panel was performed in the MICHIGAN server using Phasing:Eagle v2.3/ imputation minimac 3.

### **Analysis**

Preparation of input files and association analysis were performed following the distributed analysis plan. The analysis was run using rvtest adjusting for sex and 20 genomic principal components (as calculated by multi-dimensional scaling in PLINK as previously described (Medina-Gomez C, Felix JF, Estrada K, Peters MJ, Herrera L, Kruithof CJ, et al. Challenges in conducting genome-wide association studies in highly admixed multi-ethnic populations: the Generation R Study. Eur J Epidemiol. 2015;30(4):317-30.)).

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## References

1. van den Hooven EH, de Kluizenaar Y, Pierik FH, Hofman A, van Ratingen SW, Zandveld PY. Hypertension. 2011 Mar;57(3):406-12.
2. Irvine AD, McLean WH, Leung DY. N Engl J Med. 2011 Oct 06;365(14):1315-27.
3. Kezic S, O'Regan GM, Yau N, Sandilands A, Chen H, Campbell LE. Allergy. 2011 Jul;66(7):934-40.
4. Medina-Gomez C, Felix JF, Estrada K, Peters MJ, Herrera L, Kruithof CJ. Eur J Epidemiol. 2015 Apr;30(4):317-30.

## ***GINIplus / LISA***

### **Recruitment**

The influence of Life-style factors on the development of the Immune System and Allergies in East and West Germany (LISA) Study is a population-based birth cohort study. A total of 3094 healthy, full-term neonates were recruited between 1997 and 1999 in Munich, Leipzig, Wesel and Bad Honnef. The participants were not pre-selected based on family history of allergic diseases.

A total of 5991 mothers and their newborns were recruited into the German Infant study on the influence of Nutrition Intervention PLUS environmental and genetic influences on allergy development (GINIplus) between September 1995 and June 1998 in Munich and Wesel. Infants with at least one allergic parent and/or sibling were allocated to the interventional study arm investigating the effect of different hydrolysed formulas for allergy prevention in the first year of life. All children without a family history of allergic diseases and children whose parents did not give consent for the intervention were allocated to the non-interventional arm. Detailed descriptions of the LISA and GINIplus studies have been published elsewhere [DOI: 10.5414/ALX01455E and DOI: 10.1038/s41467-023-41180-2]. DNA was collected at the age 6 and 10 years. For both studies, approval by the local Ethics Committees and written consent from participant's families were obtained.

The data from the Munich study center was included in the discovery step and the data from the Wesel study center was part of the replication.

### **Definition of eczema cases and controls**

Information on ever having physician-diagnosed eczema was collected using self-administered questionnaires completed by the parents. The questionnaires were completed at 6, 12, 18 and 24 months and 4, 5, 6, 10 and 15 years of age in the LISA study and 1, 2, 3, 4, 6 and 10 and 15 years in the GINIplus study asking for each year of age since the previous follow-up. Cases were defined as subjects who reported having a diagnosis at any time point, and controls were defined as those reporting no diagnosis at every time point.

### **Definition of environmental exposures**

#### Antibiotics in utero

Information on maternal use of antibiotics during pregnancy was collected at birth in the LISA study.

#### Cesarean section

Information whether the child was delivered by cesarean section was collected at birth.

#### Cat ownership

In the GINIplus cohort, cat ownership was defined as having a cat in the household between birth and one year of age. In LISA, cat ownership was defined as having a cat in the household at birth.

#### Dog ownership

In the GINIplus cohort, dog ownership was defined as having a dog in the household between birth and one year of age. In LISA, dog ownership was defined as having a dog in the household at birth.

#### Breastfeeding (duration / ever any / ever exclusive)

Information on exclusive breastfeeding, exclusive bottle feeding or mixed feeding was available for each of the first six months of life. Breastfeeding duration was defined as the number of months receiving any breastmilk. Ever any breastfeeding was defined as receiving any breastmilk for at least one month of life and ever exclusive breastfeeding was defined as being exclusively breastfed for at least one month.

### Presence of older siblings

Presence of older siblings was defined as having any biological siblings at birth.

### Environmental tobacco smoke exposure (in utero / up to 2 years)

Environmental tobacco smoke exposure in utero was defined as active cigarette smoking by the mother in any pregnancy trimester (only LISA).

Information on any smoking in the household was used to define environmental tobacco smoke exposure up to 2 years. In LISA, this information was collected every 6 months from birth to 2 years and any smoking was defined as yes. In GINIplus, this information was collected for the first 4 months of life and from ages 13-24 months, with the time period from 5-12 months only covered for the intervention arm.

### Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

The annual average concentrations of the air pollutants NO<sub>2</sub> and PM<sub>10</sub> at participants' residential addresses were derived from land-use regression models assigned within the European Study of Cohorts for Air Pollution Effects (ESCAPE).

### House dust mite: Der p1 concentration (at birth / 1 year)

House dust mite concentrations were measured in dust collected shortly after birth in the LISA cohort.

### **Definition of parental education (as a measure of socioeconomic status)**

Parental education level was defined as the highest degree of education (defined as the number of school years) received by either the mother or the father.

### **Genotyping**

#### *Munich study center*

1511 children from Munich from both studies were included (835 (55%) children from the GINIplus study and 676 (45%) children from the LISA study). 1423 individuals (835 from the GINIplus study and 588 from the LISA study) were analyzed using the Affymetrix Human SNP Array 5.0 and 88 individuals from the LISA study were analyzed using Affymetrix Human SNP Array 6.0. Genotypes were called using BRLMM-P algorithm (5.0), respectively BIRDSEED V2 algorithm (6.0). In each of the two data sets, criteria for exclusion of individuals were: a call rate below 95%, a heterozygosity outside mean  $\pm 4sd$ , a failure of the sex check or a failure of the similarity quality control using MDS analysis based on IBS. Criteria for exclusion of variants were: a call rate below 95%, a MAF  $< 0.01$  and a HWE p-value  $< 0.00001$ . The filtered data sets were prephased using SHAPEIT V2 and imputation was done using IMPUTE2.3 considering the haplotypes from the 1000 Genomes Project Phase I v3 as a reference (March 2012 release, updated version from 26 Aug 2012, all ancestries, limited to variants with more than one minor allele copy).

Genotyping was performed for the two most common variants of the filaggrin gene (*FLG*), R501X and 2282del4. Participants with at least one FLG mutation were classified as having the FLG loss-of-function mutation. Participants with missing data for a particular variant were excluded if the remaining variant was wild-type.

#### *GINIplus/LISA North*

Genome-wide genotyping provided by the German Research Center for Environmental Health at the Helmholtz Zentrum München in April 2019 was performed in 883 blood samples (collected in follow-up at age 10 years) using the Infinium Global Screening Array GSA v2 MD (GRCh37/hg19) with GenomeStudio Version 2.0.

Pre-imputation Quality Control in R 3.6.1 included (Reed et al. 2015 DOI: 10.1002/sim.6605):



1) SNP level 1: Exclusion of variants on chromosome 0, insert/deletion variants, MAF ( $<0.01$ ), and call rates ( $<0.95$ )

2) Sample level: Removal of duplicated individuals, individuals with sex-mismatch, call rates ( $<0.95$ ), heterozygosity (inbreeding coefficient 0.1), highly related individuals (identity-by-descent analysis with  $\text{Id.tresh}=0.2$  and  $\text{kin.tresh}=0.1$ ), individuals belonging to different ancestry group (Tukey's rule based on the 1-10 eigenvectors from Principal Component Analysis), and Hardy-Weinberg ( $p<10^{-6}$ )

3) SNP level 2: Hardy-Weinberg ( $p<10^{-6}$ )

4) Strand designation/ strand flips correction

To find haplotype segments that are shared by study individuals and the HRC r1.1 2016 (GRCh37/hg19), we did a genotype imputation with minimac4 using the Michigan Imputation Server (settings: European population, no rsq filter, eagle v2.4 phasing in output, and no AES 256 encryption).

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### **References**

1. Heinrich J, Bruske I, Cramer C, Hoffmann U, Schnappinger M, Schaaf B, von Berg A, Berdel D, Kramer U, Lehmann I, et al: GINIplus and LISApplus - Design and selected results of two German birth cohorts about natural course of atopic diseases and their determinants. *Allergol Select* 2017, 1:85-95.
2. Budu-Aggrey A, Kilanowski A, Sobczyk MK, and Me Research T, Shringarpure SS, Mitchell R, Reis K, Reigo A, Estonian Biobank Research T, Magi R, et al: European and multi-ancestry genome-wide association meta-analysis of atopic dermatitis highlights importance of systemic immune regulation. *Nat Commun* 2023, 14:6172.

## INMA

### Recruitment

Population-based birth cohorts were established from 1997 to 2008 as part of the INMA – Infancia y Medio Ambiente (Environment and Childhood) Project in several regions of Spain following a common protocol. INMA aims to study the associations between pre- and postnatal environmental exposures and growth, health and development from early life until adolescence and has been described previously in detail (Guxens, M. *et al.* Cohort Profile: the INMA--Infancia y Medio Ambiente--(Environment and Childhood) Project. *Int J Epidemiol* **41**, 930-40 (2012). Pregnant women were enrolled during the 1<sup>st</sup> trimester of pregnancy at public primary health care centers or public hospitals. Detailed measurements were performed using ultrasound and physical examinations and biological samples were collected. Informed consent was obtained from all participants and the study was approved by the Hospital Ethics Committees in each participating region.

### Definition of eczema cases and controls

Children from the subcohorts of INMA Gipuzkoa, Menorca, Sabadell and Valencia were included in the present study. Atopic eczema cases were those children that had answered “yes” to having had eczema at least in one of the three follow-up visits (14 months, 48 months and 7 years). Control children were those that had never had eczema. Questions were slightly different among subcohorts (Table).

**Table.** Eczema information in each subcohort and follow-up visit.

Follow-up visit	Questionnaire	Menorca	Valencia	Sabadell	Gipuzkoa
14 months	Has your child had atopic eczema? (0-14 months)		X		
	Has your child ever been diagnosed by doctor with having atopic eczema?	X		X	X
48 months	In the last 12 months, has your child had ever suffered atopic eczema? (36-48 months)			X	
	Doctor diagnosis of eczema	X			
	Has your child had suffered atopic eczema?		X		X
7 years	Doctor diagnosis of eczema	X	X	X	X

### Definition of environmental exposures

#### Antibiotics (in utero / up to 6 months / up to 12 months)

The use of antibiotics was obtained using interviewer-administered questionnaires with the mothers during pregnancy at 12 and 32 weeks (Valencia, Sabadell and Gipuzkoa), and when the children were 6 mo (only Sabadell) and 1 yo (Menorca, Sabadell and Gipuzkoa). It was defined as yes or no in utero, at 6 mo and at 12mo

#### Cesarean section

Information on delivery by Cesarean sections was obtained from clinical records at birth for all cohorts and defined as y/n.

#### Cat ownership:

Cat ownership was obtained from interviewer-administered questionnaires with the mothers during pregnancy (Menorca) and at 32 weeks (Valencia, Sabadell and Gipuzkoa), and was defined as y/n owning a pet in utero.

#### Dog ownership

Cat ownership was obtained from interviewer-administered questionnaires with the mothers during pregnancy (Menorca) and at 32 weeks (Valencia, Sabadell and Gipuzkoa), and was defined as y/n owning a pet in utero.

#### Breastfeeding (duration / ever any / ever exclusive)

Detailed information about the child's diet, including breastfeeding, was obtained using interviewer-administered questionnaires with the mothers when children were 6 mo old (only Sabadell sub-cohort) and 14 mo (all sub-cohorts).

For our analysis breastfeeding was defined in three different way: (i) ever breastfeeding y/n, (ii) predominant breastfeeding y/n and (iii) duration of any breastfeeding in weeks.

NB: Predominant breastfeeding Accept water, juice and infusion; exclusive breastfeeding was missing for VALENCIA as water introduction was not available

#### Presence of older siblings

The presence of older siblings was obtained using interviewer-administered questionnaires with the mothers during pregnancy and was defined as yes or no.

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

Information on environmental tobacco smoke exposure in the household was obtained using interviewer-administered questionnaires with the mothers during pregnancy (Menorca) and at 32 weeks (Valencia, Sabadell, and Gipuzkoa), and when the children were 1yo (Valencia, Sabadell, Gipuzkoa and Menorca) and was defined as y/n at any moment during the first year of life.

#### Washing practices (up to 6 months / up to 2 years)

Detailed information about the child's showering/bathing frequency was obtained using interviewer-administered questionnaires with the mothers when the children were 14 mo old for all sub-cohorts. Current (as a proxy for up to 2 years) and first months of life (as a proxy for up to 6 months) washing practices were asked separately, and was defined as y/n comparing daily or more frequent versus less than showering daily.

#### Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

Air pollution concentrations at each participant's home address at birth were estimated for the whole pregnancy period by land-use regression models following the ESCAPE standardized procedure). Briefly, air pollution monitoring campaigns were performed in the study areas between October 2008 and January 2011. In all areas, three week measurements of NO<sub>2</sub> were performed within 1 year. In Sabadell, simultaneous measurements of PM<sub>10</sub> were performed. Land-use regression models were developed for each pollutant metric using all measurement sites to estimate annual average air pollution concentration at each participants' home address at birth. We used a back-extrapolation procedure to estimate pregnancy-average concentrations from annual average concentrations using routine data from background sites of air quality monitoring networks in the study areas. Air pollutants are described in ug/m<sup>3</sup> and the analyses were performed for an increase of 10 ug/m<sup>3</sup>.

### House dust mite: Der p1 concentration (at birth / 1 year)

Dust samples were collected from children's mattresses during the first three months of life. House dust mite allergen (Der p1) concentration was estimated in a single laboratory by enzyme-linked immunoabsorbent assay (ELISA) following an standard protocol. Der p1 concentration is described in µg/g.

### **Definition of parental education (as a measure of socioeconomic status)**

Highest level of education attained by the child's mother and father, that is, primary or less than primary (reference category), secondary or higher education.

### **Definition of family history of atopic disease**

Information on family history of atopic disease was obtained using interviewer-administered questionnaires with the mothers during pregnancy in all cohorts, including information on parental asthma, atopic dermatitis, and atopic rhinitis. It was defined as y/n.

### **Genotyping**

DNA was obtained from cord blood, whole blood collected at 4y or saliva using the Chemagen protocol at the Spanish National Genotyping Centre (CEGEN), Spain. Children of European ancestry whose parents reported to be born in Spain or in European countries and that were not lost during the follow-up were selected for genotyping. Genome-wide genotyping was performed using the HumanOmni1-Quad Beadchip (Illumina) at CEGEN (Menorca, Sabadell, Valencia subcohorts) and Infinium Global Screening Array (GSA) Beadchip (Illumina) at the Human Genotyping Facility (HuGeF), Erasmus MC, The Netherlands (Gipuzkoa subcohort). Genotype calling was done using the GeneTrain2.0 algorithm based on HapMap clusters implemented in the GenomeStudio software. Quality control was done using PLINK and following standard criteria. First of all, SNPs were flipped to the human genome + strand. We applied the following initial quality control thresholds: sample call rate >98% and/or Log R Ratio (LRR) standard deviation (SD) <0.3. Then, we checked sex, relatedness, heterozygosity and population stratification. Genetic variants were filtered for SNP call rate >95%, MAF >1% and Hardy-Weinberg equilibrium P-value >1.10E-06. Imputation of genetic variants was done using IMPUTE V2 and the cosmopolitan 1000G panel (release March 2012) (Menorca, Sabadell, Valencia) and the Michigan imputation server using the Haplotype Reference Consortium HRC v1.1 reference panel (Gipuzkoa).

Candidate single nucleotide polymorphisms (SNPs) were retrieved from genome-wide genotyping data and their genotypic frequencies were checked between genotyping platforms (Omni1 vs. GSA). No substantial differences were observed and data from the different subcohorts was pooled and models were adjusted by a variable including the cohort (Sabadell+Valencia+Menorca vs. Gipuzkoa).

Additionally, in Menorca, Sabadell and Valencia subcohorts, four mutations (R501X, 2282del4, R2447X and S3247X) in the *Filaggrin* gene (*FLG*) were genotyped by LGC Genomics using KASP™ genotyping technology.

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[http://www.proyectoinma.org/presentacion-inma/listado-investigadores/en\\_listado-investigadores.html](http://www.proyectoinma.org/presentacion-inma/listado-investigadores/en_listado-investigadores.html).

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## ***Isle of Wight Birth Cohort - IOW***

### **Recruitment**

The IOW birth cohort study, a population-based sample of 1456 infants, initially enrolled study participants (new borns) between January 1989 and February 1990. Study participants have been prospectively assessed at ages 1, 2, 4, 10 and 18 years, as detailed elsewhere<sup>1,2</sup>.

### **Definition of eczema cases and controls**

In all assessments of the Isle of Wight birth cohort, eczema was defined as chronic or chronically relapsing itchy dermatitis lasting more than 6 weeks with characteristic morphology and distribution, according to the criteria of Hanifin and Rajka.

### **Definition of environmental exposures**

#### Cesarean section

Child's birth was recorded as vaginal or C-section

#### Cat ownership

Cat ownership was report at birth by parents

#### Dog ownership

Dog ownership was report at birth by parents

#### Breastfeeding (duration / ever any / ever exclusive)

Duration of any breastfeeding was reported by the mother in months

Ever breastfeeding was reported by the mother

#### Presence of older siblings

Presence of older siblings was reported by parents at birth

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

Exposure to ETS in utero was reported by the mother at birth

Exposure to household ETS during the first 2 years of life was reported by parents

### **Definition of parental education (as a measure of socioeconomic status)**

Mother have had formal education for at least 16 years

### **Definition of family history of atopic disease**

Maternal or/and paternal history of asthma, eczema, or rhinitis

### **Genotyping**

*FLG*\*

rs10214237\*

rs1057258

rs112111458

rs11657987

rs12295535

rs17881320

rs2143950

rs2227483\*

rs6473227

rs7127307

rs7146581\*

\*Were included for in the replication analysis

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### **References**

<sup>1</sup> Arshad SH, Holloway JW, Karmaus W, Zhang H, Ewart S, Mansfield L, Matthews S, Hodgekiss C, Roberts G, Kurukulaarachy R. Cohort Profile: The Isle Of Wight Whole Population Birth Cohort (IOWBC). *Int J Epidemiol*. 2018 Aug 1;47(4):1043-1044i. doi: 10.1093/ije/dyy023.

<sup>2</sup> Arshad SH, Patil V, Mitchell F, Potter S, Zhang H, Ewart S, Mansfield L, Venter C, Holloway JW, Karmaus WJ. Cohort Profile Update: The Isle of Wight Whole Population Birth Cohort (IOWBC). *Int J Epidemiol*. 2020 Aug 1;49(4):1083-1084. doi: 10.1093/ije/dyaa068. PMID: 32637984; PMCID: PMC7660140.

## **MAAS**

### **Recruitment**

The Manchester Asthma and Allergy Study is an unselected (i.e. population-based), birth cohort study (Custovic et al., 2002, Lowe et al., 2005, Murray et al., 2002, Nicolaou et al., 2006, Nicolaou et al., 2008). The setting is the maternity catchment area of Wythenshawe and Stepping Hill Hospitals, comprising of 50 square miles of South Manchester and Cheshire, UK, a stable mixed urban-rural population. Study was approved by the Local Research Ethics Committee. Informed consent was obtained from all parents.

#### *Screening & Recruitment*

All pregnant women were screened for eligibility at antenatal visits (8th-10th week of pregnancy). The study was explained to the parents, and informed consent for initial questionnaires and skin prick testing was obtained. Both parents completed a questionnaire about their and their partner's history of asthma and allergic diseases and smoking habits. If the pregnant woman's partner was not present at the antenatal clinic visit, an invitation was sent for him to attend an open-access evening clinic for skin prick testing and questionnaire. Once both parents had completed questionnaires and skin prick testing, a full explanation of the proposed future follow-up for the child was given. Of the 1499 couples who met the inclusion criteria (<10 weeks of pregnancy, maternal age >18 years, questionnaire and skin test data available for both parents), 288 declined to take part in the study. A total of 1185 participants had at least some evaluable data.

#### *Follow-up*

The children have been followed prospectively, and attended review clinics at ages 1, 3, 5, 8 and 11 years.

### **Definition of eczema cases and controls**

Cases were defined as a doctor diagnosis of atopic dermatitis on the day that the child came to the follow-up clinic, at any timepoint (1y, 3y, 5y, 8y)

Controls were a Parental report of "no" at all timepoints (1y, 3y, 5y, 8y) to the question "Has your child ever suffered from atopic dermatitis", 'No'

### **Definition of environmental exposures**

Antibiotics (up to 6 months / up to 12 months)

Cesarean section

Cat ownership

Dog ownership

Breastfeeding (duration / ever any / ever exclusive)

Presence of older siblings

Environmental tobacco smoke exposure (in utero / up to 2 years)

Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

House dust mite: Der p1 concentration (at birth / 1 year)

### **Definition of parental education (as a measure of socioeconomic status)**

Parental income at the child's recruitment.

### **Definition of family history of atopic disease**

Mother and/or Father has atopy at birth (skin prick test positive)



## Genotyping

DNA samples were genotyping on an Illumina 610 quad chip. The Illumina genotypes were called using the Illumina GenCall application following the manufacturer's instructions. Quality control criteria for samples included: 97% call rate, exclusion of samples with an outlier autosomal heterozygosity (scree-plot visualization) gender validation and sequenome genotype concordance. Quality control criteria for SNPs included a 95% call rate,  $HWE > 5.9 \times 10^{-7}$ , minor allele frequency  $> 0.005$ . Genotypes were prephased with SHAPEIT<sup>20</sup> shapeit.v2.837 and imputed with IMPUTE2<sup>7</sup> version 2.3.2 using the March2012 release of the 1 1000 Genomes Phase 3 reference genotypes.

FLG genotyping was carried out as previously described in Bisgaard et al.<sup>57</sup> and Sandilands et al.<sup>23</sup>. Briefly genotyping The R501X<sup>57</sup>, R2447X and S3247X<sup>23</sup> mutations was performed using a TAQMAN-based allelic discrimination assay (Applied Biosystems). The 2282del4 Mutation was genotyped on an Applied Biosystems 3100 or 3730 DNA sequencer<sup>57</sup>.

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## **Multicentre Allergy Study (MAS)**

### **Recruitment**

The Multicentre Allergy Study (MAS) is a German birth cohort which has been described in detail previously.<sup>1,2</sup> Briefly, in 1990, the MAS cohort recruited 1,314 newborns, who were regularly followed-up. Data were collected from examinations and questionnaires at birth, at 1, 3, 6, 12, and 18 months, and yearly from age 2 to age 13. The institutional review boards of the participating centers approved the study, and written informed consent was obtained.

### **Definition of eczema cases and controls**

Eczema was defined by the presence of either i) a reported physician's diagnosis, ii) parental report of eczema symptoms, or iii) visible eczema at the time of follow-up.<sup>3</sup>

### **Definition of environmental exposures**

Environmental exposures were defined based on the answers to the following questions (from questionnaires at the indicated time points).

#### Antibiotics (in utero / up to 6 months / up to 12 months)

Have you used antibiotics since the last questionnaire? (in utero not available / at 1, 3, or 6 months / at 1, 3, 6 or 12 months)

#### Cesarean section

(at birth)

#### Cat ownership

Do you keep cats? (at 3 months)

#### Dog ownership

Do you keep dogs? (at 3 months)

#### Breastfeeding (duration / ever any / ever exclusive)

Duration of breastfeeding (at 12 months) / Are you breastfeeding? (at 1, 3, 6 or 12 months) / Have you introduced food other than breast milk? (at 1 month)

#### Presence of older siblings

Number of siblings (at birth)

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

Have you (mother) been smoking during pregnancy? (at 1 month) / Is someone smoking in your household? (at 1 month or at 18 months)

#### Washing practices (up to 6 months / up to 2 years)

How often do you bathe your child;  $\geq 7$  times/week or  $< 7$  times/week? (at 3 months / at 9 months)

#### Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

Where do you live; urban environment or village? (at 3 months)

#### House dust mite: Der p1 concentration (at birth / 1 year)

Collected at 9 months / 18 months (Dpt in  $\mu\text{g/g}$ )

### **Definition of parental education (as a measure of socioeconomic status)**

Highest education of the father or mother (at birth)

## **Definition of family history of atopic disease**

Asthma, eczema or allergic rhinitis of the father or mother (at birth)

## **Genotyping**

DNA samples of 871 children were available for genotyping. Genomic DNA was prepared from whole blood using standard methods. In all individuals the FLG mutations were genotyped by using TaqMan allelic discrimination (p.R501X, p.R2447X and p.S3247X)<sup>4</sup> or fluorescence-based semiautomated allele-sizing technology (c.2282del4).<sup>5</sup>

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## **References**

- 1 S. Lau, S. Illi, C. Sommerfeld, B. Niggemann, R. Bergmann, E. von Mutius, et al. Early exposure to house-dust mite and cat allergens and development of childhood asthma: a cohort study. Multicentre Allergy Study Group Lancet, 356 (2000), pp. 1392-1397.
- 2 R.L. Bergmann, K.E. Bergmann, S. Lau-Schadensdorf, W. Luck, A. Dannemann, C.P. Bauer, et al. Atopic diseases in infancy. The German multicenter atopy study (MAS-90). Pediatr Allergy Immunol, 5 (suppl) (1994), pp. 19-25.
- 3 S. Illi, E. von Mutius, S. Lau, R. Nickel, C. Gruber, B. Niggemann, et al. The natural course of atopic dermatitis from birth to age 7 years and the association with asthma. J Allergy Clin Immunol, 113 (2004), pp. 925-931.
- 4 A. Sandilands, A. Terron-Kwiatkowski, P.R. Hull, G.M. O'Regan, T.H. Clayton, R.M. Watson, et al. Comprehensive analysis of the gene encoding filaggrin uncovers prevalent and rare mutations in ichthyosis vulgaris and atopic eczema. Nat Genet, 39 (2007), pp. 650-654.
- 5 I. Marenholz, R. Nickel, F. Ruschendorf, F. Schulz, J. Esparza-Gordillo, T. Kerscher, et al. Filaggrin loss-of-function mutations predispose to phenotypes involved in the atopic march. J Allergy Clin Immunol, 118 (2006), pp. 866-871.

## ***NTR twins***

### **Recruitment**

The Netherlands Twin Register (NTR) collects data on development and growth in twins who are registered at birth by their parents. In the NTR, data on eczema and the environmental exposures were obtained from surveys mailed to parents when twins were aged 1, 2, 3, and 5 years. Shortly after registration of their newborn twins, mothers receive the first survey in which they are asked to report on mode of delivery, the use of medication during pregnancy and on smoking behavior of both parents during pregnancy. The survey when the twins are 2 years of age includes questions on whether the children have ever used medication, which kind of medication they have used, the duration of breastfeeding, and the current smoking status of both parents. Data on parental education attainment are obtained at age 3 of the twins. At age 5, the parents are asked to report (yes/no) whether a physician ever diagnosed eczema in their children. From the same survey, information on current parental smoking and the number of older sibs is obtained.

### **Definition of eczema cases and controls**

-Eczema cases are defined based on a yes reply to the question whether a physician ever diagnosed eczema (dichotomous question at age 5 years of the child).

-Controls are defined as a no reply to the question.

### **Definition of environmental exposures**

Antibiotics (in utero / up to 6 months / up to 12 months): Antibiotic use in utero was based on the question of prescribed medication or nutritional supplements during the pregnancy in the first survey of mothers.

Antibiotics up to 2 years was based on the question: Did your child ever use medication?

All medications with a 'J01' Anatomical Therapeutic Chemical (ATC) code were assigned as antibiotics use.

Cesarean section: Information on mode of delivery was collected from mother after registration of new born twins. Cesarean section included planned and urgent cesarean sections. All other modes of delivery were assigned as controls

Breastfeeding (duration / ever any / ever exclusive). At age 2 years of twins mothers reported the duration of breastfeeding for each child using the following categories: 'no', 'less than two weeks', '2-6 weeks', '6 weeks – 3 months', '3 – 6 months' and 'more than 6 months'.

Presence of older siblings: At age 5, the parents report the following information on the sibs of twin pairs: birth date, sex, relationship, and whether the sib lives together with the twin pairs. The number of older sibs is obtained by counting the older sibs that live together with the twins regardless their biological relationship.

Environmental tobacco smoke exposure (in utero / up to 2 years): Information on smoking exposure in utero was collected from mother after registration of new born twins and on current smoking behavior in the surveys sent at age 2 and 5 of the twins. In these surveys the following categories were used: 'no', 'yes, pipes/cigars', 'yes, less than 10 cigarettes' and 'yes, more than 10 cigarettes'.

**Definition of parental education (as a measure of socioeconomic status)** Parental education was assessed in the surveys at ages 3, 7, and 10 on a 13-point scale ranging from primary to post-doctoral education. The most recent education measure was used and collapsed into 4 categories: 'primary school', 'lower vocational school and lower secondary school', 'intermediate vocational school and intermediate or higher secondary school', and 'higher vocational school and university'.

## Genotyping

Genotyping was done on multiple platforms, with a number of overlapping participants. The following platforms were chronologically used: Affymetrix-Perlegen, Illumina 660 , Illumina Omni Express 1 M and Affymetrix 6.0. Genotype calls were made with the platform specific software (Birdseed, APT-Genotyper, Beadstudio) following manufacturers' protocols. For the Affymetrix-Perlegen and Illumina 660 platforms, the SNPs were lifted over to build 37 (HG19) of the Human reference genome. Per platform, a sample was removed if the call rate for this person was <90%, the Plink 1.07 value F was <-0.075 or >0.075, the gender of the person did not match the DNA of the person, the IBD status did not match the expected familial relations, or the sample had more than mean+5sd Mendelian errors. For the Affymetrix 6.0 platform all samples with a CQC value < 0.40 were removed. Afterwards, in case a subject, was genotyped on multiple platforms, only the platform with the highest number of SNPs was selected when concordance between platforms was over 97%. Allele - and strand alignment of SNPs was done against the Dutch GONL reference panel for each platform [1]. SNPs were removed in each platform when MAF < 0.005, HWE <  $10^{-12}$  and the call rate of the SNP was < 95%[2]. Then SNPs were selected if the allele frequency of the SNP deviated <0.10 as compared to the GONL data. Subsequently, the individual platform data were merged into a single dataset. In this single dataset, the sample IBD, on a common backbone of ~70K SNPs, was re-compared with their expected familial relations and samples were removed if they did not match. The single merged dataset was imputed with mach-admix, using GONL as a reference panel, for only the SNPs that survived QC and were present on at least one platform, forcing missing genotype imputation for all SNPs. Best guess genotypes were generated from these data and from these cross-platform imputed SNPs, the following SNPs were selected: SNPs with a  $R^2 > 0.90$ , with HWE  $p > 0.00001$ , with a Mendelian error rate < 2% and if the association of one platform=case vs. the other platforms=controls p-value > 0.00001 (of course applied for each platform). This left 1.2M SNPs. These SNPs were then re-aligned against the HRC 1.1 reference panel and then imputed on the Michigan imputation server [3]. From the resulting VCF files, best guess genotypes were calculated and the SNPs required for these analyses were selected.

## References

- 1: [PMC3895638](#)
- 2: [PMC4236550](#)
- 3: [PMC5157836](#)

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## ***PIAMA (Prevention and Incidence of Asthma and Mite Allergy)***

### **Recruitment**

The PIAMA-study is a large ongoing population-based birth cohort study with prenatal inclusion and follow-up until the current age of 23/24 years. The study was designed to investigate the influence of lifestyle and environment on the development of asthma, allergy and lung function. It therefore contains a detailed characterization of lifestyle and environmental exposures in all stages of childhood. The study started with 3,963 newborns, who were born in 1996/97 after prenatal recruitment through prenatal clinics in the northern, middle and southwestern part of the Netherlands.

After inclusion, allergic and non-allergic mothers were identified through a validated screening questionnaire. Pregnant women identified as allergic were primarily allocated to an intervention study with a random subset allocated to a "natural history study". The intervention involved the use of mite-impermeable mattress and pillow covers on the children's and parents' beds. Non-allergic pregnant women were invited to participate in a "natural history" study arm.

- More information on the design and methods: [Brunekreef et al. 2002](#)
- More information on the intervention study: [Gehring et al. 2012](#)

### **Definition of eczema cases and controls**

Questionnaire information on eczema was obtained at ages 3m,1y,2y,3y,4y,5y,6y,

7y,8y. Cases were defined as a positive response to one or more of these three questions:

1. Has your child ever had atopic dermatitis? 2. Did a doctor ever diagnose atopic dermatitis in your child? 3. Did your child have atopic dermatitis during the past 12 months?

Controls were defined a negative response to these questions at ages 2 – 8 years.

### **Definition of environmental exposures**

#### Cesarean section

Born by Cesarean section (self-reported)

#### Cat ownership

Cat present in the house during pregnancy (self-reported)

#### Dog ownership

Dog present in the house during pregnancy (self-reported)

#### Breastfeeding (duration / ever any / ever exclusive)

Ever breastfeeding and duration of breastfeeding is self-reported. Duration of breastfeeding in months is calculated as 'duration of breastfeeding in weeks/4.35.

#### Presence of older siblings

Self-reported

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

ETS in utero is defined as having a smoking mother during pregnancy (irrespective of the trimester)(self-reported)

ETS up to 2 years is defined as smoking indoors by the father or the mother (self-reported at 6 months, 1 year, or 2 year)

### Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

PM<sub>10</sub> and NO<sub>2</sub> exposure at the birth address. Estimated using Land Use Regression models as developed in the ESCAPE project ([Beelen et al. 2013](#); [Eeftens et al. 2012a](#); [Gehring et al., 2013](#)).

### House dust mite: Der p1 concentration (at birth / 1 year)

House dust mite Der p1 is measured before birth, at 3 months and at 1 year in the mattress of the child.

### **Definition of parental education (as a measure of socioeconomic status)**

Highest education of father or mother (coded as low/medium vs high)

### **Definition of family history of atopic disease**

Family history of asthma (mother and father), hayfever (mother and father), and allergy (siblings)

### **Genotyping**

DNA was collected from 2,162 children. Genome-wide genotyping was performed in three phases. The first phase was performed within the framework of the GABRIEL Consortium using an Illumina Human 610K quad array<sup>37</sup>. Genotypes were available from 172 children with asthma and from 187 controls after quality control. A second group of 268 children who were more extensively examined during follow up was genotyped with an Illumina HumanOmniExpress array. A final group of 1377 children was genotyped with the Illumina Human Omni Express Exome Array. SNPs were harmonized by base pair position annotated to genome build 37, name and annotation of strand for each platform. Discordant or duplicate SNPs or SNPs that showed large differences in allele frequencies (> 15 %) were removed. After quality control, a total of 1968 individuals remained and imputation was performed per platform using IMPUTE 2.0 against the reference data set of the CEU panel of the 1000 Genomes project (version March 2012). SNPs of high quality (info-score IMPUTE ≥ 0.7) were merged into one dataset using GTOOL and used for further analysis.

### **Acknowledgments and Funding**

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### **References**

- Bruneekreef B, Smit J, de Jongste J, Neijens H, Gerritsen J, Postma D, Aalberse R, Koopman L, Kerkhof M, Wilga A, van Strien R. The prevention and incidence of asthma and mite allergy (PIAMA) birth cohort study: design and first results. *Pediatr Allergy Immunol*. 2002;13(s15):55-60. doi: 10.1034/j.1399-3038.13.s.15.1.x. PMID: 12688626.
- Gehring U, de Jongste JC, Kerkhof M, Oldewening M, Postma D, van Strien RT, Wijga AH, Willers SM, Wolse A, Gerritsen J, Smit HA, Bruneekreef B. The 8-year follow-up of the PIAMA intervention study assessing the effect of mite- impermeable mattress covers. *Allergy*. 2012 Feb;67(2):248-56. doi: 10.1111/j.1398-9995.2011.02739.x. Epub 2011 Oct 25. PMID: 22023655.
- Rob Beelen, Gerard Hoek, Danielle Vienneau, Marloes Eeftens, Konstantina Dimakopoulou, Xanthi Pedeli, Ming-Yi Tsai, Nino Künzli, Tamara Schikowski, Alessandro Marcon. Development of NO<sub>2</sub> and

NOx land use regression models for estimating air pollution exposure in 36 study areas in europe – the ESCAPE project *Atmos. Environ.*, 72 (2013), pp. 10-23, 10.1016/j.atmosenv.2013.02.037

Marloes Eeftens, Rob Beelen, Kees de Hoogh, Tom Bellander, Giulia Cesaroni, Marta Cirach, Christophe Declercq, Audrius Dèdelè, Evi Dons, Audrey de Nazelle, Konstantina Dimakopoulou, Kirsten Eriksen, Grégoire Falq, Paul Fischer, Claudia Galassi, Regina Gražulevičienė, Joachim Heinrich, Barbara Hoffmann, Michael Jerrett, Dirk Keidel, Michal Korek, Timo Lanki, Sarah Lindley, Christian Madsen, Anna Mölter, Gizella Nádor, Mark Nieuwenhuijsen, Michael Nonnemacher, Xanthi Pedeli, Ole Raaschou-Nielsen, Evridiki Patelarou, Ulrich Quass, Andrea Ranzi, Christian Schindler, Morgane Stempfelet, Euripides Stephanou, Dorothea Sugiri, Ming-Yi Tsai, Tarja Yli-Tuomi, Mihály J. Varró, Danielle Vienneau, Stephanie von Klot, Kathrin Wolf, Bert Brunekreef, Gerard Hoek. Development of land use regression models for PM<sub>2.5</sub>, PM<sub>2.5</sub> absorbance, PM<sub>10</sub> and PM<sub>coarse</sub> in 20 European study areas; results of the ESCAPE project. *Environ. Sci. Technol.*, 46 (20) (2012), pp. 11195-11205, 10.1021/es301948k

Ulrike Gehring, Olena Gruzieva, Raymond M. Agius, Rob Beelen, Adnan Custovic, Josef Cyrys, Marloes Eeftens, Claudia Flexeder, Elaine Fuertes, Joachim Heinrich, Barbara Hoffmann, Johan C. de Jongste, Marjan Kerkhof, Claudia Klümper, Michal Korek, Anna Mölter, Erica S. Schultz, Angela Simpson, Dorothea Sugiri, Magnus Svartengren, Andrea von Berg, Alet H. Wijga, Göran Pershagen, Bert Brunekreef. Air pollution exposure and lung function in children: the ESCAPE project *Environ. Health Perspect.*, 121 (11–12) (2013), pp. 1357-1364, 10.1289/ehp.1306770



## ***The Raine Study***

### **Recruitment**

The Raine Study is a prospective pregnancy cohort where 2900 mothers were recruited between 1989-1992 (<https://rainestudy.org.au/>). Recruitment took place at Western Australia's major perinatal centre, King Edward Memorial Hospital, and nearby private practices. Women who had sufficient English language skills, an expectation to deliver at King Edward Memorial Hospital, and an intention to reside in Western Australia to allow for future follow-up of their child were eligible for the study.<sup>1</sup>

### **Definition of eczema cases and controls**

A study individual is defined as a case if he/she was diagnosed with eczema by a doctor at any follow-up by 16 years of age (conducted at 5, 8, 10, 13/14, 16/17).

A study individual is defined as a control if he/she was never ever diagnosed with eczema at any follow-up by 16 years of age.

### **Definition of environmental exposures**

#### Antibiotics (in utero / up to 6 months / up to 12 months)

Self-reported usage of antibiotics from the Raine Study antenatal data at 18- and 34-weeks gestation, and the Raine Study Gen2 1- and 2-year follow-ups.

#### Cesarean section

Retrieved from medical records (Mode of delivery)

#### Cat ownership

Self-reported number of cats owned

#### Dog ownership

Self-reported number of dogs owned

#### Breastfeeding (duration / ever any / ever exclusive)

Duration - Self-reported time at which Raine Study Gen1 mothers stopped breastfeeding Raine Study Gen2 index participants. This question was included in questionnaires at the Raine Study Gen2 1-, 2- and 3-year follow-ups.

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

Self-reported smoking from the Raine Study antenatal data at 18- and 34-weeks gestation, and the Raine Study Gen2 1- and 2-year follow-ups.

### **Definition of parental education (as a measure of socioeconomic status)**

Completed year 12 (yes/no) - equivalent to A levels

### **Definition of family history of atopic disease**

Self-reported

### **Genotyping**

Illumina 660W

Illumina Omni

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## Reference

1. Newnham JP, Evans SF, Michael CA, Stanley FJ, Landau LI. Effects of frequent ultrasound during pregnancy: a randomised controlled trial. *Lancet* 1993; **342**(8876): 887-91.

## **TwinsUK**

### **Recruitment**

The TwinsUK adult twin registry includes about 14,000 subjects, predominately middle-aged females, unselected for any specific disease and with similar disease and lifestyle characteristic to the general population [PMID:11780939]. St. Thomas' Hospital Research Ethics Committee approved the study, and all twins provided informed written consent.

### **Definition of eczema cases and controls**

Self-reported eczema data were collated from multiple questionnaires completed by TwinsUK participants. All questions asked: *"Have you ever had eczema?"* or *"Has a doctor ever told you that you have/had any of the following conditions? (Eczema)"*. Participants were considered as affected by eczema if they replied yes to any questionnaire, unaffected if they only replied no. Participants who did not provide any answer were discarded. Only participants of European ancestry were considered in this analysis.

### **Definition of environmental exposures**

#### Cesarean section

Self-reported method of delivery (naturally/Cesarean section) was collated from multiple questionnaires. All questions asked: *"How were you delivered?"*. Participants who provided discordant answers were discarded.

#### Presence of older siblings

Presence of older siblings was derived from self-reported family information (*"Year of birth of all siblings"*).

### **Definition of family history of atopic disease**

Self-reported family history of eczema was collected via questionnaire. Participants were asked, via multiple questions, whether any parent, sibling, or child has or had suffered from eczema.

### **Genotyping**

Microarray genotyping was conducted using a combination of Illumina arrays (HumanHap300, HumanHap610, 1M-Duo and 1.2M-Duo 1 M) and imputation was performed using the IMPUTE2 software using haplotype information from the 1000 Genomes Project (Phase 1, integrated variant set across 1092 individuals, v2, March 2012), as previously described [PMID:21572415].

### **Acknowledgments and Funding**

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## ***BABY Skin birth cohort***

### **Recruitment**

300 term children were recruited from the maternity ward at Copenhagen University Hospital – Rigshospitalet, Denmark, during the first 3 days of life.

### **Definition of eczema cases and controls**

If a child had any signs of eczema during the first 2 years of life, they attended a clinical visit where atopic dermatitis was diagnosed by a physician.

### **Definition of environmental exposures**

Cat ownership: Defined as answering “yes, a cat” to the question: “Have you been living with a pet while you were pregnant?”. [Parental questionnaire when child was 2 months of age].

Breastfeeding (duration / ever any / ever exclusive): Ever breastfeeding defined as answering “breastfeeding” to the question: “Primary method of feeding?” or an affirmative response to the question: “If not breastfeeding now, have you been breastfeeding when your child was younger?”. Duration of breastfeeding was defined as number of months the child was breastfed. [Parental telephone interview when child was 18 and 24 months of age].

Presence of older siblings: Defined as answering: “1 child/2 children/3 children/more than 3 children” to the question: “How many biological children do you already have?” [Parental questionnaire when child was 2 months of age].

Environmental tobacco smoke exposure (in utero / up to 2 years): Environmental tobacco exposure up to 2 years defined as an affirmative reply to the question: “Do you or other person smoke inside your home?”. [Parental telephone interview when child was 18 and 24 months of age].

Washing practices (up to 6 months / up to 2 years): Bathing every day defined as answering “every day” to the question: “How many times a week do you bathe your child?”. [Interview at clinical visits when child was 2, 6, and 12 months of age].

### **Definition of family history of atopic disease**

Family history of atopic disease was defined as self-reported physician-diagnosed atopic dermatitis, asthma, hay fever and/or self-reported allergy to selected allergens (birch, grass, mugwort, horse, dog, cat, house dust mites or molds).

### **Genotyping**

DNA was collected via a buccal swab (Isohelix, Herrietsham, UK) and analyzed for the three common filaggrin gene mutations ((R501X, 2282del4 and R2447X) using TaqMan genotyping assay.

### **Acknowledgments and Funding**

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## **BAMSE**

### **Recruitment**

BAMSE (Swedish abbreviation for Children, Allergy, Milieu, Stockholm, Epidemiology) is a Swedish longitudinal birth cohort study. A total of 4,089 newborn infants were recruited in the BAMSE study between 1994 and 1996 in the north and central area of Stockholm(1). Questionnaire data on baseline study characteristics were obtained when the children were about 2 months. At approximately one, two, four, eight, twelve and sixteen years old, parents completed questionnaires on their children's symptoms related to asthma and other allergic diseases.

### **Definition of eczema cases and controls**

The children have been followed with regular questionnaires and clinic visits. For the current study, data collected from the questionnaires was used to classify children as eczema cases or controls. Eczema case status at 8 years old was defined based on an affirmative response at any of the following questions in questionnaires up to 8 years: "Has a doctor ever diagnosed your child as having eczema?" [yes/no], "Has a doctor diagnosed your child as having eczema after the age of one year?" [yes/no], "Has a doctor diagnosed your child as having eczema after the age of two years?" [yes/no] or "Has your child been diagnosed with eczema by a doctor since age 4?" [yes/no]. Controls were defined as children who were not cases and whose answer was negative for the questions above.

### **Definition of environmental exposures**

#### Cat ownership

Presence of cat at home at the time of questionnaire 0.

#### Breastfeeding (duration / ever any / ever exclusive)

Total breastfeeding duration in number of months.

#### Presence of older siblings

Presence of elder sibling(s) at the time of questionnaire 0 was defined as a dichotomous variable [yes=1; no=0].

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

Binary environmental tobacco exposure was defined based on an affirmative or negative response to any of the following questions, independent of how many cigarettes for the following questions: "Did the father smoke when the mother was pregnant with the "BAMSE child"?" [1 = No; 2 = Yes, rarely; 3 = Yes, daily but not in the home; 4 = Yes, daily in the home] or "Did the mother smoke while pregnant with the "BAMSE child"?" [1 = No; 2 = Yes, rarely; 3 = Yes, daily but not in the home; 4 = Yes, daily in the home].

### **Definition of parental education (as a measure of socioeconomic status)**

Highest education level of the household at the time of questionnaire 0, based on maternal and paternal education level, in two categories: a) Up to high school (gymnasium) or b) University (högskola/universitet).

### **Definition of family history of atopic disease**

Mother and/or father with doctor's diagnosis of asthma and asthma medication and/or doctor's diagnosis of hay fever in combination with furred pets- and/or pollen allergy at the time of questionnaire 0.

## Genotyping

DNA was extracted from peripheral blood and genotyping was described elsewhere(2). Recently, a total of 2,378 16-year-old children were additionally genotyped with the Illumina Infinium Global Screening Array-24 BeadChip following the same sample collection procedures, protocols and questionnaires. Quality control (QC) was performed following the Ricopili pipeline(3). Data was imputed using the Haplotype Reference Consortium(4) 1.1 reference panel. Variants with imputation quality (Rsq)  $\geq 0.3$  were retained. After QC, the imputed or genotyped variants of interest were extracted for analysis.

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## References

1. Wickman M, Kull I, Pershagen G, Nordvall SL. The BAMSE project: Presentation of a prospective longitudinal birth cohort study. *Pediatr Allergy Immunol*. 2002;13(s15):11-3.
2. Moffatt MF, Gut IG, Demenais F, Strachan DP, Bouzigon E, Heath S, et al. A large-scale, consortium-based genomewide association study of asthma. *N Engl J Med*. 2010 Sep 23;363(13):1211–21.
3. Lam M, Awasthi S, Watson HJ, Goldstein J, Panagiotaropoulou G, Trubetskoy V, et al. RICOPILI: Rapid Imputation for COnsortias PIpeLIne. *Bioinformatics*. 2019; btz633
4. McCarthy S, Das S, Kretzschmar W, Delaneau O, Wood AR, Teumer A, et al. A reference panel of 64,976 haplotypes for genotype imputation. *Nat Genet*. 2016 Oct 1;48(10):1279–83.

## **BASELINE**

### Cork BASELINE Birth Cohort Study

#### **Recruitment**

Infants recruited to the Cork Babies After Scope: Evaluating the Longitudinal Impact Using Neurological and Nutritional Endpoints (BASELINE) Birth Cohort study. The purpose of the BASELINE study was to examine the effects of environmental factors during pregnancy and infancy on childhood health and development. It was developed as the pediatric follow on from the Cork Centre for the Screening for Pregnancy Endpoints (SCOPE) study, a multicenter international study evaluating diseases of pregnancy in primigravidae women. The Cork BASELINE Birth Cohort study recruited from August 2008 through to October 2011. A total of 1537 infants were recruited antenatally (stream1). These women were subject to the inclusion criteria of the SCOPE study, namely, first-time, low-risk mothers with singleton pregnancies delivered at or near term. A second recruitment stream began in July 2010 that recruited mothers and babies on the postnatal ward (stream2). A total of 600 infants were recruited postnatally. These mothers were enrolled independently of the SCOPE study.

Cohort profile paper - <https://academic.oup.com/ije/article/44/3/764/629555>

#### **Definition of eczema cases and controls**

Questions below asked at 6, 12, 24 months and 5 years appointments, UK eczema diagnostic criteria (Carried out by a trained research assistant or nurse (UK diagnostic criteria))

- Has your child had an itchy skin condition in the last 6 months?
- If yes, is there a history of flexural involvement?
- Does your child have a history of generally dry skin?
- Is there a history of atopic disease in a first degree relative?
- On assessment, is there visible flexural dermatitis as per photographic protocol?
- Does the child meet the UK diagnostics criteria for eczema?

#### **Definition of environmental exposures**

##### Antibiotics in utero

Q: Antibiotics taken during pregnancy

- 1 - No
- 2 - Yes, occasionally
- 3 - Yes, for a specific episode
- 4 - Yes, regularly, at least several times a week

##### Cesarean section

Q: Birth mode of delivery –

- 1 - Unassisted vaginal
- 2 - Operative vaginal
- 3 - Prelabour LSCS
- 4 - LSCS in labour
- 5 - Unknown
- 6 - Maternal death antepartum

### Cat ownership

Q: Do you have any animals at home during pregnancy?

The no. of animals in the home during pregnancy?

Is the animal allowed in the baby's room?

Is the animal allowed in the living room?

Is the animal allowed in the kitchen?

Is the animal only outside?

### Dog ownership

Q: Do you have any animals at home during pregnancy?

The no. of animals in the home during pregnancy?

Is the animal allowed in the baby's room?

Is the animal allowed in the living room?

Is the animal allowed in the kitchen?

Is the animal only outside?

### Breastfeeding (duration / ever any / ever exclusive)

Q: Type of infant feeding at present (2, 6 month visit)

- 1 - Breastfed only
- 2 - Bottle fed infant formula only
- 3 - Both breast and body fed
- 4 - Not asked

Q: Current type of infant feeding (12 month visit)?

- 1 - Breastfed
- 2 - Bottle fed infant formula
- 3 - Both breast and formula fed
- 4 - Other
- 5 - Not asked

### Presence of older siblings

Q: Relationship to child 1, 2, 3, 4, 5 living in the home (5 year visit)?

- 1-Full sibling
- 2-Half sibling
- 3-Step sibling
- 4-Foster sibling
- 5-Uncle/aunt
- 6-Not related
- 7-Cousin

Q: Age years and months of child 1, 2, 3, 4, 5 living at home (5 year visit)?

### Environmental tobacco smoke exposure (in utero / up to 2 years)

Q: Did you stop smoking or reduce the number of cigarettes when you found out you were pregnant?



- 1 - Yes, stopped completely
- 2 - Yes, reduced the number of cigarettes
- 3 - No, continued to smoke at the same level
- 4 - I had stopped smoking before I became pregnant

Q: Were you regularly exposed to second-hand/passive cigarette smoke while you were pregnant?

- 0 - No
- 1 - Yes

Q: Do you smoke currently (2 month visit)?

- 1 - Yes
- 2 - No, ex-smoker
- 3 - No, never smoked
- 4 - Not asked

Q: Do you smoke (mother) (6 month visit)?

- 1 - No
- 2 - Yes daily
- 3 - Yes, occasionally

Q: Does anyone else smoke inside your home (6 month visit)?

- 1 - No
- 2 - Yes daily
- 3 - Yes, occasionally

Q: Is your child exposed to tobacco smoke (6 month visit)?

- 1 - No
- 2 - Yes daily
- 3 - Yes, occasionally

Washing practices (up to 6 months / up to 2 years)

Q: How often do you bath your baby? (2 month visit)

- 1 - Once a week
- 2 - 2-3 times per week
- 3 - 3-5 times per week
- 4 - Daily
- 5 - Other
- 6 - Not asked

Q: What do you use in the bath? (2 month visit)

- 1 - Nothing
- 2 - Soap
- 3 - Bath foam
- 4 - Perfumed bath foam
- 5 - Emollient
- 6 - Milton
- 7 - Essential oils
- 8 - Other
- 9 - Not asked

Q: How often do you bath your baby? (6 month visit)

- 1 - Once a week
- 2 - 2 to 3 times per week
- 3 - 3 to 5 times per week
- 4 - Daily
- 5 - Other
- 6 - Not asked

Q: What do you use in the bath? (6 month visit)

- 1 - Nothing
- 2 - Soap
- 3 - Bath foam
- 4 - Perfumed bath foam
- 5 - Emollient
- 6 - Milton
- 7 - Essential oils
- 8 - Other
- 9 - Not asked

**Definition of parental education (as a measure of socioeconomic status)**

Q: Total years of schooling (primary and secondary)

Q: Maternal tertiary Education University

- 1 - No
- 2 - Graduated
- 3 - Still attending
- 4 - Dropped out

Q: Maternal tertiary Education Other

- 1 - No
- 2 - Graduated
- 3 - Still attending
- 4 - Dropped out

**Definition of family history of atopic disease**

Questions asked to both mother and father at 2 month appointment

Q: DO or DID you ever suffer from pollen-related rhinitis ('hay fever')?

Q: DO or DID you ever suffer from eczema (atopic dermatitis)?

Q: DO or DID you ever suffer from asthma?

Questions asked about siblings at 5 year appointment

Q: How many natural siblings have been diagnosed with the following conditions

- Sibling diagnosed with asthma
- Sibling diagnosed with allergic rhinitis/hay fever
- Sibling diagnosed with eczema/atopic dermatitis

**Genotyping**

Filaggrin genotyping for four null mutations

- 2282del4
- R2447X
- R501X
- S3247X

**Acknowledgments and Funding:**

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## ***Born in Bradford (BiB)***

### **Recruitment**

Baseline recruitment occurred between 2007-2011[1]. Women and their partners were recruited between 2007-2011 when women attended a routine antenatal clinic appointment at the City's main maternity unit. Around 83% of pregnant women attended this appointment, and of these >80% were recruited. The cohort recruited 12 453 women with 13 776 pregnancies (recruited at ~26 weeks gestation) and 3448 partners.

[1] Wright J, Small N, Raynor P, et al. Cohort Profile: The Born in Bradford multi-ethnic family cohort study. *Int J Epidemiol* . 2013 Aug 1;42(4):978–991.

### **Definition of eczema cases and controls**

As per Abuabara et al 2017:

Katrina Abuabara, Alexa M. Magyari, Ole Hoffstad, Zarif K. Jabbar-Lopez, Liam Smeeth, Hywel C. Williams, Joel M. Gelfand, David J. Margolis, Sinead M. Langan. Development and Validation of an Algorithm to Accurately Identify Atopic Eczema Patients in Primary Care Electronic Health Records from the UK. *Journal of Investigative Dermatology* Volume 137 Issue 8. 2017 pp1655-1662.

<https://doi.org/10.1016/j.jid.2017.03.029>

### **Definition of environmental exposures**

#### Antibiotics (in utero / up to 6 months / up to 12 months)

Extracted from primary care records.

#### Cesarean section

Obtained from maternity records

#### Breastfeeding (duration / ever any):

Data was obtained from BiB1000 (questionnaires administered when child was approximately 6, 12, 18, 24 and 36 months) and ALLIN surveys (12 and 24 months). Where more than one questionnaire was completed, information on duration was used from the questionnaire completed nearest in time to the end of breastfeeding to reduce the likelihood of recall bias.

#### Presence of older siblings:

Information obtained from BiB1000 and ALLIN surveys. Where survey data was missing, parity was used as an indicator.

#### Environmental tobacco smoke exposure (in utero / up to 2 years):

The following information on in-utero tobacco exposure obtained from the baseline questionnaire:

- (1) the number of cigarettes the mother smoked in the first 3 months of pregnancy and since the beginning of the 4<sup>th</sup> month (none; 1-5 a day; 6-10 a day; 11-20 a day; over 20 a day).
- (2) During pregnancy have you been exposed to other peoples' cigarette smoke at work or at home and if yes, for how many hours per day approx. (yes (number of hours); no; less than 1 hour per day/occasionally)

Information on tobacco smoke exposure to 2 years of age was obtained from BiB1000 (6 and 24 months) and ALLIN (12 and 24 months) surveys:

Is your child exposed to other peoples' smoke (yes (number of hours); no; less than 1 hour per day/occasionally)

### Air pollution (NO<sub>2</sub>, PM<sub>10</sub>)

House dust mite: Der p1 concentration (at birth / 1 year)

### **Definition of parental education (as a measure of socioeconomic status)**

A-level or higher (mother or father), obtained from baseline questionnaire

### **Definition of family history of atopic disease**

Data obtained from ALLIN (12 month) and MeDALL questionnaires:

- Have you (the baby's mother) ever had any of the following diseases (asthma; hay fever; eczema)
- Has your baby's father ever had any of the following diseases (asthma; hay fever; eczema)
- Have any of your baby's brothers and sisters ever had any of the following diseases (asthma; hay fever; eczema)

### **Genotyping**

BiB children (n=7018) were genotyped on two Illumina chips: CoreExome (n=5620) and GSA (n=1398). Classification of individuals as white Europeans (n=3019) and South Asians (n=3999) was based on a combination of PCA and parental reported ethnicity. Imputation using the HRC r1.1 reference panel was performed separately by chip type and ethnicity: CoreExome white European n=2405; CoreExome South Asian n=3215; GSA white European n=614; GSA South Asian n=784.

### **Acknowledgments and Funding**

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## ***Generation Scotland***

### **Recruitment**

Generation Scotland (GS), is a large family-structured cohort study that consists of 24,000 individuals from across Scotland. Participants were identified via Community Health Index numbers, with the support of Scottish Practices and Professionals Involved in Research. The initial phase of recruitment (2006 to 2010) focussed on the Glasgow and Tayside regions of Scotland and was later extended to Ayrshire, Arran, and the Northeast of Scotland. Initial inclusion criteria were age 35-65, with  $\geq 1$  first-degree relative and  $\geq 1$  full sibling. The age range was later broadened to 18 to 65 years. Family members of probands were also invited to partake in the study. In total, 23,960 individuals were recruited, which encompassed 6,665 probands, 16,007 family members, and 1,288 individuals who self-volunteered without invitation. There were 5,573 families with a mean size of 4 members and 1,400 participants without relatives. The median age at baseline was 47 years and the sample was 59% female [12,13]. Detailed health and lifestyle information were collected via questionnaires at the study baseline alongside venepuncture to obtain whole blood samples from which DNA methylation and genotypes were assayed.

### **Definition of eczema cases and controls**

Eczema case status was ascertained from a combination of at least one diagnostic Read code and at least two records for skin disease therapies recorded on separate days (as published in Abuabara et al. J Invest Dermatol 2017).

### **Definition of environmental exposures**

#### **Antibiotics in utero**

Maternal linked prescription records were queried for BNF chapters 5.1, 11.3.1 and 13.10.1 during gestation (derived from 280 days prior to offspring date of birth).

#### **Presence of older siblings**

Self-reported number of siblings was available in the study questionnaire. Sibling sets were ascertained based on the study pedigree file, considering full sets only. Older sibling status was ascertained using participant date of birth.

#### **Environmental tobacco smoke exposure (in utero / up to 2 years)**

In-utero exposure to tobacco smoke was ascertained where mother-offspring pairs were present in the data. For ever-smoker mothers, age at which they started smoking and age at which they stopped was used to derive a window within which exposure could be derived based on date of birth of the offspring.

### **Definition of parental education (as a measure of socioeconomic status)**

Parental education was available for parent-offspring sets in the study. A 'higher education' binary variable was derived from participants' highest qualification. Higher education was defined as college/university degree, other professional or technical qualification, NVQ, HND, HNC or equivalent, higher grade, and A-levels, AS levels or equivalent. Non-higher education was defined as standard grade, O levels, GCSEs or equivalent, CSEs or equivalent, school leavers certificate, and no qualification.

### **Definition of family history of atopic disease**

Family history of atopic disease was derived from linked healthcare data of parents and siblings, considering eczema, asthma, and hayfever.

## **Genotyping**

Samples were genotyped using the Illumina HumanOmniExpressExome-8v1 chip and the Beadstudio-Gencall v3 genotype calling algorithm. Quality control measures were implemented, filtering out samples with a call rate of <98% and SNPs with a call rate of <98%, HWE of  $<1 \times 10^{-6}$  and MAF of  $\leq 1\%$ , leaving 20,032 samples and 602,450 SNPs. Phasing of the genotyped SNPs was carried out using SHAPEIT2.

## **Acknowledgments and Funding**

All components of GS received ethical approval from the NHS Tayside Committee on Medical Research Ethics (REC Reference Number: 05/S1401/89). GS has also been granted Research Tissue Bank status by the East of Scotland Research Ethics Service (REC Reference Number: 20-ES-0021), providing generic ethical approval for a wide range of uses within medical research. GS received core support from the Chief Scientist Office of the Scottish Government Health Directorates (CZD/16/6) and the Scottish Funding Council (HR03006). Genotyping and DNA methylation profiling of the GS samples was carried out by the Genetics Core Laboratory at the Edinburgh Clinical Research Facility, Edinburgh, Scotland, and was funded by the Medical Research Council UK and the Wellcome Trust (Wellcome Trust Strategic Award STRatifying Resilience and Depression Longitudinally (STRADL; Reference 104036/Z/14/Z). We are grateful to all the families who took part, the general practitioners and the Scottish School of Primary Care for their help in recruiting them, and the whole Generation Scotland team, which includes interviewers, computer and laboratory technicians, clerical workers, research scientists, volunteers, managers, receptionists, healthcare assistants and nurses.

## ***Human Early Life Exposome (HELIX)***

### **Recruitment**

HELIX project is an ongoing population-based birth cohort study in six birth cohorts from different European countries: (1) EDEN - Étude des Déterminants pré et postnatals du développement et de la santé de l'enfant, France; (2) Rhea - the Rhea Mother-Child Study in Crete, Greece; (3) KANC - Kaunas Cohort, Lithuania; (4) MoBa – the Norwegian Mother, Father and Child Cohort Study, Norway; (5) INMA - - Infancia y Medio Ambiente, Spain; (6) BiB - Born in Bradford, United Kingdom (UK) (Maitre et al., 2018). The HELIX project aims to implement novel exposure assessment and biomarker methods to measure the early-life exposure to multiple environmental factors and associate these with omics biomarkers and child health outcomes, thus characterizing the “early-life exposome”. The entire study population is 31,472 mother-child pairs. The subcohort study includes 1,304 children with exposure, phenotypes, and molecular data measured at age of 6-12 years. The current study selected 748 children of European ancestry with phenotypic and genome-wide genetic from EDEN, MoBA, KAUNAS and RHEA subcohorts. All studies were approved by the national research ethics committees and informed consent to participate was obtained for all participants.

### **Definition of eczema cases and controls**

Information on eczema was reported by the mothers at the HELIX visit, around 8 years of age, and included doctor diagnosis of eczema or atopic dermatitis or neurodermatitis.

### **Definition of environmental exposures**

#### Cat ownership

Cat ownership was reported by the mothers and defined as “yes/no” having a cat mainly living in their house in postnatal life.

#### Dog ownership

Dog ownership was reported by the mothers and defined as “yes/no” having a dog mainly living in their house in postnatal life.

#### Breastfeeding (duration / ever any / ever exclusive)

Any breastfeeding duration was reported by the mothers using different questionnaires in the different cohorts, and expressed in months.

#### Presence of older siblings

Number of siblings was reported by the mothers and coded as “0”, if none, or “1”, with 1 or more than 1 sibling were present.

#### Environmental tobacco smoke exposure (in utero / up to 2 years)

Exposure to tobacco smoke during pregnancy was self-reported by the mothers and classified in “yes” (any exposure to tobacco smoke, either active or passive smoking), and “no” (no exposure, neither active or passive).

Exposure to tobacco smoke during childhood was also reported by the mothers and classified in “yes” (any exposure to second-hand smoke at home or other places) and “no” (no exposure to second-hand smoke).

### **Definition of parental education (as a measure of socioeconomic status)**

Maternal education was used a proxy of socioeconomic status and coded as “0” (primary or secondary) and “1” (university).



## **Definition of family history of atopic disease**

Family history of atopic disease was obtained from questionnaire and coded as “0”, when none of both parents had atopic disease, and “1”, when at least one of the parents had a history of atopic disease.

## **Genotyping**

DNA was obtained from buffy coats collected in EDTA tubes at the mean age of 8 years. DNA was extracted by cohort using a Chemagen kit in batches of 12 samples. DNA concentration and quality was evaluated with the NanoDrop 1000 UV-Vis Spectrophotometer (ThermoScientific) and the Quant-iT™ PicoGreen® dsDNA Assay Kit (Life Technologies).

Infinium Global Screening Array (GSA) MD version 1 (Illumina) was used for genome-wide genotyping at the Human Genomics Facility (HuGe-F), Erasmus MC ([www.glimdna.org](http://www.glimdna.org)). Genotype calling and annotation were done using the GenTrain2.8 algorithm based on a custom cluster file implemented in the GenomeStudio software and the GSAMD-24v1-0\_20011747-A4 manifest. SNP coordinates were reported on human reference GRCh37 and on the source strand.

PLINK program was used for the quality control of the genetic data (Purcell et al., 2007). Briefly, samples were filtered out if they had a call rate <97%, had sex inconsistencies, the heterozygosity was >3 standard deviations, if they were related (sharing >18.5% of alleles) or duplicated. For ancestry prediction from GWAS data, we used the Peddy program (Pedersen and Quinlan, 2017). Then genetic ancestry was contrasted with self-reported ethnicity and discordant samples were excluded. Genetic variants were filtered out if they had a call rate <95%, if they were in the non-canonical pseudo-autosomal region (PAR), if they had a minor allele frequency (MAF) <1%, and if they were not in Hardy-Weinberg equilibrium (HWE) at a p-value <1E-06.

Genome-wide imputation was performed with the Imputation Michigan server using the Haplotype Reference Consortium (HRC) panel, Version r1.1 2016. Before the imputation PLINK data was converted into VCF format and the variants were aligned with the reference genome. Eagle v2.4 was used for the phasing of the haplotypes and minimac4 for the imputation. In the end, we retrieved 40,405,505 variants after imputation. Then we filtered out the genetic variants according to the following parameters: imputation accuracy (R2) <0.9, MAF<5%, and HWE p-value <1E-06. After this the post-imputation dataset had 4,614,947 variants.

## **Acknowledgments and Funding**

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Escape, EU FP7-2008-ENV-1.2.1.4 Envirogenomarkers, EU FP7-HEALTH-2009- single stage CHICOS, EU FP7 ENV.2008.1.2.1.6. Proposal No 226285 ENRIECO, EU- FP7- HEALTH-2012 Proposal No 308333 HELIX), and the Greek Ministry of Health (Program of Prevention of obesity and neurodevelopmental disorders in preschool children, in Heraklion district, Crete, Greece: 2011-2014; “Rhea Plus”: Primary Prevention Program of Environmental Risk Factors for Reproductive Health, and Child Health: 2012-15). ISGlobal acknowledges support from the Spanish Ministry of Science and Innovation through the “Centro de Excelencia Severo Ochoa 2019-2023” Program (CEX2018-000806-S), and support from the Generalitat de Catalunya through the CERCA Program. CRG acknowledge the support of the Spanish Ministry of Science, Innovation, and Universities to the EMBL partnership, the Centro de Excelencia Severo Ochoa, and the CERCA Programme/Generalitat de Catalunya.

## ***The HUNT Study***

### **Recruitment**

The Trøndelag Health Study (HUNT) is a longitudinal population-based health study carried out at four time points over approximately 40 years (HUNT1 [1984-1986], HUNT2 [1995-1997] and HUNT3 [2006-2008] and HUNT4 [2017-2019]) (1, 2). All inhabitants aged 20 years and over residing in Trøndelag County in Norway were invited to participate. The surveys included clinical measurements, blood sampling and questionnaires on general health measures and a broad range of self-reported diseases and symptoms. Participants were linked to regional- and national health registries through their unique national identification number.

### **Definition of eczema cases and controls**

- Self-reported eczema was defined by answering 'yes' to the 'Eczema ever' question in HUNT3: 'Have you had, or do you have any of the following diseases: Eczema on hands?'
- ICD-codes, ICD9 691.8 or ICD10 L20, available from regional hospitals and private specialist practitioners (including dermatologists) from the Control and Payment of Health Reimbursement Register (KUHR) or ICPC-2 code S87 from general practitioners from KUHR.
- There were 7000 genotyped individuals in HUNT with either self-reported eczema and/or at least one of the specified codes, with the remaining 42,205 genotyped individuals defined as controls.

### **Definition of environmental exposures**

- Cat ownership: Self-reported in HUNT3: Did you grow up with pets? Yes, cat.
- Dog ownership: Self-reported in HUNT3: Did you grow up with pets? Yes, dog.
- Environmental tobacco smoke exposure: Self-reported in HUNT2 and HUNT3: Did any of the adults where you grew up smoke indoors? Yes.

### **Definition of family history of atopic disease**

- Self-reported in HUNT3 and HUNT4: Do your parents, siblings or children have, or have they ever had, some of the following diseases? Allergies/hay fever/nasal allergies. Yes to any.

### **Genotyping and imputation**

Participants from HUNT2 and HUNT3 were genotyped using one of three different Illumina HumanCoreExome arrays (HumanCoreExome12 v1.0, HumanCoreExome12 v1.1 and UM HUNT Biobank v1.0) (2). Genotype calling was performed with GenTrain v.2.0 in GenomeStudio v.2011.1 (Illumina). Samples with <99% genotype calls, with large chromosomal copy number variants, contamination >2.5% as estimated with BAF Regress (3), with genotypic and phenotypic sex discordance, and not of European ancestry were excluded, leaving 69,422 genotyped subjects. Genetic variants out of Hardy-Weinberg equilibrium (p-value <0.0001) were excluded.

Imputation was conducted on samples of recent European ancestry using a panel from the Haplotype Reference Consortium (HRC) (release v1.1). Phasing was done using EAGLE v 2.3, followed by imputation using Minimac3 (v2.0.1, <http://genome.sph.umich.edu/wiki/Minimac3>) from a merged reference panel constructed from HRC panel (release v1.1) and a local reference panel based on 2,202 whole-genome sequenced HUNT participants, resulting in 24.9 million SNPs ( $R^2 \geq 0.3$ ).

The analysis sample was restricted to individuals with available information on eczema, at least one environmental exposure and one genetic variant, and confounders, resulting in a dataset comprising 46,439 individuals.

## **Ethics**

Participation in HUNT is based on informed consent, and the study has been approved by the Norwegian Data Protection Authority and the Regional Committee for Medical and Health Research Ethics in Central Norway (REK Reference number 27420).

## **Acknowledgements and Funding**

The Trøndelag Health Study (The HUNT Study) is a collaboration between HUNT Research Centre (Faculty of Medicine and Health Sciences, NTNU, Norwegian University of Science and Technology), Trøndelag County Council, Central Norway Regional Health Authority, and the Norwegian Institute of Public Health. The genotyping in HUNT was financed by the National Institutes of Health; University of Michigan; the Research Council of Norway; the Liaison Committee for Education, Research and Innovation in Central Norway; and the Joint Research Committee between St Olavs hospital and the Faculty of Medicine and Health Sciences, NTNU. The genetic investigations of the HUNT Study are a collaboration between researchers from the HUNT Center for Molecular and Clinical Epidemiology (formerly known as the K.G. Jebsen Center for Genetic Epidemiology as of August 1<sup>st</sup> 2023), NTNU, and the University of Michigan Medical School and the University of Michigan School of Public Health. We thank HUNT participants for donating their time, samples, and information to help others; clinicians and other employees at Nord-Trøndelag Hospital Trust for their support and for contributing to data collection. ML was supported by grants from the Liaison Committee for Education, Research and Innovation in Central Norway and the Joint Research Committee between St Olavs hospital and the Faculty of Medicine and Health Sciences, NTNU.

## **References**

1. Krokstad S, Langhammer A, Hveem K, Holmen TL, Midthjell K, Stene TR, et al. Cohort Profile: the HUNT Study, Norway. *Int J Epidemiol.* 2013;42(4):968-77.
2. Brumpton BM, Graham S, Surakka I, Skogholt AH, Løset M, Fritsche LG, et al. The HUNT study: A population-based cohort for genetic research. *Cell Genom.* 2022;2(10):100193.
3. Jun G, Flickinger M, Hetrick KN, Romm JM, Doheny KF, Abecasis GR, et al. Detecting and estimating contamination of human DNA samples in sequencing and array-based genotype data. *Am J Hum Genet.* 2012;91(5):839-48.
4. Marit Næss, Kirsti Kvaløy, Elin P Sjørgjerd et al, Data Resource Profile: The HUNT Biobank. *Int J Epidemiol.* 2024; 53(3):dyae073.

## **UK Biobank (UKBB)**

### **Recruitment**

UK Biobank is a population-based health research resource consisting of approximately 500,000 people, aged between 38 years and 73 years, who were recruited between the years 2006 and 2010 from across the UK<sup>1</sup>. Particularly focused on identifying determinants of human diseases in middle-aged and older individuals, participants provided a range of information (such as demographics, health status, lifestyle measures, cognitive testing, personality self-report, and physical and mental health measures) via questionnaires and interviews; anthropometric measures, BP readings and samples of blood, urine and saliva were also taken (data available at [www.ukbiobank.ac.uk](http://www.ukbiobank.ac.uk)). A full description of the study design, participants and quality control (QC) methods have been described in detail previously<sup>2</sup>. UK Biobank received ethical approval from the Research Ethics Committee (REC reference for UK Biobank is 11/NW/0382; UK Biobank application number 10074).

### **Definition of eczema cases and controls**

AD cases were defined based on their response during a verbal interview with a trained staff member at the assessment centre. Participants were asked to tell the interviewer which serious illnesses or disabilities they had been diagnosed with by a doctor, and were defined as AD if this disease was mentioned. Disease information was also obtained from the Hospital Episode Statistics (HES) data extract service where health-related outcomes had been defined by International Classification of Diseases (ICD)- 10 code L20. Additionally, individuals were excluded from the AD controls if they had answered “yes” to “Has a doctor ever told you that you have hay fever, allergic rhinitis or eczema”.

### **Definition of environmental exposures**

#### Breastfeeding (ever any)

Participants were asked via a touchscreen questionnaire “were you breastfed when you were a baby?” where they responded either “yes” or “no”.

#### Presence of older siblings

Via a touchscreen questionnaire, participants were asked “How many OLDER brothers/sisters do you have? (Please include those who have died, and twins. Do not include half-, step- or adopted brothers and sisters)”.

#### Environmental tobacco smoke exposure (up to 2 years)

Via a touchscreen questionnaire, participants were asked “Did your mother smoke regularly around the time when you were born?”. Participants answered either “yes”, “no”, “do not know” or “prefer not to answer”.

### **Definition of parental education (as a measure of socioeconomic status)**

Participants' highest qualification was used as a proxy for parental education. Participants were asked via a touchscreen questionnaire “Which of the following qualifications do you have?” where they could select “College or University degree”, “A levels/AS levels or equivalent”, “O levels/GCSEs or equivalent”, “CSEs or equivalent”, “NVQ or HND or HNC or equivalent”, “Other professional qualifications eg: nursing, teaching”, “None of the above” or “Prefer not to answer”.

### **Genotyping**

The full data release contains the cohort of successfully genotyped samples (n=488,377). 49,979 individuals were genotyped using the UK BiLEVE array and 438,398 using the UK Biobank axiom array. Pre-imputation QC, phasing and imputation are described elsewhere<sup>3</sup>. In brief, prior to phasing, multiallelic SNPs or those with MAF ≤1% were removed. Phasing of genotype data was performed using a modified version of the SHAPEIT2 algorithm<sup>4</sup>. Genotype imputation to a reference set combining the UK10K haplotype and HRC reference panels<sup>5</sup> was performed using IMPUTE2

algorithms<sup>6</sup>. The analyses presented here were restricted to autosomal variants using a graded filtering with varying imputation quality for different allele frequency ranges. Therefore, rarer genetic variants are required to have a higher imputation INFO score (Info>0.3 for MAF >3%; Info>0.6 for MAF 1-3%; Info>0.8 for MAF 0.5-1%; Info>0.9 for MAF 0.1-0.5%) with MAF and Info scores having been recalculated on an in-house derived 'European' subset.

Individuals with sex-mismatch (derived by comparing genetic sex and reported sex) or individuals with sex-chromosome aneuploidy were excluded from the analysis (n=814). We restricted the sample to individuals of white British ancestry who self-report as "White British" and who have very similar ancestral backgrounds according to the PCA (n=409,703), as described by Bycroft<sup>3</sup>. Estimated kinship coefficients using the KING toolset<sup>7</sup> identified 107,162 pairs of related individuals<sup>3</sup>. An inhouse algorithm was then applied to this list and preferentially removed the individuals related to the greatest number of other individuals until no related pairs remain. These individuals were excluded (n=79,448). Additionally 2 individuals were removed due to them relating to a very large number (>200) of individuals.

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### **References**

1. Allen NE, Sudlow C, Peakman T, Collins R. UK Biobank Data: Come and Get It. *Sci Transl Med*. 2014;6.
2. Collins R. What makes UK Biobank special? *The Lancet* [Internet]. 2012 [cited 2021 Jul 22];379:1173–4. Available from: <http://www.thelancet.com/article/S0140673612604048/fulltext>
3. Bycroft C, Freeman C, Petkova D, Band G, Elliott LT, Sharp K, et al. The UK Biobank resource with deep phenotyping and genomic data. *Nature*. 2018;
4. Sharp K, Shrine N, Wain L, Hall I, Tobin M, Zagury JF, et al. Haplotype estimation for biobank-scale data sets. *Nature Publishing Group*. 2016;48.
5. Huang J, Howie B, McCarthy S, Memari Y, Walter K, Min JL, et al. Improved imputation of low-frequency and rare variants using the UK10K haplotype reference panel. *Nat Commun*. 2015;
6. Howie B, Marchini J, Stephens M. Genotype Imputation with Thousands of Genomes. 2011; Available from: <http://www.g3journal.org/lookup/>
7. Manichaikul A, Mychaleckyj JC, Rich SS, Daly K, Sale M, Chen WM, et al. Robust relationship inference in genome-wide association studies. 2010;26:2867–73.

### Supplementary file 3: Definition and coding of environmental exposures

Environmental exposure	Variable name	Definition	Coding
Eczema (outcome)	eczema	Ever had eczema (restricted to Dr diagnosed if available)	Dichotomous (yes=1; no=0)
Cat ownership	cat	Reported ownership <i>in utero</i> or at birth	Dichotomous (yes=1; no=0)
Dog ownership	dog	Reported ownership <i>in utero</i> or at birth	Dichotomous (yes=1; no=0)
House dust mite exposure at birth	hdm_birth	Amount of Der p1 in dust samples from baby's sleeping environment (mcg/g of dust)	Continuous
House dust mite exposure at 1 year	hdm_1y		
Washing practices up to 6 months	wash_6m	Bath/shower frequency in early childhood comparing daily or more frequent versus less than daily: up to and including 6 months of age	Dichotomous (more frequent=1; less frequent=0)
Washing practices up to 2 years	wash_2y	Bath/shower frequency in early childhood comparing Daily or more frequent versus less than daily: up to and including 2 years of age	Dichotomous (more frequent=1; less frequent=0)
Smoking in household in utero	smoke_uterо	Parental report: in utero	Dichotomous (yes=1; no=0)
Smoking in household up to 2 years	smoke_child	Parental report: in early childhood – up to 2 years	Dichotomous (yes=1; no=0)

Antibiotic use in utero	antibio_utero	Antibiotics prescribed: in utero	Dichotomous (yes=1; no=0)
Antibiotic use up to 6 months	antibio_6m	Antibiotics prescribed: within first 6 months of life	Dichotomous (yes=1; no=0)
Antibiotic use up to 12 months	antibio_12m	Antibiotics prescribed: within first 12 months of life	Dichotomous (yes=1; no=0)
Environmental pollution PM <sub>10</sub> at birth	pm10	Exposure at birth	Continuous
Environmental pollution NO <sub>2</sub> at birth	no2	Exposure at birth	Continuous
Breastfeeding ever	ever_brfed	Parental report of 'ever breastfed' yes/no	Dichotomous (yes=1; no=0)
Exclusive breastfeeding ever	excl_brfed	Exclusive breastfeeding for >1 week's duration	Dichotomous (yes=1; no=0)
Duration of any breastfeeding	dura_brfed	Duration of any breastfeeding in months	Continuous
Mode of delivery	Caes	Caesarean section vs vaginal delivery	Dichotomous (yes=1; no=0)
Elder siblings	siblings	Presence of elder sibling(s)	Dichotomous (yes=1; no=0)
Parental education (PE) (confounder)	pe	Parental education level as appropriate in cohort	Dichotomous
Family history (FH) (confounder)	fh	Any vs. none in first degree relatives (ideally measured at time of birth/recruitment/pre-onset)	Dichotomous
Sex (confounder)	sex		Dichotomous (Female=1, Male=0)



Supplementary file 4A: Included cohorts and exposure availability at discovery stage

	Antibiotic use			Mode of delivery	Pet ownership		Breastfeeding			Siblings	Smoking in household		Washing practices		Air pollution		House dust mite		Max. N
	in utero	6 months	12 months		Cat	Dog	Duration	Ever any	Ever excl.		in utero	up to 2 years	6 months	2 years	NO2	PM10	Birth	1 year	
ALSPAC	5,854	5,883	5,825	5,856	6,028	6,028	3,886	5,998	5,892	5,859	5,912	5,800	5,874	5,731					6,028
COPSAC2000		432	432	432	419	419					432	411							432
COPSAC2010	613	614	614	614	614	614			613	614	614	609							614
DNBC				1,513	1,071	1,071	891		633	1,513	1,513	893							1,513
GenerationR	1,539	1,488	934	1,512	1,544	1,538	1,316	1,584	1,489	1,625	1,581	1,526			1,536	1,536			1,625
GINILISA	552			1,432	1,438	1,448	1,463	1,465	1,462	1,470	546	1,446			1,447	1,447	531		1,470
INMA	834		878	1,321	1,338	1,337	1,344	1,344	1,009	1,344	1,326	1,328	996	996	986				1,344
INMA_MNC																	333		333
INMA_SAB		391														382			382
IOW				794	976	976	910	910		847	977	977							977
MAAS		564	564	561	637	637	629	629	629	634	647	623			519	519	592	309	647
MAS		1,218	1,218	1,217	1,106	1,106	1,218	1,217	1,172	1,218	1,126	1,200	1,170	1,020			937	775	1,218
NTR	2,094		2,012	1,438			2,179	2,179		2,298	2,283	2,313							2,313
PIAMA				1,261	1,268	1,269	1,262	1,262		1,270	1,263	1,270			1,265		484		1,270
Raine Study	1,602			1,600	1,602	1,602	1,330	1,523	1,523		1,602	1,526							1,602
TwinsUK				2,609						3,571									3,571
Total	13,088	10,590	12,477	22,160	18,041	18,045	16,428	18,111	14,422	22,263	19,822	19,922	8,040	7,747	5,753	3,884	2,877	1,084	25,339

Supplementary file 4B: Included cohorts and exposure availability at replication stage

	Breastfeeding		Siblings	Environmental tobacco smoke		Pets		Washing practices up to 2 years	Antibiotics in utero	Max N
	Duration	Ever any		in utero	0-2y	Cat	Dog			
BABYSKIN	210		261							261
BAMSE1	448		453	416						453
BAMSE2	2,005		2,027	1,756		2,027				2,027
BASELINE	1,051	1,051	879		1,061	1,061		1,061		1,061
BiB	909	920	2,575	2,670	829				2,666	2,670
GENSCOT			1,266	2,492	2,492					2,492
GINI_WESEL	456	459	460		453					460
HELIX	434		748	744	733	746	746			748
HUNT					46,319	46,439	46,439			46,439
UKBIOBANK		197,921			98,326					197,921
Total	5,513	200,351	8,669	8,078	150,213	50,273	47,185	1,061	2,666	254,532

**Supplementary file 5: Logistic regression models on ever having atopic eczema**

<b>Model</b>	<b>Model description</b>	<b>Model formula</b>	<b>Reported estimate</b>
<b>M1</b>	Main effect of exposure (E), adjusted for sex (sex)	Eczema ever = $\beta_0 + \beta_1(\mathbf{E}) + \beta_2(\text{sex})$	$\beta_1$
<b>M2</b>	M1, additionally adjusted for parental education (PE)	Eczema ever = $\beta_0 + \beta_1(\mathbf{E}) + \beta_2(\text{sex}) + \beta_3(\text{PE})$	$\beta_1$
<b>M3</b>	M1, additionally adjusted for family history of allergies (FH)	Eczema ever = $\beta_0 + \beta_1(\mathbf{E}) + \beta_2(\text{sex}) + \beta_3(\text{FH})$	$\beta_1$
<b>M4</b>	M1, additionally adjusted for parental education (PE) and family history of allergies (FH)	Eczema ever = $\beta_0 + \beta_1(\mathbf{E}) + \beta_2(\text{sex}) + \beta_3(\text{PE}) + \beta_4(\text{FH})$	$\beta_1$
<b>I1</b>	Gene-environment interaction model (G*E)	Eczema ever = $\beta_0 + \beta_1(\mathbf{G}) + \beta_2(\mathbf{E}) + \beta_3(\mathbf{G*E}) + \beta_4(\text{sex})$	$\beta_3$
<b>I2</b>	Genetic effect (G) in unexposed stratum	Eczema ever = $\beta_0 + \beta_1(\mathbf{G}) + \beta_2(\text{sex})$	$\beta_1$
<b>I3</b>	Genetic effect (G) in exposed stratum	Eczema ever = $\beta_0 + \beta_1(\mathbf{G}) + \beta_2(\text{sex})$	$\beta_1$
<b>S1</b>	Sensitivity analysis: I1, additionally adjusted for interactions of gene with sex (G*sex) and parental education (G*PE)	Eczema ever = $\beta_0 + \beta_1(\mathbf{G}) + \beta_2(\mathbf{E}) + \beta_3(\mathbf{G*E}) + \beta_4(\text{sex}) + \beta_5(\mathbf{G*sex}) + \beta_6(\text{PE}) + \beta_7(\mathbf{G*PE})$	$\beta_3$
<b>S2</b>	Sensitivity analysis: I1, additionally adjusted for interactions of gene with sex (G*sex) and family history (G*FH)	Eczema ever = $\beta_0 + \beta_1(\mathbf{G}) + \beta_2(\mathbf{E}) + \beta_3(\mathbf{G*E}) + \beta_4(\text{sex}) + \beta_5(\mathbf{G*sex}) + \beta_6(\text{FH}) + \beta_7(\mathbf{G*FH})$	$\beta_3$
<b>S3</b>	Sensitivity analysis: I1, additionally adjusted for interactions of gene with sex (G*sex), parental education (G*PE) and family history (G*FH)	Eczema ever = $\beta_0 + \beta_1(\mathbf{G}) + \beta_2(\mathbf{E}) + \beta_3(\mathbf{G*E}) + \beta_4(\text{sex}) + \beta_5(\mathbf{G*sex}) + \beta_6(\text{PE}) + \beta_7(\mathbf{G*PE}) + \beta_8(\text{FH}) + \beta_9(\mathbf{G*FH})$	$\beta_3$

**Supplementary file 6: Estimation of statistical power.** Posthoc power calculations performed to facilitate interpretation of negative findings.

Exposure	SNV or gene	OR <sub>GxE</sub> (discovery)	N (replication)	Power (replication)*	N (for 0.80 power)*	Interaction effect with 80% power (replication)*
Siblings	rs7146581	1.25	7,529	0.37	16,276	1.39
Siblings	rs10214237	0.84	5,049	0.13	23,624	1.48
Dog	rs10214237	0.83	47,185	0.88	39,416	1.17
Cat	rs16948048	0.86	49,212	0.88	41,548	1.14
Environmental tobacco smoke 0-2y	<i>FLG</i>	1.33	147,880	0.99	23,272	1.12
Environmental tobacco smoke in utero	rs16948048	1.15	8,078	0.11	40,952	1.36
Siblings	rs7927894	1.13	7,529	0.1	42,716	1.33
Cat	rs2227483	1.13	49,212	0.73	55,456	1.14
Cat	rs2228145	1.14	49,212	0.72	56,428	1.15
Siblings	rs10995251	0.89	7,529	0.08	46,248	1.34
Cat	rs2897442	0.87	49,212	0.76	53,228	1.14
Antibiotics in utero	rs10995251	1.19	2,666	0.04	30,656	1.78
Washing practices 0-2y	<i>FLG</i>	0.71	1,061	0.03	17,192	3.77
Duration of breastfeeding †	rs13015714	1.02	4,252	0.04	45,040	1.08
Breastfeeding ever	rs13015714	0.93	199,300	0.56	301,108	1.10
<b>Previously reported interactions <sup>1</sup></b>						
Cat	<i>FLG</i>	11.11 <sup>2</sup>	48,246	0.99	516	1.26
Siblings	<i>FLG</i>	1.94 <sup>3</sup>	6,185	0.99	4,152	1.72
Duration of breastfeeding †	<i>FLG</i>	0.99	3,056	0.006	385,008	1.08
Breastfeeding ever	<i>FLG</i>	1.29	195,879	0.99	54,184	1.15

\* Replication alpha = 0.004

†power calculation based on GxE estimate per 3.5 SD

<sup>1</sup> Blakeway, H, Van-de-Velde, V, Allen, V. B et al. What is the evidence for interactions between filaggrin null mutations and environmental exposures in the aetiology of atopic dermatitis? A systematic review. *British J Dermatol*, 183(3), 443–451.

<sup>2</sup> Bisgaard H, Simpson A, Palmer CN et al. Gene-environment interaction in the onset of eczema in infancy: filaggrin loss-of-function mutations enhanced by neonatal cat exposure. *PLOS Med* 2008; 5:e131.

<sup>3</sup> Cramer C, Link E, Horster M et al. Elder siblings enhance the effect of filaggrin mutations on childhood eczema: results from the 2 birth cohort studies LISApplus and GINIplus. *J Allergy Clin Immunol*; 125:1254–60.e5. Estimate includes children who attended daycare.

## Supplementary file 7:

### Human keratinocyte culture and *in vitro* analysis for rs10214237\*dog interaction

Primary human keratinocytes were isolated from normal human skin samples excised during routine surgical procedures, with patient consent, under governance of the Lothian Bioresource (reference SR1665). Samples were genotyped for rs10214237 using KASP™ (LGC Genomics, Teddington, England). *IL7R* mRNA expression was quantified in 34 keratinocyte samples (3 of C:C genotype, 15 T:C and 16 T:T) using RT-qPCR. RNA was isolated with TRIzol (15596026, Invitrogen, Carlsbad, USA) and spin filtration columns using Direct-zol (R2072, Zymo, Irvine, USA). cDNA was prepared using 200ng/ml random primers (48190011, Invitrogen, Carlsbad, USA) with reverse transcriptase using SuperScript IV (18090050, Invitrogen, Carlsbad, USA). qPCR was carried out using exon-spanning probes (*IL7R*: HS00902334\_m1, Thermo, Waltham, USA) and (*EF1A*: HS.PT.58.24345862, Integrated DNA Technologies, San Diego, USA) with TaqMan Universal Master Mix II (4440040, Thermo, Waltham, USA) and run on a CFX384 PCR Detection System (Bio-Rad, Hercules, USA) using cycling conditions: 95°C for 10 mins, 40 cycles of [95°C for 15 secs, 60°C for 1 min]. Fold changes in gene expression were derived via the  $2^{-(\Delta\Delta C_T)}$  method, using *EF1A* as the reference gene.

To investigate the effect of dog allergen on human keratinocytes, monolayers were treated for 8h with 10ug/ml dog allergen (Can f 1, catalogue E802, Immunotek, Madrid, Spain). RNA isolation and RT-qPCR were carried out as above (*CXCL8*: Hs.PT.58.38869678.g, *CSF2*: Hs.PT.58.20138984, *CCL2*: Hs.PT.58.45467977, *TNF*: Hs.PT.58.45380900, *IL33*: Hs.PT.58.21416460, *EF1A*: HS.PT.58.24345862, Integrated DNA Technologies, San Diego, USA) and (*TSLP*: Hs00263639\_m1, Thermo, Waltham, USA). Experiments were replicated using keratinocytes from 5-12 independent donors.

To investigate a genotype-specific effect of IL-7 and/or dog allergen stimulation, keratinocytes were grown to confluency and treated with 100ng/ml recombinant human IL-7 (rhIL-7) (BioTechne, Minneapolis, USA, catalogue: 207-IL) and 500ng/ml Dog dander (Lofarma, Milan, Italy) for 8 hours.

The carrier solution for dog dander (Lofarma) or 0.002% BSA, used as a carrier protein for rhIL-7 were negative controls and experiments were conducted in duplicate for each condition.

Primary human keratinocytes were grown to confluency and treated with 500ng/ml dog epithelium (Lofarma, Milan, Italy) for 16 hours. The carrier solution for dog epithelium was used as a negative control (Lofarma, Milan, Italy). Two duplicate wells were treated for each condition, and media then pooled per condition for use in a 64 cytokine DuoSet ELISA assay (cytokines selected based on relevance to atopic or allergic inflammation) (Biotechne, Minneapolis, USA).

The ELISA array spotting was carried out with the Quanterix 2470 Arrayer platform (Quanterix, Billerica, USA) using 185µM pins. Each capture antibody was spotted as four replicate spots on each subarray onto single pad ONCYTE® SuperNOVA nitrocellulose slides (Grace Bio-Labs, Bend, USA). Following array printing, slides were blocked and then incubated with sample overnight at 4°C. After washing and blocking steps each slide was incubated with the appropriate biotin-labelled detection antibody. A final incubation with fluorescently labelled streptavidin followed by slide scanning using an InnoScan710IR scanner (Innopsys, Chicago, USA) generated array images. Images were analysed and signals quantified using Mapix software (Innopsys). The feature (spot) diameter of the grid was set to 270 µm. The average signal intensity was determined for each individual feature and the median background from the adjacent area subtracted from each feature signal leading to a net signal per feature.

One-way analysis of variance (ANOVA) with Dunnett's post-hoc test for multiple comparisons was used to compare samples' means and results displayed showing standard error of the mean (SEM).

Gene ontology, network and pathway analyses were conducted using STRING v12.0.

## Supplementary file 8: Full results of the discovery analysis

exposure	SNP	model	N	N_studies	OR_fixed	CI_fixed	p_fixed	OR_random	CI_random	p_random	p_heterogeneity
antibio_12m	flg	I1	9374	7	0.90	[0.68-1.19]	0.45	0.90	[0.68-1.19]	0.45	0.95
antibio_12m	flg	I2	4803	7	2.09	[1.72-2.53]	5.80E-14	2.09	[1.72-2.53]	5.80E-14	0.83
antibio_12m	flg	I3	4571	7	1.88	[1.55-2.28]	9.30E-11	1.88	[1.55-2.28]	9.30E-11	0.76
antibio_12m	flg	S1	8794	7	0.84	[0.63-1.14]	0.26	0.84	[0.63-1.14]	0.26	0.91
antibio_12m	flg	S2	7642	7	0.92	[0.66-1.27]	0.6	0.92	[0.66-1.27]	0.6	0.87
antibio_12m	flg	S3	7088	7	0.87	[0.62-1.22]	0.41	0.87	[0.62-1.22]	0.41	0.81
antibio_12m	rs10214237	I1	9996	7	0.96	[0.82-1.11]	0.56	0.96	[0.82-1.11]	0.56	0.71
antibio_12m	rs10214237	I2	5293	7	1.14	[1.03-1.27]	0.01	1.14	[1.03-1.27]	1.30E-02	0.87
antibio_12m	rs10214237	I3	4703	7	1.11	[1.00-1.23]	0.05	1.10	[0.98-1.24]	0.12	0.38
antibio_12m	rs10214237	S1	9368	7	0.95	[0.81-1.12]	0.56	0.95	[0.81-1.12]	0.56	0.48
antibio_12m	rs10214237	S2	6441	7	1.00	[0.83-1.19]	0.96	0.94	[0.72-1.30]	0.68	0.22
antibio_12m	rs10214237	S3	5832	7	0.98	[0.82-1.19]	0.87	0.87	[0.59-1.45]	0.5	0.09
antibio_12m	rs1057258	I1	9978	7	1.08	[0.90-1.29]	0.4	1.08	[0.90-1.29]	0.4	0.84
antibio_12m	rs1057258	I2	5287	7	0.98	[0.88-1.11]	0.79	0.98	[0.88-1.11]	0.79	0.74
antibio_12m	rs1057258	I3	4691	7	1.08	[0.95-1.22]	0.22	1.08	[0.95-1.22]	0.22	0.91
antibio_12m	rs1057258	S1	9368	7	1.03	[0.85-1.24]	0.76	1.03	[0.85-1.24]	0.76	0.63
antibio_12m	rs1057258	S2	6423	7	1.09	[0.88-1.33]	0.44	1.09	[0.88-1.33]	0.44	0.80
antibio_12m	rs1057258	S3	5832	7	1.06	[0.85-1.31]	0.62	1.06	[0.85-1.31]	0.62	0.81
antibio_12m	rs10995251	I1	7980	6	0.91	[0.79-1.05]	0.21	0.91	[0.79-1.05]	0.21	0.64
antibio_12m	rs10995251	I2	3974	6	1.04	[0.95-1.14]	0.4	1.04	[0.95-1.14]	0.4	0.60
antibio_12m	rs10995251	I3	4006	6	0.95	[0.87-1.05]	0.34	0.95	[0.87-1.05]	0.34	0.72
antibio_12m	rs10995251	S1	7356	6	0.93	[0.80-1.08]	0.35	0.93	[0.80-1.08]	0.35	0.50
antibio_12m	rs10995251	S2	6437	6	0.98	[0.83-1.15]	0.8	0.98	[0.83-1.15]	0.8	0.68
antibio_12m	rs10995251	S3	5832	6	1.02	[0.86-1.21]	0.84	1.02	[0.86-1.21]	0.84	0.49
antibio_12m	rs112111458	I1	9015	5	1.10	[0.89-1.34]	0.38	1.09	[0.87-1.38]	0.45	0.36
antibio_12m	rs112111458	I2	4820	5	0.96	[0.84-1.10]	0.58	0.96	[0.84-1.10]	0.58	0.62
antibio_12m	rs112111458	I3	4195	5	1.09	[0.95-1.26]	0.2	1.18	[0.86-1.50]	0.31	0.03
antibio_12m	rs112111458	S1	8403	5	1.02	[0.82-1.26]	0.88	1.02	[0.82-1.26]	0.88	0.82
antibio_12m	rs112111458	S2	6425	5	1.06	[0.85-1.32]	0.61	1.06	[0.82-1.37]	0.65	0.33
antibio_12m	rs112111458	S3	5832	5	0.99	[0.79-1.25]	0.94	0.99	[0.79-1.25]	0.94	0.67
antibio_12m	rs11657987	I1	9967	7	1.02	[0.89-1.17]	0.78	1.02	[0.89-1.17]	0.78	0.64
antibio_12m	rs11657987	I2	5285	7	1.02	[0.93-1.11]	0.75	1.02	[0.93-1.11]	0.75	0.99
antibio_12m	rs11657987	I3	4682	7	1.05	[0.96-1.15]	0.26	1.02	[0.91-1.18]	0.71	0.32
antibio_12m	rs11657987	S1	9368	7	1.02	[0.88-1.17]	0.8	1.02	[0.88-1.17]	0.8	0.41
antibio_12m	rs11657987	S2	6412	7	1.07	[0.92-1.25]	0.39	1.07	[0.92-1.25]	0.39	0.79
antibio_12m	rs11657987	S3	5832	7	1.07	[0.91-1.26]	0.43	1.07	[0.91-1.26]	0.43	0.71
antibio_12m	rs12153855	I1	7020	4	0.91	[0.71-1.17]	0.48	0.96	[0.67-1.32]	0.84	0.21
antibio_12m	rs12153855	I2	3509	4	1.14	[0.96-1.36]	0.13	1.13	[0.84-1.53]	0.43	0.09
antibio_12m	rs12153855	I3	3511	4	1.13	[0.96-1.33]	0.15	1.13	[0.96-1.33]	0.15	0.48
antibio_12m	rs12153855	S1	6391	4	0.99	[0.76-1.28]	0.92	1.08	[0.73-1.46]	0.7	0.22
antibio_12m	rs12153855	S2	6442	4	0.94	[0.72-1.22]	0.64	0.98	[0.67-1.38]	0.9	0.20
antibio_12m	rs12153855	S3	5832	4	1.02	[0.77-1.34]	0.9	1.09	[0.75-1.49]	0.65	0.25
antibio_12m	rs12295535	I1	9997	7	0.95	[0.62-1.44]	0.8	0.95	[0.62-1.45]	0.81	0.42
antibio_12m	rs12295535	I2	5293	7	1.15	[0.87-1.53]	0.32	1.15	[0.87-1.53]	0.32	0.81
antibio_12m	rs12295535	I3	4704	7	1.07	[0.81-1.42]	0.64	1.07	[0.77-1.49]	0.69	0.38
antibio_12m	rs12295535	S1	9368	7	0.90	[0.58-1.40]	0.63	0.96	[0.53-1.63]	0.88	0.34
antibio_12m	rs12295535	S2	6442	7	0.84	[0.52-1.36]	0.47	0.84	[0.52-1.36]	0.47	0.89
antibio_12m	rs12295535	S3	5832	7	0.78	[0.47-1.30]	0.34	0.78	[0.47-1.30]	0.34	0.94
antibio_12m	rs13015714	I1	9997	7	1.04	[0.89-1.22]	0.63	1.04	[0.83-1.31]	0.74	0.21
antibio_12m	rs13015714	I2	5293	7	1.09	[0.98-1.22]	0.1	1.09	[0.98-1.22]	0.1	0.75
antibio_12m	rs13015714	I3	4704	7	1.15	[1.03-1.28]	1.40E-02	1.17	[1.00-1.34]	5.60E-02	0.23
antibio_12m	rs13015714	S1	9368	7	1.02	[0.87-1.21]	0.79	1.01	[0.80-1.29]	0.95	0.26
antibio_12m	rs13015714	S2	6442	7	1.13	[0.94-1.36]	0.18	1.16	[0.90-1.47]	0.26	0.23
antibio_12m	rs13015714	S3	5832	7	1.09	[0.90-1.33]	0.36	1.09	[0.87-1.37]	0.44	0.32
antibio_12m	rs16948048	I1	7983	6	0.95	[0.82-1.09]	0.46	0.95	[0.82-1.09]	0.46	0.88
antibio_12m	rs16948048	I2	3974	6	1.05	[0.96-1.16]	0.28	1.05	[0.96-1.16]	0.28	0.92
antibio_12m	rs16948048	I3	4009	6	1.00	[0.91-1.10]	0.95	1.00	[0.91-1.10]	0.95	0.94
antibio_12m	rs16948048	S1	7356	6	0.94	[0.81-1.08]	0.37	0.94	[0.81-1.08]	0.37	0.90
antibio_12m	rs16948048	S2	6440	6	0.96	[0.82-1.13]	0.62	0.96	[0.82-1.13]	0.62	0.88
antibio_12m	rs16948048	S3	5832	6	0.95	[0.80-1.13]	0.58	0.95	[0.80-1.13]	0.58	0.75
antibio_12m	rs17389644	I1	9985	7	1.08	[0.92-1.27]	0.37	1.10	[0.91-1.30]	0.31	0.36
antibio_12m	rs17389644	I2	5287	7	1.04	[0.93-1.16]	0.48	0.98	[0.83-1.24]	0.82	0.14
antibio_12m	rs17389644	I3	4698	7	1.13	[1.01-1.26]	0.03	1.13	[1.01-1.26]	3.10E-02	0.56
antibio_12m	rs17389644	S1	9368	7	1.06	[0.89-1.26]	0.49	1.13	[0.88-1.37]	0.34	0.22
antibio_12m	rs17389644	S2	6430	7	1.07	[0.88-1.29]	0.50	1.07	[0.88-1.29]	0.5	0.67
antibio_12m	rs17389644	S3	5832	7	1.04	[0.85-1.27]	0.70	1.04	[0.85-1.27]	0.7	0.71
antibio_12m	rs17881320	I1	9979	7	0.87	[0.68-1.11]	0.26	0.87	[0.68-1.11]	0.26	1.00
antibio_12m	rs17881320	I2	5285	7	1.18	[1.00-1.39]	0.05	1.18	[1.00-1.39]	5.20E-02	0.57
antibio_12m	rs17881320	I3	4694	7	1.10	[0.93-1.29]	0.27	1.10	[0.93-1.29]	0.27	0.43
antibio_12m	rs17881320	S1	9368	7	0.90	[0.70-1.16]	0.42	0.90	[0.70-1.16]	0.42	0.99
antibio_12m	rs17881320	S2	6424	7	0.85	[0.64-1.13]	0.27	0.85	[0.64-1.13]	0.27	1.00
antibio_12m	rs17881320	S3	5832	7	0.88	[0.65-1.19]	0.39	0.88	[0.65-1.19]	0.39	0.93
antibio_12m	rs2041733	I1	7985	6	1.03	[0.89-1.18]	0.72	1.00	[0.84-1.22]	0.98	0.29
antibio_12m	rs2041733	I2	3976	6	1.03	[0.94-1.13]	0.5	1.03	[0.92-1.16]	0.57	0.29
antibio_12m	rs2041733	I3	4009	6	1.04	[0.95-1.14]	0.41	1.02	[0.89-1.19]	0.82	0.18
antibio_12m	rs2041733	S1	7356	6	1.04	[0.90-1.20]	0.62	1.00	[0.80-1.29]	0.99	0.21
antibio_12m	rs2041733	S2	6442	6	1.02	[0.87-1.19]	0.79	0.97	[0.75-1.33]	0.84	0.14
antibio_12m	rs2041733	S3	5832	6	1.04	[0.88-1.23]	0.64	0.96	[0.67-1.49]	0.84	0.07
antibio_12m	rs2143950	I1	9993	7	0.88	[0.74-1.05]	0.17	0.93	[0.72-1.14]	0.56	0.21
antibio_12m	rs2143950	I2	5290	7	1.18	[1.04-1.33]	8.20E-03	1.15	[0.99-1.37]	6.70E-02	0.30
antibio_12m	rs2143950	I3	4703	7	1.00	[0.89-1.13]	0.94	1.00	[0.89-1.13]	0.94	0.44
antibio_12m	rs2143950	S1	9368	7	0.91	[0.76-1.10]	0.34	0.91	[0.76-1.10]	0.34	0.50
antibio_12m	rs2143950	S2	6438	7	0.82	[0.67-1.01]	6.10E-02	0.82	[0.62-1.09]	0.16	0.26
antibio_12m	rs2143950	S3	5832	7	0.87	[0.70-1.08]	0.2	0.87	[0.70-1.08]	0.2	0.68
antibio_12m	rs2164983	I1	9032	5	0.84	[0.69-1.02]	8.30E-02	0.84	[0.69-1.02]	8.30E-02	0.49
antibio_12m	rs2164983	I2	4826	5	1.23	[1.08-1.41]	1.80E-03	1.22	[1.02-1.47]	2.80E-02	0.27
antibio_12m	rs2164983	I3	4206	5	1.08	[0.95-1.23]	0.26	1.08	[0.95-1.23]	0.26	0.61
antibio_12m	rs2164983	S1	8403	5	0.88	[0.71-1.07]	0.2	0.88	[0.71-1.07]	0.2	0.56
antibio_12m	rs2164983	S2	6442	5	0.82	[0.67-1.01]	6.80E-02	0.82	[0.67-1.01]	6.80E-02	0.58
antibio_12m	rs2164983	S3	5832	5	0.86	[0.69-1.07]	0.18	0.86	[0.69-1.07]	0.18	0.73

antibio_12m	rs2227483	I1	9993	7	0.95	[0.83-1.09]	0.45	0.94	[0.81-1.11]	0.44	0.38
antibio_12m	rs2227483	I2	5291	7	1.09	[0.99-1.20]	6.70E-02	1.09	[0.96-1.24]	0.18	0.20
antibio_12m	rs2227483	I3	4702	7	1.06	[0.97-1.16]	0.2	1.05	[0.94-1.19]	0.38	0.33
antibio_12m	rs2227483	S1	9368	7	0.98	[0.85-1.13]	0.78	0.98	[0.85-1.13]	0.78	0.61
antibio_12m	rs2227483	S2	6438	7	0.95	[0.81-1.11]	0.52	0.93	[0.75-1.17]	0.48	0.26
antibio_12m	rs2227483	S3	5832	7	1.00	[0.84-1.18]	0.97	1.00	[0.84-1.18]	0.97	0.44
antibio_12m	rs2228145	I1	7985	6	1.05	[0.91-1.21]	0.5	1.05	[0.91-1.21]	0.5	0.58
antibio_12m	rs2228145	I2	3976	6	1.00	[0.91-1.10]	0.98	1.00	[0.91-1.10]	0.98	0.72
antibio_12m	rs2228145	I3	4009	6	1.04	[0.95-1.14]	0.42	1.04	[0.95-1.14]	0.42	0.64
antibio_12m	rs2228145	S1	7356	6	1.07	[0.92-1.24]	0.36	1.07	[0.92-1.24]	0.36	0.63
antibio_12m	rs2228145	S2	6442	6	1.05	[0.89-1.23]	0.58	1.03	[0.83-1.29]	0.8	0.28
antibio_12m	rs2228145	S3	5832	6	1.07	[0.91-1.27]	0.4	1.07	[0.88-1.31]	0.48	0.33
antibio_12m	rs2897442	I1	7984	6	1.03	[0.88-1.20]	0.75	0.94	[0.71-1.36]	0.68	0.06
antibio_12m	rs2897442	I2	3975	6	1.13	[1.02-1.26]	2.10E-02	1.16	[0.98-1.34]	7.50E-02	0.11
antibio_12m	rs2897442	I3	4009	6	1.16	[1.05-1.29]	4.20E-03	1.13	[0.94-1.40]	0.2	0.08
antibio_12m	rs2897442	S1	7356	6	1.04	[0.89-1.23]	0.6	0.93	[0.67-1.46]	0.69	0.04
antibio_12m	rs2897442	S2	6441	6	1.00	[0.83-1.19]	0.99	0.92	[0.67-1.37]	0.59	0.12
antibio_12m	rs2897442	S3	5832	6	1.01	[0.84-1.22]	0.93	0.87	[0.57-1.54]	0.51	0.06
antibio_12m	rs479844	I1	9997	7	1.02	[0.89-1.17]	0.77	0.87	[0.67-1.33]	0.32	0.04
antibio_12m	rs479844	I2	5293	7	1.14	[1.03-1.25]	7.40E-03	1.19	[1.03-1.32]	2.10E-02	0.10
antibio_12m	rs479844	I3	4704	7	1.18	[1.08-1.30]	3.80E-04	1.18	[1.08-1.30]	3.80E-04	0.64
antibio_12m	rs479844	S1	9368	7	1.06	[0.92-1.22]	0.44	0.97	[0.77-1.33]	0.8	0.17
antibio_12m	rs479844	S2	6442	7	1.05	[0.90-1.24]	0.54	0.90	[0.63-1.51]	0.59	0.02
antibio_12m	rs479844	S3	5832	7	1.12	[0.94-1.32]	0.2	1.12	[0.94-1.32]	0.2	0.46
antibio_12m	rs6010620	I1	9997	7	0.97	[0.83-1.15]	0.76	0.97	[0.83-1.15]	0.76	0.57
antibio_12m	rs6010620	I2	5293	7	1.13	[1.02-1.27]	2.60E-02	1.13	[1.02-1.27]	2.60E-02	0.60
antibio_12m	rs6010620	I3	4704	7	1.09	[0.98-1.21]	0.13	1.09	[0.98-1.21]	0.13	0.70
antibio_12m	rs6010620	S1	9368	7	0.96	[0.81-1.13]	0.61	0.96	[0.81-1.13]	0.61	0.51
antibio_12m	rs6010620	S2	6442	7	1.04	[0.86-1.25]	0.71	1.04	[0.86-1.25]	0.71	0.45
antibio_12m	rs6010620	S3	5832	7	1.00	[0.83-1.22]	0.97	1.00	[0.83-1.22]	0.97	0.58
antibio_12m	rs6473227	I1	9997	7	1.04	[0.90-1.20]	0.58	1.04	[0.90-1.20]	0.58	0.45
antibio_12m	rs6473227	I2	5293	7	1.05	[0.95-1.15]	0.32	1.05	[0.95-1.15]	0.32	0.79
antibio_12m	rs6473227	I3	4704	7	1.11	[1.02-1.22]	2.30E-02	1.11	[1.02-1.22]	2.30E-02	0.78
antibio_12m	rs6473227	S1	9368	7	1.05	[0.91-1.22]	0.5	1.05	[0.91-1.22]	0.5	0.47
antibio_12m	rs6473227	S2	6442	7	1.07	[0.91-1.25]	0.43	1.07	[0.91-1.25]	0.43	0.85
antibio_12m	rs6473227	S3	5832	7	1.07	[0.90-1.27]	0.44	1.07	[0.90-1.27]	0.44	0.75
antibio_12m	rs7127307	I1	7985	6	1.07	[0.93-1.23]	0.32	1.07	[0.93-1.23]	0.32	0.75
antibio_12m	rs7127307	I2	3976	6	1.05	[0.96-1.15]	0.31	1.05	[0.96-1.15]	0.31	0.70
antibio_12m	rs7127307	I3	4009	6	1.11	[1.01-1.22]	2.40E-02	1.11	[1.01-1.22]	2.40E-02	0.47
antibio_12m	rs7127307	S1	7356	6	1.05	[0.91-1.22]	0.47	1.05	[0.91-1.22]	0.47	0.75
antibio_12m	rs7127307	S2	6442	6	1.05	[0.90-1.23]	0.56	1.05	[0.90-1.23]	0.56	0.85
antibio_12m	rs7127307	S3	5832	6	1.03	[0.87-1.22]	0.73	1.03	[0.87-1.22]	0.73	0.96
antibio_12m	rs7146581	I1	9996	7	1.06	[0.90-1.25]	0.47	1.06	[0.90-1.25]	0.47	0.62
antibio_12m	rs7146581	I2	5292	7	1.01	[0.90-1.13]	0.86	1.01	[0.90-1.14]	0.86	0.39
antibio_12m	rs7146581	I3	4704	7	1.05	[0.94-1.17]	0.43	1.05	[0.94-1.17]	0.43	0.69
antibio_12m	rs7146581	S1	9368	7	1.04	[0.88-1.23]	0.67	1.04	[0.88-1.23]	0.67	0.59
antibio_12m	rs7146581	S2	6441	7	1.06	[0.88-1.28]	0.55	1.06	[0.88-1.28]	0.55	0.64
antibio_12m	rs7146581	S3	5832	7	1.02	[0.84-1.24]	0.86	1.02	[0.84-1.24]	0.86	0.66
antibio_12m	rs7927894	I1	9961	7	0.88	[0.77-1.01]	6.50E-02	0.88	[0.77-1.01]	6.50E-02	0.85
antibio_12m	rs7927894	I2	5277	7	1.08	[0.98-1.19]	0.11	1.07	[0.94-1.23]	0.31	0.22
antibio_12m	rs7927894	I3	4684	7	0.98	[0.89-1.07]	0.63	0.96	[0.84-1.11]	0.5	0.25
antibio_12m	rs7927894	S1	9368	7	0.87	[0.76-1.01]	6.20E-02	0.87	[0.76-1.01]	6.20E-02	0.77
antibio_12m	rs7927894	S2	6406	7	0.83	[0.71-0.97]	2.20E-02	0.83	[0.71-0.97]	2.20E-02	0.62
antibio_12m	rs7927894	S3	5832	7	0.82	[0.70-0.97]	2.40E-02	0.82	[0.70-0.97]	2.40E-02	0.52
antibio_12m		M1	11259	7	1.17	[1.07-1.28]	5.80E-04	1.17	[1.07-1.28]	5.80E-04	0.57
antibio_12m		M2	10606	7	1.16	[1.05-1.27]	2.00E-03	1.16	[1.05-1.27]	2.00E-03	0.61
antibio_12m		M3	8684	7	1.21	[1.10-1.33]	1.30E-04	1.21	[1.10-1.33]	1.30E-04	0.62
antibio_12m		M4	8057	7	1.19	[1.08-1.32]	4.70E-04	1.19	[1.08-1.32]	4.70E-04	0.60
antibio_6m	flg	I1	9750	7	1.26	[0.93-1.70]	0.13	1.26	[0.93-1.70]	0.13	0.93
antibio_6m	flg	I2	7008	7	1.81	[1.54-2.12]	3.20E-13	1.81	[1.54-2.12]	6.20E-13	0.42
antibio_6m	flg	I3	2742	7	2.30	[1.80-2.94]	3.10E-11	2.30	[1.80-2.94]	3.10E-11	0.97
antibio_6m	flg	S1	9172	7	1.21	[0.89-1.67]	0.23	1.21	[0.89-1.67]	0.23	0.84
antibio_6m	flg	S2	8002	7	1.32	[0.95-1.84]	9.80E-02	1.32	[0.95-1.84]	9.80E-02	0.85
antibio_6m	flg	S3	7448	7	1.27	[0.90-1.80]	0.18	1.27	[0.90-1.80]	0.18	0.63
antibio_6m	rs10214237	I1	8119	6	0.93	[0.80-1.10]	0.41	0.92	[0.71-1.21]	0.51	0.15
antibio_6m	rs10214237	I2	5729	6	1.15	[1.05-1.25]	2.30E-03	1.14	[1.04-1.26]	6.20E-03	0.37
antibio_6m	rs10214237	I3	2390	6	1.08	[0.95-1.24]	0.23	1.08	[0.90-1.29]	0.41	0.29
antibio_6m	rs10214237	S1	7491	6	0.92	[0.78-1.09]	0.35	0.89	[0.64-1.27]	0.46	0.09
antibio_6m	rs10214237	S2	6564	6	0.99	[0.83-1.18]	0.89	0.91	[0.63-1.43]	0.63	0.04
antibio_6m	rs10214237	S3	5952	6	0.96	[0.80-1.16]	0.68	0.83	[0.51-1.55]	0.44	0.02
antibio_6m	rs1057258	I1	8101	6	1.14	[0.95-1.37]	0.16	1.17	[0.93-1.44]	0.19	0.30
antibio_6m	rs1057258	I2	5718	6	1.01	[0.91-1.12]	0.88	1.01	[0.91-1.12]	0.88	0.67
antibio_6m	rs1057258	I3	2383	6	1.17	[1.00-1.36]	4.70E-02	1.17	[1.00-1.36]	4.70E-02	0.50
antibio_6m	rs1057258	S1	7491	6	1.10	[0.90-1.33]	0.36	1.10	[0.90-1.33]	0.36	0.70
antibio_6m	rs1057258	S2	6546	6	1.21	[0.99-1.48]	0.07	1.28	[0.95-1.62]	9.80E-02	0.19
antibio_6m	rs1057258	S3	5952	6	1.16	[0.94-1.44]	0.17	1.16	[0.94-1.44]	0.17	0.81
antibio_6m	rs10995251	I1	8115	6	0.98	[0.84-1.13]	0.76	0.91	[0.72-1.25]	0.47	0.15
antibio_6m	rs10995251	I2	5724	6	1.01	[0.93-1.09]	0.83	1.02	[0.91-1.13]	0.71	0.16
antibio_6m	rs10995251	I3	2391	6	0.98	[0.86-1.11]	0.73	0.98	[0.86-1.11]	0.73	0.42
antibio_6m	rs10995251	S1	7491	6	0.99	[0.85-1.16]	0.91	0.89	[0.64-1.37]	0.46	0.07
antibio_6m	rs10995251	S2	6560	6	1.00	[0.85-1.18]	0.95	0.92	[0.66-1.39]	0.6	0.05
antibio_6m	rs10995251	S3	5952	6	1.03	[0.86-1.22]	0.76	0.91	[0.59-1.58]	0.66	0.02
antibio_6m	rs112111458	I1	7138	4	1.07	[0.87-1.31]	0.53	1.07	[0.87-1.31]	0.53	0.42
antibio_6m	rs112111458	I2	4870	4	0.95	[0.85-1.07]	0.39	0.95	[0.85-1.07]	0.39	0.52
antibio_6m	rs112111458	I3	2268	4	1.02	[0.86-1.21]	0.83	1.17	[0.82-1.45]	0.38	0.04
antibio_6m	rs112111458	S1	6526	4	1.02	[0.82-1.27]	0.83	1.02	[0.82-1.27]	0.83	0.46
antibio_6m	rs112111458	S2	6548	4	1.07	[0.86-1.32]	0.57	1.07	[0.85-1.33]	0.56	0.38
antibio_6m	rs112111458	S3	5952	4	1.03	[0.82-1.29]	0.82	1.03	[0.82-1.29]	0.82	0.46
antibio_6m	rs11657987	I1	8090	6	1.09	[0.94-1.25]	0.26	0.99	[0.77-1.40]	0.95	0.10
antibio_6m	rs11657987	I2	5708	6	1.04	[0.96-1.12]	0.33	1.04	[0.96-1.12]	0.33	0.63
antibio_6m	rs11657987	I3	2382	6	1.12	[0.99-1.26]	6.20E-02	0.99	[0.76-1.46]	0.97	0.02

antibio_6m	rs11657987	S1	7491	6	1.12	[0.96-1.30]	0.16	1.03	[0.76-1.51]	0.87	0.09
antibio_6m	rs11657987	S2	6535	6	1.13	[0.96-1.32]	0.14	1.13	[0.96-1.32]	0.14	0.78
antibio_6m	rs11657987	S3	5952	6	1.15	[0.97-1.35]	0.11	1.15	[0.97-1.35]	0.11	0.73
antibio_6m	rs12153855	I1	7155	4	1.02	[0.79-1.31]	0.89	1.02	[0.79-1.31]	0.89	0.58
antibio_6m	rs12153855	I2	4882	4	1.15	[1.00-1.33]	5.50E-02	1.15	[1.00-1.33]	5.50E-02	0.80
antibio_6m	rs12153855	I3	2273	4	1.17	[0.95-1.43]	0.13	1.17	[0.95-1.43]	0.13	0.72
antibio_6m	rs12153855	S1	6526	4	0.98	[0.75-1.28]	0.9	0.98	[0.75-1.28]	0.9	0.62
antibio_6m	rs12153855	S2	6565	4	1.03	[0.79-1.33]	0.85	1.03	[0.79-1.33]	0.85	0.51
antibio_6m	rs12153855	S3	5952	4	0.97	[0.74-1.29]	0.85	0.97	[0.74-1.29]	0.85	0.52
antibio_6m	rs12295535	I1	8120	6	0.89	[0.58-1.37]	0.6	0.63	[0.28-2.00]	0.27	0.14
antibio_6m	rs12295535	I2	5729	6	1.21	[0.96-1.54]	0.11	1.21	[0.96-1.54]	0.11	0.69
antibio_6m	rs12295535	I3	2391	6	1.07	[0.76-1.53]	0.69	0.78	[0.39-2.17]	0.49	0.12
antibio_6m	rs12295535	S1	7491	6	0.97	[0.61-1.53]	0.89	0.83	[0.39-2.06]	0.62	0.25
antibio_6m	rs12295535	S2	6565	6	0.88	[0.54-1.43]	0.61	0.58	[0.20-2.57]	0.32	0.08
antibio_6m	rs12295535	S3	5952	6	0.94	[0.57-1.56]	0.82	0.78	[0.30-2.47]	0.62	0.16
antibio_6m	rs13015714	I1	8120	6	0.93	[0.78-1.10]	0.39	0.93	[0.78-1.10]	0.39	0.56
antibio_6m	rs13015714	I2	5729	6	1.15	[1.05-1.26]	2.30E-03	1.15	[1.05-1.26]	2.30E-03	0.85
antibio_6m	rs13015714	I3	2391	6	1.06	[0.92-1.22]	0.4	1.06	[0.92-1.22]	0.4	0.49
antibio_6m	rs13015714	S1	7491	6	0.92	[0.77-1.10]	0.37	0.92	[0.77-1.10]	0.37	0.42
antibio_6m	rs13015714	S2	6565	6	0.91	[0.76-1.09]	0.31	0.91	[0.76-1.09]	0.31	0.75
antibio_6m	rs13015714	S3	5952	6	0.90	[0.74-1.09]	0.29	0.90	[0.74-1.09]	0.29	0.70
antibio_6m	rs16948048	I1	8118	6	1.01	[0.87-1.17]	0.87	1.00	[0.80-1.26]	1	0.21
antibio_6m	rs16948048	I2	5727	6	1.04	[0.96-1.12]	0.36	1.04	[0.95-1.13]	0.36	0.36
antibio_6m	rs16948048	I3	2391	6	1.04	[0.92-1.18]	0.52	1.04	[0.88-1.23]	0.68	0.27
antibio_6m	rs16948048	S1	7491	6	0.98	[0.84-1.14]	0.8	0.95	[0.77-1.21]	0.64	0.28
antibio_6m	rs16948048	S2	6563	6	0.93	[0.79-1.09]	0.36	0.93	[0.79-1.09]	0.36	0.50
antibio_6m	rs16948048	S3	5952	6	0.89	[0.75-1.06]	0.2	0.89	[0.75-1.06]	0.2	0.89
antibio_6m	rs17389644	I1	8108	6	0.97	[0.82-1.16]	0.75	1.03	[0.82-1.23]	0.81	0.27
antibio_6m	rs17389644	I2	5719	6	1.13	[1.03-1.24]	0.01	1.07	[0.92-1.30]	0.39	0.13
antibio_6m	rs17389644	I3	2389	6	1.10	[0.95-1.27]	0.2	1.10	[0.95-1.27]	0.2	0.79
antibio_6m	rs17389644	S1	7491	6	1.00	[0.83-1.19]	0.96	1.09	[0.81-1.34]	0.57	0.19
antibio_6m	rs17389644	S2	6553	6	0.93	[0.77-1.12]	0.44	1.04	[0.72-1.34]	0.84	0.05
antibio_6m	rs17389644	S3	5952	6	0.94	[0.77-1.15]	0.58	1.09	[0.68-1.51]	0.71	0.03
antibio_6m	rs17881320	I1	8102	6	0.91	[0.70-1.19]	0.49	0.91	[0.70-1.19]	0.49	0.63
antibio_6m	rs17881320	I2	5716	6	1.12	[0.97-1.28]	0.12	1.12	[0.90-1.39]	0.3	0.13
antibio_6m	rs17881320	I3	2386	6	1.07	[0.86-1.34]	0.52	1.07	[0.86-1.34]	0.52	0.67
antibio_6m	rs17881320	S1	7491	6	0.96	[0.73-1.27]	0.78	0.96	[0.73-1.27]	0.78	0.77
antibio_6m	rs17881320	S2	6547	6	0.98	[0.73-1.32]	0.9	0.98	[0.73-1.32]	0.9	0.68
antibio_6m	rs17881320	S3	5952	6	1.05	[0.77-1.43]	0.77	1.05	[0.77-1.43]	0.77	0.75
antibio_6m	rs2041733	I1	8120	6	0.92	[0.80-1.06]	0.26	0.92	[0.74-1.15]	0.47	0.17
antibio_6m	rs2041733	I2	5729	6	1.06	[0.98-1.14]	0.13	1.06	[0.96-1.16]	0.23	0.29
antibio_6m	rs2041733	I3	2391	6	1.00	[0.88-1.12]	0.95	1.00	[0.81-1.23]	0.97	0.10
antibio_6m	rs2041733	S1	7491	6	0.94	[0.80-1.09]	0.39	0.96	[0.73-1.23]	0.75	0.12
antibio_6m	rs2041733	S2	6565	6	0.94	[0.80-1.10]	0.43	0.97	[0.74-1.23]	0.8	0.11
antibio_6m	rs2041733	S3	5952	6	0.97	[0.82-1.14]	0.71	1.06	[0.76-1.35]	0.74	0.08
antibio_6m	rs2143950	I1	8116	6	0.84	[0.70-1.02]	7.50E-02	0.84	[0.70-1.02]	7.50E-02	0.87
antibio_6m	rs2143950	I2	5726	6	1.14	[1.03-1.26]	1.10E-02	1.14	[1.03-1.26]	1.10E-02	0.52
antibio_6m	rs2143950	I3	2390	6	0.97	[0.84-1.14]	0.74	0.97	[0.84-1.14]	0.74	0.77
antibio_6m	rs2143950	S1	7491	6	0.85	[0.70-1.03]	0.1	0.85	[0.70-1.03]	0.1	0.76
antibio_6m	rs2143950	S2	6561	6	0.83	[0.68-1.03]	8.50E-02	0.83	[0.68-1.03]	8.50E-02	0.93
antibio_6m	rs2143950	S3	5952	6	0.84	[0.67-1.04]	0.11	0.84	[0.67-1.04]	0.11	0.73
antibio_6m	rs2164983	I1	7155	4	0.97	[0.80-1.19]	0.8	0.91	[0.69-1.29]	0.5	0.23
antibio_6m	rs2164983	I2	4882	4	1.17	[1.05-1.31]	6.20E-03	1.17	[1.05-1.31]	6.20E-03	0.46
antibio_6m	rs2164983	I3	2273	4	1.13	[0.96-1.34]	0.13	0.99	[0.70-1.60]	0.94	0.04
antibio_6m	rs2164983	S1	6526	4	1.01	[0.82-1.25]	0.91	0.90	[0.60-1.51]	0.6	0.11
antibio_6m	rs2164983	S2	6565	4	0.94	[0.76-1.16]	0.57	0.88	[0.66-1.25]	0.4	0.24
antibio_6m	rs2164983	S3	5952	4	0.98	[0.79-1.23]	0.88	0.89	[0.60-1.46]	0.55	0.13
antibio_6m	rs2227483	I1	8116	6	0.95	[0.83-1.10]	0.53	0.85	[0.64-1.26]	0.24	0.06
antibio_6m	rs2227483	I2	5726	6	1.07	[0.99-1.15]	0.11	1.08	[0.95-1.21]	0.24	0.11
antibio_6m	rs2227483	I3	2390	6	1.04	[0.92-1.17]	0.56	0.95	[0.74-1.33]	0.66	0.03
antibio_6m	rs2227483	S1	7491	6	0.96	[0.83-1.12]	0.63	0.87	[0.65-1.30]	0.36	0.08
antibio_6m	rs2227483	S2	6561	6	0.99	[0.84-1.16]	0.9	0.90	[0.68-1.30]	0.45	0.09
antibio_6m	rs2227483	S3	5952	6	1.02	[0.86-1.21]	0.81	0.96	[0.72-1.35]	0.77	0.14
antibio_6m	rs2228145	I1	8120	6	1.03	[0.89-1.19]	0.67	1.03	[0.89-1.19]	0.67	0.81
antibio_6m	rs2228145	I2	5729	6	1.01	[0.93-1.09]	0.82	1.01	[0.93-1.09]	0.82	0.74
antibio_6m	rs2228145	I3	2391	6	1.05	[0.93-1.19]	0.41	1.05	[0.93-1.19]	0.41	0.83
antibio_6m	rs2228145	S1	7491	6	1.06	[0.91-1.23]	0.47	1.06	[0.91-1.23]	0.47	0.75
antibio_6m	rs2228145	S2	6565	6	1.04	[0.89-1.22]	0.6	1.04	[0.89-1.22]	0.6	0.58
antibio_6m	rs2228145	S3	5952	6	1.07	[0.91-1.27]	0.41	1.07	[0.91-1.27]	0.41	0.47
antibio_6m	rs2897442	I1	8119	6	0.96	[0.82-1.13]	0.62	0.96	[0.82-1.13]	0.62	0.45
antibio_6m	rs2897442	I2	5728	6	1.17	[1.07-1.28]	3.50E-04	1.20	[1.04-1.34]	9.80E-03	0.12
antibio_6m	rs2897442	I3	2391	6	1.12	[0.98-1.28]	0.11	1.12	[0.98-1.28]	0.11	0.53
antibio_6m	rs2897442	S1	7491	6	0.94	[0.80-1.12]	0.51	0.94	[0.80-1.12]	0.51	0.41
antibio_6m	rs2897442	S2	6564	6	0.94	[0.78-1.12]	0.49	0.93	[0.77-1.15]	0.5	0.35
antibio_6m	rs2897442	S3	5952	6	0.92	[0.76-1.11]	0.37	0.90	[0.69-1.18]	0.4	0.25
antibio_6m	rs479844	I1	8120	6	0.97	[0.76-1.01]	6.90E-02	0.92	[0.74-1.09]	0.45	0.19
antibio_6m	rs479844	I2	5729	6	1.20	[1.11-1.30]	6.40E-06	1.20	[1.11-1.30]	6.40E-06	0.76
antibio_6m	rs479844	I3	2391	6	1.05	[0.93-1.18]	0.41	1.09	[0.90-1.27]	0.38	0.17
antibio_6m	rs479844	S1	7491	6	0.85	[0.73-0.99]	3.80E-02	0.93	[0.69-1.14]	0.61	0.09
antibio_6m	rs479844	S2	6565	6	0.84	[0.72-0.98]	2.90E-02	0.84	[0.72-0.98]	2.90E-02	0.99
antibio_6m	rs479844	S3	5952	6	0.81	[0.69-0.96]	1.60E-02	0.81	[0.69-0.96]	1.60E-02	0.98
antibio_6m	rs6010620	I1	8120	6	1.11	[0.94-1.31]	0.23	1.10	[0.92-1.32]	0.28	0.40
antibio_6m	rs6010620	I2	5729	6	1.05	[0.96-1.15]	0.26	1.05	[0.96-1.15]	0.26	0.86
antibio_6m	rs6010620	I3	2391	6	1.17	[1.01-1.34]	3.10E-02	1.16	[0.99-1.36]	6.20E-02	0.38
antibio_6m	rs6010620	S1	7491	6	1.12	[0.94-1.33]	0.22	1.11	[0.91-1.36]	0.31	0.37
antibio_6m	rs6010620	S2	6565	6	1.15	[0.96-1.39]	0.12	1.15	[0.96-1.39]	0.12	0.90
antibio_6m	rs6010620	S3	5952	6	1.17	[0.96-1.42]	0.12	1.17	[0.96-1.42]	0.12	0.88
antibio_6m	rs6473227	I1	8120	6	0.97	[0.84-1.13]	0.72	1.01	[0.80-1.23]	0.95	0.16
antibio_6m	rs6473227	I2	5729	6	1.09	[1.01-1.18]	3.50E-02	1.07	[0.94-1.24]	0.29	0.12
antibio_6m	rs6473227	I3	2391	6	1.06	[0.94-1.20]	0.34	1.06	[0.94-1.20]	0.34	0.63
antibio_6m	rs6473227	S1	7491	6	0.95	[0.82-1.11]	0.55	0.97	[0.73-1.26]	0.81	0.13



antibio_6m	rs6473227	S2	6565	6	1.00	[0.85-1.17]	0.97	1.02	[0.84-1.21]	0.87	0.30
antibio_6m	rs6473227	S3	5952	6	0.97	[0.82-1.15]	0.71	0.98	[0.79-1.20]	0.85	0.28
antibio_6m	rs7127307	I1	8120	6	1.05	[0.91-1.22]	0.48	1.16	[0.88-1.38]	0.29	0.06
antibio_6m	rs7127307	I2	5729	6	1.05	[0.97-1.13]	0.24	1.04	[0.95-1.15]	0.41	0.33
antibio_6m	rs7127307	I3	2391	6	1.09	[0.96-1.23]	0.17	1.12	[0.93-1.31]	0.25	0.19
antibio_6m	rs7127307	S1	7491	6	1.00	[0.86-1.16]	1	1.03	[0.82-1.26]	0.8	0.23
antibio_6m	rs7127307	S2	6565	6	1.03	[0.88-1.21]	0.68	1.08	[0.80-1.40]	0.61	0.06
antibio_6m	rs7127307	S3	5952	6	0.97	[0.82-1.14]	0.68	0.97	[0.82-1.14]	0.68	0.67
antibio_6m	rs7146581	I1	8119	6	1.04	[0.87-1.24]	0.67	1.04	[0.87-1.24]	0.67	0.64
antibio_6m	rs7146581	I2	5728	6	1.00	[0.91-1.10]	0.97	0.98	[0.86-1.13]	0.7	0.22
antibio_6m	rs7146581	I3	2391	6	1.03	[0.89-1.19]	0.69	1.03	[0.89-1.19]	0.69	0.48
antibio_6m	rs7146581	S1	7491	6	1.01	[0.84-1.21]	0.95	1.01	[0.84-1.21]	0.95	0.81
antibio_6m	rs7146581	S2	6564	6	1.00	[0.82-1.21]	0.97	1.00	[0.82-1.21]	0.97	0.45
antibio_6m	rs7146581	S3	5952	6	0.95	[0.78-1.17]	0.65	0.95	[0.78-1.17]	0.65	0.74
antibio_6m	rs7927894	I1	8084	6	0.97	[0.84-1.12]	0.69	0.97	[0.84-1.12]	0.69	0.65
antibio_6m	rs7927894	I2	5702	6	1.02	[0.94-1.10]	0.64	1.02	[0.94-1.10]	0.64	0.57
antibio_6m	rs7927894	I3	2382	6	0.99	[0.87-1.11]	0.81	0.98	[0.86-1.12]	0.76	0.40
antibio_6m	rs7927894	S1	7491	6	1.01	[0.86-1.18]	0.91	1.01	[0.86-1.18]	0.91	0.88
antibio_6m	rs7927894	S2	6529	6	0.94	[0.80-1.11]	0.47	0.93	[0.78-1.12]	0.44	0.35
antibio_6m	rs7927894	S3	5952	6	1.00	[0.84-1.18]	0.98	1.00	[0.84-1.18]	0.98	0.90
antibio_6m	M1		10590	7	1.17	[1.06-1.28]	9.60E-04	1.17	[1.05-1.29]	3.90E-03	0.36
antibio_6m	M2		9939	7	1.16	[1.06-1.28]	2.00E-03	1.18	[1.03-1.33]	1.70E-02	0.25
antibio_6m	M3		8795	7	1.14	[1.03-1.25]	1.20E-02	1.14	[1.03-1.25]	1.20E-02	0.93
antibio_6m	M4		8168	7	1.13	[1.02-1.25]	0.02	1.13	[1.02-1.25]	0.02	0.83
antibio_utero	flg	I1	10062	6	1.19	[0.79-1.78]	0.41	1.19	[0.79-1.78]	0.41	0.42
antibio_utero	flg	I2	8521	6	1.74	[1.51-2.02]	8.80E-14	1.70	[1.40-2.12]	1.00E-07	0.30
antibio_utero	flg	I3	1541	6	1.86	[1.30-2.66]	6.60E-04	1.78	[1.17-2.85]	7.50E-03	0.30
antibio_utero	flg	S1	10050	6	1.19	[0.79-1.80]	0.41	1.16	[0.74-1.86]	0.51	0.38
antibio_utero	flg	S2	8698	6	1.45	[0.91-2.31]	0.12	1.45	[0.91-2.31]	0.12	0.75
antibio_utero	flg	S3	8689	6	1.47	[0.92-2.36]	0.11	1.47	[0.92-2.36]	0.11	0.77
antibio_utero	rs10214237	I1	11575	7	0.99	[0.82-1.20]	0.92	1.00	[0.73-1.36]	0.99	0.04
antibio_utero	rs10214237	I2	9986	7	1.14	[1.06-1.23]	4.60E-04	1.14	[1.06-1.23]	4.60E-04	0.51
antibio_utero	rs10214237	I3	1589	7	1.09	[0.92-1.30]	0.31	1.08	[0.83-1.42]	0.56	0.06
antibio_utero	rs10214237	S1	11565	7	0.99	[0.82-1.20]	0.92	1.00	[0.73-1.35]	1	0.05
antibio_utero	rs10214237	S2	8282	7	1.06	[0.86-1.32]	0.57	1.07	[0.74-1.53]	0.72	0.04
antibio_utero	rs10214237	S3	8274	7	1.06	[0.85-1.32]	0.58	1.07	[0.75-1.52]	0.73	0.05
antibio_utero	rs1057258	I1	9481	6	0.94	[0.74-1.18]	0.57	0.93	[0.71-1.22]	0.58	0.28
antibio_utero	rs1057258	I2	7993	6	1.05	[0.97-1.15]	0.25	1.05	[0.97-1.15]	0.25	0.44
antibio_utero	rs1057258	I3	1488	6	0.96	[0.78-1.18]	0.7	0.96	[0.78-1.18]	0.7	0.65
antibio_utero	rs1057258	S1	9471	6	0.95	[0.75-1.19]	0.64	0.94	[0.72-1.23]	0.65	0.29
antibio_utero	rs1057258	S2	8282	6	0.83	[0.65-1.07]	0.16	0.83	[0.65-1.07]	0.16	0.85
antibio_utero	rs1057258	S3	8274	6	0.84	[0.65-1.09]	0.19	0.84	[0.65-1.09]	0.19	0.86
antibio_utero	rs10995251	I1	11575	7	1.19	[1.00-1.42]	4.50E-02	1.20	[0.99-1.44]	5.90E-02	0.34
antibio_utero	rs10995251	I2	9986	7	1.02	[0.95-1.09]	0.61	1.03	[0.94-1.11]	0.51	0.22
antibio_utero	rs10995251	I3	1589	7	1.25	[1.07-1.46]	4.50E-03	1.25	[1.07-1.46]	4.50E-03	0.43
antibio_utero	rs10995251	S1	11565	7	1.19	[1.00-1.42]	4.70E-02	1.21	[0.98-1.47]	7.60E-02	0.27
antibio_utero	rs10995251	S2	8282	7	1.23	[1.02-1.50]	3.40E-02	1.23	[1.02-1.50]	3.40E-02	0.62
antibio_utero	rs10995251	S3	8274	7	1.23	[1.01-1.49]	0.04	1.23	[1.01-1.49]	0.04	0.45
antibio_utero	rs112111458	I1	10992	6	0.80	[0.62-1.03]	7.80E-02	0.77	[0.55-1.12]	0.13	0.17
antibio_utero	rs112111458	I2	9618	6	1.02	[0.93-1.12]	0.73	1.10	[0.91-1.22]	0.33	0.02
antibio_utero	rs112111458	I3	1374	6	0.85	[0.67-1.07]	0.16	0.85	[0.67-1.07]	0.16	0.80
antibio_utero	rs112111458	S1	10982	6	0.79	[0.61-1.02]	6.70E-02	0.76	[0.54-1.10]	0.11	0.20
antibio_utero	rs112111458	S2	8282	6	0.72	[0.55-0.94]	1.40E-02	0.71	[0.51-1.01]	4.20E-02	0.20
antibio_utero	rs112111458	S3	8274	6	0.71	[0.55-0.93]	1.10E-02	0.70	[0.49-1.00]	0.04	0.18
antibio_utero	rs11657987	I1	11575	7	0.97	[0.82-1.15]	0.73	0.97	[0.82-1.15]	0.73	0.88
antibio_utero	rs11657987	I2	9986	7	1.06	[0.99-1.13]	0.1	1.06	[0.99-1.13]	0.1	0.45
antibio_utero	rs11657987	I3	1589	7	1.02	[0.87-1.18]	0.84	1.02	[0.87-1.18]	0.84	0.84
antibio_utero	rs11657987	S1	11565	7	0.97	[0.82-1.15]	0.7	0.97	[0.82-1.15]	0.7	0.87
antibio_utero	rs11657987	S2	8282	7	1.03	[0.86-1.25]	0.73	1.03	[0.86-1.25]	0.73	0.98
antibio_utero	rs11657987	S3	8274	7	1.02	[0.85-1.24]	0.8	1.02	[0.85-1.24]	0.8	0.99
antibio_utero	rs12153855	I1	10992	6	0.91	[0.68-1.23]	0.56	0.91	[0.64-1.30]	0.6	0.28
antibio_utero	rs12153855	I2	9618	6	1.12	[1.00-1.26]	4.20E-02	1.12	[1.00-1.26]	4.20E-02	0.44
antibio_utero	rs12153855	I3	1374	6	1.00	[0.77-1.31]	0.99	1.00	[0.77-1.31]	0.99	0.49
antibio_utero	rs12153855	S1	10982	6	0.90	[0.66-1.21]	0.48	0.89	[0.63-1.27]	0.53	0.31
antibio_utero	rs12153855	S2	8282	6	0.93	[0.68-1.27]	0.64	0.93	[0.68-1.27]	0.64	0.45
antibio_utero	rs12153855	S3	8274	6	0.93	[0.67-1.27]	0.64	0.93	[0.67-1.27]	0.64	0.48
antibio_utero	rs12295535	I1	11575	7	0.96	[0.58-1.59]	0.88	0.98	[0.50-1.89]	0.95	0.18
antibio_utero	rs12295535	I2	9986	7	1.20	[0.99-1.46]	5.90E-02	1.20	[0.99-1.46]	5.90E-02	0.89
antibio_utero	rs12295535	I3	1589	7	1.20	[0.76-1.88]	0.44	1.22	[0.71-2.05]	0.46	0.27
antibio_utero	rs12295535	S1	11565	7	0.96	[0.58-1.60]	0.88	0.97	[0.48-1.94]	0.94	0.18
antibio_utero	rs12295535	S2	8282	7	0.87	[0.49-1.52]	0.61	0.85	[0.42-1.73]	0.65	0.25
antibio_utero	rs12295535	S3	8274	7	0.84	[0.48-1.48]	0.55	0.83	[0.43-1.63]	0.57	0.30
antibio_utero	rs13015714	I1	11573	7	1.14	[0.94-1.39]	0.18	1.16	[0.83-1.61]	0.38	0.03
antibio_utero	rs13015714	I2	9985	7	1.10	[1.02-1.19]	1.70E-02	1.08	[0.97-1.22]	0.16	0.21
antibio_utero	rs13015714	I3	1588	7	1.24	[1.04-1.48]	1.70E-02	1.20	[0.89-1.67]	0.23	0.02
antibio_utero	rs13015714	S1	11563	7	1.15	[0.94-1.40]	0.16	1.17	[0.84-1.61]	0.35	0.03
antibio_utero	rs13015714	S2	8280	7	1.08	[0.86-1.34]	0.5	1.07	[0.81-1.43]	0.62	0.20
antibio_utero	rs13015714	S3	8272	7	1.08	[0.86-1.34]	0.52	1.07	[0.81-1.42]	0.62	0.21
antibio_utero	rs16948048	I1	11575	7	0.99	[0.84-1.18]	0.93	0.99	[0.84-1.18]	0.93	0.60
antibio_utero	rs16948048	I2	9986	7	1.04	[0.98-1.12]	0.21	1.04	[0.98-1.12]	0.21	0.67
antibio_utero	rs16948048	I3	1589	7	1.03	[0.89-1.20]	0.68	1.03	[0.89-1.20]	0.68	0.68
antibio_utero	rs16948048	S1	11565	7	1.00	[0.84-1.18]	0.96	1.00	[0.84-1.18]	0.96	0.55
antibio_utero	rs16948048	S2	8282	7	0.98	[0.81-1.19]	0.84	0.98	[0.81-1.19]	0.84	0.63
antibio_utero	rs16948048	S3	8274	7	0.98	[0.81-1.19]	0.85	0.98	[0.81-1.19]	0.85	0.64
antibio_utero	rs17389644	I1	11575	7	1.01	[0.82-1.25]	0.9	1.04	[0.78-1.34]	0.78	0.15
antibio_utero	rs17389644	I2	9986	7	1.08	[1.00-1.17]	4.80E-02	1.01	[0.88-1.24]	0.84	0.06
antibio_utero	rs17389644	I3	1589	7	1.09	[0.91-1.31]	0.35	1.09	[0.87-1.37]	0.46	0.22
antibio_utero	rs17389644	S1	11565	7	1.02	[0.83-1.25]	0.87	1.05	[0.79-1.35]	0.76	0.16
antibio_utero	rs17389644	S2	8282	7	0.98	[0.78-1.24]	0.86	1.01	[0.71-1.39]	0.96	0.08
antibio_utero	rs17389644	S3	8274	7	0.98	[0.77-1.23]	0.84	1.00	[0.71-1.38]	0.98	0.10
antibio_utero	rs17881320	I1	11575	7	0.81	[0.58-1.13]	0.22	0.81	[0.58-1.13]	0.22	0.44

antibio_utero	rs17881320	I2	9986	7	1.14	[1.01-1.29]	3.10E-02	1.14	[0.99-1.31]	6.90E-02	0.37
antibio_utero	rs17881320	I3	1589	7	0.91	[0.68-1.23]	0.55	0.91	[0.68-1.23]	0.55	0.51
antibio_utero	rs17881320	S1	11565	7	0.84	[0.60-1.18]	0.31	0.84	[0.60-1.18]	0.31	0.50
antibio_utero	rs17881320	S2	8282	7	0.92	[0.63-1.36]	0.69	0.92	[0.63-1.36]	0.69	0.83
antibio_utero	rs17881320	S3	8274	7	0.94	[0.64-1.38]	0.74	0.94	[0.64-1.38]	0.74	0.80
antibio_utero	rs2041733	I1	11574	7	0.88	[0.75-1.05]	0.15	0.88	[0.74-1.06]	0.17	0.37
antibio_utero	rs2041733	I2	9985	7	1.04	[0.98-1.11]	0.2	1.03	[0.93-1.16]	0.59	0.10
antibio_utero	rs2041733	I3	1589	7	0.89	[0.77-1.04]	0.15	0.89	[0.77-1.04]	0.15	0.91
antibio_utero	rs2041733	S1	11564	7	0.88	[0.75-1.05]	0.15	0.88	[0.74-1.06]	0.17	0.37
antibio_utero	rs2041733	S2	8281	7	0.78	[0.64-0.94]	8.90E-03	0.78	[0.64-0.94]	8.90E-03	0.68
antibio_utero	rs2041733	S3	8273	7	0.78	[0.64-0.94]	8.80E-03	0.78	[0.64-0.94]	8.80E-03	0.68
antibio_utero	rs2143950	I1	11575	7	1.03	[0.82-1.29]	0.78	1.03	[0.82-1.29]	0.78	0.52
antibio_utero	rs2143950	I2	9986	7	1.10	[1.01-1.20]	3.50E-02	1.09	[0.97-1.24]	0.15	0.21
antibio_utero	rs2143950	I3	1589	7	1.09	[0.89-1.33]	0.42	1.09	[0.87-1.37]	0.47	0.31
antibio_utero	rs2143950	S1	11565	7	1.03	[0.82-1.30]	0.78	1.03	[0.80-1.33]	0.8	0.34
antibio_utero	rs2143950	S2	8282	7	1.09	[0.85-1.40]	0.49	1.09	[0.85-1.40]	0.49	0.44
antibio_utero	rs2143950	S3	8274	7	1.10	[0.85-1.41]	0.48	1.11	[0.82-1.48]	0.5	0.26
antibio_utero	rs2164983	I1	10992	6	1.09	[0.85-1.39]	0.5	1.08	[0.81-1.45]	0.61	0.33
antibio_utero	rs2164983	I2	9618	6	1.14	[1.04-1.25]	6.00E-03	1.12	[1.00-1.28]	5.40E-02	0.29
antibio_utero	rs2164983	I3	1374	6	1.20	[0.96-1.51]	0.11	1.16	[0.89-1.58]	0.28	0.28
antibio_utero	rs2164983	S1	10982	6	1.08	[0.84-1.38]	0.57	1.06	[0.80-1.43]	0.67	0.33
antibio_utero	rs2164983	S2	8282	6	1.04	[0.80-1.35]	0.77	1.04	[0.80-1.35]	0.77	0.49
antibio_utero	rs2164983	S3	8274	6	1.04	[0.80-1.36]	0.75	1.04	[0.80-1.36]	0.75	0.53
antibio_utero	rs2227483	I1	11575	7	1.05	[0.89-1.24]	0.58	1.05	[0.89-1.24]	0.58	0.58
antibio_utero	rs2227483	I2	9986	7	1.04	[0.97-1.11]	0.3	1.03	[0.96-1.12]	0.42	0.33
antibio_utero	rs2227483	I3	1589	7	1.06	[0.92-1.24]	0.42	1.06	[0.91-1.24]	0.46	0.39
antibio_utero	rs2227483	S1	11565	7	1.05	[0.89-1.25]	0.55	1.05	[0.89-1.25]	0.55	0.57
antibio_utero	rs2227483	S2	8282	7	1.05	[0.87-1.27]	0.58	1.05	[0.87-1.27]	0.58	0.52
antibio_utero	rs2227483	S3	8274	7	1.06	[0.88-1.28]	0.55	1.06	[0.88-1.28]	0.55	0.54
antibio_utero	rs2228145	I1	11575	7	0.99	[0.83-1.18]	0.92	0.99	[0.83-1.18]	0.92	0.55
antibio_utero	rs2228145	I2	9986	7	1.03	[0.96-1.10]	0.41	1.03	[0.93-1.13]	0.57	0.19
antibio_utero	rs2228145	I3	1589	7	1.02	[0.87-1.19]	0.85	1.02	[0.87-1.19]	0.85	0.75
antibio_utero	rs2228145	S1	11565	7	0.98	[0.82-1.17]	0.84	0.98	[0.82-1.17]	0.84	0.55
antibio_utero	rs2228145	S2	8282	7	0.93	[0.76-1.13]	0.46	0.94	[0.75-1.16]	0.59	0.29
antibio_utero	rs2228145	S3	8274	7	0.92	[0.76-1.12]	0.42	0.93	[0.75-1.15]	0.52	0.32
antibio_utero	rs2897442	I1	10213	6	0.95	[0.77-1.18]	0.67	0.95	[0.77-1.18]	0.67	0.54
antibio_utero	rs2897442	I2	8885	6	1.11	[1.02-1.20]	1.20E-02	1.09	[0.99-1.22]	9.60E-02	0.31
antibio_utero	rs2897442	I3	1328	6	0.99	[0.82-1.19]	0.91	0.99	[0.81-1.21]	0.91	0.36
antibio_utero	rs2897442	S1	10203	6	0.95	[0.77-1.17]	0.61	0.95	[0.77-1.17]	0.61	0.47
antibio_utero	rs2897442	S2	6920	6	0.99	[0.77-1.26]	0.92	1.00	[0.76-1.30]	0.98	0.31
antibio_utero	rs2897442	S3	6912	6	0.98	[0.77-1.25]	0.87	1.00	[0.74-1.32]	0.98	0.25
antibio_utero	rs479844	I1	10213	6	0.98	[0.81-1.18]	0.82	0.98	[0.81-1.18]	0.82	0.86
antibio_utero	rs479844	I2	8885	6	1.14	[1.06-1.22]	3.60E-04	1.14	[1.06-1.22]	3.60E-04	0.48
antibio_utero	rs479844	I3	1328	6	1.11	[0.94-1.31]	0.21	1.11	[0.94-1.31]	0.21	0.94
antibio_utero	rs479844	S1	10203	6	0.99	[0.82-1.20]	0.93	0.99	[0.82-1.20]	0.93	0.89
antibio_utero	rs479844	S2	6920	6	1.00	[0.81-1.25]	0.98	1.00	[0.81-1.25]	0.98	0.72
antibio_utero	rs479844	S3	6912	6	1.01	[0.82-1.26]	0.91	1.01	[0.82-1.26]	0.91	0.73
antibio_utero	rs6010620	I1	11575	7	1.03	[0.84-1.26]	0.77	1.03	[0.84-1.26]	0.77	0.62
antibio_utero	rs6010620	I2	9986	7	1.07	[0.99-1.16]	7.10E-02	1.07	[0.99-1.16]	7.10E-02	0.74
antibio_utero	rs6010620	I3	1589	7	1.07	[0.90-1.28]	0.44	1.07	[0.90-1.28]	0.44	0.81
antibio_utero	rs6010620	S1	11565	7	1.02	[0.84-1.25]	0.82	1.02	[0.84-1.25]	0.82	0.57
antibio_utero	rs6010620	S2	8282	7	0.94	[0.75-1.17]	0.56	0.94	[0.75-1.17]	0.56	0.41
antibio_utero	rs6010620	S3	8274	7	0.93	[0.74-1.16]	0.52	0.93	[0.74-1.16]	0.52	0.41
antibio_utero	rs6473227	I1	11575	7	1.16	[0.98-1.38]	9.30E-02	1.16	[0.98-1.38]	9.30E-02	0.66
antibio_utero	rs6473227	I2	9986	7	1.05	[0.98-1.13]	0.13	1.04	[0.96-1.14]	0.3	0.31
antibio_utero	rs6473227	I3	1589	7	1.19	[1.02-1.39]	2.60E-02	1.19	[1.02-1.39]	2.60E-02	0.81
antibio_utero	rs6473227	S1	11565	7	1.16	[0.98-1.38]	8.80E-02	1.16	[0.98-1.38]	8.80E-02	0.66
antibio_utero	rs6473227	S2	8282	7	1.17	[0.97-1.42]	9.90E-02	1.17	[0.97-1.42]	9.90E-02	0.43
antibio_utero	rs6473227	S3	8274	7	1.17	[0.97-1.42]	0.1	1.17	[0.97-1.42]	0.1	0.45
antibio_utero	rs7127307	I1	11575	7	0.84	[0.70-1.00]	5.30E-02	0.84	[0.70-1.00]	5.30E-02	0.51
antibio_utero	rs7127307	I2	9986	7	1.07	[1.00-1.15]	4.70E-02	1.07	[1.00-1.15]	4.70E-02	0.95
antibio_utero	rs7127307	I3	1589	7	0.90	[0.77-1.06]	0.22	0.89	[0.74-1.08]	0.2	0.33
antibio_utero	rs7127307	S1	11565	7	0.83	[0.69-0.99]	3.80E-02	0.83	[0.69-0.99]	3.80E-02	0.49
antibio_utero	rs7127307	S2	8282	7	0.81	[0.66-1.00]	4.50E-02	0.81	[0.66-1.00]	4.50E-02	0.53
antibio_utero	rs7127307	S3	8274	7	0.80	[0.65-0.99]	3.60E-02	0.80	[0.65-0.99]	3.60E-02	0.55
antibio_utero	rs7146581	I1	9481	6	1.12	[0.91-1.37]	0.27	1.12	[0.91-1.37]	0.27	0.44
antibio_utero	rs7146581	I2	7993	6	1.00	[0.92-1.08]	0.97	1.00	[0.92-1.08]	0.97	0.79
antibio_utero	rs7146581	I3	1488	6	1.11	[0.93-1.33]	0.26	1.09	[0.87-1.39]	0.47	0.22
antibio_utero	rs7146581	S1	9471	6	1.12	[0.91-1.37]	0.27	1.12	[0.91-1.38]	0.3	0.39
antibio_utero	rs7146581	S2	8282	6	1.08	[0.87-1.35]	0.48	1.08	[0.86-1.36]	0.51	0.39
antibio_utero	rs7146581	S3	8274	6	1.09	[0.87-1.36]	0.47	1.08	[0.85-1.38]	0.54	0.36
antibio_utero	rs7927894	I1	11575	7	1.03	[0.87-1.23]	0.71	1.02	[0.79-1.34]	0.87	0.08
antibio_utero	rs7927894	I2	9986	7	1.02	[0.95-1.09]	0.6	1.02	[0.89-1.16]	0.76	0.01
antibio_utero	rs7927894	I3	1589	7	1.02	[0.88-1.19]	0.78	1.01	[0.84-1.23]	0.89	0.28
antibio_utero	rs7927894	S1	11565	7	1.02	[0.86-1.22]	0.79	1.01	[0.77-1.35]	0.96	0.06
antibio_utero	rs7927894	S2	8282	7	1.05	[0.86-1.27]	0.65	1.07	[0.78-1.44]	0.68	0.05
antibio_utero	rs7927894	S3	8274	7	1.04	[0.86-1.27]	0.68	1.06	[0.77-1.45]	0.71	0.04
antibio_utero		M1	13088	7	1.18	[1.05-1.31]	3.70E-03	1.18	[1.05-1.31]	3.70E-03	0.89
antibio_utero		M2	13076	7	1.18	[1.05-1.31]	3.70E-03	1.18	[1.05-1.31]	3.70E-03	0.88
antibio_utero		M3	9594	6	1.16	[1.02-1.31]	0.02	1.16	[1.02-1.31]	0.02	0.65
antibio_utero		M4	9585	6	1.16	[1.02-1.31]	1.90E-02	1.16	[1.02-1.31]	1.90E-02	0.65
caes	flg	I1	14782	11	1.03	[0.74-1.43]	0.85	1.03	[0.74-1.43]	0.85	0.94
caes	flg	I2	12749	11	1.84	[1.63-2.08]	5.60E-23	1.82	[1.57-2.15]	1.20E-14	0.26
caes	flg	I3	2033	11	1.80	[1.33-2.42]	1.30E-04	1.80	[1.33-2.42]	1.30E-04	0.99
caes	flg	S1	14205	11	0.99	[0.70-1.41]	0.97	0.99	[0.70-1.41]	0.97	0.87
caes	flg	S2	13015	11	1.05	[0.73-1.51]	0.81	1.05	[0.73-1.51]	0.81	0.97
caes	flg	S3	12461	11	1.02	[0.69-1.51]	0.91	1.02	[0.69-1.51]	0.91	0.91
caes	rs10214237	I1	17307	12	1.08	[0.92-1.27]	0.36	1.08	[0.92-1.27]	0.36	0.47
caes	rs10214237	I2	15133	12	1.10	[1.04-1.17]	1.10E-03	1.10	[1.04-1.17]	1.10E-03	0.69
caes	rs10214237	I3	2174	12	1.18	[1.02-1.37]	2.90E-02	1.18	[1.02-1.37]	2.90E-02	0.68
caes	rs10214237	S1	12590	12	1.14	[0.96-1.37]	0.13	1.15	[0.95-1.39]	0.16	0.33

caes	rs10214237	S2	15739	12	1.14	[0.95-1.36]	0.15	1.13	[0.94-1.37]	0.18	0.40
caes	rs10214237	S3	11037	12	1.23	[1.01-1.50]	3.60E-02	1.23	[0.99-1.53]	5.60E-02	0.33
caes	rs1057258	I1	18586	13	1.02	[0.84-1.23]	0.84	1.02	[0.84-1.23]	0.84	0.53
caes	rs1057258	I2	16128	13	1.03	[0.96-1.11]	0.37	1.03	[0.96-1.11]	0.37	0.97
caes	rs1057258	I3	2458	13	1.06	[0.89-1.27]	0.5	1.06	[0.89-1.27]	0.5	0.49
caes	rs1057258	S1	14029	13	0.96	[0.78-1.18]	0.69	0.96	[0.78-1.18]	0.69	0.66
caes	rs1057258	S2	15580	13	1.07	[0.87-1.32]	0.5	1.08	[0.87-1.33]	0.47	0.40
caes	rs1057258	S3	11038	13	1.00	[0.80-1.25]	0.99	1.00	[0.80-1.25]	0.99	0.48
caes	rs10995251	I1	18275	12	1.05	[0.90-1.22]	0.52	1.05	[0.90-1.22]	0.52	0.95
caes	rs10995251	I2	15894	12	1.03	[0.97-1.08]	0.33	1.03	[0.97-1.10]	0.37	0.23
caes	rs10995251	I3	2381	12	1.10	[0.95-1.27]	0.19	1.10	[0.95-1.27]	0.19	0.55
caes	rs10995251	S1	13549	12	1.03	[0.87-1.22]	0.73	1.03	[0.87-1.22]	0.73	0.95
caes	rs10995251	S2	15269	12	1.02	[0.87-1.21]	0.79	1.02	[0.87-1.21]	0.79	0.97
caes	rs10995251	S3	10558	12	0.99	[0.82-1.20]	0.93	0.99	[0.82-1.20]	0.93	0.99
caes	rs112111458	I1	16160	10	0.85	[0.67-1.07]	0.17	0.81	[0.58-1.19]	0.21	0.08
caes	rs112111458	I2	14178	10	1.04	[0.96-1.12]	0.31	1.08	[0.96-1.17]	0.18	0.06
caes	rs112111458	I3	1982	10	0.92	[0.74-1.15]	0.47	0.89	[0.64-1.28]	0.5	0.06
caes	rs112111458	S1	13062	10	0.93	[0.73-1.19]	0.56	0.93	[0.73-1.19]	0.56	0.44
caes	rs112111458	S2	14119	10	0.79	[0.62-1.01]	6.40E-02	0.75	[0.52-1.13]	0.11	0.06
caes	rs112111458	S3	11036	10	0.88	[0.68-1.13]	0.31	0.88	[0.68-1.13]	0.31	0.42
caes	rs11657987	I1	18632	13	0.95	[0.82-1.10]	0.51	0.95	[0.82-1.10]	0.51	0.85
caes	rs11657987	I2	16179	13	1.05	[1.00-1.11]	4.60E-02	1.05	[1.00-1.11]	5.90E-02	0.41
caes	rs11657987	I3	2453	13	0.99	[0.87-1.13]	0.91	0.99	[0.87-1.13]	0.91	0.62
caes	rs11657987	S1	14025	13	0.94	[0.81-1.10]	0.46	0.94	[0.81-1.10]	0.46	0.77
caes	rs11657987	S2	15626	13	0.98	[0.84-1.15]	0.8	0.98	[0.84-1.15]	0.8	0.93
caes	rs11657987	S3	11034	13	0.97	[0.82-1.16]	0.76	0.97	[0.82-1.16]	0.76	0.87
caes	rs12153855	I1	15812	9	0.82	[0.63-1.08]	0.17	0.82	[0.63-1.08]	0.17	0.73
caes	rs12153855	I2	13897	9	1.13	[1.03-1.25]	8.50E-03	1.13	[1.03-1.25]	8.50E-03	0.75
caes	rs12153855	I3	1915	9	0.90	[0.70-1.16]	0.4	0.90	[0.70-1.16]	0.4	0.70
caes	rs12153855	S1	12584	9	0.86	[0.64-1.15]	0.3	0.85	[0.63-1.15]	0.3	0.41
caes	rs12153855	S2	13771	9	0.88	[0.66-1.18]	0.4	0.87	[0.64-1.20]	0.38	0.38
caes	rs12153855	S3	10558	9	0.91	[0.67-1.25]	0.57	0.87	[0.60-1.34]	0.49	0.22
caes	rs12295535	I1	16161	12	1.28	[0.83-1.96]	0.26	1.28	[0.83-1.96]	0.26	1.00
caes	rs12295535	I2	13794	12	1.12	[0.96-1.32]	0.16	1.12	[0.96-1.32]	0.16	0.67
caes	rs12295535	I3	2367	12	1.34	[0.91-1.97]	0.14	1.34	[0.91-1.97]	0.14	1.00
caes	rs12295535	S1	14029	12	1.20	[0.74-1.94]	0.46	1.20	[0.74-1.94]	0.46	1.00
caes	rs12295535	S2	13155	12	1.31	[0.82-2.10]	0.26	1.31	[0.82-2.10]	0.26	0.97
caes	rs12295535	S3	11038	12	1.21	[0.73-2.03]	0.46	1.21	[0.73-2.03]	0.46	0.97
caes	rs13015714	I1	18288	12	0.97	[0.81-1.15]	0.69	0.97	[0.81-1.15]	0.69	0.69
caes	rs13015714	I2	15906	12	1.10	[1.04-1.17]	1.80E-03	1.10	[1.04-1.17]	1.80E-03	0.47
caes	rs13015714	I3	2382	12	1.11	[0.95-1.30]	0.2	1.11	[0.94-1.30]	0.21	0.41
caes	rs13015714	S1	13547	12	0.93	[0.77-1.12]	0.46	0.93	[0.77-1.12]	0.46	0.66
caes	rs13015714	S2	15282	12	0.96	[0.80-1.16]	0.71	0.96	[0.80-1.16]	0.71	0.64
caes	rs13015714	S3	10556	12	0.92	[0.75-1.13]	0.43	0.92	[0.75-1.13]	0.43	0.64
caes	rs16948048	I1	18264	12	0.94	[0.81-1.10]	0.46	0.94	[0.80-1.11]	0.45	0.39
caes	rs16948048	I2	15883	12	1.03	[0.98-1.09]	0.25	1.03	[0.98-1.09]	0.25	0.67
caes	rs16948048	I3	2381	12	0.98	[0.85-1.13]	0.8	0.98	[0.85-1.13]	0.8	0.52
caes	rs16948048	S1	13549	12	0.90	[0.76-1.06]	0.19	0.90	[0.76-1.06]	0.19	0.59
caes	rs16948048	S2	15258	12	0.96	[0.81-1.14]	0.65	0.96	[0.80-1.15]	0.64	0.36
caes	rs16948048	S3	10558	12	0.92	[0.76-1.10]	0.35	0.92	[0.76-1.10]	0.35	0.70
caes	rs17389644	I1	18225	12	0.88	[0.73-1.05]	0.15	0.87	[0.72-1.06]	0.14	0.38
caes	rs17389644	I2	15846	12	1.07	[1.00-1.14]	4.30E-02	1.05	[0.97-1.15]	0.2	0.20
caes	rs17389644	I3	2379	12	0.93	[0.79-1.10]	0.4	0.88	[0.71-1.15]	0.24	0.16
caes	rs17389644	S1	13549	12	0.91	[0.75-1.11]	0.35	0.88	[0.70-1.15]	0.29	0.26
caes	rs17389644	S2	15219	12	0.91	[0.75-1.11]	0.36	0.91	[0.75-1.11]	0.36	0.52
caes	rs17389644	S3	10558	12	0.98	[0.79-1.22]	0.84	0.98	[0.79-1.22]	0.84	0.41
caes	rs17881320	I1	18684	13	0.93	[0.72-1.20]	0.59	0.93	[0.72-1.20]	0.59	0.58
caes	rs17881320	I2	16224	13	1.12	[1.02-1.24]	1.40E-02	1.12	[1.01-1.25]	3.50E-02	0.29
caes	rs17881320	I3	2460	13	1.06	[0.84-1.34]	0.64	1.07	[0.80-1.41]	0.66	0.19
caes	rs17881320	S1	14029	13	0.81	[0.61-1.08]	0.16	0.81	[0.61-1.08]	0.16	0.51
caes	rs17881320	S2	15678	13	1.01	[0.75-1.34]	0.97	1.01	[0.75-1.34]	0.97	0.50
caes	rs17881320	S3	11038	13	0.87	[0.63-1.21]	0.41	0.87	[0.63-1.21]	0.41	0.46
caes	rs2041733	I1	18289	12	1.11	[0.96-1.28]	0.17	1.11	[0.96-1.28]	0.17	0.80
caes	rs2041733	I2	15907	12	1.06	[1.00-1.12]	3.30E-02	1.07	[0.98-1.16]	0.12	0.00
caes	rs2041733	I3	2382	12	1.15	[1.00-1.31]	4.50E-02	1.15	[1.00-1.31]	4.50E-02	0.99
caes	rs2041733	S1	13548	12	1.19	[1.02-1.40]	2.90E-02	1.19	[1.02-1.40]	2.90E-02	0.97
caes	rs2041733	S2	15283	12	1.05	[0.89-1.23]	0.57	1.05	[0.89-1.23]	0.57	0.78
caes	rs2041733	S3	10557	12	1.14	[0.96-1.36]	0.14	1.14	[0.96-1.36]	0.14	0.97
caes	rs2143950	I1	18721	13	1.02	[0.84-1.24]	0.84	1.01	[0.80-1.28]	0.92	0.21
caes	rs2143950	I2	16262	13	1.07	[1.00-1.14]	5.40E-02	1.07	[1.00-1.14]	5.40E-02	0.51
caes	rs2143950	I3	2459	13	1.05	[0.88-1.26]	0.57	1.04	[0.84-1.30]	0.71	0.25
caes	rs2143950	S1	14021	13	0.97	[0.79-1.20]	0.78	0.95	[0.73-1.26]	0.71	0.20
caes	rs2143950	S2	15715	13	1.05	[0.85-1.29]	0.67	1.06	[0.80-1.39]	0.7	0.10
caes	rs2143950	S3	11030	13	1.00	[0.79-1.26]	0.98	1.00	[0.71-1.40]	0.99	0.07
caes	rs2164983	I1	15812	9	1.01	[0.81-1.26]	0.92	1.01	[0.81-1.26]	0.92	0.77
caes	rs2164983	I2	13897	9	1.14	[1.05-1.23]	1.20E-03	1.14	[1.05-1.23]	1.20E-03	0.70
caes	rs2164983	I3	1915	9	1.17	[0.95-1.45]	0.13	1.17	[0.95-1.45]	0.13	0.44
caes	rs2164983	S1	12584	9	1.00	[0.79-1.27]	0.99	1.00	[0.79-1.27]	0.99	0.61
caes	rs2164983	S2	13771	9	0.95	[0.75-1.19]	0.64	0.95	[0.75-1.19]	0.64	0.86
caes	rs2164983	S3	10558	9	0.94	[0.73-1.20]	0.61	0.94	[0.73-1.20]	0.61	0.77
caes	rs2227483	I1	18725	13	0.95	[0.82-1.09]	0.46	0.95	[0.82-1.09]	0.46	0.73
caes	rs2227483	I2	16263	13	1.06	[1.01-1.12]	2.80E-02	1.06	[1.00-1.12]	0.05	0.32
caes	rs2227483	I3	2462	13	1.01	[0.89-1.16]	0.85	1.01	[0.88-1.16]	0.86	0.43
caes	rs2227483	S1	14025	13	0.94	[0.80-1.10]	0.42	0.94	[0.80-1.10]	0.42	0.64
caes	rs2227483	S2	15719	13	0.97	[0.83-1.14]	0.72	0.97	[0.83-1.14]	0.72	0.63
caes	rs2227483	S3	11034	13	0.96	[0.80-1.14]	0.61	0.96	[0.80-1.14]	0.61	0.53
caes	rs2228145	I1	16772	11	0.93	[0.79-1.08]	0.33	0.93	[0.79-1.08]	0.33	0.90
caes	rs2228145	I2	14657	11	1.04	[0.98-1.10]	0.16	1.04	[0.98-1.10]	0.16	0.68
caes	rs2228145	I3	2115	11	0.96	[0.83-1.10]	0.54	0.96	[0.83-1.10]	0.54	0.61
caes	rs2228145	S1	13549	11	0.90	[0.76-1.05]	0.18	0.90	[0.76-1.05]	0.18	0.86
caes	rs2228145	S2	13766	11	0.98	[0.83-1.16]	0.84	0.98	[0.83-1.16]	0.84	0.83

caes	rs2228145	S3	10558	11	0.96	[0.80-1.15]	0.68	0.96	[0.80-1.15]	0.68	0.60
caes	rs2897442	I1	16920	11	0.91	[0.77-1.09]	0.3	0.91	[0.77-1.09]	0.3	0.61
caes	rs2897442	I2	14822	11	1.12	[1.05-1.19]	5.10E-04	1.12	[1.01-1.24]	3.30E-02	0.01
caes	rs2897442	I3	2098	11	1.04	[0.89-1.23]	0.62	1.04	[0.89-1.23]	0.62	0.76
caes	rs2897442	S1	12188	11	0.99	[0.81-1.20]	0.91	0.99	[0.81-1.20]	0.91	0.59
caes	rs2897442	S2	13914	11	0.89	[0.73-1.08]	0.24	0.89	[0.73-1.08]	0.24	0.47
caes	rs2897442	S3	9197	11	0.97	[0.78-1.21]	0.76	0.97	[0.77-1.21]	0.77	0.39
caes	rs479844	I1	16929	11	1.07	[0.92-1.26]	0.39	1.07	[0.92-1.26]	0.39	0.91
caes	rs479844	I2	14830	11	1.14	[1.08-1.20]	3.10E-06	1.14	[1.07-1.22]	9.80E-05	0.24
caes	rs479844	I3	2099	11	1.24	[1.07-1.43]	5.10E-03	1.24	[1.07-1.43]	5.10E-03	0.92
caes	rs479844	S1	12188	11	1.14	[0.95-1.35]	0.16	1.14	[0.95-1.35]	0.16	0.98
caes	rs479844	S2	13923	11	1.09	[0.92-1.30]	0.33	1.09	[0.92-1.30]	0.33	0.69
caes	rs479844	S3	9197	11	1.17	[0.96-1.43]	0.12	1.17	[0.96-1.43]	0.12	0.86
caes	rs6010620	I1	18290	12	0.95	[0.79-1.13]	0.53	0.93	[0.74-1.18]	0.5	0.13
caes	rs6010620	I2	15908	12	1.11	[1.04-1.18]	1.10E-03	1.11	[1.04-1.18]	1.10E-03	0.88
caes	rs6010620	I3	2382	12	1.05	[0.89-1.23]	0.57	1.03	[0.85-1.27]	0.73	0.23
caes	rs6010620	S1	13549	12	0.95	[0.78-1.15]	0.58	0.91	[0.68-1.25]	0.49	0.06
caes	rs6010620	S2	15284	12	0.97	[0.80-1.18]	0.78	0.95	[0.73-1.27]	0.71	0.09
caes	rs6010620	S3	10558	12	0.98	[0.79-1.22]	0.85	0.94	[0.67-1.36]	0.69	0.06
caes	rs6473227	I1	17328	12	1.05	[0.90-1.21]	0.55	1.05	[0.90-1.21]	0.55	0.91
caes	rs6473227	I2	15154	12	1.07	[1.01-1.12]	1.60E-02	1.07	[1.01-1.12]	1.60E-02	0.69
caes	rs6473227	I3	2174	12	1.10	[0.96-1.26]	0.16	1.10	[0.96-1.26]	0.16	0.74
caes	rs6473227	S1	12591	12	1.09	[0.93-1.28]	0.27	1.09	[0.93-1.28]	0.27	0.95
caes	rs6473227	S2	15760	12	1.04	[0.89-1.22]	0.63	1.04	[0.89-1.22]	0.63	0.87
caes	rs6473227	S3	11038	12	1.10	[0.92-1.31]	0.3	1.10	[0.92-1.31]	0.3	0.95
caes	rs7127307	I1	18769	13	0.92	[0.79-1.07]	0.28	0.89	[0.74-1.11]	0.25	0.15
caes	rs7127307	I2	16306	13	1.07	[1.02-1.13]	7.60E-03	1.07	[1.02-1.13]	7.60E-03	0.75
caes	rs7127307	I3	2463	13	0.98	[0.85-1.13]	0.82	0.96	[0.81-1.17]	0.68	0.17
caes	rs7127307	S1	14028	13	0.97	[0.82-1.15]	0.76	0.94	[0.76-1.21]	0.6	0.15
caes	rs7127307	S2	15763	13	0.95	[0.80-1.12]	0.51	0.93	[0.75-1.17]	0.49	0.13
caes	rs7127307	S3	11037	13	1.03	[0.85-1.24]	0.75	1.02	[0.80-1.32]	0.89	0.15
caes	rs7146581	I1	18761	13	0.88	[0.75-1.05]	0.16	0.88	[0.75-1.05]	0.16	0.50
caes	rs7146581	I2	16298	13	1.05	[0.99-1.12]	0.12	1.05	[0.97-1.14]	0.21	0.11
caes	rs7146581	I3	2463	13	0.95	[0.81-1.11]	0.48	0.95	[0.81-1.11]	0.48	0.55
caes	rs7146581	S1	14024	13	0.88	[0.73-1.06]	0.17	0.88	[0.73-1.06]	0.17	0.50
caes	rs7146581	S2	15755	13	0.92	[0.76-1.10]	0.35	0.92	[0.76-1.10]	0.35	0.50
caes	rs7146581	S3	11033	13	0.91	[0.74-1.11]	0.35	0.91	[0.74-1.11]	0.35	0.49
caes	rs7927894	I1	18012	12	1.14	[0.98-1.33]	8.30E-02	1.12	[0.88-1.46]	0.37	0.02
caes	rs7927894	I2	15646	12	1.01	[0.95-1.06]	0.84	1.00	[0.92-1.09]	0.96	0.06
caes	rs7927894	I3	2366	12	1.14	[0.99-1.31]	7.80E-02	1.12	[0.93-1.37]	0.23	0.13
caes	rs7927894	S1	13549	12	1.17	[0.99-1.39]	6.20E-02	1.13	[0.84-1.58]	0.42	0.01
caes	rs7927894	S2	15006	12	1.18	[1.00-1.39]	4.90E-02	1.18	[1.00-1.39]	4.90E-02	0.86
caes	rs7927894	S3	10558	12	1.23	[1.02-1.48]	2.70E-02	1.23	[1.02-1.48]	2.70E-02	0.86
caes		M1	20943	13	1.04	[0.94-1.14]	0.45	1.04	[0.94-1.14]	0.45	0.98
caes		M2	16179	13	1.04	[0.94-1.15]	0.42	1.04	[0.94-1.15]	0.42	0.95
caes		M3	17690	12	1.02	[0.92-1.13]	0.65	1.02	[0.92-1.13]	0.65	0.93
caes		M4	14166	11	1.02	[0.91-1.13]	0.77	1.02	[0.91-1.13]	0.77	0.88
cat	flg	I1	16043	12	1.13	[0.87-1.45]	0.36	1.15	[0.81-1.59]	0.43	0.22
cat	flg	I2	11829	12	1.84	[1.63-2.09]	9.80E-22	1.84	[1.52-2.23]	2.00E-10	0.05
cat	flg	I3	4214	12	2.01	[1.62-2.50]	2.40E-10	2.02	[1.56-2.61]	8.50E-08	0.34
cat	flg	S1	14488	12	1.11	[0.85-1.46]	0.44	1.16	[0.75-1.72]	0.5	0.11
cat	flg	S2	14219	12	1.11	[0.84-1.46]	0.45	1.09	[0.78-1.55]	0.6	0.31
cat	flg	S3	12707	12	1.12	[0.84-1.50]	0.44	1.10	[0.71-1.74]	0.66	0.15
cat	rs10214237	I1	14651	11	0.97	[0.85-1.10]	0.62	0.97	[0.85-1.10]	0.62	0.75
cat	rs10214237	I2	10782	11	1.11	[1.04-1.18]	1.50E-03	1.11	[1.04-1.18]	1.50E-03	0.52
cat	rs10214237	I3	3869	11	1.11	[1.00-1.24]	5.40E-02	1.11	[1.00-1.24]	5.40E-02	0.91
cat	rs10214237	S1	12869	11	0.98	[0.85-1.12]	0.72	0.98	[0.85-1.12]	0.72	0.68
cat	rs10214237	S2	13042	11	0.96	[0.84-1.11]	0.6	0.96	[0.84-1.11]	0.6	0.54
cat	rs10214237	S3	11288	11	0.98	[0.85-1.14]	0.8	0.98	[0.85-1.14]	0.8	0.51
cat	rs1057258	I1	14635	11	1.02	[0.88-1.19]	0.8	1.02	[0.88-1.19]	0.8	0.65
cat	rs1057258	I2	10769	11	1.05	[0.97-1.13]	0.25	1.05	[0.97-1.13]	0.25	0.76
cat	rs1057258	I3	3866	11	1.06	[0.94-1.21]	0.34	1.06	[0.94-1.21]	0.34	0.83
cat	rs1057258	S1	12870	11	1.05	[0.89-1.23]	0.57	1.05	[0.89-1.23]	0.57	0.48
cat	rs1057258	S2	13026	11	0.98	[0.84-1.16]	0.86	0.98	[0.84-1.16]	0.86	0.55
cat	rs1057258	S3	11289	11	1.00	[0.84-1.19]	0.98	1.00	[0.83-1.20]	0.98	0.39
cat	rs10995251	I1	14060	10	0.98	[0.87-1.10]	0.72	1.00	[0.82-1.19]	0.99	0.04
cat	rs10995251	I2	10389	10	1.05	[0.98-1.11]	0.15	1.04	[0.94-1.15]	0.43	0.01
cat	rs10995251	I3	3671	10	1.02	[0.92-1.13]	0.76	1.04	[0.89-1.20]	0.62	0.07
cat	rs10995251	S1	12280	10	0.94	[0.83-1.07]	0.34	0.94	[0.78-1.14]	0.53	0.11
cat	rs10995251	S2	12451	10	1.02	[0.89-1.16]	0.77	1.06	[0.87-1.24]	0.54	0.08
cat	rs10995251	S3	10699	10	0.97	[0.85-1.12]	0.71	0.98	[0.81-1.18]	0.87	0.16
cat	rs112111458	I1	12606	8	1.07	[0.90-1.26]	0.46	1.03	[0.84-1.31]	0.77	0.29
cat	rs112111458	I2	9181	8	1.00	[0.92-1.09]	1	1.05	[0.91-1.16]	0.5	0.01
cat	rs112111458	I3	3425	8	1.02	[0.88-1.17]	0.79	1.02	[0.88-1.17]	0.79	0.63
cat	rs112111458	S1	11912	8	1.11	[0.93-1.32]	0.26	1.11	[0.93-1.32]	0.26	0.80
cat	rs112111458	S2	11953	8	1.10	[0.92-1.31]	0.3	1.06	[0.87-1.35]	0.55	0.30
cat	rs112111458	S3	11287	8	1.15	[0.96-1.38]	0.14	1.15	[0.96-1.38]	0.14	0.65
cat	rs11657987	I1	14618	11	1.10	[0.98-1.24]	9.40E-02	1.10	[0.94-1.30]	0.24	0.12
cat	rs11657987	I2	10758	11	1.02	[0.96-1.08]	0.49	1.02	[0.94-1.10]	0.68	0.12
cat	rs11657987	I3	3860	11	1.13	[1.02-1.24]	1.80E-02	1.12	[0.96-1.31]	0.14	0.06
cat	rs11657987	S1	12866	11	1.10	[0.97-1.24]	0.13	1.08	[0.89-1.33]	0.42	0.06
cat	rs11657987	S2	13009	11	1.15	[1.02-1.30]	2.50E-02	1.15	[1.02-1.30]	2.50E-02	0.73
cat	rs11657987	S3	11285	11	1.15	[1.01-1.31]	0.04	1.15	[1.01-1.31]	0.04	0.53
cat	rs12153855	I1	12038	7	0.94	[0.76-1.16]	0.57	0.94	[0.76-1.16]	0.57	0.73
cat	rs12153855	I2	8805	7	1.14	[1.03-1.26]	1.50E-02	1.14	[1.03-1.26]	1.50E-02	0.96
cat	rs12153855	I3	3233	7	1.09	[0.91-1.30]	0.37	1.09	[0.91-1.30]	0.37	0.72
cat	rs12153855	S1	11324	7	0.95	[0.76-1.18]	0.63	0.95	[0.76-1.18]	0.63	0.63
cat	rs12153855	S2	11385	7	0.95	[0.76-1.18]	0.62	0.95	[0.76-1.18]	0.62	0.67
cat	rs12153855	S3	10699	7	0.95	[0.75-1.19]	0.66	0.95	[0.75-1.19]	0.66	0.60
cat	rs12295535	I1	14655	11	0.84	[0.59-1.20]	0.34	0.84	[0.59-1.20]	0.34	0.70
cat	rs12295535	I2	10785	11	1.20	[1.01-1.42]	4.20E-02	1.20	[1.01-1.42]	4.20E-02	0.47

cat	rs12295535	I3	3870	11	1.02	[0.76-1.38]	0.89	1.02	[0.76-1.38]	0.89	0.63
cat	rs12295535	S1	12870	11	0.81	[0.56-1.17]	0.26	0.81	[0.56-1.17]	0.26	0.53
cat	rs12295535	S2	13046	11	0.82	[0.56-1.20]	0.31	0.82	[0.56-1.20]	0.31	0.55
cat	rs12295535	S3	11289	11	0.78	[0.52-1.17]	0.23	0.78	[0.52-1.17]	0.23	0.45
cat	rs13015714	I1	14063	10	0.93	[0.81-1.07]	0.3	0.93	[0.81-1.07]	0.3	0.64
cat	rs13015714	I2	10391	10	1.15	[1.07-1.23]	6.40E-05	1.15	[1.07-1.23]	6.40E-05	0.59
cat	rs13015714	I3	3672	10	1.08	[0.96-1.21]	0.22	1.08	[0.96-1.21]	0.22	0.55
cat	rs13015714	S1	12278	10	0.93	[0.80-1.07]	0.32	0.93	[0.80-1.07]	0.32	0.51
cat	rs13015714	S2	12454	10	0.90	[0.78-1.05]	0.17	0.90	[0.78-1.05]	0.17	0.48
cat	rs13015714	S3	10697	10	0.91	[0.78-1.06]	0.21	0.89	[0.75-1.08]	0.18	0.34
cat	rs16948048	I1	14063	10	0.86	[0.76-0.97]	1.20E-02	0.90	[0.74-1.04]	0.29	0.05
cat	rs16948048	I2	10390	10	1.07	[1.01-1.13]	3.30E-02	1.07	[1.01-1.13]	3.30E-02	0.98
cat	rs16948048	I3	3673	10	0.90	[0.82-1.00]	5.60E-02	0.94	[0.79-1.08]	0.47	0.04
cat	rs16948048	S1	12280	10	0.88	[0.77-1.00]	4.30E-02	0.95	[0.76-1.09]	0.67	0.04
cat	rs16948048	S2	12454	10	0.84	[0.74-0.96]	1.10E-02	0.84	[0.74-0.96]	1.10E-02	0.52
cat	rs16948048	S3	10699	10	0.86	[0.75-0.98]	2.90E-02	0.86	[0.75-0.98]	2.90E-02	0.46
cat	rs17389644	I1	14053	10	1.00	[0.86-1.15]	0.97	1.00	[0.86-1.15]	0.97	0.69
cat	rs17389644	I2	10385	10	1.05	[0.98-1.12]	0.21	1.03	[0.95-1.13]	0.5	0.25
cat	rs17389644	I3	3668	10	1.05	[0.93-1.18]	0.45	1.02	[0.86-1.24]	0.85	0.19
cat	rs17389644	S1	12280	10	1.01	[0.87-1.18]	0.85	1.01	[0.87-1.18]	0.85	0.52
cat	rs17389644	S2	12444	10	0.94	[0.80-1.10]	0.42	0.94	[0.80-1.10]	0.42	0.78
cat	rs17389644	S3	10699	10	0.96	[0.81-1.13]	0.6	0.96	[0.81-1.13]	0.6	0.58
cat	rs17881320	I1	14635	11	0.98	[0.79-1.20]	0.82	0.98	[0.79-1.20]	0.82	0.96
cat	rs17881320	I2	10769	11	1.13	[1.02-1.26]	1.80E-02	1.14	[1.00-1.29]	5.90E-02	0.17
cat	rs17881320	I3	3866	11	1.12	[0.94-1.33]	0.22	1.12	[0.94-1.33]	0.22	0.86
cat	rs17881320	S1	12868	11	0.95	[0.76-1.20]	0.69	0.95	[0.76-1.20]	0.69	0.94
cat	rs17881320	S2	13026	11	0.98	[0.78-1.23]	0.86	0.98	[0.78-1.23]	0.86	0.83
cat	rs17881320	S3	11287	11	0.95	[0.74-1.20]	0.65	0.95	[0.74-1.20]	0.65	0.94
cat	rs2041733	I1	14064	10	0.98	[0.87-1.10]	0.74	0.99	[0.82-1.17]	0.88	0.07
cat	rs2041733	I2	10391	10	1.04	[0.98-1.10]	0.18	1.04	[0.98-1.10]	0.18	0.53
cat	rs2041733	I3	3673	10	1.03	[0.93-1.14]	0.6	1.03	[0.90-1.18]	0.66	0.16
cat	rs2041733	S1	12279	10	1.03	[0.91-1.17]	0.64	1.03	[0.91-1.17]	0.64	0.44
cat	rs2041733	S2	12455	10	0.99	[0.87-1.12]	0.88	0.99	[0.81-1.21]	0.9	0.05
cat	rs2041733	S3	10698	10	1.04	[0.91-1.19]	0.54	1.05	[0.91-1.20]	0.51	0.38
cat	rs2143950	I1	14642	11	1.12	[0.97-1.30]	0.13	1.09	[0.91-1.35]	0.36	0.28
cat	rs2143950	I2	10775	11	1.02	[0.94-1.10]	0.68	1.02	[0.94-1.10]	0.68	0.61
cat	rs2143950	I3	3867	11	1.14	[1.01-1.29]	3.70E-02	1.12	[0.97-1.31]	0.13	0.37
cat	rs2143950	S1	12861	11	1.13	[0.97-1.33]	0.12	1.07	[0.84-1.44]	0.57	0.10
cat	rs2143950	S2	13033	11	1.12	[0.95-1.31]	0.18	1.10	[0.89-1.37]	0.38	0.22
cat	rs2143950	S3	11280	11	1.13	[0.95-1.34]	0.17	1.10	[0.84-1.47]	0.48	0.08
cat	rs2164983	I1	12038	7	1.00	[0.84-1.18]	0.97	1.00	[0.84-1.18]	0.97	0.74
cat	rs2164983	I2	8805	7	1.13	[1.04-1.23]	5.30E-03	1.11	[1.00-1.26]	5.60E-02	0.21
cat	rs2164983	I3	3233	7	1.15	[1.00-1.32]	4.50E-02	1.15	[1.00-1.32]	4.50E-02	0.67
cat	rs2164983	S1	11324	7	0.99	[0.83-1.17]	0.89	0.99	[0.83-1.17]	0.89	0.57
cat	rs2164983	S2	11385	7	1.00	[0.84-1.19]	1	1.00	[0.84-1.19]	1	0.75
cat	rs2164983	S3	10699	7	0.99	[0.82-1.18]	0.89	0.99	[0.82-1.18]	0.89	0.62
cat	rs2227483	I1	14644	11	1.13	[1.01-1.27]	3.70E-02	1.15	[0.94-1.39]	0.18	0.01
cat	rs2227483	I2	10775	11	1.03	[0.97-1.09]	0.4	1.02	[0.94-1.11]	0.67	0.05
cat	rs2227483	I3	3869	11	1.15	[1.04-1.27]	7.40E-03	1.15	[0.97-1.36]	9.90E-02	0.03
cat	rs2227483	S1	12863	11	1.11	[0.98-1.25]	0.11	1.08	[0.86-1.38]	0.51	0.01
cat	rs2227483	S2	13035	11	1.12	[0.99-1.27]	7.00E-02	1.07	[0.87-1.38]	0.51	0.03
cat	rs2227483	S3	11282	11	1.08	[0.95-1.24]	0.23	0.99	[0.79-1.35]	0.91	0.04
cat	rs2228145	I1	12994	9	1.14	[1.01-1.29]	3.70E-02	1.14	[1.01-1.29]	3.70E-02	0.61
cat	rs2228145	I2	9572	9	1.00	[0.94-1.06]	0.99	1.00	[0.94-1.06]	0.99	0.51
cat	rs2228145	I3	3422	9	1.15	[1.04-1.27]	8.80E-03	1.15	[1.04-1.27]	8.80E-03	0.62
cat	rs2228145	S1	12280	9	1.14	[1.00-1.29]	4.80E-02	1.14	[1.00-1.29]	4.80E-02	0.72
cat	rs2228145	S2	11385	9	1.10	[0.96-1.25]	0.16	1.10	[0.96-1.25]	0.16	0.89
cat	rs2228145	S3	10699	9	1.11	[0.97-1.27]	0.14	1.11	[0.97-1.27]	0.14	0.90
cat	rs2897442	I1	12702	9	0.87	[0.75-1.00]	4.40E-02	0.88	[0.75-1.01]	0.11	0.35
cat	rs2897442	I2	9501	9	1.13	[1.06-1.21]	3.90E-04	1.13	[1.01-1.26]	2.60E-02	0.02
cat	rs2897442	I3	3201	9	1.01	[0.90-1.14]	0.86	1.02	[0.89-1.15]	0.77	0.39
cat	rs2897442	S1	10918	9	0.84	[0.72-0.97]	0.02	0.84	[0.71-0.99]	4.40E-02	0.37
cat	rs2897442	S2	11093	9	0.91	[0.78-1.06]	0.23	0.91	[0.78-1.06]	0.23	0.53
cat	rs2897442	S3	9337	9	0.88	[0.75-1.04]	0.13	0.88	[0.75-1.04]	0.13	0.56
cat	rs479844	I1	12703	9	0.98	[0.86-1.11]	0.74	0.98	[0.86-1.11]	0.74	0.54
cat	rs479844	I2	9502	9	1.14	[1.07-1.21]	3.50E-05	1.14	[1.06-1.22]	2.60E-04	0.32
cat	rs479844	I3	3201	9	1.12	[1.01-1.25]	3.70E-02	1.12	[1.01-1.25]	3.70E-02	0.67
cat	rs479844	S1	10918	9	1.03	[0.90-1.18]	0.65	1.03	[0.90-1.18]	0.65	0.69
cat	rs479844	S2	11094	9	0.95	[0.83-1.09]	0.45	0.95	[0.83-1.09]	0.45	0.76
cat	rs479844	S3	9337	9	0.99	[0.86-1.15]	0.92	0.99	[0.86-1.15]	0.92	0.91
cat	rs6010620	I1	14065	10	1.06	[0.92-1.21]	0.43	1.05	[0.87-1.28]	0.63	0.16
cat	rs6010620	I2	10392	10	1.09	[1.02-1.17]	1.70E-02	1.09	[1.02-1.17]	1.70E-02	0.78
cat	rs6010620	I3	3673	10	1.13	[1.01-1.27]	3.20E-02	1.13	[0.96-1.33]	0.13	0.19
cat	rs6010620	S1	12280	10	1.09	[0.94-1.26]	0.24	1.10	[0.89-1.34]	0.39	0.15
cat	rs6010620	S2	12456	10	1.03	[0.89-1.19]	0.69	1.03	[0.82-1.30]	0.8	0.06
cat	rs6010620	S3	10699	10	1.07	[0.91-1.25]	0.41	1.10	[0.84-1.39]	0.49	0.05
cat	rs6473227	I1	14655	11	0.96	[0.85-1.08]	0.47	0.93	[0.79-1.13]	0.39	0.15
cat	rs6473227	I2	10785	11	1.08	[1.02-1.14]	0.01	1.08	[1.02-1.14]	0.01	0.52
cat	rs6473227	I3	3870	11	1.04	[0.94-1.15]	0.47	1.01	[0.89-1.17]	0.9	0.26
cat	rs6473227	S1	12870	11	0.95	[0.84-1.08]	0.46	0.92	[0.76-1.15]	0.37	0.09
cat	rs6473227	S2	13046	11	0.92	[0.82-1.05]	0.22	0.91	[0.76-1.11]	0.28	0.11
cat	rs6473227	S3	11289	11	0.92	[0.81-1.05]	0.22	0.90	[0.73-1.13]	0.3	0.08
cat	rs7127307	I1	14654	11	0.92	[0.82-1.03]	0.15	0.92	[0.82-1.03]	0.15	0.97
cat	rs7127307	I2	10785	11	1.08	[1.01-1.14]	1.70E-02	1.08	[1.01-1.14]	1.70E-02	0.62
cat	rs7127307	I3	3869	11	0.98	[0.88-1.08]	0.63	0.98	[0.88-1.08]	0.63	1.00
cat	rs7127307	S1	12869	11	0.91	[0.80-1.03]	0.13	0.91	[0.80-1.03]	0.13	0.93
cat	rs7127307	S2	13045	11	0.95	[0.84-1.08]	0.45	0.95	[0.84-1.08]	0.45	0.98
cat	rs7127307	S3	11288	11	0.94	[0.83-1.08]	0.4	0.94	[0.83-1.08]	0.4	0.90
cat	rs7146581	I1	14647	11	0.99	[0.86-1.13]	0.87	0.99	[0.86-1.13]	0.87	0.52
cat	rs7146581	I2	10780	11	1.03	[0.97-1.11]	0.35	1.03	[0.97-1.11]	0.35	0.72
cat	rs7146581	I3	3867	11	1.02	[0.90-1.14]	0.78	1.01	[0.87-1.18]	0.87	0.25

cat	rs7146581	S1	12864	11	0.98	[0.84-1.13]	0.75	0.98	[0.84-1.13]	0.75	0.66
cat	rs7146581	S2	13038	11	0.93	[0.81-1.08]	0.37	0.93	[0.81-1.08]	0.37	0.44
cat	rs7146581	S3	11283	11	0.93	[0.79-1.08]	0.33	0.93	[0.79-1.08]	0.33	0.47
cat	rs7927894	I1	14026	10	1.08	[0.96-1.22]	0.19	1.08	[0.96-1.22]	0.19	0.48
cat	rs7927894	I2	10355	10	0.99	[0.93-1.05]	0.76	0.98	[0.92-1.06]	0.62	0.33
cat	rs7927894	I3	3671	10	1.07	[0.96-1.18]	0.22	1.07	[0.96-1.18]	0.22	0.65
cat	rs7927894	S1	12280	10	1.04	[0.91-1.18]	0.56	1.04	[0.91-1.18]	0.56	0.84
cat	rs7927894	S2	12417	10	1.08	[0.95-1.23]	0.24	1.09	[0.95-1.24]	0.24	0.37
cat	rs7927894	S3	10699	10	1.03	[0.90-1.18]	0.7	1.03	[0.90-1.18]	0.7	0.85
cat		M1	18041	12	0.96	[0.89-1.03]	0.23	0.96	[0.89-1.03]	0.23	0.52
cat		M2	16222	12	0.96	[0.89-1.04]	0.33	0.95	[0.87-1.05]	0.26	0.33
cat		M3	16170	12	0.97	[0.90-1.05]	0.46	0.97	[0.90-1.05]	0.46	0.87
cat		M4	14394	12	0.98	[0.90-1.06]	0.57	0.98	[0.90-1.06]	0.57	0.84
dog	flg	I1	16044	12	0.94	[0.72-1.24]	0.67	0.84	[0.58-1.38]	0.38	0.16
dog	flg	I2	12889	12	1.93	[1.71-2.19]	3.10E-26	2.00	[1.66-2.33]	1.80E-13	0.05
dog	flg	I3	3155	12	1.74	[1.38-2.21]	4.50E-06	1.66	[1.24-2.32]	5.60E-04	0.31
dog	flg	S1	14489	12	1.03	[0.77-1.38]	0.83	0.94	[0.61-1.59]	0.76	0.14
dog	flg	S2	14221	12	0.97	[0.72-1.32]	0.87	0.85	[0.54-1.54]	0.49	0.09
dog	flg	S3	12709	12	1.12	[0.81-1.55]	0.49	1.00	[0.58-1.92]	1	0.07
dog	rs10214237	I1	14656	11	0.83	[0.72-0.96]	1.10E-02	0.82	[0.70-0.97]	1.40E-02	0.37
dog	rs10214237	I2	11778	11	1.14	[1.08-1.22]	1.50E-05	1.14	[1.08-1.22]	1.50E-05	0.86
dog	rs10214237	I3	2878	11	0.98	[0.86-1.11]	0.71	0.95	[0.80-1.15]	0.51	0.23
dog	rs10214237	S1	12874	11	0.83	[0.71-0.97]	2.10E-02	0.83	[0.71-0.97]	2.10E-02	0.64
dog	rs10214237	S2	13046	11	0.83	[0.71-0.97]	2.30E-02	0.83	[0.70-0.98]	2.60E-02	0.39
dog	rs10214237	S3	11292	11	0.85	[0.71-1.00]	5.20E-02	0.85	[0.71-1.00]	5.20E-02	0.63
dog	rs1057258	I1	14640	11	1.10	[0.93-1.31]	0.27	1.10	[0.92-1.32]	0.31	0.38
dog	rs1057258	I2	11762	11	1.03	[0.96-1.11]	0.38	1.03	[0.96-1.11]	0.38	0.95
dog	rs1057258	I3	2878	11	1.14	[0.98-1.33]	8.30E-02	1.14	[0.98-1.33]	8.30E-02	0.49
dog	rs1057258	S1	12875	11	1.09	[0.91-1.31]	0.34	1.09	[0.91-1.31]	0.34	0.46
dog	rs1057258	S2	13030	11	1.10	[0.91-1.32]	0.31	1.11	[0.89-1.37]	0.35	0.27
dog	rs1057258	S3	11293	11	1.09	[0.89-1.32]	0.41	1.10	[0.87-1.38]	0.44	0.27
dog	rs10995251	I1	14065	10	0.89	[0.78-1.02]	9.80E-02	0.89	[0.78-1.02]	9.80E-02	0.90
dog	rs10995251	I2	11354	10	1.05	[0.99-1.11]	7.90E-02	1.06	[0.97-1.14]	0.18	0.07
dog	rs10995251	I3	2711	10	0.96	[0.85-1.09]	0.54	0.97	[0.85-1.10]	0.62	0.37
dog	rs10995251	S1	12285	10	0.89	[0.77-1.03]	0.12	0.89	[0.77-1.03]	0.12	0.77
dog	rs10995251	S2	12455	10	0.88	[0.76-1.02]	8.70E-02	0.88	[0.76-1.02]	8.70E-02	0.93
dog	rs10995251	S3	10703	10	0.88	[0.75-1.03]	0.12	0.88	[0.75-1.03]	0.12	0.84
dog	rs112111458	I1	12610	8	0.94	[0.77-1.14]	0.51	0.94	[0.77-1.14]	0.51	0.51
dog	rs112111458	I2	10192	8	1.02	[0.94-1.11]	0.66	1.06	[0.93-1.17]	0.39	0.02
dog	rs112111458	I3	2418	8	0.96	[0.81-1.14]	0.61	0.96	[0.81-1.14]	0.61	0.78
dog	rs112111458	S1	11916	8	0.96	[0.79-1.18]	0.72	0.96	[0.79-1.18]	0.72	0.56
dog	rs112111458	S2	11957	8	0.93	[0.76-1.14]	0.51	0.93	[0.76-1.14]	0.51	0.56
dog	rs112111458	S3	11291	8	0.96	[0.77-1.18]	0.67	0.96	[0.77-1.18]	0.67	0.60
dog	rs11657987	I1	14623	11	0.91	[0.80-1.04]	0.15	0.90	[0.76-1.07]	0.21	0.22
dog	rs11657987	I2	11750	11	1.06	[1.00-1.12]	3.40E-02	1.06	[0.99-1.14]	0.12	0.15
dog	rs11657987	I3	2873	11	0.99	[0.88-1.11]	0.87	0.99	[0.83-1.19]	0.91	0.06
dog	rs11657987	S1	12871	11	0.94	[0.81-1.08]	0.36	0.94	[0.78-1.12]	0.5	0.22
dog	rs11657987	S2	13013	11	0.90	[0.78-1.04]	0.15	0.89	[0.76-1.05]	0.14	0.34
dog	rs11657987	S3	11289	11	0.93	[0.80-1.09]	0.37	0.93	[0.79-1.10]	0.37	0.37
dog	rs12153855	I1	12042	7	0.92	[0.72-1.18]	0.53	0.92	[0.72-1.18]	0.53	0.50
dog	rs12153855	I2	9788	7	1.13	[1.03-1.25]	1.30E-02	1.13	[1.03-1.25]	1.30E-02	0.59
dog	rs12153855	I3	2254	7	1.07	[0.87-1.33]	0.52	1.07	[0.87-1.33]	0.52	0.77
dog	rs12153855	S1	11328	7	0.92	[0.71-1.19]	0.52	0.93	[0.69-1.25]	0.66	0.31
dog	rs12153855	S2	11389	7	0.89	[0.69-1.15]	0.39	0.89	[0.69-1.15]	0.39	0.44
dog	rs12153855	S3	10703	7	0.89	[0.68-1.17]	0.4	0.90	[0.65-1.23]	0.54	0.29
dog	rs12295535	I1	14660	11	1.31	[0.87-1.97]	0.19	1.31	[0.87-1.97]	0.19	0.92
dog	rs12295535	I2	11780	11	1.09	[0.93-1.29]	0.29	1.09	[0.90-1.32]	0.4	0.29
dog	rs12295535	I3	2880	11	1.43	[1.01-2.04]	4.50E-02	1.43	[1.01-2.04]	4.50E-02	0.87
dog	rs12295535	S1	12875	11	1.16	[0.73-1.82]	0.53	1.16	[0.73-1.82]	0.53	0.91
dog	rs12295535	S2	13050	11	1.25	[0.81-1.93]	0.31	1.25	[0.81-1.93]	0.31	0.70
dog	rs12295535	S3	11293	11	1.06	[0.66-1.71]	0.8	1.06	[0.66-1.71]	0.8	0.82
dog	rs13015714	I1	14068	10	1.00	[0.85-1.16]	0.95	1.06	[0.85-1.23]	0.6	0.15
dog	rs13015714	I2	11357	10	1.12	[1.05-1.20]	5.40E-04	1.12	[1.05-1.20]	5.40E-04	0.91
dog	rs13015714	I3	2711	10	1.15	[1.00-1.32]	5.50E-02	1.22	[0.98-1.43]	7.50E-02	0.06
dog	rs13015714	S1	12283	10	0.96	[0.81-1.13]	0.61	0.96	[0.81-1.13]	0.61	0.45
dog	rs13015714	S2	12458	10	1.06	[0.89-1.25]	0.51	1.12	[0.88-1.35]	0.37	0.12
dog	rs13015714	S3	10701	10	1.01	[0.84-1.22]	0.88	1.02	[0.83-1.25]	0.83	0.32
dog	rs16948048	I1	14068	10	1.09	[0.95-1.25]	0.2	1.09	[0.95-1.25]	0.2	0.69
dog	rs16948048	I2	11358	10	1.01	[0.96-1.07]	0.64	1.01	[0.96-1.07]	0.64	0.60
dog	rs16948048	I3	2710	10	1.10	[0.97-1.24]	0.13	1.10	[0.97-1.24]	0.13	0.77
dog	rs16948048	S1	12285	10	1.08	[0.93-1.25]	0.3	1.08	[0.93-1.25]	0.3	0.53
dog	rs16948048	S2	12458	10	1.13	[0.97-1.31]	0.11	1.13	[0.97-1.31]	0.11	0.87
dog	rs16948048	S3	10703	10	1.12	[0.95-1.31]	0.18	1.12	[0.95-1.31]	0.18	0.75
dog	rs17389644	I1	14058	10	0.92	[0.78-1.08]	0.29	0.92	[0.78-1.08]	0.29	0.93
dog	rs17389644	I2	11350	10	1.06	[0.99-1.13]	7.90E-02	1.03	[0.94-1.16]	0.56	0.09
dog	rs17389644	I3	2708	10	0.97	[0.84-1.12]	0.7	0.97	[0.84-1.12]	0.7	0.78
dog	rs17389644	S1	12285	10	0.89	[0.75-1.06]	0.2	0.89	[0.75-1.06]	0.2	0.98
dog	rs17389644	S2	12448	10	0.91	[0.77-1.08]	0.28	0.91	[0.77-1.08]	0.28	0.95
dog	rs17389644	S3	10703	10	0.89	[0.73-1.07]	0.21	0.89	[0.73-1.07]	0.21	0.98
dog	rs17881320	I1	14640	11	0.84	[0.66-1.08]	0.17	0.83	[0.62-1.13]	0.19	0.30
dog	rs17881320	I2	11762	11	1.15	[1.05-1.27]	4.20E-03	1.15	[1.01-1.32]	3.90E-02	0.11
dog	rs17881320	I3	2878	11	1.02	[0.82-1.26]	0.87	1.00	[0.78-1.31]	0.98	0.32
dog	rs17881320	S1	12873	11	0.81	[0.62-1.05]	0.12	0.77	[0.55-1.15]	0.15	0.23
dog	rs17881320	S2	13030	11	0.76	[0.58-1.00]	0.05	0.72	[0.49-1.11]	8.90E-02	0.14
dog	rs17881320	S3	11291	11	0.69	[0.51-0.94]	1.70E-02	0.67	[0.47-0.99]	2.50E-02	0.31
dog	rs2041733	I1	14069	10	1.04	[0.91-1.19]	0.52	1.05	[0.91-1.21]	0.53	0.36
dog	rs2041733	I2	11359	10	1.03	[0.98-1.09]	0.28	1.03	[0.97-1.09]	0.31	0.37
dog	rs2041733	I3	2710	10	1.07	[0.95-1.20]	0.29	1.07	[0.95-1.20]	0.29	0.77
dog	rs2041733	S1	12284	10	1.07	[0.93-1.24]	0.33	1.09	[0.91-1.28]	0.34	0.26
dog	rs2041733	S2	12459	10	1.05	[0.91-1.22]	0.47	1.05	[0.90-1.23]	0.51	0.39
dog	rs2041733	S3	10702	10	1.09	[0.93-1.27]	0.3	1.08	[0.90-1.30]	0.4	0.32

dog	rs2143950	I1	14647	11	0.98	[0.83-1.16]	0.83	1.02	[0.82-1.22]	0.85	0.21
dog	rs2143950	I2	11769	11	1.06	[0.98-1.14]	0.13	1.06	[0.98-1.14]	0.13	0.47
dog	rs2143950	I3	2878	11	1.03	[0.88-1.19]	0.74	1.03	[0.87-1.21]	0.72	0.37
dog	rs2143950	S1	12866	11	0.91	[0.76-1.10]	0.33	0.95	[0.75-1.16]	0.67	0.21
dog	rs2143950	S2	13037	11	0.96	[0.79-1.15]	0.64	0.99	[0.78-1.22]	0.95	0.17
dog	rs2143950	S3	11284	11	0.87	[0.71-1.06]	0.17	0.88	[0.70-1.10]	0.28	0.30
dog	rs2164983	I1	12042	7	0.93	[0.76-1.13]	0.46	0.98	[0.76-1.20]	0.89	0.24
dog	rs2164983	I2	9788	7	1.15	[1.06-1.24]	9.50E-04	1.12	[0.98-1.30]	8.70E-02	0.05
dog	rs2164983	I3	2254	7	1.11	[0.93-1.33]	0.25	1.11	[0.93-1.33]	0.25	0.63
dog	rs2164983	S1	11328	7	0.95	[0.77-1.17]	0.65	1.03	[0.77-1.28]	0.85	0.19
dog	rs2164983	S2	11389	7	0.96	[0.78-1.18]	0.7	1.01	[0.77-1.26]	0.93	0.22
dog	rs2164983	S3	10703	7	0.99	[0.79-1.23]	0.91	1.05	[0.78-1.34]	0.73	0.18
dog	rs2227483	I1	14649	11	1.01	[0.89-1.16]	0.84	1.01	[0.89-1.16]	0.84	0.97
dog	rs2227483	I2	11772	11	1.05	[1.00-1.11]	6.90E-02	1.05	[0.99-1.12]	8.90E-02	0.39
dog	rs2227483	I3	2877	11	1.07	[0.95-1.21]	0.23	1.07	[0.95-1.21]	0.23	0.67
dog	rs2227483	S1	12868	11	1.00	[0.86-1.15]	0.96	1.00	[0.86-1.15]	0.96	0.92
dog	rs2227483	S2	13039	11	1.00	[0.87-1.16]	0.96	1.00	[0.87-1.16]	0.96	0.91
dog	rs2227483	S3	11286	11	0.99	[0.85-1.16]	0.94	0.99	[0.85-1.16]	0.94	0.79
dog	rs2228145	I1	12999	9	1.01	[0.88-1.16]	0.88	0.97	[0.82-1.20]	0.72	0.30
dog	rs2228145	I2	10566	9	1.03	[0.97-1.09]	0.29	1.04	[0.97-1.11]	0.26	0.16
dog	rs2228145	I3	2433	9	1.06	[0.94-1.20]	0.35	1.06	[0.94-1.20]	0.35	0.68
dog	rs2228145	S1	12285	9	1.00	[0.86-1.16]	1	0.91	[0.73-1.25]	0.42	0.10
dog	rs2228145	S2	11389	9	0.98	[0.84-1.15]	0.83	0.95	[0.79-1.18]	0.55	0.29
dog	rs2228145	S3	10703	9	0.98	[0.83-1.15]	0.76	0.90	[0.71-1.24]	0.38	0.13
dog	rs2897442	I1	12707	9	0.94	[0.80-1.11]	0.47	0.94	[0.80-1.11]	0.47	0.59
dog	rs2897442	I2	10485	9	1.11	[1.04-1.18]	2.10E-03	1.12	[1.01-1.22]	2.60E-02	0.05
dog	rs2897442	I3	2222	9	1.07	[0.92-1.24]	0.39	1.07	[0.92-1.24]	0.39	0.65
dog	rs2897442	S1	10923	9	0.95	[0.79-1.13]	0.55	0.94	[0.76-1.16]	0.52	0.36
dog	rs2897442	S2	11097	9	0.96	[0.80-1.15]	0.67	0.96	[0.80-1.15]	0.67	0.80
dog	rs2897442	S3	9341	9	0.97	[0.80-1.19]	0.8	0.97	[0.80-1.19]	0.8	0.56
dog	rs479844	I1	12708	9	1.01	[0.87-1.17]	0.86	1.01	[0.87-1.17]	0.86	0.94
dog	rs479844	I2	10486	9	1.13	[1.07-1.20]	2.80E-05	1.13	[1.06-1.20]	7.50E-05	0.39
dog	rs479844	I3	2222	9	1.15	[1.01-1.32]	3.60E-02	1.15	[1.01-1.32]	3.60E-02	0.91
dog	rs479844	S1	10923	9	1.04	[0.89-1.22]	0.64	1.04	[0.89-1.22]	0.64	0.81
dog	rs479844	S2	11098	9	1.02	[0.87-1.20]	0.82	1.02	[0.87-1.20]	0.82	0.91
dog	rs479844	S3	9341	9	1.05	[0.88-1.26]	0.61	1.05	[0.88-1.26]	0.61	0.79
dog	rs6010620	I1	14070	10	0.97	[0.83-1.14]	0.72	1.00	[0.79-1.22]	0.98	0.10
dog	rs6010620	I2	11359	10	1.11	[1.04-1.19]	1.90E-03	1.11	[1.04-1.19]	1.90E-03	0.52
dog	rs6010620	I3	2711	10	1.07	[0.93-1.23]	0.32	1.09	[0.90-1.29]	0.39	0.18
dog	rs6010620	S1	12285	10	1.02	[0.86-1.21]	0.82	1.10	[0.85-1.32]	0.48	0.11
dog	rs6010620	S2	12460	10	0.94	[0.79-1.11]	0.45	0.94	[0.74-1.19]	0.61	0.14
dog	rs6010620	S3	10703	10	0.97	[0.81-1.17]	0.77	1.01	[0.77-1.29]	0.93	0.11
dog	rs6473227	I1	14660	11	1.06	[0.93-1.21]	0.41	1.06	[0.93-1.21]	0.41	0.95
dog	rs6473227	I2	11780	11	1.06	[1.00-1.12]	4.60E-02	1.06	[1.00-1.12]	4.60E-02	0.77
dog	rs6473227	I3	2880	11	1.12	[0.99-1.25]	6.70E-02	1.12	[0.99-1.25]	6.70E-02	0.96
dog	rs6473227	S1	12875	11	1.06	[0.92-1.21]	0.45	1.06	[0.92-1.21]	0.45	0.94
dog	rs6473227	S2	13050	11	1.06	[0.92-1.22]	0.41	1.06	[0.92-1.22]	0.41	0.85
dog	rs6473227	S3	11293	11	1.07	[0.92-1.25]	0.38	1.07	[0.92-1.25]	0.38	0.78
dog	rs7127307	I1	14659	11	0.96	[0.84-1.09]	0.53	0.98	[0.84-1.13]	0.83	0.27
dog	rs7127307	I2	11780	11	1.05	[0.99-1.11]	7.90E-02	1.05	[0.99-1.12]	0.13	0.37
dog	rs7127307	I3	2879	11	1.00	[0.89-1.13]	0.97	1.00	[0.89-1.13]	0.97	0.49
dog	rs7127307	S1	12874	11	0.94	[0.82-1.09]	0.43	0.97	[0.79-1.16]	0.75	0.13
dog	rs7127307	S2	13049	11	0.97	[0.84-1.12]	0.66	1.01	[0.83-1.18]	0.91	0.15
dog	rs7127307	S3	11292	11	0.96	[0.82-1.12]	0.57	0.99	[0.78-1.22]	0.97	0.08
dog	rs7146581	I1	14652	11	1.12	[0.96-1.31]	0.15	1.12	[0.96-1.31]	0.15	0.89
dog	rs7146581	I2	11773	11	1.01	[0.95-1.08]	0.79	1.00	[0.93-1.09]	0.92	0.23
dog	rs7146581	I3	2879	11	1.14	[0.99-1.31]	6.30E-02	1.14	[0.99-1.31]	6.30E-02	0.98
dog	rs7146581	S1	12869	11	1.11	[0.94-1.31]	0.22	1.11	[0.94-1.31]	0.22	0.83
dog	rs7146581	S2	13042	11	1.15	[0.97-1.36]	0.11	1.15	[0.97-1.36]	0.11	0.85
dog	rs7146581	S3	11287	11	1.14	[0.95-1.37]	0.16	1.14	[0.95-1.37]	0.16	0.81
dog	rs7927894	I1	14031	10	0.93	[0.81-1.07]	0.31	0.93	[0.81-1.07]	0.31	0.88
dog	rs7927894	I2	11324	10	1.02	[0.96-1.08]	0.48	1.02	[0.96-1.08]	0.52	0.42
dog	rs7927894	I3	2707	10	0.96	[0.85-1.08]	0.5	0.96	[0.85-1.08]	0.5	0.98
dog	rs7927894	S1	12285	10	0.92	[0.80-1.07]	0.29	0.92	[0.80-1.07]	0.29	0.72
dog	rs7927894	S2	12421	10	0.92	[0.79-1.07]	0.27	0.92	[0.79-1.07]	0.27	0.79
dog	rs7927894	S3	10703	10	0.92	[0.78-1.08]	0.29	0.92	[0.78-1.08]	0.29	0.58
dog	dura_brfed	M1	18045	12	0.91	[0.84-0.99]	0.03	0.91	[0.84-0.99]	0.03	0.68
dog		M2	16226	12	0.91	[0.83-0.99]	3.20E-02	0.91	[0.82-1.00]	6.60E-02	0.34
dog		M3	16174	12	0.93	[0.85-1.02]	0.13	0.93	[0.85-1.02]	0.13	0.86
dog		M4	14398	12	0.93	[0.85-1.02]	0.13	0.93	[0.85-1.02]	0.13	0.51
dura_brfed	flg	I1	13468	9	0.99	[0.96-1.03]	0.74	0.99	[0.96-1.03]	0.74	0.56
dura_brfed	flg	S1	12828	9	0.99	[0.95-1.02]	0.47	0.99	[0.95-1.02]	0.47	0.86
dura_brfed	flg	S2	12763	9	0.99	[0.96-1.03]	0.59	0.99	[0.96-1.03]	0.59	0.51
dura_brfed	flg	S3	12147	9	0.98	[0.95-1.02]	0.35	0.98	[0.95-1.02]	0.35	0.85
dura_brfed	rs10214237	I1	15019	10	1.00	[0.99-1.02]	0.57	1.01	[0.99-1.02]	0.55	0.36
dura_brfed	rs10214237	S1	13437	10	1.00	[0.98-1.02]	0.84	1.00	[0.98-1.02]	0.84	0.55
dura_brfed	rs10214237	S2	12260	10	1.00	[0.99-1.02]	0.76	1.00	[0.99-1.02]	0.7	0.34
dura_brfed	rs10214237	S3	10694	10	1.00	[0.98-1.02]	0.97	1.00	[0.98-1.02]	0.97	0.52
dura_brfed	rs1057258	I1	15003	10	1.01	[0.99-1.03]	0.2	1.01	[0.99-1.03]	0.2	0.53
dura_brfed	rs1057258	S1	13438	10	1.02	[1.00-1.04]	0.12	1.02	[1.00-1.04]	0.12	0.43
dura_brfed	rs1057258	S2	12244	10	1.01	[0.99-1.03]	0.16	1.01	[0.99-1.03]	0.16	0.45
dura_brfed	rs1057258	S3	10695	10	1.02	[1.00-1.04]	9.20E-02	1.02	[1.00-1.04]	0.11	0.34
dura_brfed	rs10995251	I1	14471	9	1.01	[0.99-1.03]	0.22	1.01	[0.99-1.03]	0.24	0.30
dura_brfed	rs10995251	S1	12891	9	1.01	[0.99-1.02]	0.5	1.01	[0.99-1.02]	0.5	0.40
dura_brfed	rs10995251	S2	11712	9	1.01	[0.99-1.02]	0.31	1.01	[0.99-1.03]	0.34	0.24
dura_brfed	rs10995251	S3	10148	9	1.00	[0.99-1.02]	0.63	1.00	[0.99-1.02]	0.64	0.27
dura_brfed	rs112111458	I1	14111	9	1.01	[0.99-1.03]	0.44	1.00	[0.98-1.04]	0.74	0.12
dura_brfed	rs112111458	S1	13436	9	1.01	[0.99-1.03]	0.4	1.01	[0.97-1.04]	0.69	0.11
dura_brfed	rs112111458	S2	11352	9	1.01	[0.99-1.03]	0.42	1.01	[0.98-1.03]	0.64	0.24
dura_brfed	rs112111458	S3	10693	9	1.01	[0.99-1.03]	0.33	1.01	[0.98-1.04]	0.53	0.25
dura_brfed	rs11657987	I1	14984	10	1.00	[0.99-1.02]	0.77	1.00	[0.99-1.02]	0.75	0.37

dura_brfed	rs11657987	S1	13434	10	1.00	[0.98-1.01]	0.58	1.00	[0.98-1.01]	0.58	0.69
dura_brfed	rs11657987	S2	12225	10	1.00	[0.98-1.01]	0.89	1.00	[0.98-1.02]	0.99	0.20
dura_brfed	rs11657987	S3	10691	10	0.99	[0.98-1.01]	0.38	0.99	[0.98-1.01]	0.38	0.43
dura_brfed	rs12153855	I1	13585	8	0.98	[0.96-1.01]	0.21	0.99	[0.96-1.01]	0.42	0.24
dura_brfed	rs12153855	S1	12891	8	0.98	[0.95-1.00]	0.1	0.98	[0.95-1.01]	0.3	0.18
dura_brfed	rs12153855	S2	10826	8	0.99	[0.96-1.01]	0.28	0.99	[0.96-1.01]	0.43	0.32
dura_brfed	rs12153855	S3	10148	8	0.98	[0.95-1.01]	0.14	0.98	[0.95-1.01]	0.35	0.22
dura_brfed	rs12295535	I1	15023	10	1.00	[0.95-1.05]	0.97	1.00	[0.95-1.05]	0.97	0.76
dura_brfed	rs12295535	S1	13438	10	1.01	[0.95-1.06]	0.78	1.01	[0.95-1.06]	0.78	0.56
dura_brfed	rs12295535	S2	12264	10	0.99	[0.94-1.05]	0.84	0.99	[0.94-1.05]	0.84	0.53
dura_brfed	rs12295535	S3	10695	10	1.01	[0.95-1.06]	0.82	1.01	[0.95-1.06]	0.82	0.50
dura_brfed	rs13015714	I1	14474	9	1.02	[1.00-1.03]	4.90E-02	1.02	[1.00-1.04]	6.80E-02	0.32
dura_brfed	rs13015714	S1	12889	9	1.01	[0.99-1.03]	0.17	1.02	[0.99-1.05]	0.26	0.03
dura_brfed	rs13015714	S2	11715	9	1.02	[1.00-1.04]	0.05	1.02	[1.00-1.04]	7.10E-02	0.26
dura_brfed	rs13015714	S3	10146	9	1.01	[0.99-1.03]	0.16	1.02	[0.99-1.05]	0.23	0.02
dura_brfed	rs16948048	I1	14474	9	1.00	[0.98-1.01]	0.86	1.00	[0.98-1.01]	0.86	0.49
dura_brfed	rs16948048	S1	12891	9	1.00	[0.98-1.02]	0.98	1.00	[0.98-1.02]	0.89	0.28
dura_brfed	rs16948048	S2	11715	9	1.00	[0.98-1.01]	0.88	1.00	[0.98-1.01]	0.86	0.39
dura_brfed	rs16948048	S3	10148	9	1.00	[0.98-1.02]	0.93	1.00	[0.98-1.02]	0.83	0.21
dura_brfed	rs17389644	I1	14463	9	1.01	[0.99-1.02]	0.58	1.01	[0.99-1.02]	0.58	0.68
dura_brfed	rs17389644	S1	12891	9	1.00	[0.98-1.02]	0.84	1.00	[0.98-1.02]	0.84	0.56
dura_brfed	rs17389644	S2	11704	9	1.01	[0.99-1.02]	0.59	1.01	[0.99-1.02]	0.59	0.84
dura_brfed	rs17389644	S3	10148	9	1.00	[0.98-1.02]	0.97	1.00	[0.98-1.02]	0.97	0.75
dura_brfed	rs17881320	I1	15004	10	1.01	[0.98-1.04]	0.4	1.01	[0.98-1.04]	0.46	0.31
dura_brfed	rs17881320	S1	13436	10	1.01	[0.98-1.04]	0.71	1.01	[0.98-1.04]	0.71	0.52
dura_brfed	rs17881320	S2	12245	10	1.02	[0.99-1.05]	0.2	1.02	[0.99-1.05]	0.26	0.27
dura_brfed	rs17881320	S3	10693	10	1.01	[0.98-1.04]	0.47	1.01	[0.98-1.04]	0.47	0.52
dura_brfed	rs2041733	I1	14475	9	0.99	[0.98-1.01]	0.38	0.99	[0.98-1.01]	0.45	0.32
dura_brfed	rs2041733	S1	12890	9	0.99	[0.97-1.00]	0.12	0.99	[0.97-1.00]	0.12	0.74
dura_brfed	rs2041733	S2	11716	9	0.99	[0.98-1.01]	0.46	0.99	[0.98-1.01]	0.52	0.35
dura_brfed	rs2041733	S3	10147	9	0.99	[0.97-1.00]	0.18	0.99	[0.97-1.00]	0.18	0.73
dura_brfed	rs2143950	I1	15010	10	1.01	[0.99-1.03]	0.29	1.01	[0.99-1.03]	0.29	0.97
dura_brfed	rs2143950	S1	13429	10	1.01	[0.99-1.03]	0.31	1.01	[0.99-1.03]	0.31	0.92
dura_brfed	rs2143950	S2	12251	10	1.01	[0.99-1.03]	0.39	1.01	[0.99-1.03]	0.39	0.98
dura_brfed	rs2143950	S3	10686	10	1.01	[0.99-1.03]	0.53	1.01	[0.99-1.03]	0.53	0.98
dura_brfed	rs2164983	I1	13585	8	1.00	[0.98-1.02]	0.96	1.00	[0.98-1.02]	0.96	0.93
dura_brfed	rs2164983	S1	12891	8	1.00	[0.98-1.02]	0.92	1.00	[0.98-1.02]	0.92	0.97
dura_brfed	rs2164983	S2	10826	8	1.00	[0.98-1.02]	0.9	1.00	[0.98-1.02]	0.9	0.91
dura_brfed	rs2164983	S3	10148	8	1.00	[0.98-1.03]	0.91	1.00	[0.98-1.03]	0.91	0.99
dura_brfed	rs2227483	I1	15012	10	0.99	[0.97-1.00]	0.13	0.99	[0.97-1.00]	0.13	0.94
dura_brfed	rs2227483	S1	13431	10	0.99	[0.98-1.01]	0.35	0.99	[0.98-1.01]	0.35	0.87
dura_brfed	rs2227483	S2	12253	10	0.99	[0.98-1.01]	0.2	0.99	[0.98-1.01]	0.2	0.92
dura_brfed	rs2227483	S3	10688	10	0.99	[0.98-1.01]	0.47	0.99	[0.98-1.01]	0.47	0.73
dura_brfed	rs2228145	I1	13585	8	1.00	[0.98-1.01]	0.84	1.00	[0.98-1.01]	0.85	0.37
dura_brfed	rs2228145	S1	12891	8	1.00	[0.98-1.02]	0.98	1.00	[0.98-1.02]	0.98	0.44
dura_brfed	rs2228145	S2	10826	8	1.00	[0.98-1.01]	0.62	1.00	[0.98-1.01]	0.65	0.28
dura_brfed	rs2228145	S3	10148	8	1.00	[0.98-1.02]	0.87	1.00	[0.98-1.02]	0.9	0.32
dura_brfed	rs2897442	I1	13343	8	1.00	[0.98-1.02]	0.78	1.00	[0.97-1.03]	0.95	0.16
dura_brfed	rs2897442	S1	11759	8	1.01	[0.98-1.03]	0.64	1.00	[0.97-1.03]	0.88	0.21
dura_brfed	rs2897442	S2	10584	8	1.00	[0.98-1.02]	0.97	1.00	[0.97-1.03]	0.76	0.11
dura_brfed	rs2897442	S3	9016	8	1.00	[0.98-1.03]	0.76	1.00	[0.97-1.03]	0.96	0.18
dura_brfed	rs479844	I1	13344	8	1.02	[1.00-1.03]	8.40E-02	1.02	[1.00-1.03]	8.40E-02	0.97
dura_brfed	rs479844	S1	11759	8	1.01	[0.99-1.03]	0.16	1.01	[0.99-1.03]	0.16	0.98
dura_brfed	rs479844	S2	10585	8	1.01	[0.99-1.03]	0.19	1.01	[0.99-1.03]	0.19	0.99
dura_brfed	rs479844	S3	9016	8	1.01	[0.99-1.03]	0.24	1.01	[0.99-1.03]	0.24	0.99
dura_brfed	rs6010620	I1	14476	9	1.00	[0.99-1.02]	0.74	1.00	[0.99-1.02]	0.74	0.77
dura_brfed	rs6010620	S1	12891	9	1.00	[0.98-1.02]	0.97	1.00	[0.98-1.02]	0.97	0.43
dura_brfed	rs6010620	S2	11717	9	1.00	[0.98-1.02]	0.81	1.00	[0.98-1.02]	0.81	0.96
dura_brfed	rs6010620	S3	10148	9	1.00	[0.98-1.02]	0.98	1.00	[0.98-1.02]	0.98	0.69
dura_brfed	rs6473227	I1	15023	10	1.00	[0.99-1.02]	0.52	1.00	[0.99-1.02]	0.52	0.67
dura_brfed	rs6473227	S1	13438	10	1.01	[0.99-1.02]	0.37	1.01	[0.99-1.03]	0.44	0.23
dura_brfed	rs6473227	S2	12264	10	1.01	[0.99-1.02]	0.45	1.01	[0.99-1.02]	0.45	0.64
dura_brfed	rs6473227	S3	10695	10	1.01	[0.99-1.02]	0.37	1.01	[0.99-1.03]	0.4	0.22
dura_brfed	rs7127307	I1	15022	10	1.00	[0.98-1.01]	0.83	1.00	[0.98-1.02]	0.98	0.17
dura_brfed	rs7127307	S1	13437	10	1.00	[0.98-1.01]	0.59	1.00	[0.98-1.01]	0.59	0.52
dura_brfed	rs7127307	S2	12263	10	1.00	[0.98-1.01]	0.9	1.00	[0.98-1.02]	0.93	0.14
dura_brfed	rs7127307	S3	10694	10	1.00	[0.98-1.01]	0.72	1.00	[0.98-1.01]	0.73	0.40
dura_brfed	rs7146581	I1	15015	10	0.99	[0.98-1.01]	0.45	1.00	[0.97-1.02]	0.73	0.17
dura_brfed	rs7146581	S1	13432	10	0.99	[0.97-1.01]	0.16	0.99	[0.97-1.01]	0.16	0.45
dura_brfed	rs7146581	S2	12256	10	0.99	[0.97-1.01]	0.41	1.00	[0.97-1.01]	0.65	0.24
dura_brfed	rs7146581	S3	10689	10	0.99	[0.97-1.01]	0.19	0.99	[0.97-1.01]	0.19	0.47
dura_brfed	rs7927894	I1	14435	9	1.00	[0.99-1.02]	0.78	1.00	[0.99-1.02]	0.78	0.58
dura_brfed	rs7927894	S1	12891	9	1.00	[0.98-1.02]	0.93	1.00	[0.98-1.02]	0.99	0.34
dura_brfed	rs7927894	S2	11676	9	1.00	[0.99-1.02]	0.63	1.00	[0.99-1.02]	0.63	0.49
dura_brfed	rs7927894	S3	10148	9	1.00	[0.99-1.02]	0.8	1.00	[0.98-1.02]	0.9	0.25
dura_brfed		M1	17101	10	1.00	[0.99-1.01]	0.69	1.00	[0.98-1.02]	0.81	0.00
dura_brfed		M2	15496	10	1.00	[0.99-1.01]	0.66	1.00	[0.98-1.02]	0.66	0.00
dura_brfed		M3	14515	9	1.00	[0.99-1.01]	0.92	1.00	[0.98-1.02]	0.88	0.00
dura_brfed		M4	13825	9	1.00	[0.99-1.01]	0.78	1.00	[0.98-1.02]	0.99	0.00
ever_brfed	flg	I1	14091	9	1.29	[0.91-1.85]	0.16	1.14	[0.72-2.06]	0.58	0.27
ever_brfed	flg	I2	1733	9	1.58	[1.14-2.20]	6.10E-03	1.82	[1.14-2.53]	1.20E-02	0.20
ever_brfed	flg	I3	12358	9	1.95	[1.72-2.21]	7.60E-26	1.95	[1.72-2.21]	1.50E-25	0.43
ever_brfed	flg	S1	13434	9	1.26	[0.86-1.85]	0.24	1.07	[0.61-2.20]	0.82	0.23
ever_brfed	flg	S2	13312	9	1.17	[0.80-1.71]	0.41	1.11	[0.71-1.83]	0.65	0.34
ever_brfed	flg	S3	12690	9	1.13	[0.75-1.70]	0.56	1.09	[0.69-1.78]	0.7	0.39
ever_brfed	rs10214237	I1	14719	9	1.02	[0.85-1.22]	0.85	1.02	[0.85-1.22]	0.85	0.93
ever_brfed	rs10214237	I2	2595	9	1.11	[0.94-1.31]	0.22	1.11	[0.94-1.31]	0.22	0.93
ever_brfed	rs10214237	I3	12124	9	1.11	[1.05-1.18]	8.10E-04	1.11	[1.05-1.18]	8.10E-04	0.82
ever_brfed	rs10214237	S1	14023	9	1.02	[0.84-1.24]	0.84	1.02	[0.84-1.24]	0.84	0.77
ever_brfed	rs10214237	S2	11907	9	1.01	[0.83-1.23]	0.93	1.01	[0.83-1.23]	0.93	0.85
ever_brfed	rs10214237	S3	11233	9	1.02	[0.82-1.26]	0.87	1.02	[0.82-1.26]	0.87	0.66



ever_brfed	rs1057258	I1	14703	9	1.16	[0.93-1.43]	0.18	1.16	[0.93-1.43]	0.18	0.78
ever_brfed	rs1057258	I2	2588	9	0.91	[0.75-1.11]	0.37	0.91	[0.75-1.11]	0.37	0.66
ever_brfed	rs1057258	I3	12115	9	1.06	[0.99-1.14]	0.11	1.06	[0.99-1.14]	0.11	0.98
ever_brfed	rs1057258	S1	14024	9	1.12	[0.89-1.41]	0.32	1.12	[0.89-1.41]	0.32	0.73
ever_brfed	rs1057258	S2	11891	9	1.19	[0.95-1.50]	0.13	1.19	[0.95-1.50]	0.13	0.75
ever_brfed	rs1057258	S3	11234	9	1.16	[0.91-1.48]	0.23	1.16	[0.91-1.48]	0.23	0.67
ever_brfed	rs10995251	I1	14171	8	1.07	[0.90-1.27]	0.44	1.07	[0.90-1.27]	0.44	0.50
ever_brfed	rs10995251	I2	2511	8	0.96	[0.82-1.13]	0.64	0.98	[0.80-1.18]	0.86	0.22
ever_brfed	rs10995251	I3	11660	8	1.05	[0.99-1.11]	0.1	1.06	[0.96-1.15]	0.22	0.04
ever_brfed	rs10995251	S1	13477	8	1.07	[0.89-1.29]	0.44	1.07	[0.89-1.29]	0.44	0.45
ever_brfed	rs10995251	S2	11359	8	1.08	[0.90-1.30]	0.41	1.06	[0.84-1.35]	0.63	0.25
ever_brfed	rs10995251	S3	10687	8	1.10	[0.90-1.34]	0.36	1.09	[0.86-1.38]	0.48	0.30
ever_brfed	rs112111458	I1	14702	9	0.97	[0.77-1.22]	0.78	0.97	[0.77-1.22]	0.78	0.53
ever_brfed	rs112111458	I2	2590	9	1.04	[0.84-1.28]	0.74	1.11	[0.84-1.36]	0.46	0.21
ever_brfed	rs112111458	I3	12112	9	1.01	[0.94-1.10]	0.74	1.02	[0.93-1.11]	0.63	0.29
ever_brfed	rs112111458	S1	14022	9	0.98	[0.77-1.25]	0.87	0.98	[0.77-1.25]	0.87	0.90
ever_brfed	rs112111458	S2	11890	9	0.91	[0.71-1.16]	0.44	0.91	[0.71-1.16]	0.44	0.52
ever_brfed	rs112111458	S3	11232	9	0.94	[0.72-1.21]	0.62	0.94	[0.72-1.21]	0.62	0.77
ever_brfed	rs11657987	I1	14684	9	1.01	[0.86-1.18]	0.93	1.00	[0.84-1.20]	0.99	0.35
ever_brfed	rs11657987	I2	2586	9	1.05	[0.90-1.22]	0.54	1.05	[0.87-1.27]	0.6	0.20
ever_brfed	rs11657987	I3	12098	9	1.05	[0.99-1.11]	7.80E-02	1.04	[0.96-1.14]	0.31	0.08
ever_brfed	rs11657987	S1	14020	9	0.97	[0.82-1.15]	0.72	0.96	[0.78-1.18]	0.67	0.32
ever_brfed	rs11657987	S2	11872	9	1.02	[0.86-1.21]	0.83	1.01	[0.83-1.25]	0.89	0.30
ever_brfed	rs11657987	S3	11230	9	0.98	[0.81-1.18]	0.8	0.97	[0.77-1.23]	0.76	0.26
ever_brfed	rs12153855	I1	14176	8	0.96	[0.73-1.27]	0.79	0.96	[0.73-1.27]	0.79	0.79
ever_brfed	rs12153855	I2	2512	8	1.13	[0.88-1.45]	0.33	1.13	[0.88-1.45]	0.33	0.99
ever_brfed	rs12153855	I3	11664	8	1.09	[0.99-1.20]	7.60E-02	1.09	[0.99-1.20]	7.60E-02	0.53
ever_brfed	rs12153855	S1	13477	8	0.95	[0.70-1.27]	0.71	0.95	[0.70-1.27]	0.71	0.65
ever_brfed	rs12153855	S2	11364	8	0.95	[0.71-1.28]	0.75	0.95	[0.71-1.28]	0.75	0.91
ever_brfed	rs12153855	S3	10687	8	0.95	[0.68-1.31]	0.74	0.95	[0.68-1.31]	0.74	0.78
ever_brfed	rs12295535	I1	14723	9	1.09	[0.66-1.79]	0.74	1.09	[0.66-1.79]	0.74	0.85
ever_brfed	rs12295535	I2	2594	9	1.05	[0.67-1.67]	0.82	1.05	[0.67-1.67]	0.82	0.71
ever_brfed	rs12295535	I3	12129	9	1.14	[0.96-1.35]	0.13	1.14	[0.96-1.35]	0.13	0.70
ever_brfed	rs12295535	S1	14024	9	1.07	[0.63-1.80]	0.8	1.07	[0.63-1.80]	0.8	0.85
ever_brfed	rs12295535	S2	11911	9	0.98	[0.58-1.65]	0.93	0.98	[0.58-1.65]	0.93	0.72
ever_brfed	rs12295535	S3	11234	9	0.91	[0.52-1.59]	0.75	0.91	[0.52-1.59]	0.75	0.75
ever_brfed	rs13015714	I1	14174	8	0.93	[0.77-1.12]	0.45	0.93	[0.77-1.12]	0.45	0.82
ever_brfed	rs13015714	I2	2512	8	1.15	[0.97-1.37]	0.12	1.15	[0.97-1.37]	0.12	0.88
ever_brfed	rs13015714	I3	11662	8	1.10	[1.03-1.18]	3.90E-03	1.10	[1.02-1.19]	1.80E-02	0.25
ever_brfed	rs13015714	S1	13475	8	0.86	[0.70-1.06]	0.15	0.86	[0.70-1.06]	0.15	0.83
ever_brfed	rs13015714	S2	11362	8	0.94	[0.76-1.15]	0.53	0.94	[0.76-1.15]	0.53	0.80
ever_brfed	rs13015714	S3	10685	8	0.86	[0.69-1.07]	0.19	0.86	[0.69-1.07]	0.19	0.86
ever_brfed	rs16948048	I1	14174	8	0.98	[0.83-1.16]	0.8	0.97	[0.81-1.18]	0.77	0.36
ever_brfed	rs16948048	I2	2511	8	1.04	[0.89-1.22]	0.6	1.05	[0.88-1.25]	0.58	0.31
ever_brfed	rs16948048	I3	11663	8	1.02	[0.96-1.08]	0.5	1.02	[0.96-1.08]	0.5	0.53
ever_brfed	rs16948048	S1	13477	8	0.96	[0.80-1.15]	0.69	0.94	[0.74-1.23]	0.64	0.20
ever_brfed	rs16948048	S2	11362	8	0.98	[0.82-1.18]	0.83	0.97	[0.77-1.23]	0.78	0.23
ever_brfed	rs16948048	S3	10687	8	0.97	[0.80-1.18]	0.79	0.96	[0.73-1.28]	0.76	0.15
ever_brfed	rs17389644	I1	14163	8	1.04	[0.85-1.27]	0.72	1.04	[0.78-1.38]	0.81	0.12
ever_brfed	rs17389644	I2	2511	8	1.00	[0.83-1.21]	0.97	0.99	[0.80-1.24]	0.95	0.32
ever_brfed	rs17389644	I3	11652	8	1.05	[0.98-1.12]	0.17	1.01	[0.90-1.19]	0.85	0.01
ever_brfed	rs17389644	S1	13477	8	0.96	[0.78-1.19]	0.73	0.96	[0.71-1.30]	0.77	0.16
ever_brfed	rs17389644	S2	11351	8	1.01	[0.81-1.26]	0.92	1.01	[0.73-1.41]	0.94	0.07
ever_brfed	rs17389644	S3	10687	8	0.92	[0.73-1.16]	0.48	0.92	[0.65-1.29]	0.62	0.12
ever_brfed	rs17881320	I1	14704	9	0.85	[0.63-1.14]	0.29	0.85	[0.63-1.14]	0.29	0.88
ever_brfed	rs17881320	I2	2587	9	1.29	[0.99-1.69]	0.06	1.29	[0.99-1.69]	0.06	0.96
ever_brfed	rs17881320	I3	12117	9	1.09	[0.98-1.20]	0.11	1.09	[0.95-1.26]	0.23	0.13
ever_brfed	rs17881320	S1	14022	9	0.82	[0.59-1.13]	0.22	0.82	[0.59-1.13]	0.22	0.84
ever_brfed	rs17881320	S2	11892	9	0.94	[0.68-1.29]	0.7	0.94	[0.68-1.29]	0.7	0.96
ever_brfed	rs17881320	S3	11232	9	0.91	[0.64-1.29]	0.58	0.91	[0.64-1.29]	0.58	0.92
ever_brfed	rs2041733	I1	14175	8	0.86	[0.73-1.02]	7.50E-02	0.88	[0.73-1.04]	0.17	0.32
ever_brfed	rs2041733	I2	2512	8	1.21	[1.04-1.40]	1.40E-02	1.21	[1.04-1.40]	1.40E-02	0.58
ever_brfed	rs2041733	I3	11663	8	1.04	[0.98-1.10]	0.22	1.04	[0.98-1.10]	0.22	0.58
ever_brfed	rs2041733	S1	13476	8	0.81	[0.68-0.97]	0.02	0.81	[0.68-0.97]	0.02	0.63
ever_brfed	rs2041733	S2	11363	8	0.86	[0.73-1.03]	0.1	0.88	[0.72-1.05]	0.2	0.32
ever_brfed	rs2041733	S3	10686	8	0.82	[0.67-0.99]	3.50E-02	0.82	[0.67-0.99]	3.50E-02	0.48
ever_brfed	rs2143950	I1	14710	9	1.06	[0.86-1.31]	0.59	1.06	[0.86-1.31]	0.59	0.98
ever_brfed	rs2143950	I2	2591	9	1.01	[0.83-1.22]	0.94	1.01	[0.83-1.22]	0.94	0.96
ever_brfed	rs2143950	I3	12119	9	1.07	[1.00-1.15]	6.30E-02	1.07	[1.00-1.15]	6.30E-02	0.73
ever_brfed	rs2143950	S1	14015	9	1.02	[0.81-1.28]	0.87	1.02	[0.81-1.28]	0.87	0.99
ever_brfed	rs2143950	S2	11898	9	1.06	[0.85-1.34]	0.6	1.06	[0.85-1.34]	0.6	0.97
ever_brfed	rs2143950	S3	11225	9	1.01	[0.79-1.29]	0.94	1.01	[0.79-1.29]	0.94	0.99
ever_brfed	rs2164983	I1	14176	8	1.05	[0.84-1.30]	0.68	1.05	[0.84-1.30]	0.68	0.47
ever_brfed	rs2164983	I2	2512	8	1.11	[0.91-1.36]	0.3	1.08	[0.83-1.46]	0.56	0.19
ever_brfed	rs2164983	I3	11664	8	1.14	[1.06-1.24]	8.00E-04	1.14	[1.06-1.24]	8.00E-04	0.49
ever_brfed	rs2164983	S1	13477	8	0.98	[0.77-1.25]	0.89	0.99	[0.77-1.26]	0.92	0.40
ever_brfed	rs2164983	S2	11364	8	1.03	[0.81-1.30]	0.83	1.03	[0.81-1.30]	0.83	0.43
ever_brfed	rs2164983	S3	10687	8	0.96	[0.75-1.24]	0.77	0.97	[0.72-1.29]	0.82	0.31
ever_brfed	rs2227483	I1	14712	9	0.94	[0.80-1.11]	0.48	0.94	[0.80-1.11]	0.48	0.61
ever_brfed	rs2227483	I2	2593	9	1.13	[0.97-1.31]	0.11	1.13	[0.97-1.32]	0.13	0.41
ever_brfed	rs2227483	I3	12119	9	1.06	[1.00-1.12]	3.40E-02	1.06	[1.00-1.12]	3.40E-02	0.68
ever_brfed	rs2227483	S1	14017	9	1.02	[0.85-1.21]	0.85	1.02	[0.85-1.21]	0.85	0.85
ever_brfed	rs2227483	S2	11900	9	0.98	[0.82-1.16]	0.78	0.98	[0.82-1.16]	0.78	0.44
ever_brfed	rs2227483	S3	11227	9	1.06	[0.88-1.28]	0.51	1.06	[0.88-1.28]	0.51	0.71
ever_brfed	rs2228145	I1	14176	8	0.96	[0.81-1.13]	0.6	0.96	[0.81-1.13]	0.6	0.83
ever_brfed	rs2228145	I2	2512	8	1.10	[0.94-1.28]	0.24	1.10	[0.94-1.28]	0.24	0.77
ever_brfed	rs2228145	I3	11664	8	1.04	[0.98-1.10]	0.18	1.04	[0.98-1.10]	0.18	0.58
ever_brfed	rs2228145	S1	13477	8	0.99	[0.83-1.19]	0.93	0.99	[0.83-1.19]	0.93	0.81
ever_brfed	rs2228145	S2	11364	8	0.97	[0.81-1.15]	0.7	0.97	[0.81-1.15]	0.7	0.75
ever_brfed	rs2228145	S3	10687	8	1.01	[0.83-1.22]	0.94	1.01	[0.83-1.22]	0.94	0.72
ever_brfed	rs2897442	I1	12876	7	1.05	[0.87-1.28]	0.62	1.05	[0.79-1.39]	0.76	0.13

ever_brfed	rs2897442	I2	2395	7	1.07	[0.89-1.28]	0.47	1.07	[0.82-1.39]	0.61	0.12
ever_brfed	rs2897442	I3	10481	7	1.10	[1.03-1.18]	5.90E-03	1.11	[0.97-1.25]	0.12	0.01
ever_brfed	rs2897442	S1	12178	7	1.04	[0.84-1.28]	0.73	1.03	[0.76-1.41]	0.86	0.15
ever_brfed	rs2897442	S2	10064	7	1.03	[0.83-1.27]	0.8	1.02	[0.75-1.40]	0.88	0.12
ever_brfed	rs2897442	S3	9388	7	1.02	[0.81-1.28]	0.86	1.01	[0.72-1.43]	0.94	0.12
ever_brfed	rs479844	I1	12877	7	1.11	[0.94-1.32]	0.21	1.11	[0.94-1.32]	0.21	0.86
ever_brfed	rs479844	I2	2396	7	1.04	[0.89-1.22]	0.58	1.04	[0.89-1.22]	0.58	0.42
ever_brfed	rs479844	I3	10481	7	1.14	[1.07-1.21]	4.20E-05	1.13	[1.06-1.21]	9.10E-05	0.40
ever_brfed	rs479844	S1	12178	7	1.10	[0.91-1.32]	0.32	1.10	[0.91-1.32]	0.32	0.71
ever_brfed	rs479844	S2	10065	7	1.10	[0.92-1.33]	0.31	1.10	[0.92-1.33]	0.31	0.71
ever_brfed	rs479844	S3	9388	7	1.10	[0.90-1.34]	0.37	1.10	[0.90-1.34]	0.37	0.52
ever_brfed	rs6010620	I1	14176	8	1.09	[0.89-1.32]	0.41	1.09	[0.89-1.32]	0.41	0.58
ever_brfed	rs6010620	I2	2512	8	1.03	[0.86-1.23]	0.76	1.03	[0.86-1.23]	0.76	0.76
ever_brfed	rs6010620	I3	11664	8	1.12	[1.05-1.20]	6.00E-04	1.12	[1.05-1.20]	6.00E-04	0.81
ever_brfed	rs6010620	S1	13477	8	1.10	[0.89-1.35]	0.38	1.10	[0.89-1.35]	0.38	0.52
ever_brfed	rs6010620	S2	11364	8	1.09	[0.89-1.35]	0.39	1.09	[0.89-1.35]	0.39	0.60
ever_brfed	rs6010620	S3	10687	8	1.11	[0.89-1.39]	0.35	1.11	[0.89-1.39]	0.35	0.48
ever_brfed	rs6473227	I1	14723	9	1.09	[0.92-1.28]	0.33	1.05	[0.78-1.47]	0.74	0.01
ever_brfed	rs6473227	I2	2594	9	1.01	[0.87-1.18]	0.86	1.01	[0.80-1.28]	0.94	0.08
ever_brfed	rs6473227	I3	12129	9	1.09	[1.03-1.16]	1.60E-03	1.09	[1.02-1.17]	1.50E-02	0.28
ever_brfed	rs6473227	S1	14024	9	1.20	[1.00-1.43]	4.80E-02	1.17	[0.86-1.63]	0.31	0.03
ever_brfed	rs6473227	S2	11911	9	1.11	[0.93-1.33]	0.23	1.14	[0.88-1.44]	0.31	0.11
ever_brfed	rs6473227	S3	11234	9	1.23	[1.02-1.50]	3.30E-02	1.25	[1.01-1.53]	4.20E-02	0.35
ever_brfed	rs7127307	I1	14722	9	1.13	[0.96-1.33]	0.13	1.13	[0.94-1.37]	0.19	0.33
ever_brfed	rs7127307	I2	2595	9	0.94	[0.81-1.09]	0.41	0.94	[0.81-1.09]	0.41	0.57
ever_brfed	rs7127307	I3	12127	9	1.06	[1.00-1.12]	4.60E-02	1.06	[1.00-1.12]	4.60E-02	0.53
ever_brfed	rs7127307	S1	14023	9	1.12	[0.94-1.33]	0.2	1.10	[0.86-1.44]	0.45	0.15
ever_brfed	rs7127307	S2	11910	9	1.15	[0.97-1.38]	0.11	1.15	[0.97-1.38]	0.11	0.56
ever_brfed	rs7127307	S3	11233	9	1.14	[0.95-1.38]	0.17	1.15	[0.94-1.40]	0.17	0.39
ever_brfed	rs7146581	I1	14715	9	1.01	[0.83-1.22]	0.95	0.99	[0.80-1.25]	0.95	0.33
ever_brfed	rs7146581	I2	2592	9	1.01	[0.85-1.21]	0.89	1.02	[0.83-1.24]	0.85	0.32
ever_brfed	rs7146581	I3	12123	9	1.01	[0.95-1.08]	0.69	1.01	[0.95-1.08]	0.69	0.52
ever_brfed	rs7146581	S1	14018	9	1.00	[0.81-1.23]	0.98	0.96	[0.73-1.31]	0.75	0.20
ever_brfed	rs7146581	S2	11903	9	0.99	[0.81-1.22]	0.94	0.99	[0.80-1.22]	0.94	0.42
ever_brfed	rs7146581	S3	11228	9	0.98	[0.79-1.23]	0.88	0.98	[0.76-1.27]	0.88	0.33
ever_brfed	rs7927894	I1	14135	8	0.90	[0.76-1.06]	0.22	0.90	[0.76-1.06]	0.22	0.97
ever_brfed	rs7927894	I2	2501	8	1.12	[0.96-1.31]	0.14	1.12	[0.96-1.31]	0.14	0.86
ever_brfed	rs7927894	I3	11634	8	1.00	[0.95-1.06]	0.92	1.00	[0.93-1.07]	0.91	0.32
ever_brfed	rs7927894	S1	13477	8	0.93	[0.78-1.11]	0.41	0.93	[0.78-1.11]	0.41	0.97
ever_brfed	rs7927894	S2	11323	8	0.87	[0.73-1.04]	0.14	0.87	[0.73-1.04]	0.14	0.96
ever_brfed	rs7927894	S3	10687	8	0.90	[0.74-1.09]	0.27	0.90	[0.74-1.09]	0.27	0.96
ever_brfed	M1		16894	9	0.99	[0.89-1.09]	0.8	0.99	[0.86-1.14]	0.9	0.13
ever_brfed	M2		16163	9	0.98	[0.88-1.10]	0.74	0.98	[0.83-1.16]	0.81	0.10
ever_brfed	M3		15121	9	1.00	[0.90-1.11]	0.98	1.01	[0.86-1.17]	0.89	0.06
ever_brfed	M4		14425	9	1.01	[0.90-1.13]	0.93	1.01	[0.84-1.21]	0.88	0.04
excl_brfed	flg	I1	12097	8	1.15	[0.86-1.54]	0.34	1.15	[0.86-1.54]	0.34	0.82
excl_brfed	flg	I2	4176	8	1.91	[1.54-2.35]	2.10E-09	1.91	[1.54-2.35]	2.10E-09	0.51
excl_brfed	flg	I3	7921	8	1.84	[1.58-2.15]	5.30E-15	1.78	[1.46-2.25]	1.10E-08	0.28
excl_brfed	flg	S1	11449	8	1.13	[0.83-1.54]	0.45	1.13	[0.83-1.54]	0.45	0.78
excl_brfed	flg	S2	10728	8	1.13	[0.83-1.55]	0.43	1.13	[0.83-1.55]	0.43	0.81
excl_brfed	flg	S3	10115	8	1.06	[0.76-1.49]	0.72	1.06	[0.76-1.49]	0.72	0.79
excl_brfed	rs10214237	I1	11510	8	1.13	[0.98-1.32]	9.20E-02	1.13	[0.90-1.42]	0.29	0.12
excl_brfed	rs10214237	I2	3334	8	1.03	[0.92-1.16]	0.58	1.02	[0.86-1.22]	0.86	0.17
excl_brfed	rs10214237	I3	8176	8	1.15	[1.07-1.24]	2.90E-04	1.15	[1.07-1.24]	2.90E-04	0.46
excl_brfed	rs10214237	S1	10188	8	1.11	[0.95-1.31]	0.18	1.11	[0.95-1.31]	0.18	0.66
excl_brfed	rs10214237	S2	10309	8	1.11	[0.95-1.31]	0.18	1.14	[0.88-1.44]	0.31	0.07
excl_brfed	rs10214237	S3	9009	8	1.09	[0.91-1.29]	0.35	1.09	[0.91-1.29]	0.35	0.70
excl_brfed	rs1057258	I1	11493	8	1.10	[0.92-1.31]	0.3	1.10	[0.92-1.31]	0.3	0.55
excl_brfed	rs1057258	I2	3326	8	1.00	[0.88-1.15]	0.98	1.00	[0.88-1.15]	0.98	0.62
excl_brfed	rs1057258	I3	8167	8	1.05	[0.96-1.14]	0.31	1.05	[0.96-1.14]	0.31	0.76
excl_brfed	rs1057258	S1	10188	8	1.06	[0.88-1.28]	0.56	1.06	[0.88-1.28]	0.56	0.41
excl_brfed	rs1057258	S2	10292	8	1.09	[0.90-1.31]	0.37	1.09	[0.90-1.31]	0.37	0.76
excl_brfed	rs1057258	S3	9009	8	1.05	[0.86-1.29]	0.63	1.05	[0.86-1.29]	0.63	0.61
excl_brfed	rs10995251	I1	11508	8	1.06	[0.93-1.22]	0.4	1.06	[0.93-1.22]	0.4	0.44
excl_brfed	rs10995251	I2	3333	8	0.97	[0.87-1.08]	0.59	1.00	[0.85-1.14]	0.98	0.15
excl_brfed	rs10995251	I3	8175	8	1.09	[1.02-1.16]	1.60E-02	1.09	[1.01-1.18]	2.90E-02	0.29
excl_brfed	rs10995251	S1	10188	8	1.01	[0.87-1.17]	0.89	1.01	[0.87-1.17]	0.89	0.41
excl_brfed	rs10995251	S2	10307	8	1.05	[0.90-1.21]	0.55	1.03	[0.87-1.23]	0.73	0.35
excl_brfed	rs10995251	S3	9009	8	1.00	[0.85-1.17]	0.96	0.96	[0.79-1.21]	0.71	0.26
excl_brfed	rs112111458	I1	10278	6	1.02	[0.84-1.24]	0.83	1.02	[0.80-1.30]	0.86	0.27
excl_brfed	rs112111458	I2	3203	6	0.96	[0.83-1.10]	0.54	1.05	[0.81-1.24]	0.74	0.06
excl_brfed	rs112111458	I3	7075	6	1.04	[0.94-1.15]	0.45	1.04	[0.94-1.15]	0.45	0.43
excl_brfed	rs112111458	S1	9605	6	1.02	[0.83-1.25]	0.88	1.03	[0.82-1.28]	0.79	0.33
excl_brfed	rs112111458	S2	9660	6	1.02	[0.83-1.25]	0.85	1.02	[0.78-1.33]	0.89	0.21
excl_brfed	rs112111458	S3	9009	6	1.03	[0.83-1.27]	0.82	1.05	[0.80-1.34]	0.72	0.26
excl_brfed	rs11657987	I1	11478	8	0.97	[0.85-1.11]	0.67	0.97	[0.85-1.11]	0.67	0.49
excl_brfed	rs11657987	I2	3321	8	1.05	[0.95-1.17]	0.32	1.05	[0.95-1.17]	0.32	0.73
excl_brfed	rs11657987	I3	8157	8	1.03	[0.96-1.09]	0.45	1.02	[0.95-1.10]	0.61	0.35
excl_brfed	rs11657987	S1	10188	8	0.94	[0.81-1.08]	0.36	0.94	[0.79-1.10]	0.43	0.34
excl_brfed	rs11657987	S2	10277	8	0.94	[0.82-1.08]	0.39	0.96	[0.81-1.12]	0.63	0.29
excl_brfed	rs11657987	S3	9009	8	0.90	[0.77-1.05]	0.18	0.92	[0.75-1.11]	0.41	0.21
excl_brfed	rs12153855	I1	10297	6	1.16	[0.93-1.44]	0.2	1.16	[0.93-1.44]	0.2	0.60
excl_brfed	rs12153855	I2	3208	6	1.03	[0.87-1.21]	0.76	1.03	[0.87-1.21]	0.76	0.80
excl_brfed	rs12153855	I3	7089	6	1.15	[1.02-1.29]	1.90E-02	1.15	[1.02-1.29]	1.90E-02	0.62
excl_brfed	rs12153855	S1	9605	6	1.20	[0.94-1.52]	0.14	1.17	[0.90-1.57]	0.25	0.34
excl_brfed	rs12153855	S2	9679	6	1.11	[0.88-1.40]	0.39	1.11	[0.88-1.40]	0.39	0.63
excl_brfed	rs12153855	S3	9009	6	1.15	[0.89-1.48]	0.28	1.14	[0.88-1.50]	0.32	0.38
excl_brfed	rs12295535	I1	10930	7	1.22	[0.80-1.86]	0.35	1.22	[0.80-1.86]	0.35	0.93
excl_brfed	rs12295535	I2	3278	7	1.02	[0.75-1.38]	0.9	1.02	[0.75-1.38]	0.9	0.90
excl_brfed	rs12295535	I3	7652	7	1.27	[1.03-1.56]	2.70E-02	1.29	[0.97-1.68]	0.08	0.17
excl_brfed	rs12295535	S1	9605	7	1.21	[0.78-1.89]	0.4	1.21	[0.78-1.89]	0.4	0.70

excl_bfcd	rs12295535	S2	10312	7	1.21	[0.77-1.91]	0.41	1.21	[0.77-1.91]	0.41	0.84
excl_bfcd	rs12295535	S3	9009	7	1.22	[0.76-1.97]	0.42	1.22	[0.76-1.97]	0.42	0.58
excl_bfcd	rs13015714	I1	11511	8	0.92	[0.78-1.07]	0.27	0.93	[0.75-1.14]	0.48	0.21
excl_bfcd	rs13015714	I2	3334	8	1.18	[1.04-1.32]	8.30E-03	1.18	[0.99-1.40]	6.30E-02	0.21
excl_bfcd	rs13015714	I3	8177	8	1.11	[1.03-1.20]	5.20E-03	1.11	[1.03-1.20]	5.20E-03	0.53
excl_bfcd	rs13015714	S1	10186	8	0.89	[0.75-1.05]	0.15	0.91	[0.70-1.16]	0.51	0.10
excl_bfcd	rs13015714	S2	10310	8	0.90	[0.76-1.06]	0.19	0.93	[0.72-1.16]	0.6	0.09
excl_bfcd	rs13015714	S3	9007	8	0.87	[0.73-1.04]	0.12	0.93	[0.67-1.20]	0.66	0.04
excl_bfcd	rs16948048	I1	11511	8	0.96	[0.84-1.10]	0.57	0.96	[0.83-1.11]	0.57	0.39
excl_bfcd	rs16948048	I2	3333	8	1.06	[0.95-1.18]	0.28	1.07	[0.92-1.23]	0.41	0.20
excl_bfcd	rs16948048	I3	8178	8	1.02	[0.95-1.09]	0.6	1.02	[0.95-1.09]	0.6	0.98
excl_bfcd	rs16948048	S1	10188	8	0.96	[0.83-1.11]	0.55	0.96	[0.83-1.11]	0.55	0.41
excl_bfcd	rs16948048	S2	10310	8	0.95	[0.82-1.10]	0.5	0.95	[0.82-1.10]	0.5	0.43
excl_bfcd	rs16948048	S3	9009	8	0.95	[0.82-1.11]	0.54	0.95	[0.82-1.11]	0.54	0.49
excl_bfcd	rs17389644	I1	11500	8	1.05	[0.90-1.24]	0.52	1.05	[0.90-1.24]	0.52	0.45
excl_bfcd	rs17389644	I2	3332	8	1.03	[0.91-1.16]	0.68	0.96	[0.78-1.26]	0.7	0.09
excl_bfcd	rs17389644	I3	8168	8	1.08	[1.00-1.17]	4.80E-02	1.08	[1.00-1.17]	4.80E-02	0.65
excl_bfcd	rs17389644	S1	10188	8	0.99	[0.83-1.17]	0.88	0.99	[0.83-1.17]	0.88	0.49
excl_bfcd	rs17389644	S2	10299	8	1.06	[0.89-1.25]	0.54	1.09	[0.88-1.31]	0.43	0.27
excl_bfcd	rs17389644	S3	9009	8	0.97	[0.81-1.17]	0.75	0.98	[0.79-1.20]	0.87	0.32
excl_bfcd	rs17881320	I1	11496	8	0.91	[0.71-1.17]	0.46	0.91	[0.71-1.17]	0.46	0.64
excl_bfcd	rs17881320	I2	3326	8	1.18	[0.97-1.43]	9.80E-02	1.18	[0.97-1.43]	9.80E-02	0.89
excl_bfcd	rs17881320	I3	8170	8	1.10	[0.97-1.24]	0.14	1.10	[0.92-1.31]	0.28	0.09
excl_bfcd	rs17881320	S1	10188	8	0.85	[0.65-1.11]	0.23	0.85	[0.65-1.11]	0.23	0.62
excl_bfcd	rs17881320	S2	10295	8	0.93	[0.71-1.21]	0.58	0.97	[0.71-1.26]	0.83	0.34
excl_bfcd	rs17881320	S3	9009	8	0.85	[0.63-1.13]	0.27	0.89	[0.61-1.24]	0.56	0.27
excl_bfcd	rs2041733	I1	11512	8	0.97	[0.85-1.11]	0.68	0.97	[0.85-1.11]	0.68	0.47
excl_bfcd	rs2041733	I2	3334	8	1.10	[1.00-1.22]	5.90E-02	1.10	[1.00-1.22]	5.90E-02	0.69
excl_bfcd	rs2041733	I3	8178	8	1.02	[0.96-1.09]	0.49	1.02	[0.95-1.11]	0.56	0.25
excl_bfcd	rs2041733	S1	10187	8	0.92	[0.80-1.06]	0.26	0.92	[0.80-1.06]	0.26	0.89
excl_bfcd	rs2041733	S2	10311	8	1.00	[0.87-1.15]	0.97	1.00	[0.87-1.15]	0.97	0.46
excl_bfcd	rs2041733	S3	9008	8	0.96	[0.82-1.11]	0.55	0.96	[0.82-1.11]	0.55	0.82
excl_bfcd	rs2143950	I1	11509	8	1.12	[0.95-1.34]	0.19	1.12	[0.95-1.34]	0.19	0.76
excl_bfcd	rs2143950	I2	3333	8	1.03	[0.90-1.18]	0.64	1.03	[0.90-1.18]	0.64	0.67
excl_bfcd	rs2143950	I3	8176	8	1.07	[0.98-1.16]	0.14	1.06	[0.95-1.18]	0.3	0.27
excl_bfcd	rs2143950	S1	10188	8	1.12	[0.93-1.35]	0.25	1.12	[0.93-1.35]	0.25	0.65
excl_bfcd	rs2143950	S2	10308	8	1.18	[0.98-1.42]	8.90E-02	1.18	[0.98-1.42]	8.90E-02	0.69
excl_bfcd	rs2143950	S3	9009	8	1.15	[0.94-1.41]	0.16	1.15	[0.94-1.41]	0.16	0.63
excl_bfcd	rs2164983	I1	10297	6	0.97	[0.81-1.17]	0.78	0.97	[0.81-1.17]	0.78	0.57
excl_bfcd	rs2164983	I2	3208	6	1.14	[0.99-1.31]	6.40E-02	1.16	[0.94-1.41]	0.18	0.16
excl_bfcd	rs2164983	I3	7089	6	1.15	[1.05-1.27]	4.40E-03	1.15	[1.05-1.27]	4.40E-03	0.59
excl_bfcd	rs2164983	S1	9605	6	0.93	[0.76-1.13]	0.46	0.93	[0.74-1.18]	0.56	0.32
excl_bfcd	rs2164983	S2	9679	6	1.00	[0.83-1.22]	0.97	1.00	[0.83-1.22]	0.97	0.49
excl_bfcd	rs2164983	S3	9009	6	0.96	[0.78-1.18]	0.71	0.95	[0.73-1.25]	0.72	0.29
excl_bfcd	rs2227483	I1	11509	8	0.97	[0.85-1.11]	0.64	0.97	[0.85-1.11]	0.64	0.45
excl_bfcd	rs2227483	I2	3334	8	1.08	[0.97-1.19]	0.16	1.13	[0.95-1.28]	0.17	0.09
excl_bfcd	rs2227483	I3	8175	8	1.07	[1.00-1.14]	0.05	1.06	[0.99-1.15]	9.30E-02	0.35
excl_bfcd	rs2227483	S1	10188	8	1.05	[0.91-1.21]	0.5	1.05	[0.91-1.21]	0.5	0.93
excl_bfcd	rs2227483	S2	10308	8	1.00	[0.87-1.15]	0.99	0.98	[0.82-1.19]	0.8	0.28
excl_bfcd	rs2227483	S3	9009	8	1.09	[0.94-1.27]	0.26	1.09	[0.94-1.27]	0.26	0.89
excl_bfcd	rs2228145	I1	10880	7	1.06	[0.93-1.21]	0.39	1.06	[0.93-1.21]	0.39	0.57
excl_bfcd	rs2228145	I2	3264	7	1.00	[0.90-1.11]	0.95	1.00	[0.90-1.11]	0.95	0.55
excl_bfcd	rs2228145	I3	7616	7	1.05	[0.98-1.13]	0.14	1.05	[0.96-1.15]	0.28	0.19
excl_bfcd	rs2228145	S1	10188	7	1.06	[0.92-1.23]	0.42	1.06	[0.92-1.23]	0.43	0.41
excl_bfcd	rs2228145	S2	9679	7	1.06	[0.91-1.22]	0.46	1.06	[0.91-1.22]	0.46	0.47
excl_bfcd	rs2228145	S3	9009	7	1.05	[0.90-1.23]	0.52	1.04	[0.87-1.26]	0.67	0.32
excl_bfcd	rs2897442	I1	10213	7	1.07	[0.92-1.24]	0.4	1.07	[0.92-1.24]	0.4	0.49
excl_bfcd	rs2897442	I2	3208	7	1.08	[0.97-1.22]	0.17	1.09	[0.95-1.25]	0.23	0.32
excl_bfcd	rs2897442	I3	7005	7	1.11	[1.03-1.21]	8.10E-03	1.13	[0.98-1.28]	8.90E-02	0.02
excl_bfcd	rs2897442	S1	8889	7	1.09	[0.93-1.29]	0.28	1.09	[0.93-1.29]	0.28	0.48
excl_bfcd	rs2897442	S2	9012	7	1.03	[0.88-1.22]	0.69	1.03	[0.88-1.22]	0.69	0.51
excl_bfcd	rs2897442	S3	7710	7	1.08	[0.90-1.28]	0.4	1.08	[0.90-1.28]	0.4	0.51
excl_bfcd	rs479844	I1	10214	7	1.05	[0.92-1.21]	0.45	1.05	[0.92-1.21]	0.45	0.69
excl_bfcd	rs479844	I2	3209	7	1.12	[1.01-1.24]	3.50E-02	1.12	[0.99-1.26]	6.40E-02	0.34
excl_bfcd	rs479844	I3	7005	7	1.17	[1.09-1.25]	2.50E-05	1.17	[1.09-1.25]	2.50E-05	0.79
excl_bfcd	rs479844	S1	8889	7	1.05	[0.90-1.21]	0.54	1.05	[0.90-1.22]	0.55	0.40
excl_bfcd	rs479844	S2	9013	7	1.04	[0.90-1.21]	0.57	1.04	[0.90-1.21]	0.57	0.76
excl_bfcd	rs479844	S3	7710	7	1.05	[0.89-1.23]	0.56	1.05	[0.89-1.23]	0.56	0.49
excl_bfcd	rs6010620	I1	11513	8	1.05	[0.89-1.22]	0.58	1.05	[0.89-1.22]	0.58	0.61
excl_bfcd	rs6010620	I2	3334	8	1.08	[0.96-1.22]	0.2	1.08	[0.96-1.22]	0.2	0.58
excl_bfcd	rs6010620	I3	8179	8	1.13	[1.04-1.22]	3.40E-03	1.13	[1.04-1.22]	3.40E-03	0.87
excl_bfcd	rs6010620	S1	10188	8	1.03	[0.87-1.22]	0.76	1.03	[0.87-1.22]	0.76	0.54
excl_bfcd	rs6010620	S2	10312	8	1.06	[0.90-1.25]	0.5	1.06	[0.90-1.25]	0.5	0.44
excl_bfcd	rs6010620	S3	9009	8	1.06	[0.89-1.27]	0.51	1.03	[0.83-1.32]	0.8	0.31
excl_bfcd	rs6473227	I1	11513	8	1.06	[0.93-1.22]	0.38	1.01	[0.78-1.38]	0.94	0.02
excl_bfcd	rs6473227	I2	3334	8	1.03	[0.93-1.15]	0.52	1.06	[0.88-1.25]	0.57	0.06
excl_bfcd	rs6473227	I3	8179	8	1.09	[1.02-1.17]	0.01	1.08	[0.99-1.18]	6.80E-02	0.30
excl_bfcd	rs6473227	S1	10188	8	1.11	[0.96-1.28]	0.16	1.06	[0.77-1.53]	0.71	0.01
excl_bfcd	rs6473227	S2	10312	8	1.03	[0.89-1.19]	0.68	0.98	[0.74-1.37]	0.92	0.01
excl_bfcd	rs6473227	S3	9009	8	1.07	[0.91-1.24]	0.43	1.03	[0.72-1.52]	0.89	0.00
excl_bfcd	rs7127307	I1	11513	8	1.03	[0.90-1.17]	0.71	1.03	[0.90-1.17]	0.71	0.92
excl_bfcd	rs7127307	I2	3334	8	1.02	[0.92-1.14]	0.69	1.02	[0.92-1.14]	0.69	0.80
excl_bfcd	rs7127307	I3	8179	8	1.05	[0.98-1.12]	0.19	1.05	[0.98-1.12]	0.19	0.93
excl_bfcd	rs7127307	S1	10188	8	1.00	[0.87-1.16]	0.98	1.00	[0.87-1.16]	0.98	0.99
excl_bfcd	rs7127307	S2	10312	8	1.01	[0.87-1.16]	0.95	1.01	[0.87-1.16]	0.95	0.75
excl_bfcd	rs7127307	S3	9009	8	0.98	[0.83-1.14]	0.76	0.98	[0.83-1.14]	0.76	0.79
excl_bfcd	rs7146581	I1	11511	8	1.05	[0.90-1.23]	0.54	1.06	[0.90-1.24]	0.47	0.40
excl_bfcd	rs7146581	I2	3333	8	0.96	[0.85-1.09]	0.55	0.93	[0.80-1.13]	0.35	0.27
excl_bfcd	rs7146581	I3	8178	8	1.06	[0.98-1.15]	0.14	1.06	[0.98-1.15]	0.14	0.41
excl_bfcd	rs7146581	S1	10188	8	1.01	[0.85-1.20]	0.89	1.02	[0.85-1.21]	0.85	0.40
excl_bfcd	rs7146581	S2	10310	8	1.02	[0.86-1.21]	0.81	1.07	[0.87-1.25]	0.53	0.29

excl_brfed	rs7146581	S3	9009	8	0.99	[0.83-1.19]	0.91	1.02	[0.82-1.23]	0.88	0.30
excl_brfed	rs7927894	I1	11472	8	1.08	[0.94-1.23]	0.29	1.07	[0.91-1.26]	0.42	0.34
excl_brfed	rs7927894	I2	3322	8	0.96	[0.86-1.07]	0.44	0.96	[0.86-1.07]	0.44	0.91
excl_brfed	rs7927894	I3	8150	8	1.05	[0.98-1.12]	0.16	1.03	[0.95-1.14]	0.44	0.23
excl_brfed	rs7927894	S1	10188	8	1.12	[0.97-1.30]	0.12	1.11	[0.93-1.35]	0.25	0.29
excl_brfed	rs7927894	S2	10271	8	1.09	[0.94-1.26]	0.26	1.07	[0.89-1.31]	0.49	0.26
excl_brfed	rs7927894	S3	9009	8	1.12	[0.96-1.31]	0.14	1.10	[0.88-1.41]	0.41	0.16
excl_brfed		M1	13789	8	0.99	[0.91-1.08]	0.9	1.01	[0.86-1.17]	0.87	0.02
excl_brfed		M2	13067	8	0.99	[0.91-1.09]	0.88	0.99	[0.85-1.16]	0.94	0.07
excl_brfed		M3	12385	8	0.98	[0.89-1.07]	0.61	1.01	[0.85-1.16]	0.91	0.02
excl_brfed		M4	11698	8	0.98	[0.89-1.08]	0.74	1.00	[0.84-1.16]	0.97	0.05
hdm_1y	flg	I1	908	2	1.05	[0.90-1.23]	0.52	1.09	[0.86-1.34]	0.49	0.18
hdm_1y	flg	S1	632	2	1.30	[0.93-1.82]	0.13	1.30	[0.93-1.82]	0.13	1.00
hdm_1y	flg	S2	908	2	1.05	[0.90-1.24]	0.51	1.10	[0.84-1.37]	0.49	0.15
hdm_1y	flg	S3	632	2	1.30	[0.94-1.80]	0.11	1.30	[0.94-1.80]	0.11	1.00
hdm_1y	rs10214237	I1	308	1	1.01	[0.96-1.07]	0.65	1.01	[0.96-1.07]	0.65	1.00
hdm_1y	rs10214237	S2	308	1	1.01	[0.96-1.07]	0.64	1.01	[0.96-1.07]	0.64	1.00
hdm_1y	rs1057258	I1	298	1	1.03	[0.97-1.08]	0.35	1.03	[0.97-1.08]	0.35	1.00
hdm_1y	rs1057258	S2	298	1	1.03	[0.98-1.09]	0.27	1.03	[0.98-1.09]	0.27	1.00
hdm_1y	rs10995251	I1	305	1	0.97	[0.93-1.02]	0.2	0.97	[0.93-1.02]	0.2	1.00
hdm_1y	rs10995251	S2	305	1	0.97	[0.93-1.02]	0.29	0.97	[0.93-1.02]	0.29	1.00
hdm_1y	rs112111458	I1	298	1	1.05	[0.96-1.16]	0.28	1.05	[0.96-1.16]	0.28	1.00
hdm_1y	rs112111458	S2	298	1	1.05	[0.96-1.16]	0.31	1.05	[0.96-1.16]	0.31	1.00
hdm_1y	rs11657987	I1	292	1	1.01	[0.95-1.07]	0.72	1.01	[0.95-1.07]	0.72	1.00
hdm_1y	rs11657987	S2	292	1	1.01	[0.95-1.07]	0.83	1.01	[0.95-1.07]	0.83	1.00
hdm_1y	rs12153855	I1	309	1	1.06	[0.96-1.18]	0.24	1.06	[0.96-1.18]	0.24	1.00
hdm_1y	rs12153855	S2	309	1	1.07	[0.95-1.20]	0.25	1.07	[0.95-1.20]	0.25	1.00
hdm_1y	rs13015714	I1	309	1	0.94	[0.88-1.01]	0.11	0.94	[0.88-1.01]	0.11	1.00
hdm_1y	rs13015714	S2	309	1	0.94	[0.88-1.01]	0.1	0.94	[0.88-1.01]	0.1	1.00
hdm_1y	rs16948048	I1	308	1	0.97	[0.92-1.01]	0.16	0.97	[0.92-1.01]	0.16	1.00
hdm_1y	rs16948048	S2	308	1	0.97	[0.92-1.02]	0.21	0.97	[0.92-1.02]	0.21	1.00
hdm_1y	rs17389644	I1	301	1	0.99	[0.90-1.08]	0.77	0.99	[0.90-1.08]	0.77	1.00
hdm_1y	rs17389644	S2	301	1	0.98	[0.90-1.08]	0.71	0.98	[0.90-1.08]	0.71	1.00
hdm_1y	rs17881320	I1	301	1	1.02	[0.96-1.09]	0.45	1.02	[0.96-1.09]	0.45	1.00
hdm_1y	rs17881320	S2	301	1	1.01	[0.95-1.08]	0.69	1.01	[0.95-1.08]	0.69	1.00
hdm_1y	rs2041733	I1	309	1	1.02	[0.99-1.05]	0.28	1.02	[0.99-1.05]	0.28	1.00
hdm_1y	rs2041733	S2	309	1	1.02	[0.99-1.05]	0.29	1.02	[0.99-1.05]	0.29	1.00
hdm_1y	rs2143950	I1	307	1	1.08	[1.01-1.16]	2.40E-02	1.08	[1.01-1.16]	2.40E-02	1.00
hdm_1y	rs2143950	S2	307	1	1.09	[1.01-1.18]	2.10E-02	1.09	[1.01-1.18]	2.10E-02	1.00
hdm_1y	rs2164983	I1	309	1	1.00	[0.95-1.05]	0.88	1.00	[0.95-1.05]	0.88	1.00
hdm_1y	rs2164983	S2	309	1	1.00	[0.95-1.05]	0.96	1.00	[0.95-1.05]	0.96	1.00
hdm_1y	rs2227483	I1	306	1	1.02	[0.96-1.07]	0.56	1.02	[0.96-1.07]	0.56	1.00
hdm_1y	rs2227483	S2	306	1	1.02	[0.96-1.08]	0.54	1.02	[0.96-1.08]	0.54	1.00
hdm_1y	rs2228145	I1	309	1	0.97	[0.93-1.02]	0.22	0.97	[0.93-1.02]	0.22	1.00
hdm_1y	rs2228145	S2	309	1	0.98	[0.93-1.02]	0.33	0.98	[0.93-1.02]	0.33	1.00
hdm_1y	rs2897442	I1	308	1	1.01	[0.98-1.05]	0.4	1.01	[0.98-1.05]	0.4	1.00
hdm_1y	rs2897442	S2	308	1	1.02	[0.98-1.05]	0.37	1.02	[0.98-1.05]	0.37	1.00
hdm_1y	rs479844	I1	309	1	0.99	[0.95-1.03]	0.59	0.99	[0.95-1.03]	0.59	1.00
hdm_1y	rs479844	S2	309	1	0.98	[0.93-1.02]	0.29	0.98	[0.93-1.02]	0.29	1.00
hdm_1y	rs6010620	I1	309	1	0.94	[0.88-1.01]	8.50E-02	0.94	[0.88-1.01]	8.50E-02	1.00
hdm_1y	rs6010620	S2	309	1	0.95	[0.88-1.01]	0.12	0.95	[0.88-1.01]	0.12	1.00
hdm_1y	rs6473227	I1	309	1	1.00	[0.97-1.03]	0.92	1.00	[0.97-1.03]	0.92	1.00
hdm_1y	rs6473227	S2	309	1	1.01	[0.97-1.04]	0.76	1.01	[0.97-1.04]	0.76	1.00
hdm_1y	rs7127307	I1	309	1	0.96	[0.92-1.01]	0.1	0.96	[0.92-1.01]	0.1	1.00
hdm_1y	rs7127307	S2	309	1	0.96	[0.92-1.01]	9.50E-02	0.96	[0.92-1.01]	9.50E-02	1.00
hdm_1y	rs7146581	I1	309	1	0.97	[0.93-1.01]	0.16	0.97	[0.93-1.01]	0.16	1.00
hdm_1y	rs7146581	S2	309	1	0.97	[0.93-1.01]	0.17	0.97	[0.93-1.01]	0.17	1.00
hdm_1y	rs7927894	I1	291	1	1.01	[0.96-1.06]	0.74	1.01	[0.96-1.06]	0.74	1.00
hdm_1y	rs7927894	S2	291	1	1.00	[0.95-1.06]	0.94	1.00	[0.95-1.06]	0.94	1.00
hdm_1y		M1	1084	2	1.00	[0.98-1.02]	0.77	1.00	[0.98-1.02]	0.77	0.34
hdm_1y		M2	775	2	1.01	[0.99-1.04]	0.33	1.01	[0.99-1.04]	0.33	1.00
hdm_1y		M3	1084	2	1.01	[0.99-1.03]	0.5	1.01	[0.99-1.03]	0.5	0.41
hdm_1y		M4	775	2	1.02	[0.99-1.05]	0.26	1.02	[0.99-1.05]	0.26	1.00
hdm_birth	flg	I1	2377	5	1.00	[0.99-1.02]	0.67	1.00	[0.99-1.02]	0.67	0.73
hdm_birth	flg	S1	1852	5	1.02	[0.96-1.08]	0.5	1.02	[0.96-1.08]	0.5	0.67
hdm_birth	flg	S2	2377	5	1.00	[0.99-1.02]	0.76	1.00	[0.99-1.02]	0.76	0.81
hdm_birth	flg	S3	1852	5	1.02	[0.96-1.08]	0.6	1.02	[0.96-1.08]	0.6	0.76
hdm_birth	rs10214237	I1	1834	4	1.00	[0.99-1.01]	0.65	0.99	[0.98-1.01]	0.45	0.18
hdm_birth	rs10214237	S1	1245	4	0.99	[0.97-1.00]	0.14	0.99	[0.96-1.01]	0.26	0.27
hdm_birth	rs10214237	S2	1834	4	1.00	[0.99-1.01]	0.71	0.99	[0.98-1.01]	0.44	0.16
hdm_birth	rs10214237	S3	1245	4	0.99	[0.97-1.00]	0.12	0.98	[0.95-1.02]	0.27	0.22
hdm_birth	rs1057258	I1	1818	4	1.00	[0.99-1.01]	0.59	1.00	[0.99-1.01]	0.59	0.56
hdm_birth	rs1057258	S1	1245	4	0.98	[0.96-1.01]	0.21	0.98	[0.96-1.01]	0.21	0.60
hdm_birth	rs1057258	S2	1818	4	1.00	[0.99-1.01]	0.65	1.00	[0.99-1.01]	0.65	0.46
hdm_birth	rs1057258	S3	1245	4	0.99	[0.96-1.01]	0.28	0.99	[0.96-1.01]	0.28	0.53
hdm_birth	rs10995251	I1	1832	4	1.00	[0.99-1.00]	0.22	0.99	[0.98-1.01]	0.31	0.23
hdm_birth	rs10995251	S1	1245	4	0.99	[0.98-1.00]	0.21	0.99	[0.97-1.02]	0.41	0.14
hdm_birth	rs10995251	S2	1832	4	1.00	[0.99-1.00]	0.28	1.00	[0.99-1.01]	0.34	0.29
hdm_birth	rs10995251	S3	1245	4	0.99	[0.98-1.01]	0.26	0.99	[0.97-1.01]	0.43	0.20
hdm_birth	rs112111458	I1	1820	4	1.00	[0.99-1.01]	0.88	0.99	[0.98-1.02]	0.53	0.14
hdm_birth	rs112111458	S1	1245	4	0.99	[0.97-1.00]	0.14	0.98	[0.96-1.01]	0.22	0.33
hdm_birth	rs112111458	S2	1820	4	1.00	[1.00-1.01]	0.58	1.00	[0.98-1.02]	0.68	0.18
hdm_birth	rs112111458	S3	1245	4	0.99	[0.97-1.01]	0.19	0.99	[0.96-1.01]	0.26	0.34
hdm_birth	rs11657987	I1	1805	4	1.00	[0.99-1.01]	0.44	1.00	[0.99-1.01]	0.44	0.72
hdm_birth	rs11657987	S1	1245	4	1.01	[0.99-1.03]	0.51	1.01	[0.99-1.03]	0.51	0.90
hdm_birth	rs11657987	S2	1805	4	1.00	[0.99-1.00]	0.31	1.00	[0.99-1.00]	0.31	0.71
hdm_birth	rs11657987	S3	1245	4	1.01	[0.98-1.03]	0.61	1.01	[0.98-1.03]	0.61	0.83
hdm_birth	rs12153855	I1	1837	4	1.00	[0.99-1.02]	0.47	1.00	[0.99-1.02]	0.47	0.75
hdm_birth	rs12153855	S1	1245	4	0.98	[0.95-1.02]	0.36	0.98	[0.95-1.02]	0.36	0.87
hdm_birth	rs12153855	S2	1837	4	1.00	[0.99-1.02]	0.45	1.00	[0.99-1.02]	0.45	0.79
hdm_birth	rs12153855	S3	1245	4	0.99	[0.95-1.02]	0.53	0.99	[0.95-1.02]	0.53	0.96

hdm_birth	rs12295535	I1	1245	3	1.06	[0.92-1.22]	0.44	1.06	[0.92-1.22]	0.44	0.79
hdm_birth	rs12295535	S1	1245	3	1.06	[0.91-1.24]	0.44	1.06	[0.91-1.24]	0.44	0.82
hdm_birth	rs12295535	S2	1245	3	1.11	[0.93-1.32]	0.24	1.11	[0.93-1.32]	0.24	0.54
hdm_birth	rs12295535	S3	1245	3	1.10	[0.92-1.31]	0.29	1.10	[0.92-1.31]	0.29	0.73
hdm_birth	rs13015714	I1	1837	4	1.00	[0.99-1.01]	0.45	1.00	[0.99-1.01]	0.45	0.52
hdm_birth	rs13015714	S1	1245	4	1.01	[0.99-1.02]	0.51	1.01	[0.99-1.02]	0.51	0.63
hdm_birth	rs13015714	S2	1837	4	1.00	[0.99-1.00]	0.32	1.00	[0.99-1.00]	0.32	0.58
hdm_birth	rs13015714	S3	1245	4	1.00	[0.99-1.02]	0.74	1.00	[0.99-1.02]	0.74	0.63
hdm_birth	rs16948048	I1	1835	4	1.00	[1.00-1.01]	0.29	1.00	[1.00-1.01]	0.29	0.54
hdm_birth	rs16948048	S1	1245	4	1.00	[0.98-1.02]	0.96	1.00	[0.98-1.02]	0.9	0.34
hdm_birth	rs16948048	S2	1835	4	1.00	[1.00-1.01]	0.29	1.00	[1.00-1.01]	0.29	0.45
hdm_birth	rs16948048	S3	1245	4	1.00	[0.98-1.02]	0.83	1.00	[0.98-1.02]	0.83	0.37
hdm_birth	rs17389644	I1	1825	4	1.00	[0.99-1.01]	0.63	1.00	[0.99-1.02]	0.8	0.33
hdm_birth	rs17389644	S1	1245	4	1.00	[0.97-1.03]	0.92	1.00	[0.95-1.05]	0.96	0.17
hdm_birth	rs17389644	S2	1825	4	1.00	[0.99-1.01]	0.66	1.00	[0.99-1.02]	0.82	0.31
hdm_birth	rs17389644	S3	1245	4	1.00	[0.97-1.03]	0.95	1.00	[0.95-1.05]	0.96	0.18
hdm_birth	rs17881320	I1	1820	4	1.00	[0.99-1.02]	0.49	1.00	[0.99-1.02]	0.49	0.89
hdm_birth	rs17881320	S1	1245	4	1.02	[0.98-1.06]	0.41	1.02	[0.98-1.06]	0.41	0.92
hdm_birth	rs17881320	S2	1820	4	1.00	[0.99-1.02]	0.62	1.00	[0.99-1.02]	0.62	0.89
hdm_birth	rs17881320	S3	1245	4	1.02	[0.98-1.07]	0.38	1.02	[0.98-1.07]	0.38	0.87
hdm_birth	rs2041733	I1	1837	4	1.00	[1.00-1.01]	0.27	1.00	[0.99-1.01]	0.49	0.35
hdm_birth	rs2041733	S1	1245	4	0.99	[0.98-1.01]	0.36	0.99	[0.98-1.01]	0.36	0.93
hdm_birth	rs2041733	S2	1837	4	1.01	[1.00-1.01]	0.2	1.00	[0.99-1.02]	0.8	0.25
hdm_birth	rs2041733	S3	1245	4	0.99	[0.97-1.01]	0.28	0.99	[0.97-1.01]	0.28	0.87
hdm_birth	rs2143950	I1	1833	4	1.00	[0.99-1.01]	0.65	1.02	[0.99-1.03]	0.27	0.13
hdm_birth	rs2143950	S1	1245	4	1.03	[1.00-1.07]	0.05	1.03	[1.00-1.07]	7.40E-02	0.30
hdm_birth	rs2143950	S2	1833	4	1.00	[0.99-1.01]	0.43	1.02	[0.99-1.03]	0.23	0.15
hdm_birth	rs2143950	S3	1245	4	1.04	[1.00-1.07]	0.04	1.04	[1.00-1.07]	4.20E-02	0.36
hdm_birth	rs2164983	I1	1837	4	1.00	[0.99-1.01]	0.79	1.00	[0.99-1.01]	0.79	0.85
hdm_birth	rs2164983	S1	1245	4	1.00	[0.98-1.02]	0.99	1.00	[0.98-1.02]	0.99	0.87
hdm_birth	rs2164983	S2	1837	4	1.00	[0.99-1.01]	0.96	1.00	[0.99-1.01]	0.96	0.88
hdm_birth	rs2164983	S3	1245	4	1.00	[0.98-1.02]	0.94	1.00	[0.98-1.02]	0.94	0.83
hdm_birth	rs2227483	I1	1833	4	0.99	[0.99-1.00]	0.11	0.99	[0.99-1.00]	0.11	0.59
hdm_birth	rs2227483	S1	1245	4	0.99	[0.98-1.01]	0.24	0.99	[0.98-1.01]	0.24	0.46
hdm_birth	rs2227483	S2	1833	4	0.99	[0.99-1.00]	0.16	0.99	[0.99-1.00]	0.16	0.64
hdm_birth	rs2227483	S3	1245	4	0.99	[0.98-1.01]	0.25	0.99	[0.98-1.01]	0.25	0.48
hdm_birth	rs2228145	I1	1837	4	1.00	[0.99-1.01]	0.88	1.01	[0.99-1.02]	0.39	0.22
hdm_birth	rs2228145	S1	1245	4	1.02	[1.00-1.04]	5.10E-02	1.02	[1.00-1.04]	5.10E-02	0.93
hdm_birth	rs2228145	S2	1837	4	1.00	[0.99-1.01]	0.93	1.00	[0.99-1.01]	0.5	0.28
hdm_birth	rs2228145	S3	1245	4	1.02	[1.00-1.04]	7.50E-02	1.02	[1.00-1.04]	7.50E-02	0.89
hdm_birth	rs2897442	I1	1836	4	1.00	[1.00-1.01]	0.24	1.00	[1.00-1.01]	0.24	0.68
hdm_birth	rs2897442	S1	1245	4	1.00	[0.99-1.02]	0.74	1.00	[0.99-1.02]	0.74	0.53
hdm_birth	rs2897442	S2	1836	4	1.01	[1.00-1.01]	0.16	1.01	[1.00-1.01]	0.16	0.50
hdm_birth	rs2897442	S3	1245	4	1.00	[0.99-1.02]	0.77	1.00	[0.99-1.02]	0.77	0.38
hdm_birth	rs479844	I1	1837	4	1.00	[0.99-1.00]	0.65	1.00	[0.99-1.00]	0.65	0.89
hdm_birth	rs479844	S1	1245	4	1.00	[0.98-1.02]	0.89	1.00	[0.98-1.02]	0.89	0.82
hdm_birth	rs479844	S2	1837	4	1.00	[0.99-1.00]	0.63	1.00	[0.99-1.00]	0.63	0.80
hdm_birth	rs479844	S3	1245	4	1.00	[0.98-1.02]	0.94	1.00	[0.98-1.02]	0.94	0.72
hdm_birth	rs6010620	I1	1837	4	0.99	[0.98-1.00]	0.24	0.99	[0.98-1.00]	0.24	1.00
hdm_birth	rs6010620	S1	1245	4	0.99	[0.97-1.02]	0.7	0.99	[0.97-1.02]	0.7	0.95
hdm_birth	rs6010620	S2	1837	4	0.99	[0.98-1.00]	0.11	0.99	[0.98-1.00]	0.11	0.99
hdm_birth	rs6010620	S3	1245	4	0.99	[0.97-1.02]	0.57	0.99	[0.97-1.02]	0.57	0.94
hdm_birth	rs6473227	I1	1837	4	1.01	[1.00-1.02]	0.15	1.01	[1.00-1.02]	0.15	0.92
hdm_birth	rs6473227	S1	1245	4	1.01	[0.99-1.03]	0.27	1.01	[0.99-1.03]	0.27	0.81
hdm_birth	rs6473227	S2	1837	4	1.01	[1.00-1.02]	0.21	1.01	[1.00-1.02]	0.21	0.90
hdm_birth	rs6473227	S3	1245	4	1.01	[0.99-1.03]	0.37	1.01	[0.99-1.03]	0.37	0.71
hdm_birth	rs7127307	I1	1837	4	1.00	[0.99-1.01]	0.54	1.00	[0.99-1.01]	0.54	0.51
hdm_birth	rs7127307	S1	1245	4	1.00	[0.98-1.03]	0.72	1.00	[0.98-1.03]	0.72	0.37
hdm_birth	rs7127307	S2	1837	4	1.00	[0.99-1.01]	0.58	1.00	[0.99-1.01]	0.58	0.57
hdm_birth	rs7127307	S3	1245	4	1.00	[0.98-1.03]	0.79	1.00	[0.98-1.03]	0.79	0.40
hdm_birth	rs7146581	I1	1835	4	1.00	[0.99-1.01]	0.83	1.00	[0.99-1.01]	0.83	0.70
hdm_birth	rs7146581	S1	1245	4	1.00	[0.99-1.02]	0.66	1.00	[0.99-1.02]	0.66	0.72
hdm_birth	rs7146581	S2	1835	4	1.00	[0.99-1.01]	0.76	1.00	[0.99-1.01]	0.76	0.83
hdm_birth	rs7146581	S3	1245	4	1.00	[0.99-1.02]	0.82	1.00	[0.99-1.02]	0.82	0.74
hdm_birth	rs7927894	I1	1799	4	1.00	[0.99-1.01]	0.92	0.99	[0.96-1.03]	0.48	0.03
hdm_birth	rs7927894	S1	1245	4	0.98	[0.96-1.00]	1.50E-02	0.98	[0.96-1.00]	1.50E-02	0.99
hdm_birth	rs7927894	S2	1799	4	1.00	[0.99-1.01]	0.9	0.99	[0.97-1.03]	0.53	0.04
hdm_birth	rs7927894	S3	1245	4	0.98	[0.96-1.00]	2.20E-02	0.98	[0.96-1.00]	2.20E-02	0.96
hdm_birth		M1	2877	5	1.00	[0.99-1.00]	0.31	1.00	[0.99-1.00]	0.41	0.24
hdm_birth		M2	2285	5	1.00	[0.99-1.00]	0.26	0.99	[0.98-1.01]	0.46	0.16
hdm_birth		M3	2877	5	1.00	[0.99-1.00]	0.32	1.00	[0.99-1.00]	0.4	0.25
hdm_birth		M4	2285	5	1.00	[0.99-1.00]	0.26	1.00	[0.98-1.01]	0.45	0.17
no2	flg	I1	4727	5	1.03	[0.99-1.07]	0.16	1.03	[0.97-1.09]	0.34	0.16
no2	flg	S1	4275	5	1.02	[0.98-1.06]	0.38	1.01	[0.95-1.08]	0.7	0.14
no2	flg	S2	4727	5	1.03	[0.99-1.08]	0.12	1.03	[0.97-1.10]	0.31	0.13
no2	flg	S3	4275	5	1.02	[0.98-1.06]	0.35	1.01	[0.95-1.09]	0.72	0.10
no2	rs10214237	I1	5330	5	1.00	[0.99-1.01]	0.87	1.00	[0.98-1.01]	0.59	0.26
no2	rs10214237	S1	4813	5	1.00	[0.99-1.01]	0.99	1.00	[0.99-1.01]	0.92	0.36
no2	rs10214237	S2	5330	5	1.00	[0.99-1.01]	0.84	0.99	[0.98-1.02]	0.49	0.18
no2	rs10214237	S3	4813	5	1.00	[0.99-1.01]	0.96	1.00	[0.99-1.01]	0.79	0.31
no2	rs1057258	I1	5315	5	0.99	[0.98-1.01]	0.31	0.99	[0.98-1.01]	0.31	0.48
no2	rs1057258	S1	4813	5	0.99	[0.98-1.01]	0.29	0.99	[0.98-1.01]	0.29	0.89
no2	rs1057258	S2	5315	5	0.99	[0.98-1.01]	0.26	0.99	[0.98-1.01]	0.26	0.56
no2	rs1057258	S3	4813	5	0.99	[0.98-1.01]	0.25	0.99	[0.98-1.01]	0.25	0.89
no2	rs10995251	I1	5328	5	1.01	[1.00-1.02]	0.13	1.01	[1.00-1.02]	0.13	0.95
no2	rs10995251	S1	4813	5	1.01	[1.00-1.02]	0.18	1.01	[1.00-1.02]	0.18	0.91
no2	rs10995251	S2	5328	5	1.01	[1.00-1.02]	0.22	1.01	[1.00-1.02]	0.22	0.98
no2	rs10995251	S3	4813	5	1.01	[0.99-1.02]	0.29	1.01	[0.99-1.02]	0.29	0.96
no2	rs112111458	I1	5316	5	0.99	[0.98-1.01]	0.46	0.99	[0.98-1.01]	0.46	0.99
no2	rs112111458	S1	4813	5	1.00	[0.98-1.01]	0.55	1.00	[0.98-1.01]	0.55	0.99
no2	rs112111458	S2	5316	5	0.99	[0.98-1.01]	0.32	0.99	[0.98-1.01]	0.32	0.99

no2	rs112111458	S3	4813	5	0.99	[0.98-1.01]	0.38	0.99	[0.98-1.01]	0.38	0.98
no2	rs11657987	I1	5304	5	1.01	[1.00-1.02]	0.11	1.01	[1.00-1.02]	0.11	0.39
no2	rs11657987	S1	4813	5	1.01	[1.00-1.02]	9.30E-02	1.01	[1.00-1.02]	0.11	0.32
no2	rs11657987	S2	5304	5	1.01	[1.00-1.02]	0.12	1.01	[1.00-1.02]	0.12	0.45
no2	rs11657987	S3	4813	5	1.01	[1.00-1.02]	0.1	1.01	[1.00-1.02]	0.1	0.39
no2	rs12153855	I1	5332	5	1.00	[0.98-1.01]	0.62	1.00	[0.97-1.03]	0.75	0.06
no2	rs12153855	S1	4813	5	1.00	[0.98-1.01]	0.65	0.99	[0.97-1.02]	0.6	0.18
no2	rs12153855	S2	5332	5	0.99	[0.98-1.01]	0.54	0.99	[0.96-1.03]	0.71	0.04
no2	rs12153855	S3	4813	5	1.00	[0.98-1.01]	0.57	0.99	[0.97-1.02]	0.51	0.19
no2	rs12295535	I1	5332	5	1.01	[0.98-1.05]	0.48	1.01	[0.98-1.05]	0.48	0.70
no2	rs12295535	S1	4813	5	1.02	[0.98-1.06]	0.4	1.02	[0.98-1.06]	0.4	0.56
no2	rs12295535	S2	5332	5	1.02	[0.98-1.06]	0.45	1.02	[0.98-1.06]	0.45	0.63
no2	rs12295535	S3	4813	5	1.02	[0.98-1.06]	0.36	1.02	[0.98-1.06]	0.36	0.49
no2	rs13015714	I1	5332	5	1.01	[0.99-1.02]	0.37	1.01	[0.99-1.02]	0.37	0.67
no2	rs13015714	S1	4813	5	1.01	[0.99-1.02]	0.41	1.01	[0.99-1.02]	0.41	0.46
no2	rs13015714	S2	5332	5	1.01	[0.99-1.02]	0.36	1.01	[0.99-1.02]	0.36	0.66
no2	rs13015714	S3	4813	5	1.01	[0.99-1.02]	0.4	1.01	[0.99-1.02]	0.4	0.46
no2	rs16948048	I1	5330	5	1.00	[0.99-1.01]	0.63	1.00	[0.99-1.01]	0.63	0.80
no2	rs16948048	S1	4813	5	1.00	[0.99-1.01]	0.64	1.00	[0.99-1.01]	0.64	0.67
no2	rs16948048	S2	5330	5	1.00	[0.99-1.01]	0.65	1.00	[0.99-1.01]	0.65	0.68
no2	rs16948048	S3	4813	5	1.00	[0.99-1.01]	0.67	1.00	[0.99-1.01]	0.67	0.52
no2	rs17389644	I1	5324	5	1.00	[0.99-1.01]	0.71	1.00	[0.99-1.01]	0.71	0.66
no2	rs17389644	S1	4813	5	1.00	[0.98-1.01]	0.65	1.00	[0.98-1.01]	0.65	0.59
no2	rs17389644	S2	5324	5	1.00	[0.99-1.01]	0.81	1.00	[0.99-1.01]	0.81	0.57
no2	rs17389644	S3	4813	5	1.00	[0.98-1.01]	0.71	1.00	[0.98-1.01]	0.71	0.55
no2	rs17881320	I1	5317	5	1.00	[0.98-1.02]	0.9	1.00	[0.97-1.03]	0.77	0.11
no2	rs17881320	S1	4813	5	1.00	[0.98-1.02]	0.96	1.01	[0.97-1.04]	0.64	0.06
no2	rs17881320	S2	5317	5	1.00	[0.98-1.02]	0.9	1.00	[0.97-1.03]	0.79	0.13
no2	rs17881320	S3	4813	5	1.00	[0.98-1.02]	0.98	1.01	[0.97-1.04]	0.67	0.05
no2	rs2041733	I1	5332	5	1.01	[1.00-1.02]	0.19	1.00	[0.98-1.03]	0.88	0.03
no2	rs2041733	S1	4813	5	1.01	[1.00-1.02]	0.17	1.00	[0.98-1.03]	0.89	0.02
no2	rs2041733	S2	5332	5	1.01	[1.00-1.02]	0.23	1.00	[0.98-1.03]	0.93	0.04
no2	rs2041733	S3	4813	5	1.01	[1.00-1.02]	0.18	1.00	[0.98-1.03]	0.9	0.02
no2	rs2143950	I1	5328	5	0.99	[0.98-1.00]	0.12	0.99	[0.98-1.00]	0.12	0.50
no2	rs2143950	S1	4813	5	0.99	[0.97-1.00]	8.80E-02	0.99	[0.97-1.00]	8.80E-02	0.49
no2	rs2143950	S2	5328	5	0.99	[0.97-1.00]	0.11	0.99	[0.97-1.00]	0.11	0.47
no2	rs2143950	S3	4813	5	0.99	[0.97-1.00]	7.70E-02	0.99	[0.97-1.00]	7.70E-02	0.52
no2	rs2164983	I1	5332	5	1.00	[0.99-1.01]	0.81	1.00	[0.99-1.01]	0.81	0.96
no2	rs2164983	S1	4813	5	1.00	[0.98-1.01]	0.77	1.00	[0.98-1.01]	0.77	0.89
no2	rs2164983	S2	5332	5	1.00	[0.98-1.01]	0.8	1.00	[0.98-1.01]	0.8	0.98
no2	rs2164983	S3	4813	5	1.00	[0.98-1.01]	0.79	1.00	[0.98-1.01]	0.79	0.93
no2	rs2227483	I1	5329	5	1.00	[0.99-1.01]	0.73	1.00	[0.99-1.01]	0.73	0.46
no2	rs2227483	S1	4813	5	1.00	[0.99-1.01]	0.77	1.00	[0.99-1.01]	0.77	0.45
no2	rs2227483	S2	5329	5	1.00	[0.99-1.01]	0.73	1.00	[0.99-1.01]	0.73	0.41
no2	rs2227483	S3	4813	5	1.00	[0.99-1.01]	0.82	1.00	[0.99-1.01]	0.82	0.46
no2	rs2228145	I1	5332	5	1.01	[1.00-1.02]	0.19	1.01	[0.99-1.02]	0.45	0.10
no2	rs2228145	S1	4813	5	1.01	[1.00-1.02]	0.18	1.01	[0.99-1.03]	0.44	0.06
no2	rs2228145	S2	5332	5	1.01	[1.00-1.02]	0.16	1.01	[0.99-1.03]	0.4	0.08
no2	rs2228145	S3	4813	5	1.01	[1.00-1.02]	0.15	1.01	[0.99-1.03]	0.41	0.06
no2	rs2897442	I1	5332	5	1.00	[0.99-1.01]	0.86	1.00	[0.99-1.01]	0.86	0.80
no2	rs2897442	S1	4813	5	1.00	[0.99-1.02]	0.58	1.00	[0.99-1.02]	0.58	0.81
no2	rs2897442	S2	5332	5	1.00	[0.99-1.01]	0.83	1.00	[0.99-1.01]	0.83	0.68
no2	rs2897442	S3	4813	5	1.00	[0.99-1.02]	0.62	1.00	[0.99-1.02]	0.62	0.80
no2	rs479844	I1	5332	5	1.00	[0.99-1.01]	0.61	1.00	[0.99-1.01]	0.61	0.47
no2	rs479844	S1	4813	5	1.00	[0.99-1.01]	0.53	1.00	[0.99-1.01]	0.53	0.45
no2	rs479844	S2	5332	5	1.00	[0.99-1.01]	0.7	1.00	[0.99-1.01]	0.78	0.38
no2	rs479844	S3	4813	5	1.00	[0.99-1.01]	0.6	1.00	[0.99-1.01]	0.6	0.50
no2	rs6010620	I1	5332	5	0.99	[0.98-1.00]	0.22	0.99	[0.98-1.01]	0.41	0.25
no2	rs6010620	S1	4813	5	0.99	[0.98-1.00]	0.14	0.99	[0.97-1.01]	0.36	0.13
no2	rs6010620	S2	5332	5	0.99	[0.98-1.00]	0.16	0.99	[0.98-1.01]	0.38	0.21
no2	rs6010620	S3	4813	5	0.99	[0.98-1.00]	0.11	0.99	[0.97-1.01]	0.3	0.15
no2	rs6473227	I1	5332	5	1.00	[0.99-1.01]	0.83	1.00	[0.99-1.01]	0.93	0.34
no2	rs6473227	S1	4813	5	1.00	[0.99-1.01]	0.73	1.00	[0.99-1.02]	0.96	0.19
no2	rs6473227	S2	5332	5	1.00	[0.99-1.01]	0.94	1.00	[0.99-1.01]	0.95	0.32
no2	rs6473227	S3	4813	5	1.00	[0.99-1.01]	0.82	1.00	[0.99-1.02]	0.99	0.21
no2	rs7127307	I1	5332	5	1.00	[0.99-1.01]	0.86	1.00	[0.99-1.01]	0.86	0.43
no2	rs7127307	S1	4813	5	1.00	[0.99-1.01]	0.86	1.00	[0.99-1.01]	0.86	0.50
no2	rs7127307	S2	5332	5	1.00	[0.99-1.01]	0.98	1.00	[0.99-1.01]	0.94	0.33
no2	rs7127307	S3	4813	5	1.00	[0.99-1.01]	0.97	1.00	[0.99-1.01]	0.97	0.48
no2	rs7146581	I1	5331	5	1.00	[0.98-1.01]	0.48	0.99	[0.97-1.02]	0.48	0.02
no2	rs7146581	S1	4813	5	1.00	[0.98-1.01]	0.59	0.99	[0.97-1.02]	0.67	0.03
no2	rs7146581	S2	5331	5	1.00	[0.98-1.01]	0.5	0.99	[0.96-1.02]	0.53	0.01
no2	rs7146581	S3	4813	5	1.00	[0.98-1.01]	0.65	1.00	[0.97-1.02]	0.74	0.02
no2	rs7927894	I1	5300	5	1.00	[0.99-1.01]	0.38	1.00	[0.99-1.01]	0.38	0.50
no2	rs7927894	S1	4813	5	1.00	[0.99-1.01]	0.38	1.00	[0.99-1.01]	0.39	0.39
no2	rs7927894	S2	5300	5	0.99	[0.98-1.01]	0.32	0.99	[0.98-1.01]	0.32	0.50
no2	rs7927894	S3	4813	5	0.99	[0.98-1.01]	0.34	0.99	[0.98-1.01]	0.35	0.38
no2		M1	5753	5	1.01	[1.00-1.02]	3.50E-02	1.01	[0.99-1.02]	0.2	0.03
no2		M2	5234	5	1.01	[1.00-1.02]	2.30E-02	1.01	[0.99-1.03]	0.19	0.01
no2		M3	5753	5	1.01	[1.00-1.02]	0.04	1.01	[0.99-1.02]	0.21	0.03
no2		M4	5234	5	1.01	[1.00-1.02]	2.60E-02	1.01	[0.99-1.03]	0.2	0.01
pm10	flg	I1	3237	4	1.02	[0.91-1.13]	0.77	0.98	[0.80-1.24]	0.83	0.19
pm10	flg	S1	2785	4	1.01	[0.90-1.13]	0.88	0.94	[0.74-1.29]	0.63	0.09
pm10	flg	S2	3237	4	1.03	[0.92-1.14]	0.64	0.99	[0.81-1.26]	0.93	0.18
pm10	flg	S3	2785	4	1.02	[0.91-1.14]	0.75	0.95	[0.73-1.33]	0.73	0.07
pm10	rs10214237	I1	3502	4	0.98	[0.94-1.02]	0.38	0.98	[0.93-1.03]	0.47	0.28
pm10	rs10214237	S1	2985	4	0.99	[0.95-1.03]	0.54	0.99	[0.95-1.03]	0.54	0.56
pm10	rs10214237	S2	3502	4	0.98	[0.94-1.02]	0.35	0.98	[0.93-1.03]	0.45	0.26
pm10	rs10214237	S3	2985	4	0.99	[0.94-1.03]	0.5	0.99	[0.94-1.03]	0.5	0.42
pm10	rs1057258	I1	3487	4	0.98	[0.94-1.03]	0.46	0.98	[0.94-1.03]	0.46	0.63
pm10	rs1057258	S1	2985	4	0.98	[0.93-1.02]	0.3	0.98	[0.93-1.02]	0.3	0.42

pm10	rs1057258	S2	3487	4	0.98	[0.93-1.03]	0.41	0.98	[0.93-1.03]	0.41	0.65
pm10	rs1057258	S3	2985	4	0.97	[0.93-1.02]	0.25	0.97	[0.93-1.02]	0.25	0.41
pm10	rs10995251	I1	3500	4	1.01	[0.97-1.04]	0.78	1.01	[0.97-1.04]	0.78	0.98
pm10	rs10995251	S1	2985	4	1.01	[0.97-1.04]	0.75	1.01	[0.97-1.04]	0.75	0.92
pm10	rs10995251	S2	3500	4	1.00	[0.97-1.04]	0.86	1.00	[0.97-1.04]	0.86	0.98
pm10	rs10995251	S3	2985	4	1.00	[0.97-1.04]	0.84	1.00	[0.97-1.04]	0.84	0.94
pm10	rs112111458	I1	3488	4	1.00	[0.95-1.05]	0.95	1.01	[0.94-1.07]	0.79	0.25
pm10	rs112111458	S1	2985	4	1.00	[0.95-1.04]	0.85	1.01	[0.93-1.07]	0.88	0.19
pm10	rs112111458	S2	3488	4	0.99	[0.95-1.04]	0.82	1.01	[0.93-1.07]	0.83	0.21
pm10	rs112111458	S3	2985	4	0.99	[0.94-1.04]	0.76	1.01	[0.93-1.08]	0.88	0.15
pm10	rs11657987	I1	3476	4	1.00	[0.96-1.04]	0.93	1.00	[0.96-1.04]	0.93	0.51
pm10	rs11657987	S1	2985	4	1.00	[0.97-1.04]	0.91	1.00	[0.97-1.04]	0.91	0.64
pm10	rs11657987	S2	3476	4	1.00	[0.96-1.04]	0.94	1.00	[0.96-1.04]	0.94	0.50
pm10	rs11657987	S3	2985	4	1.00	[0.97-1.04]	0.93	1.00	[0.97-1.04]	0.93	0.65
pm10	rs12153855	I1	3504	4	1.01	[0.95-1.07]	0.77	1.04	[0.93-1.13]	0.53	0.06
pm10	rs12153855	S1	2985	4	1.01	[0.95-1.07]	0.83	1.01	[0.95-1.07]	0.83	0.38
pm10	rs12153855	S2	3504	4	1.01	[0.95-1.07]	0.76	1.04	[0.92-1.13]	0.53	0.05
pm10	rs12153855	S3	2985	4	1.01	[0.95-1.07]	0.83	1.01	[0.95-1.07]	0.83	0.46
pm10	rs12295535	I1	3504	4	1.12	[0.97-1.29]	0.11	1.11	[0.93-1.35]	0.25	0.32
pm10	rs12295535	S1	2985	4	1.12	[0.97-1.29]	0.13	1.10	[0.87-1.41]	0.41	0.21
pm10	rs12295535	S2	3504	4	1.13	[0.98-1.30]	8.70E-02	1.13	[0.96-1.33]	0.14	0.36
pm10	rs12295535	S3	2985	4	1.13	[0.98-1.31]	9.30E-02	1.13	[0.98-1.31]	9.30E-02	0.38
pm10	rs13015714	I1	3504	4	0.99	[0.95-1.03]	0.62	0.99	[0.95-1.03]	0.62	0.51
pm10	rs13015714	S1	2985	4	0.99	[0.95-1.03]	0.58	0.99	[0.95-1.03]	0.58	0.38
pm10	rs13015714	S2	3504	4	0.99	[0.95-1.03]	0.58	0.99	[0.95-1.03]	0.58	0.58
pm10	rs13015714	S3	2985	4	0.99	[0.95-1.03]	0.54	0.99	[0.95-1.03]	0.54	0.41
pm10	rs16948048	I1	3502	4	1.01	[0.97-1.05]	0.72	1.01	[0.97-1.05]	0.72	0.46
pm10	rs16948048	S1	2985	4	1.01	[0.97-1.04]	0.8	1.00	[0.96-1.05]	0.92	0.29
pm10	rs16948048	S2	3502	4	1.01	[0.97-1.05]	0.58	1.01	[0.97-1.05]	0.58	0.42
pm10	rs16948048	S3	2985	4	1.01	[0.97-1.05]	0.61	1.01	[0.96-1.06]	0.82	0.23
pm10	rs17389644	I1	3496	4	1.01	[0.97-1.05]	0.69	1.01	[0.97-1.05]	0.69	0.52
pm10	rs17389644	S1	2985	4	1.01	[0.97-1.06]	0.52	1.01	[0.97-1.06]	0.52	0.67
pm10	rs17389644	S2	3496	4	1.01	[0.97-1.06]	0.63	1.01	[0.97-1.06]	0.63	0.50
pm10	rs17389644	S3	2985	4	1.01	[0.97-1.06]	0.55	1.01	[0.97-1.06]	0.55	0.58
pm10	rs17881320	I1	3489	4	1.00	[0.92-1.07]	0.91	0.99	[0.88-1.12]	0.8	0.18
pm10	rs17881320	S1	2985	4	1.01	[0.93-1.09]	0.86	1.01	[0.90-1.13]	0.93	0.19
pm10	rs17881320	S2	3489	4	0.99	[0.92-1.07]	0.87	0.99	[0.89-1.10]	0.82	0.25
pm10	rs17881320	S3	2985	4	1.00	[0.93-1.08]	0.94	1.00	[0.90-1.11]	0.99	0.23
pm10	rs2041733	I1	3504	4	0.99	[0.95-1.03]	0.56	1.04	[0.94-1.09]	0.48	0.00
pm10	rs2041733	S1	2985	4	0.99	[0.95-1.02]	0.46	1.01	[0.92-1.08]	0.86	0.01
pm10	rs2041733	S2	3504	4	0.99	[0.95-1.02]	0.54	1.04	[0.94-1.10]	0.46	0.00
pm10	rs2041733	S3	2985	4	0.99	[0.95-1.02]	0.44	1.01	[0.92-1.08]	0.85	0.01
pm10	rs2143950	I1	3500	4	1.00	[0.95-1.06]	0.9	0.98	[0.87-1.13]	0.75	0.02
pm10	rs2143950	S1	2985	4	1.00	[0.95-1.05]	0.94	0.96	[0.84-1.14]	0.5	0.01
pm10	rs2143950	S2	3500	4	0.99	[0.94-1.05]	0.85	0.97	[0.86-1.13]	0.66	0.01
pm10	rs2143950	S3	2985	4	0.99	[0.94-1.04]	0.7	0.95	[0.83-1.13]	0.43	0.01
pm10	rs2164983	I1	3504	4	1.01	[0.96-1.07]	0.62	1.01	[0.95-1.08]	0.75	0.33
pm10	rs2164983	S1	2985	4	1.01	[0.96-1.07]	0.61	1.01	[0.93-1.09]	0.83	0.19
pm10	rs2164983	S2	3504	4	1.02	[0.96-1.07]	0.54	1.01	[0.96-1.08]	0.63	0.35
pm10	rs2164983	S3	2985	4	1.02	[0.96-1.07]	0.56	1.01	[0.94-1.10]	0.77	0.20
pm10	rs2227483	I1	3501	4	0.99	[0.96-1.03]	0.6	0.99	[0.96-1.03]	0.6	0.89
pm10	rs2227483	S1	2985	4	0.99	[0.96-1.03]	0.67	0.99	[0.96-1.03]	0.67	0.78
pm10	rs2227483	S2	3501	4	0.99	[0.96-1.03]	0.6	0.99	[0.96-1.03]	0.6	0.92
pm10	rs2227483	S3	2985	4	0.99	[0.96-1.03]	0.68	0.99	[0.96-1.03]	0.68	0.81
pm10	rs2228145	I1	3504	4	1.00	[0.97-1.04]	0.85	1.00	[0.97-1.04]	0.84	0.38
pm10	rs2228145	S1	2985	4	1.01	[0.97-1.04]	0.77	1.01	[0.96-1.05]	0.73	0.24
pm10	rs2228145	S2	3504	4	1.01	[0.97-1.05]	0.64	1.01	[0.97-1.05]	0.64	0.45
pm10	rs2228145	S3	2985	4	1.01	[0.97-1.05]	0.66	1.01	[0.97-1.06]	0.65	0.26
pm10	rs2897442	I1	3504	4	1.00	[0.96-1.04]	0.97	1.00	[0.96-1.04]	0.97	0.79
pm10	rs2897442	S1	2985	4	1.00	[0.96-1.04]	0.96	1.00	[0.96-1.04]	0.96	0.83
pm10	rs2897442	S2	3504	4	0.99	[0.95-1.04]	0.77	0.99	[0.95-1.04]	0.77	0.88
pm10	rs2897442	S3	2985	4	1.00	[0.96-1.04]	0.88	1.00	[0.96-1.04]	0.88	0.89
pm10	rs479844	I1	3504	4	0.97	[0.93-1.00]	8.30E-02	0.95	[0.89-1.03]	0.17	0.10
pm10	rs479844	S1	2985	4	0.97	[0.93-1.01]	9.70E-02	0.95	[0.88-1.05]	0.2	0.03
pm10	rs479844	S2	3504	4	0.97	[0.93-1.00]	7.40E-02	0.95	[0.89-1.04]	0.16	0.08
pm10	rs479844	S3	2985	4	0.97	[0.93-1.00]	8.30E-02	0.94	[0.87-1.05]	0.19	0.02
pm10	rs6010620	I1	3504	4	0.98	[0.94-1.02]	0.32	0.98	[0.94-1.02]	0.32	0.75
pm10	rs6010620	S1	2985	4	0.97	[0.93-1.02]	0.24	0.97	[0.93-1.02]	0.24	0.98
pm10	rs6010620	S2	3504	4	0.98	[0.93-1.02]	0.3	0.98	[0.93-1.02]	0.3	0.70
pm10	rs6010620	S3	2985	4	0.97	[0.93-1.02]	0.22	0.97	[0.93-1.02]	0.22	0.97
pm10	rs6473227	I1	3504	4	1.01	[0.97-1.05]	0.65	1.02	[0.96-1.08]	0.54	0.08
pm10	rs6473227	S1	2985	4	1.00	[0.97-1.04]	0.96	1.00	[0.97-1.04]	0.96	0.72
pm10	rs6473227	S2	3504	4	1.01	[0.97-1.05]	0.63	1.02	[0.96-1.07]	0.59	0.17
pm10	rs6473227	S3	2985	4	1.00	[0.97-1.04]	0.84	1.00	[0.97-1.04]	0.84	0.75
pm10	rs7127307	I1	3504	4	1.01	[0.97-1.05]	0.74	1.01	[0.97-1.05]	0.74	0.69
pm10	rs7127307	S1	2985	4	1.01	[0.97-1.05]	0.6	1.01	[0.97-1.05]	0.6	0.46
pm10	rs7127307	S2	3504	4	1.00	[0.97-1.04]	0.83	1.00	[0.97-1.04]	0.83	0.61
pm10	rs7127307	S3	2985	4	1.01	[0.97-1.05]	0.65	1.01	[0.97-1.05]	0.65	0.41
pm10	rs7146581	I1	3503	4	1.02	[0.98-1.07]	0.28	1.04	[0.96-1.11]	0.34	0.09
pm10	rs7146581	S1	2985	4	1.03	[0.98-1.07]	0.24	1.04	[0.96-1.12]	0.32	0.05
pm10	rs7146581	S2	3503	4	1.02	[0.98-1.07]	0.27	1.04	[0.96-1.11]	0.32	0.07
pm10	rs7146581	S3	2985	4	1.03	[0.98-1.07]	0.25	1.05	[0.95-1.13]	0.33	0.03
pm10	rs7927894	I1	3472	4	0.99	[0.95-1.02]	0.46	0.99	[0.95-1.02]	0.46	0.49
pm10	rs7927894	S1	2985	4	0.99	[0.95-1.03]	0.59	0.99	[0.95-1.03]	0.59	0.91
pm10	rs7927894	S2	3472	4	0.99	[0.95-1.02]	0.49	0.99	[0.95-1.02]	0.49	0.42
pm10	rs7927894	S3	2985	4	0.99	[0.95-1.03]	0.66	0.99	[0.95-1.03]	0.66	0.94
pm10		M1	3884	4	1.01	[0.99-1.03]	0.45	0.99	[0.95-1.06]	0.81	0.03
pm10		M2	3365	4	1.01	[0.99-1.04]	0.39	1.00	[0.95-1.06]	0.9	0.02
pm10		M3	3884	4	1.01	[0.99-1.03]	0.4	1.00	[0.95-1.06]	0.88	0.04
pm10		M4	3365	4	1.01	[0.99-1.04]	0.35	1.00	[0.95-1.06]	0.94	0.02
siblings	flg	I1	16745	10	0.98	[0.77-1.24]	0.86	1.01	[0.70-1.42]	0.96	0.08

siblings	flg	I2	7375	10	1.93	[1.62-2.30]	1.80E-13	1.91	[1.53-2.41]	8.80E-09	0.26
siblings	flg	I3	9370	10	1.87	[1.59-2.19]	1.70E-14	1.87	[1.57-2.23]	5.80E-12	0.37
siblings	flg	S1	12529	10	0.93	[0.72-1.19]	0.55	0.93	[0.72-1.19]	0.55	0.47
siblings	flg	S2	15415	10	0.95	[0.73-1.24]	0.72	0.98	[0.64-1.47]	0.93	0.05
siblings	flg	S3	11223	10	0.90	[0.68-1.18]	0.44	0.89	[0.65-1.22]	0.45	0.36
siblings	rs10214237	I1	19155	11	0.84	[0.75-0.94]	3.00E-03	0.84	[0.75-0.94]	3.00E-03	0.99
siblings	rs10214237	I2	9142	11	1.20	[1.11-1.30]	8.40E-06	1.20	[1.11-1.30]	8.40E-06	0.99
siblings	rs10214237	I3	10013	11	1.02	[0.94-1.10]	0.63	1.02	[0.94-1.10]	0.63	0.86
siblings	rs10214237	S1	13402	11	0.84	[0.74-0.95]	6.20E-03	0.84	[0.74-0.95]	6.20E-03	0.93
siblings	rs10214237	S2	15682	11	0.84	[0.74-0.95]	6.20E-03	0.84	[0.74-0.95]	6.20E-03	0.96
siblings	rs10214237	S3	9945	11	0.83	[0.73-0.96]	8.80E-03	0.83	[0.73-0.96]	8.80E-03	0.74
siblings	rs1057258	I1	18974	11	0.97	[0.84-1.11]	0.64	0.97	[0.81-1.15]	0.7	0.24
siblings	rs1057258	I2	9102	11	1.07	[0.97-1.18]	0.15	1.07	[0.96-1.20]	0.21	0.25
siblings	rs1057258	I3	9872	11	1.03	[0.94-1.13]	0.52	1.03	[0.94-1.13]	0.52	0.85
siblings	rs1057258	S1	13403	11	1.00	[0.86-1.16]	0.97	1.00	[0.86-1.16]	0.97	0.44
siblings	rs1057258	S2	15501	11	0.93	[0.80-1.08]	0.33	0.92	[0.74-1.14]	0.42	0.12
siblings	rs1057258	S3	9946	11	0.96	[0.82-1.13]	0.66	0.98	[0.79-1.20]	0.86	0.15
siblings	rs10995251	I1	18608	10	0.89	[0.80-1.00]	4.20E-02	0.89	[0.80-1.00]	4.20E-02	0.44
siblings	rs10995251	I2	8908	10	1.07	[1.00-1.15]	6.70E-02	1.07	[1.00-1.15]	6.70E-02	0.58
siblings	rs10995251	I3	9700	10	0.97	[0.90-1.04]	0.4	0.97	[0.89-1.06]	0.51	0.27
siblings	rs10995251	S1	12847	10	0.87	[0.77-0.98]	2.20E-02	0.87	[0.76-1.00]	3.80E-02	0.31
siblings	rs10995251	S2	15135	10	0.89	[0.79-1.00]	5.10E-02	0.89	[0.79-1.00]	5.10E-02	0.52
siblings	rs10995251	S3	9390	10	0.86	[0.76-0.98]	2.20E-02	0.86	[0.76-0.98]	2.20E-02	0.41
siblings	rs112111458	I1	16911	9	1.07	[0.92-1.24]	0.39	1.07	[0.92-1.24]	0.39	0.96
siblings	rs112111458	I2	7460	9	0.98	[0.88-1.09]	0.73	0.98	[0.88-1.10]	0.78	0.40
siblings	rs112111458	I3	9451	9	1.05	[0.94-1.16]	0.39	1.07	[0.95-1.18]	0.28	0.29
siblings	rs112111458	S1	12817	9	1.05	[0.90-1.24]	0.52	1.05	[0.90-1.24]	0.52	0.98
siblings	rs112111458	S2	14022	9	1.04	[0.89-1.22]	0.59	1.04	[0.89-1.22]	0.59	0.90
siblings	rs112111458	S3	9944	9	1.03	[0.87-1.21]	0.76	1.03	[0.87-1.21]	0.76	0.93
siblings	rs11657987	I1	19002	11	1.00	[0.90-1.11]	0.99	1.00	[0.90-1.12]	0.96	0.41
siblings	rs11657987	I2	9099	11	1.06	[0.99-1.14]	8.80E-02	1.06	[0.97-1.16]	0.21	0.21
siblings	rs11657987	I3	9903	11	1.07	[1.00-1.15]	4.50E-02	1.07	[1.00-1.15]	4.50E-02	0.44
siblings	rs11657987	S1	13399	11	0.97	[0.87-1.09]	0.6	0.97	[0.86-1.11]	0.7	0.31
siblings	rs11657987	S2	15529	11	0.98	[0.88-1.10]	0.79	0.98	[0.88-1.10]	0.79	0.61
siblings	rs11657987	S3	9942	11	0.95	[0.85-1.08]	0.45	0.95	[0.85-1.08]	0.45	0.54
siblings	rs12153855	I1	16533	8	1.05	[0.87-1.26]	0.64	1.05	[0.86-1.28]	0.66	0.36
siblings	rs12153855	I2	7277	8	1.09	[0.96-1.24]	0.19	1.09	[0.96-1.24]	0.19	0.76
siblings	rs12153855	I3	9256	8	1.16	[1.02-1.32]	2.10E-02	1.16	[1.02-1.32]	2.10E-02	0.50
siblings	rs12153855	S1	12263	8	1.01	[0.83-1.23]	0.92	1.01	[0.83-1.23]	0.92	0.48
siblings	rs12153855	S2	13644	8	1.03	[0.85-1.25]	0.77	1.03	[0.81-1.30]	0.83	0.27
siblings	rs12153855	S3	9390	8	0.98	[0.79-1.21]	0.84	0.98	[0.79-1.21]	0.84	0.48
siblings	rs12295535	I1	19186	11	1.04	[0.76-1.43]	0.79	1.04	[0.76-1.43]	0.79	0.97
siblings	rs12295535	I2	9153	11	1.16	[0.94-1.43]	0.18	1.16	[0.94-1.43]	0.18	0.56
siblings	rs12295535	I3	10033	11	1.17	[0.94-1.44]	0.16	1.17	[0.94-1.44]	0.16	0.94
siblings	rs12295535	S1	13403	11	1.15	[0.81-1.62]	0.43	1.15	[0.81-1.62]	0.43	0.98
siblings	rs12295535	S2	15713	11	1.14	[0.81-1.62]	0.45	1.14	[0.81-1.62]	0.45	0.97
siblings	rs12295535	S3	9946	11	1.32	[0.91-1.94]	0.15	1.32	[0.91-1.94]	0.15	0.94
siblings	rs13015714	I1	18630	10	0.98	[0.87-1.11]	0.76	0.98	[0.87-1.11]	0.76	0.50
siblings	rs13015714	I2	8916	10	1.11	[1.02-1.21]	1.10E-02	1.11	[1.02-1.21]	1.10E-02	0.88
siblings	rs13015714	I3	9714	10	1.06	[0.97-1.15]	0.19	1.05	[0.96-1.16]	0.27	0.37
siblings	rs13015714	S1	12847	10	0.99	[0.86-1.13]	0.84	0.98	[0.84-1.16]	0.85	0.27
siblings	rs13015714	S2	15157	10	0.97	[0.85-1.11]	0.69	0.97	[0.84-1.13]	0.73	0.31
siblings	rs13015714	S3	9390	10	0.97	[0.84-1.13]	0.72	0.98	[0.79-1.21]	0.83	0.10
siblings	rs16948048	I1	18598	10	0.99	[0.88-1.10]	0.79	0.99	[0.88-1.10]	0.79	0.68
siblings	rs16948048	I2	8910	10	1.03	[0.96-1.11]	0.37	1.03	[0.96-1.11]	0.37	0.58
siblings	rs16948048	I3	9688	10	1.01	[0.93-1.08]	0.86	1.01	[0.93-1.08]	0.86	0.66
siblings	rs16948048	S1	12847	10	1.00	[0.89-1.12]	0.98	1.00	[0.89-1.12]	0.98	0.65
siblings	rs16948048	S2	15125	10	0.98	[0.87-1.11]	0.79	0.98	[0.87-1.11]	0.79	0.70
siblings	rs16948048	S3	9390	10	1.01	[0.89-1.14]	0.93	1.01	[0.89-1.14]	0.93	0.74
siblings	rs17389644	I1	18529	10	0.98	[0.86-1.11]	0.77	1.00	[0.85-1.15]	0.95	0.21
siblings	rs17389644	I2	8890	10	1.06	[0.97-1.15]	0.17	1.04	[0.93-1.18]	0.49	0.22
siblings	rs17389644	I3	9639	10	1.08	[0.99-1.17]	0.1	1.06	[0.92-1.23]	0.43	0.06
siblings	rs17389644	S1	12847	10	1.01	[0.88-1.15]	0.94	1.04	[0.86-1.21]	0.69	0.16
siblings	rs17389644	S2	15056	10	0.94	[0.82-1.08]	0.38	0.94	[0.82-1.08]	0.38	0.74
siblings	rs17389644	S3	9390	10	0.97	[0.84-1.13]	0.72	0.97	[0.84-1.13]	0.72	0.93
siblings	rs17881320	I1	19073	11	0.98	[0.81-1.19]	0.85	0.98	[0.81-1.19]	0.85	0.67
siblings	rs17881320	I2	9127	11	1.09	[0.96-1.24]	0.17	1.09	[0.96-1.24]	0.17	0.49
siblings	rs17881320	I3	9946	11	1.07	[0.94-1.22]	0.28	1.08	[0.94-1.24]	0.28	0.33
siblings	rs17881320	S1	13401	11	0.95	[0.77-1.17]	0.63	0.95	[0.77-1.17]	0.63	0.67
siblings	rs17881320	S2	15600	11	1.03	[0.83-1.27]	0.81	1.03	[0.83-1.27]	0.81	0.66
siblings	rs17881320	S3	9944	11	1.01	[0.81-1.27]	0.92	1.01	[0.81-1.27]	0.92	0.55
siblings	rs2041733	I1	18630	10	1.06	[0.95-1.18]	0.28	1.06	[0.95-1.18]	0.28	0.81
siblings	rs2041733	I2	8916	10	1.03	[0.96-1.11]	0.37	1.03	[0.96-1.11]	0.37	0.98
siblings	rs2041733	I3	9714	10	1.10	[1.03-1.19]	7.90E-03	1.11	[0.99-1.23]	6.80E-02	0.06
siblings	rs2041733	S1	12847	10	1.04	[0.93-1.17]	0.45	1.04	[0.93-1.17]	0.45	0.84
siblings	rs2041733	S2	15157	10	1.05	[0.94-1.18]	0.38	1.05	[0.94-1.18]	0.38	0.75
siblings	rs2041733	S3	9390	10	1.03	[0.91-1.16]	0.64	1.03	[0.91-1.16]	0.64	0.71
siblings	rs2143950	I1	19129	11	1.09	[0.95-1.25]	0.24	1.13	[0.95-1.30]	0.17	0.19
siblings	rs2143950	I2	9141	11	1.04	[0.95-1.14]	0.37	1.01	[0.89-1.18]	0.9	0.13
siblings	rs2143950	I3	9988	11	1.13	[1.03-1.25]	8.80E-03	1.13	[1.03-1.25]	8.80E-03	0.83
siblings	rs2143950	S1	13394	11	1.10	[0.95-1.27]	0.21	1.19	[0.94-1.39]	0.15	0.06
siblings	rs2143950	S2	15656	11	1.06	[0.92-1.23]	0.41	1.09	[0.91-1.28]	0.36	0.21
siblings	rs2143950	S3	9937	11	1.07	[0.91-1.25]	0.41	1.13	[0.87-1.38]	0.35	0.05
siblings	rs2164983	I1	16531	8	0.99	[0.85-1.15]	0.88	0.99	[0.85-1.15]	0.88	0.99
siblings	rs2164983	I2	7277	8	1.12	[1.01-1.25]	3.40E-02	1.12	[1.01-1.25]	3.40E-02	0.44
siblings	rs2164983	I3	9254	8	1.12	[1.01-1.24]	3.30E-02	1.12	[1.01-1.24]	3.30E-02	0.66
siblings	rs2164983	S1	12263	8	1.01	[0.86-1.18]	0.92	1.01	[0.86-1.18]	0.92	0.98
siblings	rs2164983	S2	13642	8	0.97	[0.83-1.13]	0.7	0.97	[0.83-1.13]	0.7	0.95
siblings	rs2164983	S3	9390	8	0.99	[0.83-1.17]	0.89	0.99	[0.83-1.17]	0.89	0.88
siblings	rs2227483	I1	19125	11	0.96	[0.87-1.07]	0.47	0.96	[0.86-1.08]	0.53	0.37
siblings	rs2227483	I2	9135	11	1.08	[1.00-1.16]	3.60E-02	1.08	[1.00-1.16]	3.60E-02	0.84



siblings	rs2227483	I3	9990	11	1.03	[0.96-1.11]	0.42	1.02	[0.91-1.15]	0.68	0.03
siblings	rs2227483	S1	13397	11	0.94	[0.84-1.05]	0.25	0.94	[0.83-1.06]	0.28	0.38
siblings	rs2227483	S2	15652	11	0.93	[0.83-1.04]	0.22	0.95	[0.82-1.08]	0.45	0.17
siblings	rs2227483	S3	9940	11	0.90	[0.80-1.02]	8.60E-02	0.90	[0.76-1.06]	0.2	0.16
siblings	rs2228145	I1	17111	9	1.03	[0.93-1.15]	0.56	1.03	[0.93-1.15]	0.56	0.70
siblings	rs2228145	I2	7508	9	1.00	[0.93-1.09]	0.91	1.00	[0.93-1.09]	0.91	0.73
siblings	rs2228145	I3	9603	9	1.04	[0.97-1.12]	0.26	1.04	[0.97-1.12]	0.26	0.72
siblings	rs2228145	S1	12847	9	1.03	[0.92-1.16]	0.56	1.03	[0.92-1.16]	0.56	0.43
siblings	rs2228145	S2	13638	9	0.99	[0.88-1.11]	0.82	0.99	[0.88-1.11]	0.82	0.85
siblings	rs2228145	S3	9390	9	0.98	[0.87-1.11]	0.76	0.98	[0.87-1.11]	0.76	0.58
siblings	rs2897442	I1	18623	10	0.98	[0.87-1.11]	0.78	0.98	[0.85-1.13]	0.76	0.29
siblings	rs2897442	I2	8914	10	1.12	[1.03-1.21]	8.50E-03	1.10	[0.96-1.28]	0.17	0.02
siblings	rs2897442	I3	9709	10	1.07	[0.99-1.16]	9.40E-02	1.07	[0.99-1.16]	9.40E-02	0.56
siblings	rs2897442	S1	12847	10	0.97	[0.85-1.10]	0.59	0.97	[0.85-1.10]	0.59	0.68
siblings	rs2897442	S2	15150	10	0.97	[0.86-1.11]	0.69	0.96	[0.82-1.14]	0.61	0.25
siblings	rs2897442	S3	9390	10	0.96	[0.83-1.10]	0.54	0.96	[0.83-1.10]	0.54	0.52
siblings	rs479844	I1	18630	10	0.98	[0.88-1.09]	0.71	1.00	[0.87-1.12]	0.99	0.24
siblings	rs479844	I2	8916	10	1.15	[1.07-1.23]	2.30E-04	1.15	[1.02-1.29]	1.90E-02	0.02
siblings	rs479844	I3	9714	10	1.15	[1.07-1.24]	2.00E-04	1.15	[1.07-1.24]	2.00E-04	0.45
siblings	rs479844	S1	12847	10	1.02	[0.91-1.14]	0.77	1.02	[0.91-1.14]	0.77	0.51
siblings	rs479844	S2	15157	10	0.96	[0.86-1.08]	0.5	0.97	[0.85-1.10]	0.66	0.28
siblings	rs479844	S3	9390	10	1.00	[0.88-1.13]	0.95	1.00	[0.88-1.13]	0.95	0.52
siblings	rs6010620	I1	18630	10	1.00	[0.88-1.13]	1	1.07	[0.89-1.20]	0.47	0.09
siblings	rs6010620	I2	8916	10	1.10	[1.01-1.20]	2.10E-02	1.10	[1.01-1.20]	2.10E-02	0.54
siblings	rs6010620	I3	9714	10	1.09	[1.00-1.19]	0.05	1.10	[1.00-1.20]	5.50E-02	0.32
siblings	rs6010620	S1	12847	10	0.96	[0.84-1.10]	0.52	1.01	[0.83-1.16]	0.92	0.13
siblings	rs6010620	S2	15157	10	0.99	[0.87-1.13]	0.89	1.05	[0.87-1.20]	0.61	0.11
siblings	rs6010620	S3	9390	10	0.94	[0.81-1.09]	0.4	0.97	[0.80-1.14]	0.8	0.18
siblings	rs6473227	I1	19173	11	0.92	[0.83-1.02]	0.12	0.92	[0.83-1.03]	0.15	0.42
siblings	rs6473227	I2	9151	11	1.09	[1.02-1.17]	1.40E-02	1.08	[0.99-1.19]	7.30E-02	0.27
siblings	rs6473227	I3	10022	11	1.03	[0.96-1.11]	0.37	1.03	[0.96-1.11]	0.37	0.78
siblings	rs6473227	S1	13403	11	0.90	[0.81-1.01]	8.20E-02	0.90	[0.81-1.01]	8.20E-02	0.72
siblings	rs6473227	S2	15700	11	0.91	[0.81-1.02]	0.11	0.94	[0.81-1.06]	0.44	0.14
siblings	rs6473227	S3	9946	11	0.89	[0.79-1.01]	6.60E-02	0.91	[0.79-1.03]	0.21	0.26
siblings	rs7127307	I1	19185	11	1.02	[0.91-1.13]	0.76	1.05	[0.93-1.15]	0.44	0.28
siblings	rs7127307	I2	9153	11	1.05	[0.97-1.12]	0.22	1.05	[0.97-1.12]	0.22	0.64
siblings	rs7127307	I3	10032	11	1.09	[1.01-1.17]	2.50E-02	1.09	[1.01-1.17]	2.50E-02	0.50
siblings	rs7127307	S1	13402	11	1.01	[0.90-1.13]	0.87	1.07	[0.92-1.18]	0.37	0.16
siblings	rs7127307	S2	15712	11	1.02	[0.91-1.14]	0.74	1.04	[0.91-1.16]	0.55	0.30
siblings	rs7127307	S3	9945	11	1.02	[0.90-1.15]	0.81	1.07	[0.90-1.21]	0.46	0.15
siblings	rs7146581	I1	19176	11	1.25	[1.10-1.42]	4.20E-04	1.24	[1.08-1.44]	3.10E-03	0.32
siblings	rs7146581	I2	9149	11	0.95	[0.88-1.04]	0.28	0.96	[0.86-1.07]	0.54	0.13
siblings	rs7146581	I3	10027	11	1.15	[1.06-1.26]	1.00E-03	1.14	[1.03-1.28]	1.10E-02	0.26
siblings	rs7146581	S1	13399	11	1.23	[1.08-1.41]	2.20E-03	1.20	[1.01-1.46]	3.40E-02	0.23
siblings	rs7146581	S2	15703	11	1.27	[1.11-1.45]	4.80E-04	1.24	[1.04-1.52]	1.90E-02	0.15
siblings	rs7146581	S3	9942	11	1.25	[1.08-1.45]	2.30E-03	1.20	[0.98-1.54]	0.08	0.12
siblings	rs7927894	I1	18263	10	1.13	[1.01-1.26]	3.10E-02	1.13	[1.01-1.26]	3.10E-02	0.53
siblings	rs7927894	I2	8829	10	0.96	[0.90-1.04]	0.33	0.95	[0.86-1.07]	0.36	0.09
siblings	rs7927894	I3	9434	10	1.09	[1.02-1.18]	1.60E-02	1.09	[1.02-1.18]	1.60E-02	0.94
siblings	rs7927894	S1	12847	10	1.12	[0.99-1.25]	6.20E-02	1.12	[0.99-1.27]	8.30E-02	0.35
siblings	rs7927894	S2	14790	10	1.11	[0.99-1.24]	8.40E-02	1.11	[0.99-1.24]	8.40E-02	0.84
siblings	rs7927894	S3	9390	10	1.10	[0.97-1.25]	0.14	1.10	[0.97-1.25]	0.14	0.72
siblings		M1	21045	11	1.00	[0.93-1.07]	0.99	1.00	[0.93-1.08]	0.96	0.38
siblings		M2	15241	11	0.99	[0.92-1.06]	0.75	0.99	[0.92-1.06]	0.75	0.53
siblings		M3	17383	11	0.98	[0.91-1.05]	0.51	0.97	[0.89-1.06]	0.52	0.31
siblings		M4	12821	10	0.98	[0.91-1.06]	0.58	0.98	[0.90-1.06]	0.58	0.36
smoke_child	flg	I1	15618	12	1.33	[1.05-1.68]	1.80E-02	1.37	[1.05-1.74]	2.20E-02	0.36
smoke_child	flg	I2	9567	12	1.73	[1.50-1.99]	2.00E-14	1.68	[1.37-2.13]	1.10E-06	0.07
smoke_child	flg	I3	6051	12	2.15	[1.80-2.56]	1.10E-17	2.15	[1.80-2.56]	1.10E-17	0.63
smoke_child	flg	S1	14259	12	1.31	[1.02-1.69]	3.40E-02	1.34	[1.00-1.76]	4.60E-02	0.35
smoke_child	flg	S2	13896	12	1.39	[1.08-1.81]	1.20E-02	1.39	[1.08-1.81]	1.20E-02	0.53
smoke_child	flg	S3	12562	12	1.39	[1.05-1.83]	2.10E-02	1.39	[1.05-1.83]	2.10E-02	0.47
smoke_child	rs10214237	I1	16519	12	1.00	[0.89-1.13]	0.99	1.00	[0.89-1.13]	0.99	0.62
smoke_child	rs10214237	I2	10252	12	1.11	[1.04-1.19]	2.80E-03	1.11	[1.04-1.19]	2.80E-03	0.70
smoke_child	rs10214237	I3	6267	12	1.09	[1.00-1.20]	6.20E-02	1.09	[1.00-1.20]	6.20E-02	0.69
smoke_child	rs10214237	S1	14942	12	1.00	[0.88-1.14]	0.99	1.00	[0.88-1.14]	0.99	0.46
smoke_child	rs10214237	S2	12681	12	1.01	[0.89-1.16]	0.85	1.01	[0.89-1.16]	0.85	0.72
smoke_child	rs10214237	S3	11123	12	1.00	[0.87-1.16]	0.96	1.00	[0.87-1.16]	0.96	0.67
smoke_child	rs1057258	I1	16502	12	0.99	[0.86-1.15]	0.92	0.99	[0.82-1.20]	0.96	0.16
smoke_child	rs1057258	I2	10244	12	1.05	[0.97-1.14]	0.25	1.05	[0.97-1.14]	0.25	0.45
smoke_child	rs1057258	I3	6258	12	1.02	[0.91-1.14]	0.71	1.02	[0.91-1.14]	0.71	0.62
smoke_child	rs1057258	S1	14943	12	0.98	[0.84-1.14]	0.8	0.98	[0.80-1.21]	0.87	0.16
smoke_child	rs1057258	S2	12664	12	0.96	[0.82-1.13]	0.65	0.95	[0.79-1.16]	0.6	0.29
smoke_child	rs1057258	S3	11124	12	0.95	[0.80-1.12]	0.53	0.94	[0.79-1.13]	0.51	0.40
smoke_child	rs10995251	I1	15928	11	0.99	[0.88-1.11]	0.88	0.99	[0.88-1.11]	0.88	0.44
smoke_child	rs10995251	I2	9868	11	1.03	[0.96-1.10]	0.38	1.05	[0.96-1.12]	0.28	0.16
smoke_child	rs10995251	I3	6060	11	1.03	[0.94-1.12]	0.53	1.04	[0.91-1.18]	0.6	0.04
smoke_child	rs10995251	S1	14353	11	1.01	[0.89-1.14]	0.86	1.00	[0.85-1.19]	0.97	0.19
smoke_child	rs10995251	S2	12090	11	0.98	[0.86-1.11]	0.7	0.97	[0.85-1.12]	0.69	0.36
smoke_child	rs10995251	S3	10534	11	0.99	[0.87-1.13]	0.89	0.98	[0.82-1.19]	0.86	0.14
smoke_child	rs112111458	I1	14664	9	1.04	[0.88-1.22]	0.65	1.04	[0.88-1.22]	0.65	0.95
smoke_child	rs112111458	I2	9251	9	0.98	[0.90-1.08]	0.74	1.01	[0.90-1.11]	0.91	0.18
smoke_child	rs112111458	I3	5413	9	1.05	[0.92-1.19]	0.45	1.05	[0.92-1.19]	0.45	0.75
smoke_child	rs112111458	S1	13997	9	1.07	[0.90-1.26]	0.47	1.07	[0.90-1.26]	0.47	0.98
smoke_child	rs112111458	S2	11770	9	1.04	[0.88-1.23]	0.65	1.04	[0.88-1.23]	0.65	0.90
smoke_child	rs112111458	S3	11122	9	1.06	[0.89-1.27]	0.51	1.06	[0.89-1.27]	0.51	0.93
smoke_child	rs11657987	I1	16487	12	1.06	[0.95-1.18]	0.32	1.06	[0.95-1.18]	0.32	0.59
smoke_child	rs11657987	I2	10237	12	1.03	[0.97-1.10]	0.32	1.03	[0.95-1.12]	0.49	0.11
smoke_child	rs11657987	I3	6250	12	1.09	[1.00-1.18]	4.80E-02	1.09	[1.00-1.18]	4.80E-02	0.59
smoke_child	rs11657987	S1	14939	12	1.09	[0.97-1.22]	0.15	1.09	[0.97-1.22]	0.15	0.54
smoke_child	rs11657987	S2	12649	12	1.05	[0.93-1.18]	0.43	1.05	[0.93-1.18]	0.43	0.48

smoke_child	rs11657987	S3	11120	12	1.08	[0.95-1.22]	0.24	1.08	[0.94-1.25]	0.29	0.31
smoke_child	rs12153855	I1	14096	8	0.97	[0.80-1.18]	0.76	0.97	[0.80-1.18]	0.76	0.90
smoke_child	rs12153855	I2	8879	8	1.11	[0.99-1.24]	7.20E-02	1.11	[0.99-1.24]	7.20E-02	0.84
smoke_child	rs12153855	I3	5217	8	1.09	[0.93-1.26]	0.29	1.09	[0.93-1.26]	0.29	0.91
smoke_child	rs12153855	S1	13409	8	0.95	[0.77-1.17]	0.62	0.95	[0.77-1.17]	0.62	0.83
smoke_child	rs12153855	S2	11202	8	0.95	[0.78-1.17]	0.64	0.95	[0.78-1.17]	0.64	0.77
smoke_child	rs12153855	S3	10534	8	0.94	[0.75-1.16]	0.55	0.94	[0.75-1.16]	0.55	0.64
smoke_child	rs12295535	I1	16523	12	1.02	[0.73-1.42]	0.91	0.89	[0.56-1.62]	0.61	0.16
smoke_child	rs12295535	I2	10254	12	1.15	[0.96-1.39]	0.13	1.20	[0.95-1.46]	0.13	0.19
smoke_child	rs12295535	I3	6269	12	1.17	[0.90-1.51]	0.24	1.12	[0.84-1.57]	0.44	0.34
smoke_child	rs12295535	S1	14943	12	0.98	[0.67-1.42]	0.92	0.77	[0.41-1.86]	0.43	0.03
smoke_child	rs12295535	S2	12685	12	1.10	[0.76-1.60]	0.6	1.10	[0.76-1.60]	0.6	0.58
smoke_child	rs12295535	S3	11124	12	1.11	[0.73-1.67]	0.62	1.04	[0.63-1.83]	0.87	0.26
smoke_child	rs13015714	I1	15931	11	0.94	[0.82-1.07]	0.33	0.94	[0.82-1.07]	0.33	0.57
smoke_child	rs13015714	I2	9870	11	1.14	[1.06-1.22]	6.20E-04	1.14	[1.06-1.22]	6.20E-04	0.53
smoke_child	rs13015714	I3	6061	11	1.08	[0.98-1.19]	0.12	1.08	[0.98-1.19]	0.12	0.67
smoke_child	rs13015714	S1	14351	11	0.96	[0.84-1.10]	0.57	0.93	[0.78-1.15]	0.44	0.19
smoke_child	rs13015714	S2	12093	11	0.95	[0.83-1.09]	0.48	0.95	[0.83-1.09]	0.48	0.53
smoke_child	rs13015714	S3	10532	11	0.97	[0.84-1.13]	0.73	0.93	[0.75-1.20]	0.48	0.14
smoke_child	rs16948048	I1	15932	11	1.02	[0.91-1.14]	0.8	1.01	[0.90-1.14]	0.8	0.43
smoke_child	rs16948048	I2	9871	11	1.03	[0.96-1.10]	0.42	1.03	[0.95-1.11]	0.46	0.27
smoke_child	rs16948048	I3	6061	11	1.04	[0.95-1.13]	0.37	1.04	[0.95-1.13]	0.37	0.82
smoke_child	rs16948048	S1	14353	11	0.99	[0.88-1.12]	0.93	0.99	[0.88-1.12]	0.93	0.70
smoke_child	rs16948048	S2	12094	11	0.99	[0.88-1.12]	0.9	0.99	[0.88-1.12]	0.9	0.60
smoke_child	rs16948048	S3	10534	11	0.96	[0.84-1.10]	0.57	0.96	[0.84-1.10]	0.57	0.85
smoke_child	rs17389644	I1	15922	11	0.91	[0.80-1.04]	0.18	0.91	[0.80-1.04]	0.18	0.54
smoke_child	rs17389644	I2	9865	11	1.09	[1.01-1.17]	3.30E-02	1.07	[0.96-1.21]	0.2	0.10
smoke_child	rs17389644	I3	6057	11	1.01	[0.91-1.11]	0.91	1.01	[0.91-1.11]	0.91	0.53
smoke_child	rs17389644	S1	14353	11	0.94	[0.82-1.09]	0.43	0.93	[0.80-1.10]	0.39	0.36
smoke_child	rs17389644	S2	12084	11	0.91	[0.79-1.05]	0.2	0.91	[0.79-1.05]	0.2	0.66
smoke_child	rs17389644	S3	10534	11	0.95	[0.81-1.11]	0.5	0.95	[0.81-1.11]	0.5	0.50
smoke_child	rs17881320	I1	16505	12	0.89	[0.73-1.09]	0.25	0.89	[0.73-1.09]	0.25	0.83
smoke_child	rs17881320	I2	10243	12	1.14	[1.02-1.28]	2.30E-02	1.14	[0.98-1.33]	8.40E-02	0.13
smoke_child	rs17881320	I3	6262	12	1.02	[0.87-1.18]	0.83	1.02	[0.87-1.18]	0.83	0.95
smoke_child	rs17881320	S1	14941	12	0.92	[0.74-1.14]	0.44	0.92	[0.74-1.14]	0.44	0.72
smoke_child	rs17881320	S2	12667	12	0.84	[0.67-1.05]	0.13	0.84	[0.67-1.05]	0.13	0.57
smoke_child	rs17881320	S3	11122	12	0.88	[0.69-1.11]	0.28	0.88	[0.69-1.11]	0.28	0.48
smoke_child	rs2041733	I1	15932	11	1.03	[0.92-1.15]	0.66	1.03	[0.92-1.15]	0.66	0.70
smoke_child	rs2041733	I2	9871	11	1.03	[0.97-1.10]	0.3	1.03	[0.97-1.10]	0.3	0.91
smoke_child	rs2041733	I3	6061	11	1.04	[0.96-1.13]	0.35	1.04	[0.96-1.13]	0.35	0.54
smoke_child	rs2041733	S1	14352	11	1.01	[0.90-1.14]	0.82	1.01	[0.90-1.14]	0.82	0.68
smoke_child	rs2041733	S2	12094	11	1.03	[0.92-1.17]	0.59	1.03	[0.92-1.17]	0.59	0.75
smoke_child	rs2041733	S3	10533	11	1.02	[0.89-1.16]	0.81	1.02	[0.89-1.16]	0.81	0.63
smoke_child	rs2143950	I1	16510	12	1.00	[0.87-1.16]	0.97	1.00	[0.87-1.16]	0.97	0.91
smoke_child	rs2143950	I2	10242	12	1.05	[0.97-1.14]	0.26	1.05	[0.97-1.14]	0.26	0.90
smoke_child	rs2143950	I3	6268	12	1.04	[0.93-1.16]	0.5	1.04	[0.93-1.16]	0.5	0.63
smoke_child	rs2143950	S1	14934	12	0.99	[0.85-1.15]	0.85	0.99	[0.85-1.15]	0.85	0.84
smoke_child	rs2143950	S2	12672	12	1.03	[0.88-1.20]	0.74	1.03	[0.88-1.20]	0.74	0.74
smoke_child	rs2143950	S3	11115	12	1.02	[0.86-1.20]	0.82	1.02	[0.86-1.20]	0.82	0.59
smoke_child	rs2164983	I1	14096	8	0.97	[0.83-1.13]	0.68	0.97	[0.83-1.13]	0.68	0.97
smoke_child	rs2164983	I2	8879	8	1.14	[1.04-1.25]	4.50E-03	1.14	[1.04-1.25]	4.50E-03	0.81
smoke_child	rs2164983	I3	5217	8	1.13	[1.00-1.28]	5.80E-02	1.13	[1.00-1.28]	5.80E-02	0.51
smoke_child	rs2164983	S1	13409	8	0.98	[0.83-1.17]	0.85	0.98	[0.83-1.17]	0.85	0.95
smoke_child	rs2164983	S2	11202	8	0.96	[0.81-1.14]	0.64	0.96	[0.81-1.14]	0.64	0.95
smoke_child	rs2164983	S3	10534	8	0.98	[0.82-1.17]	0.8	0.98	[0.82-1.17]	0.8	0.92
smoke_child	rs2227483	I1	16512	12	1.00	[0.90-1.12]	0.99	1.00	[0.90-1.12]	0.99	0.49
smoke_child	rs2227483	I2	10248	12	1.06	[0.99-1.13]	8.30E-02	1.06	[0.99-1.13]	8.30E-02	0.90
smoke_child	rs2227483	I3	6264	12	1.05	[0.96-1.14]	0.29	1.03	[0.91-1.19]	0.65	0.03
smoke_child	rs2227483	S1	14936	12	0.95	[0.85-1.07]	0.43	0.95	[0.85-1.07]	0.43	0.49
smoke_child	rs2227483	S2	12674	12	1.03	[0.91-1.15]	0.67	1.03	[0.91-1.15]	0.67	0.81
smoke_child	rs2227483	S3	11117	12	0.98	[0.87-1.12]	0.79	0.98	[0.87-1.12]	0.79	0.68
smoke_child	rs2228145	I1	15040	10	0.96	[0.86-1.08]	0.54	0.96	[0.86-1.08]	0.54	0.65
smoke_child	rs2228145	I2	9137	10	1.05	[0.99-1.13]	0.12	1.05	[0.99-1.13]	0.12	0.55
smoke_child	rs2228145	I3	5903	10	1.01	[0.93-1.10]	0.81	1.01	[0.93-1.10]	0.81	0.52
smoke_child	rs2228145	S1	14353	10	0.96	[0.85-1.08]	0.51	0.96	[0.85-1.08]	0.51	0.63
smoke_child	rs2228145	S2	11202	10	0.99	[0.88-1.12]	0.89	0.99	[0.88-1.12]	0.89	0.78
smoke_child	rs2228145	S3	10534	10	0.98	[0.86-1.12]	0.8	0.98	[0.86-1.12]	0.8	0.60
smoke_child	rs2897442	I1	14631	10	0.96	[0.85-1.10]	0.59	0.96	[0.85-1.10]	0.59	0.44
smoke_child	rs2897442	I2	9136	10	1.10	[1.02-1.19]	0.01	1.09	[0.99-1.22]	9.30E-02	0.15
smoke_child	rs2897442	I3	5495	10	1.09	[0.98-1.20]	0.1	1.10	[0.96-1.24]	0.18	0.16
smoke_child	rs2897442	S1	13052	10	0.93	[0.81-1.07]	0.3	0.93	[0.80-1.08]	0.38	0.37
smoke_child	rs2897442	S2	10793	10	1.01	[0.87-1.16]	0.92	1.01	[0.87-1.17]	0.86	0.38
smoke_child	rs2897442	S3	9233	10	0.97	[0.83-1.14]	0.72	0.99	[0.81-1.18]	0.92	0.23
smoke_child	rs479844	I1	14632	10	0.97	[0.86-1.09]	0.57	0.96	[0.82-1.14]	0.66	0.13
smoke_child	rs479844	I2	9136	10	1.15	[1.07-1.23]	4.50E-05	1.15	[1.06-1.24]	4.20E-04	0.30
smoke_child	rs479844	I3	5496	10	1.12	[1.03-1.23]	1.20E-02	1.12	[0.99-1.27]	6.10E-02	0.14
smoke_child	rs479844	S1	13052	10	0.94	[0.83-1.07]	0.36	0.93	[0.78-1.12]	0.39	0.19
smoke_child	rs479844	S2	10794	10	1.01	[0.89-1.15]	0.83	1.01	[0.89-1.15]	0.83	0.52
smoke_child	rs479844	S3	9233	10	0.99	[0.86-1.14]	0.89	0.99	[0.86-1.14]	0.89	0.76
smoke_child	rs6010620	I1	15933	11	0.90	[0.79-1.02]	0.1	0.90	[0.79-1.02]	0.1	0.78
smoke_child	rs6010620	I2	9871	11	1.16	[1.08-1.25]	9.90E-05	1.16	[1.08-1.25]	9.90E-05	1.00
smoke_child	rs6010620	I3	6062	11	1.04	[0.94-1.15]	0.43	1.04	[0.94-1.15]	0.43	0.69
smoke_child	rs6010620	S1	14353	11	0.91	[0.79-1.04]	0.17	0.91	[0.79-1.04]	0.17	0.61
smoke_child	rs6010620	S2	12095	11	0.87	[0.76-1.01]	6.30E-02	0.87	[0.76-1.01]	6.30E-02	0.70
smoke_child	rs6010620	S3	10534	11	0.88	[0.75-1.02]	0.09	0.88	[0.75-1.02]	0.09	0.42
smoke_child	rs6473227	I1	16523	12	1.03	[0.92-1.15]	0.59	1.03	[0.92-1.15]	0.59	0.61
smoke_child	rs6473227	I2	10254	12	1.04	[0.98-1.11]	0.21	1.04	[0.98-1.11]	0.21	0.84
smoke_child	rs6473227	I3	6269	12	1.09	[1.00-1.18]	4.60E-02	1.09	[1.00-1.18]	4.60E-02	0.63
smoke_child	rs6473227	S1	14943	12	0.99	[0.88-1.11]	0.87	0.99	[0.88-1.11]	0.87	0.89
smoke_child	rs6473227	S2	12685	12	1.01	[0.90-1.14]	0.81	1.01	[0.90-1.14]	0.81	0.50
smoke_child	rs6473227	S3	11124	12	0.97	[0.85-1.10]	0.63	0.97	[0.85-1.10]	0.63	0.90

smoke_child	rs7127307	I1	16522	12	0.99	[0.89-1.11]	0.88	0.99	[0.89-1.11]	0.88	0.93
smoke_child	rs7127307	I2	10253	12	1.04	[0.98-1.11]	0.21	1.04	[0.98-1.11]	0.21	1.00
smoke_child	rs7127307	I3	6269	12	1.06	[0.98-1.16]	0.15	1.06	[0.98-1.16]	0.15	0.45
smoke_child	rs7127307	S1	14942	12	1.01	[0.90-1.14]	0.85	1.01	[0.90-1.14]	0.85	0.95
smoke_child	rs7127307	S2	12684	12	0.98	[0.87-1.11]	0.75	0.98	[0.87-1.11]	0.75	0.78
smoke_child	rs7127307	S3	11123	12	1.01	[0.88-1.15]	0.94	1.01	[0.88-1.15]	0.94	0.82
smoke_child	rs7146581	I1	16515	12	0.97	[0.85-1.11]	0.67	0.97	[0.85-1.11]	0.67	0.74
smoke_child	rs7146581	I2	10249	12	1.04	[0.97-1.12]	0.3	1.04	[0.97-1.12]	0.3	0.53
smoke_child	rs7146581	I3	6266	12	1.01	[0.92-1.11]	0.85	1.01	[0.92-1.11]	0.85	0.89
smoke_child	rs7146581	S1	14937	12	0.97	[0.84-1.11]	0.65	0.97	[0.84-1.11]	0.65	0.61
smoke_child	rs7146581	S2	12677	12	1.00	[0.87-1.14]	0.95	1.00	[0.87-1.14]	0.95	0.76
smoke_child	rs7146581	S3	11118	12	0.98	[0.85-1.14]	0.81	0.98	[0.85-1.14]	0.81	0.63
smoke_child	rs7927894	I1	15892	11	0.99	[0.89-1.11]	0.9	0.99	[0.88-1.12]	0.86	0.39
smoke_child	rs7927894	I2	9846	11	1.02	[0.96-1.09]	0.5	1.02	[0.95-1.10]	0.53	0.36
smoke_child	rs7927894	I3	6046	11	1.01	[0.93-1.10]	0.82	1.00	[0.90-1.12]	0.96	0.24
smoke_child	rs7927894	S1	14353	11	0.99	[0.88-1.12]	0.92	0.99	[0.88-1.12]	0.92	0.67
smoke_child	rs7927894	S2	12054	11	0.99	[0.88-1.12]	0.92	0.99	[0.87-1.14]	0.93	0.35
smoke_child	rs7927894	S3	10534	11	0.99	[0.87-1.13]	0.88	0.99	[0.87-1.13]	0.88	0.79
smoke_child		M1	18722	12	0.93	[0.87-1.00]	3.80E-02	0.93	[0.86-1.00]	4.90E-02	0.39
smoke_child		M2	17120	12	0.92	[0.85-0.99]	2.70E-02	0.92	[0.85-0.99]	2.70E-02	0.87
smoke_child		M3	15850	12	0.93	[0.86-1.00]	4.20E-02	0.92	[0.84-1.01]	8.20E-02	0.21
smoke_child		M4	14273	12	0.92	[0.85-0.99]	2.90E-02	0.92	[0.85-0.99]	2.90E-02	0.72
smoke_uter	flg	I1	15669	12	1.24	[0.95-1.62]	0.11	1.24	[0.95-1.62]	0.11	0.88
smoke_uter	flg	I2	11691	12	1.85	[1.63-2.09]	8.80E-22	1.80	[1.47-2.26]	1.30E-08	0.03
smoke_uter	flg	I3	3978	12	2.12	[1.70-2.65]	3.70E-11	2.12	[1.70-2.65]	3.70E-11	0.96
smoke_uter	flg	S1	13769	12	1.28	[0.96-1.71]	9.80E-02	1.28	[0.96-1.71]	9.80E-02	0.74
smoke_uter	flg	S2	13884	12	1.29	[0.96-1.73]	9.60E-02	1.29	[0.96-1.73]	9.60E-02	0.81
smoke_uter	flg	S3	12011	12	1.31	[0.94-1.82]	0.11	1.31	[0.94-1.82]	0.11	0.62
smoke_uter	rs10214237	I1	16650	12	1.12	[0.98-1.28]	9.70E-02	1.12	[0.98-1.28]	9.70E-02	0.82
smoke_uter	rs10214237	I2	12472	12	1.08	[1.01-1.15]	2.20E-02	1.08	[1.01-1.15]	2.20E-02	0.98
smoke_uter	rs10214237	I3	4178	12	1.19	[1.07-1.34]	1.80E-03	1.19	[1.07-1.34]	1.80E-03	0.66
smoke_uter	rs10214237	S1	14429	12	1.11	[0.96-1.29]	0.17	1.11	[0.96-1.29]	0.17	0.78
smoke_uter	rs10214237	S2	12784	12	1.12	[0.97-1.30]	0.13	1.12	[0.97-1.30]	0.13	0.74
smoke_uter	rs10214237	S3	10581	12	1.11	[0.94-1.30]	0.23	1.11	[0.94-1.30]	0.23	0.75
smoke_uter	rs1057258	I1	16633	12	1.10	[0.94-1.29]	0.22	1.10	[0.94-1.29]	0.22	0.91
smoke_uter	rs1057258	I2	12460	12	1.03	[0.95-1.11]	0.46	1.03	[0.95-1.11]	0.46	0.85
smoke_uter	rs1057258	I3	4173	12	1.11	[0.98-1.27]	0.11	1.11	[0.98-1.27]	0.11	0.91
smoke_uter	rs1057258	S1	14430	12	1.13	[0.95-1.34]	0.15	1.13	[0.95-1.34]	0.15	0.67
smoke_uter	rs1057258	S2	12767	12	1.09	[0.92-1.30]	0.3	1.09	[0.92-1.30]	0.3	0.73
smoke_uter	rs1057258	S3	10582	12	1.12	[0.93-1.35]	0.23	1.12	[0.93-1.36]	0.24	0.40
smoke_uter	rs10995251	I1	16059	11	1.02	[0.90-1.16]	0.75	1.02	[0.90-1.16]	0.75	0.59
smoke_uter	rs10995251	I2	11882	11	1.00	[0.94-1.07]	0.9	1.00	[0.94-1.07]	0.9	0.45
smoke_uter	rs10995251	I3	4077	11	1.06	[0.95-1.18]	0.28	1.06	[0.94-1.19]	0.38	0.32
smoke_uter	rs10995251	S1	13840	11	1.04	[0.90-1.19]	0.61	1.04	[0.90-1.19]	0.61	0.70
smoke_uter	rs10995251	S2	12193	11	1.02	[0.89-1.18]	0.76	1.02	[0.89-1.18]	0.76	0.49
smoke_uter	rs10995251	S3	9992	11	1.03	[0.88-1.20]	0.74	1.03	[0.88-1.20]	0.74	0.60
smoke_uter	rs112111458	I1	14154	9	1.14	[0.95-1.36]	0.16	1.14	[0.95-1.36]	0.16	0.45
smoke_uter	rs112111458	I2	10597	9	0.96	[0.88-1.05]	0.4	0.99	[0.87-1.10]	0.93	0.10
smoke_uter	rs112111458	I3	3557	9	1.11	[0.96-1.29]	0.16	1.11	[0.96-1.29]	0.16	0.65
smoke_uter	rs112111458	S1	13463	9	1.13	[0.94-1.37]	0.19	1.13	[0.94-1.37]	0.19	0.50
smoke_uter	rs112111458	S2	11253	9	1.17	[0.97-1.42]	9.20E-02	1.17	[0.97-1.42]	9.30E-02	0.42
smoke_uter	rs112111458	S3	10580	9	1.16	[0.95-1.41]	0.15	1.16	[0.95-1.41]	0.15	0.40
smoke_uter	rs11657987	I1	16616	12	0.95	[0.84-1.07]	0.41	0.95	[0.84-1.07]	0.41	0.61
smoke_uter	rs11657987	I2	12448	12	1.06	[1.00-1.13]	3.60E-02	1.06	[0.97-1.15]	0.19	0.09
smoke_uter	rs11657987	I3	4168	12	1.00	[0.91-1.11]	0.98	1.00	[0.91-1.11]	0.98	0.46
smoke_uter	rs11657987	S1	14426	12	0.94	[0.82-1.07]	0.34	0.94	[0.82-1.07]	0.34	0.62
smoke_uter	rs11657987	S2	12750	12	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.89
smoke_uter	rs11657987	S3	10578	12	0.94	[0.81-1.08]	0.36	0.94	[0.81-1.08]	0.36	0.68
smoke_uter	rs12153855	I1	13586	8	0.94	[0.75-1.17]	0.57	0.94	[0.75-1.17]	0.57	0.97
smoke_uter	rs12153855	I2	10121	8	1.14	[1.02-1.27]	1.90E-02	1.14	[1.02-1.27]	1.90E-02	0.70
smoke_uter	rs12153855	I3	3465	8	1.05	[0.88-1.26]	0.56	1.05	[0.88-1.26]	0.56	0.99
smoke_uter	rs12153855	S1	12875	8	0.93	[0.74-1.18]	0.55	0.93	[0.74-1.18]	0.55	0.89
smoke_uter	rs12153855	S2	10685	8	0.91	[0.73-1.15]	0.45	0.91	[0.73-1.15]	0.45	0.95
smoke_uter	rs12153855	S3	9992	8	0.91	[0.72-1.17]	0.48	0.91	[0.72-1.17]	0.48	0.81
smoke_uter	rs12295535	I1	16654	12	1.01	[0.70-1.47]	0.95	1.01	[0.70-1.47]	0.95	0.96
smoke_uter	rs12295535	I2	12475	12	1.14	[0.96-1.35]	0.13	1.14	[0.96-1.35]	0.13	0.69
smoke_uter	rs12295535	I3	4179	12	1.15	[0.84-1.56]	0.39	1.15	[0.84-1.56]	0.39	0.95
smoke_uter	rs12295535	S1	14430	12	0.94	[0.62-1.44]	0.79	0.94	[0.62-1.44]	0.79	0.88
smoke_uter	rs12295535	S2	12788	12	1.09	[0.72-1.64]	0.68	1.09	[0.72-1.64]	0.68	1.00
smoke_uter	rs12295535	S3	10582	12	1.09	[0.68-1.73]	0.73	1.09	[0.68-1.73]	0.73	0.96
smoke_uter	rs13015714	I1	16062	11	0.92	[0.79-1.06]	0.23	0.92	[0.78-1.08]	0.3	0.30
smoke_uter	rs13015714	I2	11983	11	1.13	[1.06-1.21]	4.70E-04	1.13	[1.03-1.25]	1.10E-02	0.10
smoke_uter	rs13015714	I3	4079	11	1.08	[0.96-1.22]	0.21	1.08	[0.96-1.22]	0.21	0.71
smoke_uter	rs13015714	S1	13838	11	0.94	[0.80-1.10]	0.43	0.94	[0.78-1.13]	0.49	0.29
smoke_uter	rs13015714	S2	12196	11	0.93	[0.80-1.09]	0.37	0.93	[0.76-1.13]	0.46	0.18
smoke_uter	rs13015714	S3	9990	11	0.96	[0.81-1.14]	0.61	0.95	[0.75-1.21]	0.67	0.13
smoke_uter	rs16948048	I1	16062	11	1.15	[1.02-1.31]	2.80E-02	1.15	[1.02-1.31]	2.80E-02	0.53
smoke_uter	rs16948048	I2	11984	11	0.99	[0.93-1.05]	0.7	0.99	[0.93-1.06]	0.82	0.33
smoke_uter	rs16948048	I3	4078	11	1.13	[1.02-1.25]	2.50E-02	1.13	[1.02-1.25]	2.50E-02	0.74
smoke_uter	rs16948048	S1	13840	11	1.15	[1.00-1.32]	4.50E-02	1.15	[1.00-1.33]	5.30E-02	0.41
smoke_uter	rs16948048	S2	12196	11	1.17	[1.02-1.34]	2.70E-02	1.17	[1.02-1.34]	2.70E-02	0.57
smoke_uter	rs16948048	S3	9992	11	1.16	[1.00-1.35]	5.30E-02	1.16	[0.98-1.38]	8.20E-02	0.31
smoke_uter	rs17389644	I1	16051	11	0.96	[0.83-1.11]	0.59	0.96	[0.83-1.11]	0.59	0.72
smoke_uter	rs17389644	I2	11976	11	1.07	[0.99-1.14]	7.00E-02	1.05	[0.97-1.16]	0.25	0.29
smoke_uter	rs17389644	I3	4075	11	0.99	[0.88-1.12]	0.89	0.99	[0.88-1.12]	0.89	0.50
smoke_uter	rs17389644	S1	13840	11	0.96	[0.82-1.14]	0.67	0.96	[0.82-1.14]	0.67	0.73
smoke_uter	rs17389644	S2	12185	11	0.92	[0.78-1.09]	0.33	0.92	[0.78-1.09]	0.33	0.55
smoke_uter	rs17389644	S3	9992	11	0.94	[0.79-1.13]	0.51	0.94	[0.79-1.13]	0.51	0.61
smoke_uter	rs17881320	I1	16634	12	1.03	[0.82-1.29]	0.79	1.05	[0.82-1.31]	0.71	0.38
smoke_uter	rs17881320	I2	12462	12	1.07	[0.97-1.19]	0.19	1.05	[0.90-1.26]	0.52	0.05
smoke_uter	rs17881320	I3	4172	12	1.11	[0.92-1.34]	0.28	1.11	[0.92-1.34]	0.28	0.74

smoke_uter	rs17881320	S1	14428	12	1.03	[0.80-1.32]	0.84	1.09	[0.79-1.43]	0.6	0.18
smoke_uter	rs17881320	S2	12768	12	0.91	[0.71-1.18]	0.49	0.94	[0.69-1.24]	0.69	0.21
smoke_uter	rs17881320	S3	10580	12	0.90	[0.67-1.19]	0.46	0.94	[0.65-1.30]	0.73	0.16
smoke_uter	rs2041733	I1	16063	11	1.10	[0.98-1.25]	0.11	1.10	[0.98-1.25]	0.11	0.54
smoke_uter	rs2041733	I2	11985	11	1.01	[0.95-1.07]	0.77	1.01	[0.95-1.07]	0.77	0.54
smoke_uter	rs2041733	I3	4078	11	1.11	[1.01-1.23]	3.70E-02	1.11	[1.01-1.23]	3.70E-02	0.71
smoke_uter	rs2041733	S1	13839	11	1.14	[1.00-1.31]	5.30E-02	1.14	[1.00-1.31]	5.30E-02	0.58
smoke_uter	rs2041733	S2	12197	11	1.10	[0.97-1.26]	0.15	1.10	[0.97-1.26]	0.15	0.42
smoke_uter	rs2041733	S3	9991	11	1.14	[0.98-1.32]	7.90E-02	1.14	[0.98-1.33]	8.20E-02	0.40
smoke_uter	rs2143950	I1	16641	12	0.98	[0.84-1.15]	0.81	0.99	[0.81-1.20]	0.91	0.18
smoke_uter	rs2143950	I2	12463	12	1.08	[1.00-1.16]	4.80E-02	1.08	[1.00-1.17]	6.30E-02	0.42
smoke_uter	rs2143950	I3	4178	12	1.02	[0.89-1.16]	0.8	1.02	[0.87-1.19]	0.81	0.22
smoke_uter	rs2143950	S1	14421	12	0.92	[0.77-1.10]	0.36	0.92	[0.77-1.10]	0.36	0.63
smoke_uter	rs2143950	S2	12775	12	0.98	[0.83-1.16]	0.83	0.98	[0.79-1.21]	0.81	0.21
smoke_uter	rs2143950	S3	10573	12	0.93	[0.77-1.12]	0.45	0.93	[0.77-1.12]	0.45	0.62
smoke_uter	rs2164983	I1	13586	8	0.90	[0.75-1.07]	0.23	0.90	[0.75-1.07]	0.23	0.60
smoke_uter	rs2164983	I2	10121	8	1.17	[1.07-1.27]	4.90E-04	1.17	[1.07-1.27]	4.90E-04	0.55
smoke_uter	rs2164983	I3	3465	8	1.06	[0.91-1.22]	0.46	1.06	[0.90-1.24]	0.47	0.35
smoke_uter	rs2164983	S1	12875	8	0.91	[0.75-1.10]	0.31	0.92	[0.74-1.12]	0.42	0.36
smoke_uter	rs2164983	S2	10685	8	0.88	[0.73-1.06]	0.18	0.88	[0.73-1.06]	0.18	0.48
smoke_uter	rs2164983	S3	9992	8	0.89	[0.73-1.09]	0.26	0.91	[0.71-1.14]	0.46	0.24
smoke_uter	rs2227483	I1	16643	12	0.94	[0.84-1.06]	0.34	0.94	[0.84-1.06]	0.34	0.73
smoke_uter	rs2227483	I2	12467	12	1.06	[1.00-1.13]	4.20E-02	1.06	[1.00-1.13]	4.70E-02	0.43
smoke_uter	rs2227483	I3	4176	12	1.03	[0.93-1.14]	0.58	1.03	[0.92-1.15]	0.63	0.36
smoke_uter	rs2227483	S1	14423	12	0.91	[0.80-1.04]	0.17	0.91	[0.80-1.04]	0.17	0.53
smoke_uter	rs2227483	S2	12777	12	0.92	[0.81-1.05]	0.23	0.92	[0.81-1.05]	0.23	0.54
smoke_uter	rs2227483	S3	10575	12	0.89	[0.77-1.03]	0.11	0.90	[0.76-1.05]	0.18	0.30
smoke_uter	rs2228145	I1	14551	10	0.96	[0.84-1.09]	0.5	0.96	[0.84-1.09]	0.5	0.76
smoke_uter	rs2228145	I2	10906	10	1.05	[0.99-1.12]	0.11	1.05	[0.99-1.12]	0.11	0.55
smoke_uter	rs2228145	I3	3645	10	1.05	[0.94-1.16]	0.4	1.05	[0.94-1.16]	0.4	0.69
smoke_uter	rs2228145	S1	13840	10	0.95	[0.83-1.09]	0.49	0.95	[0.83-1.09]	0.49	0.65
smoke_uter	rs2228145	S2	10685	10	0.94	[0.81-1.08]	0.37	0.94	[0.81-1.08]	0.37	0.76
smoke_uter	rs2228145	S3	9992	10	0.93	[0.80-1.08]	0.37	0.93	[0.80-1.08]	0.37	0.56
smoke_uter	rs2897442	I1	14701	10	0.98	[0.85-1.14]	0.83	0.94	[0.77-1.20]	0.58	0.14
smoke_uter	rs2897442	I2	11374	10	1.12	[1.05-1.20]	1.10E-03	1.12	[1.03-1.22]	8.50E-03	0.23
smoke_uter	rs2897442	I3	3327	10	1.11	[0.98-1.26]	0.11	1.07	[0.89-1.33]	0.45	0.08
smoke_uter	rs2897442	S1	12478	10	0.96	[0.81-1.13]	0.62	0.90	[0.70-1.23]	0.39	0.09
smoke_uter	rs2897442	S2	10835	10	1.00	[0.84-1.17]	0.96	0.97	[0.77-1.24]	0.77	0.14
smoke_uter	rs2897442	S3	8630	10	0.98	[0.81-1.18]	0.82	0.92	[0.68-1.32]	0.6	0.06
smoke_uter	rs479844	I1	14702	10	1.05	[0.92-1.20]	0.47	1.05	[0.92-1.20]	0.47	0.77
smoke_uter	rs479844	I2	11375	10	1.14	[1.07-1.21]	2.10E-05	1.14	[1.07-1.21]	2.40E-05	0.43
smoke_uter	rs479844	I3	3327	10	1.17	[1.05-1.31]	6.30E-03	1.17	[1.05-1.31]	6.30E-03	0.63
smoke_uter	rs479844	S1	12478	10	1.12	[0.97-1.30]	0.13	1.12	[0.97-1.30]	0.13	0.66
smoke_uter	rs479844	S2	10836	10	1.03	[0.89-1.19]	0.69	1.03	[0.89-1.19]	0.69	0.80
smoke_uter	rs479844	S3	8630	10	1.10	[0.93-1.29]	0.28	1.10	[0.93-1.29]	0.28	0.74
smoke_uter	rs6010620	I1	16064	11	0.99	[0.85-1.14]	0.84	0.99	[0.85-1.14]	0.84	0.89
smoke_uter	rs6010620	I2	11985	11	1.10	[1.02-1.18]	8.50E-03	1.10	[1.02-1.18]	8.50E-03	0.95
smoke_uter	rs6010620	I3	4079	11	1.07	[0.95-1.21]	0.25	1.07	[0.95-1.21]	0.25	0.96
smoke_uter	rs6010620	S1	13840	11	1.02	[0.87-1.19]	0.81	1.02	[0.87-1.19]	0.81	0.81
smoke_uter	rs6010620	S2	12198	11	1.00	[0.85-1.16]	0.97	1.00	[0.85-1.16]	0.97	0.88
smoke_uter	rs6010620	S3	9992	11	1.05	[0.88-1.24]	0.6	1.05	[0.88-1.24]	0.6	0.83
smoke_uter	rs6473227	I1	16654	12	0.97	[0.86-1.10]	0.68	0.97	[0.84-1.12]	0.65	0.29
smoke_uter	rs6473227	I2	12475	12	1.08	[1.01-1.14]	1.50E-02	1.08	[1.01-1.14]	1.50E-02	0.95
smoke_uter	rs6473227	I3	4179	12	1.05	[0.95-1.16]	0.35	1.03	[0.90-1.20]	0.69	0.17
smoke_uter	rs6473227	S1	14430	12	0.92	[0.81-1.05]	0.23	0.92	[0.81-1.05]	0.23	0.59
smoke_uter	rs6473227	S2	12788	12	0.98	[0.86-1.12]	0.79	0.97	[0.83-1.16]	0.75	0.20
smoke_uter	rs6473227	S3	10582	12	0.93	[0.80-1.07]	0.3	0.93	[0.80-1.07]	0.3	0.52
smoke_uter	rs7127307	I1	16653	12	1.01	[0.89-1.14]	0.93	1.01	[0.89-1.14]	0.93	0.72
smoke_uter	rs7127307	I2	12474	12	1.05	[0.99-1.11]	0.12	1.05	[0.99-1.11]	0.12	0.86
smoke_uter	rs7127307	I3	4179	12	1.06	[0.96-1.17]	0.27	1.06	[0.96-1.17]	0.27	0.67
smoke_uter	rs7127307	S1	14429	12	1.03	[0.90-1.18]	0.67	1.03	[0.90-1.18]	0.67	0.80
smoke_uter	rs7127307	S2	12787	12	1.02	[0.89-1.16]	0.82	1.02	[0.89-1.16]	0.82	0.64
smoke_uter	rs7127307	S3	10581	12	1.04	[0.90-1.21]	0.58	1.04	[0.90-1.21]	0.58	0.63
smoke_uter	rs7146581	I1	16646	12	0.94	[0.82-1.08]	0.4	0.95	[0.81-1.11]	0.57	0.27
smoke_uter	rs7146581	I2	12469	12	1.05	[0.97-1.12]	0.21	1.04	[0.97-1.12]	0.23	0.43
smoke_uter	rs7146581	I3	4177	12	0.99	[0.88-1.11]	0.85	0.99	[0.88-1.12]	0.89	0.38
smoke_uter	rs7146581	S1	14424	12	0.91	[0.78-1.07]	0.25	0.91	[0.74-1.13]	0.42	0.11
smoke_uter	rs7146581	S2	12780	12	1.01	[0.86-1.17]	0.95	1.01	[0.86-1.17]	0.95	0.62
smoke_uter	rs7146581	S3	10576	12	0.98	[0.83-1.16]	0.85	0.98	[0.83-1.16]	0.85	0.53
smoke_uter	rs7927894	I1	16024	11	1.02	[0.90-1.16]	0.75	1.02	[0.90-1.16]	0.75	0.48
smoke_uter	rs7927894	I2	11956	11	1.01	[0.95-1.07]	0.81	1.01	[0.93-1.09]	0.85	0.18
smoke_uter	rs7927894	I3	4068	11	1.02	[0.92-1.13]	0.77	1.02	[0.92-1.13]	0.77	0.50
smoke_uter	rs7927894	S1	13840	11	1.06	[0.93-1.22]	0.39	1.06	[0.92-1.23]	0.45	0.39
smoke_uter	rs7927894	S2	12158	11	0.99	[0.87-1.14]	0.91	0.99	[0.87-1.14]	0.91	0.45
smoke_uter	rs7927894	S3	9992	11	1.03	[0.89-1.20]	0.68	1.03	[0.88-1.20]	0.7	0.40
smoke_uter		M1	18696	12	0.94	[0.87-1.02]	0.15	0.94	[0.87-1.02]	0.15	0.64
smoke_uter		M2	16445	12	0.96	[0.88-1.05]	0.35	0.96	[0.88-1.05]	0.35	0.85
smoke_uter		M3	15706	12	0.94	[0.87-1.02]	0.14	0.94	[0.87-1.02]	0.14	0.44
smoke_uter		M4	13482	12	0.95	[0.87-1.04]	0.27	0.95	[0.87-1.04]	0.27	0.74
wash_2y	flg	I1	6962	3	0.71	[0.51-0.99]	4.50E-02	0.65	[0.38-1.22]	0.12	0.31
wash_2y	flg	I2	3072	3	2.52	[2.00-3.17]	5.10E-15	2.52	[2.00-3.17]	5.10E-15	0.40
wash_2y	flg	I3	3890	3	1.75	[1.40-2.19]	6.70E-07	1.75	[1.40-2.19]	6.70E-07	0.58
wash_2y	flg	S1	6879	3	0.70	[0.50-0.98]	3.50E-02	0.64	[0.37-1.20]	0.1	0.32
wash_2y	flg	S2	6301	3	0.67	[0.47-0.95]	2.50E-02	0.67	[0.47-0.95]	2.50E-02	0.37
wash_2y	flg	S3	6243	3	0.64	[0.45-0.92]	1.70E-02	0.63	[0.42-0.96]	2.60E-02	0.36
wash_2y	rs10214237	I1	5593	2	1.00	[0.83-1.19]	0.97	1.00	[0.83-1.19]	0.97	0.75
wash_2y	rs10214237	I2	2311	2	1.10	[0.96-1.26]	0.17	1.08	[0.89-1.34]	0.46	0.22
wash_2y	rs10214237	I3	3282	2	1.10	[0.98-1.23]	0.11	1.10	[0.98-1.23]	0.11	0.36
wash_2y	rs10214237	S1	5532	2	0.99	[0.83-1.19]	0.93	0.99	[0.83-1.19]	0.93	0.69
wash_2y	rs10214237	S2	5062	2	0.98	[0.81-1.19]	0.83	0.98	[0.81-1.19]	0.83	0.65
wash_2y	rs10214237	S3	5019	2	0.97	[0.80-1.18]	0.74	0.97	[0.80-1.18]	0.74	0.59

wash_2y	rs1057258	I1	5593	2	1.05	[0.85-1.30]	0.65	1.05	[0.85-1.30]	0.65	0.57
wash_2y	rs1057258	I2	2311	2	0.99	[0.84-1.16]	0.88	0.99	[0.84-1.16]	0.88	0.71
wash_2y	rs1057258	I3	3282	2	1.04	[0.90-1.19]	0.61	1.04	[0.90-1.19]	0.61	0.65
wash_2y	rs1057258	S1	5532	2	1.04	[0.84-1.29]	0.7	1.04	[0.84-1.29]	0.7	0.59
wash_2y	rs1057258	S2	5062	2	1.06	[0.84-1.33]	0.62	1.06	[0.84-1.33]	0.62	0.56
wash_2y	rs1057258	S3	5019	2	1.06	[0.84-1.33]	0.62	1.06	[0.84-1.33]	0.62	0.55
wash_2y	rs10995251	I1	5593	2	1.09	[0.92-1.28]	0.32	1.09	[0.92-1.28]	0.32	0.97
wash_2y	rs10995251	I2	2311	2	0.96	[0.84-1.09]	0.48	0.96	[0.84-1.09]	0.48	0.81
wash_2y	rs10995251	I3	3282	2	1.04	[0.94-1.16]	0.47	1.04	[0.94-1.16]	0.47	0.80
wash_2y	rs10995251	S1	5532	2	1.08	[0.92-1.28]	0.35	1.08	[0.92-1.28]	0.35	0.93
wash_2y	rs10995251	S2	5062	2	1.07	[0.90-1.28]	0.45	1.07	[0.90-1.28]	0.45	0.82
wash_2y	rs10995251	S3	5019	2	1.07	[0.89-1.28]	0.47	1.07	[0.89-1.28]	0.47	0.85
wash_2y	rs112111458	I1	5593	2	0.84	[0.67-1.05]	0.13	0.84	[0.67-1.05]	0.13	0.99
wash_2y	rs112111458	I2	2311	2	1.11	[0.93-1.33]	0.25	1.13	[0.90-1.39]	0.28	0.25
wash_2y	rs112111458	I3	3282	2	0.92	[0.80-1.07]	0.27	0.96	[0.76-1.17]	0.71	0.18
wash_2y	rs112111458	S1	5532	2	0.82	[0.65-1.04]	0.1	0.82	[0.65-1.04]	0.1	0.89
wash_2y	rs112111458	S2	5062	2	0.85	[0.67-1.08]	0.19	0.85	[0.67-1.08]	0.19	1.00
wash_2y	rs112111458	S3	5019	2	0.83	[0.65-1.06]	0.14	0.83	[0.65-1.06]	0.14	0.91
wash_2y	rs11657987	I1	5593	2	1.09	[0.93-1.28]	0.3	1.09	[0.93-1.28]	0.3	0.95
wash_2y	rs11657987	I2	2311	2	1.04	[0.92-1.18]	0.52	1.04	[0.92-1.18]	0.52	0.78
wash_2y	rs11657987	I3	3282	2	1.13	[1.02-1.25]	1.80E-02	1.13	[1.02-1.25]	1.80E-02	0.69
wash_2y	rs11657987	S1	5532	2	1.09	[0.92-1.28]	0.32	1.09	[0.92-1.28]	0.32	0.95
wash_2y	rs11657987	S2	5062	2	1.08	[0.91-1.28]	0.4	1.08	[0.91-1.28]	0.4	0.91
wash_2y	rs11657987	S3	5019	2	1.08	[0.91-1.28]	0.41	1.08	[0.91-1.28]	0.41	0.92
wash_2y	rs12153855	I1	5593	2	0.87	[0.66-1.14]	0.31	0.74	[0.37-1.74]	0.39	0.04
wash_2y	rs12153855	I2	2311	2	1.26	[1.02-1.55]	3.40E-02	1.35	[0.92-1.85]	0.13	0.13
wash_2y	rs12153855	I3	3282	2	1.09	[0.92-1.30]	0.32	1.04	[0.78-1.46]	0.77	0.15
wash_2y	rs12153855	S1	5532	2	0.89	[0.68-1.18]	0.43	0.76	[0.37-1.82]	0.44	0.04
wash_2y	rs12153855	S2	5062	2	0.86	[0.65-1.15]	0.31	0.74	[0.36-1.77]	0.41	0.04
wash_2y	rs12153855	S3	5019	2	0.89	[0.66-1.19]	0.43	0.76	[0.36-1.85]	0.46	0.03
wash_2y	rs12295535	I1	5593	2	1.14	[0.70-1.86]	0.6	1.14	[0.70-1.86]	0.6	0.80
wash_2y	rs12295535	I2	2311	2	1.08	[0.72-1.61]	0.72	1.08	[0.72-1.61]	0.72	0.92
wash_2y	rs12295535	I3	3282	2	1.23	[0.93-1.63]	0.15	1.23	[0.93-1.63]	0.15	0.62
wash_2y	rs12295535	S1	5532	2	1.17	[0.71-1.94]	0.53	1.17	[0.71-1.94]	0.53	0.73
wash_2y	rs12295535	S2	5062	2	1.23	[0.72-2.12]	0.44	1.23	[0.72-2.12]	0.44	0.73
wash_2y	rs12295535	S3	5019	2	1.17	[0.68-2.02]	0.57	1.17	[0.68-2.02]	0.57	0.74
wash_2y	rs13015714	I1	5593	2	0.98	[0.81-1.18]	0.84	0.98	[0.81-1.18]	0.84	0.46
wash_2y	rs13015714	I2	2311	2	1.11	[0.96-1.28]	0.17	1.11	[0.96-1.28]	0.17	0.67
wash_2y	rs13015714	I3	3282	2	1.08	[0.96-1.22]	0.19	1.08	[0.96-1.22]	0.19	0.47
wash_2y	rs13015714	S1	5532	2	0.98	[0.81-1.19]	0.86	0.98	[0.81-1.19]	0.86	0.55
wash_2y	rs13015714	S2	5062	2	0.97	[0.79-1.18]	0.75	0.97	[0.79-1.18]	0.75	0.58
wash_2y	rs13015714	S3	5019	2	0.96	[0.78-1.17]	0.67	0.96	[0.78-1.17]	0.67	0.64
wash_2y	rs16948048	I1	5593	2	1.14	[0.96-1.34]	0.13	1.14	[0.96-1.34]	0.13	0.37
wash_2y	rs16948048	I2	2311	2	0.92	[0.81-1.05]	0.2	0.92	[0.81-1.05]	0.2	0.52
wash_2y	rs16948048	I3	3282	2	1.05	[0.94-1.16]	0.4	1.05	[0.94-1.16]	0.4	0.51
wash_2y	rs16948048	S1	5532	2	1.13	[0.96-1.34]	0.14	1.13	[0.96-1.34]	0.14	0.42
wash_2y	rs16948048	S2	5062	2	1.10	[0.92-1.31]	0.31	1.10	[0.92-1.31]	0.31	0.55
wash_2y	rs16948048	S3	5019	2	1.09	[0.92-1.31]	0.32	1.09	[0.92-1.31]	0.32	0.56
wash_2y	rs17389644	I1	5593	2	0.99	[0.82-1.20]	0.91	0.99	[0.82-1.20]	0.91	0.67
wash_2y	rs17389644	I2	2311	2	1.13	[0.97-1.31]	0.11	1.04	[0.74-1.59]	0.82	0.07
wash_2y	rs17389644	I3	3282	2	1.12	[0.99-1.27]	6.40E-02	1.08	[0.87-1.40]	0.47	0.17
wash_2y	rs17389644	S1	5532	2	0.98	[0.81-1.19]	0.86	0.98	[0.81-1.19]	0.86	0.58
wash_2y	rs17389644	S2	5062	2	1.02	[0.83-1.25]	0.85	1.02	[0.83-1.25]	0.85	0.78
wash_2y	rs17389644	S3	5019	2	1.01	[0.82-1.24]	0.92	1.01	[0.82-1.24]	0.92	0.66
wash_2y	rs17881320	I1	5593	2	0.89	[0.67-1.20]	0.46	0.89	[0.67-1.20]	0.46	0.75
wash_2y	rs17881320	I2	2311	2	1.13	[0.90-1.42]	0.29	1.03	[0.65-1.78]	0.9	0.14
wash_2y	rs17881320	I3	3282	2	1.04	[0.86-1.25]	0.69	1.01	[0.77-1.36]	0.96	0.26
wash_2y	rs17881320	S1	5532	2	0.91	[0.68-1.23]	0.54	0.91	[0.68-1.23]	0.54	0.69
wash_2y	rs17881320	S2	5062	2	0.90	[0.65-1.24]	0.52	0.90	[0.65-1.24]	0.52	0.69
wash_2y	rs17881320	S3	5019	2	0.91	[0.66-1.25]	0.55	0.91	[0.66-1.25]	0.55	0.66
wash_2y	rs2041733	I1	5593	2	1.08	[0.92-1.27]	0.37	1.08	[0.92-1.27]	0.37	0.40
wash_2y	rs2041733	I2	2311	2	0.98	[0.87-1.12]	0.81	0.98	[0.85-1.13]	0.77	0.29
wash_2y	rs2041733	I3	3282	2	1.06	[0.96-1.18]	0.26	1.06	[0.96-1.18]	0.26	0.90
wash_2y	rs2041733	S1	5532	2	1.07	[0.91-1.27]	0.39	1.07	[0.91-1.27]	0.39	0.36
wash_2y	rs2041733	S2	5062	2	1.11	[0.93-1.32]	0.24	1.11	[0.93-1.32]	0.24	0.49
wash_2y	rs2041733	S3	5019	2	1.11	[0.93-1.32]	0.24	1.11	[0.93-1.32]	0.24	0.45
wash_2y	rs2143950	I1	5593	2	0.83	[0.68-1.03]	8.60E-02	0.92	[0.59-1.29]	0.69	0.10
wash_2y	rs2143950	I2	2311	2	1.20	[1.02-1.40]	2.30E-02	1.08	[0.70-1.84]	0.74	0.04
wash_2y	rs2143950	I3	3282	2	1.00	[0.88-1.15]	0.97	1.00	[0.88-1.15]	0.97	0.91
wash_2y	rs2143950	S1	5532	2	0.83	[0.68-1.02]	8.20E-02	0.91	[0.59-1.28]	0.68	0.10
wash_2y	rs2143950	S2	5062	2	0.84	[0.67-1.05]	0.12	0.91	[0.59-1.30]	0.68	0.11
wash_2y	rs2143950	S3	5019	2	0.84	[0.67-1.05]	0.12	0.91	[0.59-1.30]	0.67	0.10
wash_2y	rs2164983	I1	5593	2	0.94	[0.76-1.17]	0.59	0.94	[0.76-1.17]	0.59	0.64
wash_2y	rs2164983	I2	2311	2	1.20	[1.02-1.41]	2.80E-02	1.20	[1.02-1.41]	2.80E-02	0.42
wash_2y	rs2164983	I3	3282	2	1.14	[0.99-1.31]	6.20E-02	1.07	[0.81-1.51]	0.64	0.11
wash_2y	rs2164983	S1	5532	2	0.94	[0.76-1.17]	0.6	0.94	[0.76-1.17]	0.6	0.71
wash_2y	rs2164983	S2	5062	2	0.93	[0.74-1.16]	0.52	0.93	[0.74-1.16]	0.52	0.67
wash_2y	rs2164983	S3	5019	2	0.93	[0.74-1.17]	0.55	0.93	[0.74-1.17]	0.55	0.72
wash_2y	rs2227483	I1	5593	2	0.95	[0.81-1.12]	0.54	0.92	[0.73-1.20]	0.51	0.22
wash_2y	rs2227483	I2	2311	2	1.12	[0.99-1.27]	8.40E-02	1.12	[0.98-1.28]	9.60E-02	0.30
wash_2y	rs2227483	I3	3282	2	1.06	[0.96-1.18]	0.26	1.06	[0.96-1.18]	0.26	0.50
wash_2y	rs2227483	S1	5532	2	0.97	[0.82-1.14]	0.68	0.92	[0.70-1.28]	0.57	0.16
wash_2y	rs2227483	S2	5062	2	0.94	[0.79-1.12]	0.5	0.92	[0.72-1.21]	0.49	0.21
wash_2y	rs2227483	S3	5019	2	0.96	[0.81-1.15]	0.67	0.92	[0.68-1.30]	0.58	0.15
wash_2y	rs2228145	I1	5593	2	1.06	[0.90-1.25]	0.46	1.06	[0.90-1.25]	0.46	0.73
wash_2y	rs2228145	I2	2311	2	0.97	[0.85-1.10]	0.61	0.97	[0.85-1.10]	0.61	0.78
wash_2y	rs2228145	I3	3282	2	1.03	[0.93-1.14]	0.59	1.03	[0.93-1.14]	0.59	0.86
wash_2y	rs2228145	S1	5532	2	1.06	[0.90-1.25]	0.47	1.06	[0.90-1.25]	0.47	0.80
wash_2y	rs2228145	S2	5062	2	1.04	[0.87-1.23]	0.68	1.04	[0.87-1.23]	0.68	0.62
wash_2y	rs2228145	S3	5019	2	1.03	[0.87-1.23]	0.72	1.03	[0.87-1.23]	0.72	0.67
wash_2y	rs2897442	I1	5593	2	1.00	[0.84-1.21]	0.97	1.00	[0.84-1.21]	0.97	0.34

wash_2y	rs2897442	I2	2311	2	1.10	[0.95-1.26]	0.19	1.10	[0.95-1.26]	0.19	0.89
wash_2y	rs2897442	I3	3282	2	1.10	[0.98-1.24]	0.11	1.03	[0.77-1.46]	0.86	0.08
wash_2y	rs2897442	S1	5532	2	1.03	[0.86-1.24]	0.72	1.03	[0.86-1.24]	0.72	0.35
wash_2y	rs2897442	S2	5062	2	1.02	[0.84-1.24]	0.86	1.02	[0.84-1.24]	0.87	0.32
wash_2y	rs2897442	S3	5019	2	1.04	[0.85-1.26]	0.71	1.04	[0.85-1.27]	0.71	0.32
wash_2y	rs479844	I1	5593	2	0.97	[0.83-1.15]	0.75	0.97	[0.83-1.15]	0.75	0.85
wash_2y	rs479844	I2	2311	2	1.15	[1.01-1.31]	2.90E-02	1.15	[1.01-1.31]	2.90E-02	0.33
wash_2y	rs479844	I3	3282	2	1.13	[1.01-1.25]	2.70E-02	1.13	[1.01-1.25]	2.70E-02	0.38
wash_2y	rs479844	S1	5532	2	0.97	[0.82-1.15]	0.72	0.97	[0.82-1.15]	0.72	0.86
wash_2y	rs479844	S2	5062	2	0.96	[0.81-1.15]	0.69	0.96	[0.81-1.15]	0.69	0.82
wash_2y	rs479844	S3	5019	2	0.97	[0.81-1.15]	0.7	0.97	[0.81-1.15]	0.7	0.83
wash_2y	rs6010620	I1	5593	2	0.99	[0.82-1.20]	0.92	0.99	[0.82-1.20]	0.92	0.87
wash_2y	rs6010620	I2	2311	2	1.14	[0.98-1.32]	8.90E-02	1.14	[0.98-1.32]	8.90E-02	0.72
wash_2y	rs6010620	I3	3282	2	1.13	[1.00-1.27]	5.70E-02	1.13	[1.00-1.27]	5.70E-02	0.85
wash_2y	rs6010620	S1	5532	2	0.97	[0.80-1.18]	0.76	0.97	[0.80-1.18]	0.76	0.77
wash_2y	rs6010620	S2	5062	2	0.98	[0.80-1.20]	0.85	0.98	[0.80-1.20]	0.85	0.88
wash_2y	rs6010620	S3	5019	2	0.97	[0.79-1.19]	0.74	0.97	[0.79-1.19]	0.74	0.79
wash_2y	rs6473227	I1	5593	2	1.01	[0.86-1.19]	0.88	1.01	[0.86-1.19]	0.88	0.40
wash_2y	rs6473227	I2	2311	2	1.10	[0.97-1.24]	0.16	1.10	[0.97-1.24]	0.16	0.55
wash_2y	rs6473227	I3	3282	2	1.11	[1.00-1.23]	5.30E-02	1.11	[1.00-1.23]	5.30E-02	0.55
wash_2y	rs6473227	S1	5532	2	1.01	[0.86-1.20]	0.86	1.02	[0.86-1.20]	0.85	0.31
wash_2y	rs6473227	S2	5062	2	1.02	[0.86-1.21]	0.82	1.02	[0.86-1.21]	0.82	0.36
wash_2y	rs6473227	S3	5019	2	1.02	[0.86-1.21]	0.83	1.03	[0.84-1.24]	0.78	0.28
wash_2y	rs7127307	I1	5593	2	0.88	[0.75-1.04]	0.13	0.88	[0.73-1.06]	0.15	0.29
wash_2y	rs7127307	I2	2311	2	1.15	[1.02-1.31]	2.80E-02	1.18	[0.98-1.39]	8.60E-02	0.21
wash_2y	rs7127307	I3	3282	2	1.02	[0.92-1.13]	0.76	1.02	[0.92-1.13]	0.76	0.92
wash_2y	rs7127307	S1	5532	2	0.88	[0.75-1.04]	0.13	0.87	[0.70-1.09]	0.18	0.26
wash_2y	rs7127307	S2	5062	2	0.88	[0.74-1.05]	0.15	0.88	[0.73-1.06]	0.16	0.30
wash_2y	rs7127307	S3	5019	2	0.88	[0.74-1.05]	0.14	0.87	[0.70-1.09]	0.18	0.26
wash_2y	rs7146581	I1	5593	2	0.91	[0.75-1.10]	0.33	0.91	[0.75-1.10]	0.33	0.75
wash_2y	rs7146581	I2	2311	2	1.12	[0.96-1.30]	0.14	1.11	[0.94-1.32]	0.22	0.29
wash_2y	rs7146581	I3	3282	2	1.02	[0.90-1.15]	0.79	1.02	[0.90-1.15]	0.79	0.45
wash_2y	rs7146581	S1	5532	2	0.91	[0.75-1.11]	0.35	0.91	[0.75-1.11]	0.35	0.61
wash_2y	rs7146581	S2	5062	2	0.90	[0.73-1.10]	0.3	0.90	[0.73-1.10]	0.3	0.69
wash_2y	rs7146581	S3	5019	2	0.91	[0.74-1.12]	0.37	0.91	[0.74-1.12]	0.37	0.59
wash_2y	rs7927894	I1	5593	2	1.04	[0.89-1.23]	0.61	1.04	[0.89-1.23]	0.61	0.63
wash_2y	rs7927894	I2	2311	2	1.05	[0.93-1.19]	0.41	1.05	[0.93-1.19]	0.41	0.77
wash_2y	rs7927894	I3	3282	2	1.10	[0.99-1.22]	7.70E-02	1.10	[0.99-1.22]	7.70E-02	0.74
wash_2y	rs7927894	S1	5532	2	1.04	[0.89-1.23]	0.61	1.04	[0.89-1.23]	0.61	0.62
wash_2y	rs7927894	S2	5062	2	1.02	[0.86-1.21]	0.84	1.02	[0.86-1.21]	0.84	0.70
wash_2y	rs7927894	S3	5019	2	1.02	[0.86-1.21]	0.81	1.02	[0.86-1.21]	0.81	0.68
wash_2y		M1	7747	3	0.98	[0.89-1.08]	0.7	0.86	[0.64-1.31]	0.3	0.01
wash_2y		M2	7663	3	0.98	[0.88-1.08]	0.64	0.86	[0.64-1.30]	0.29	0.01
wash_2y		M3	7062	3	0.99	[0.89-1.10]	0.82	0.88	[0.67-1.30]	0.35	0.02
wash_2y		M4	7003	3	0.99	[0.89-1.10]	0.8	0.88	[0.66-1.30]	0.35	0.02
wash_6m	flg	I1	7135	3	0.75	[0.55-1.03]	7.20E-02	0.75	[0.55-1.03]	7.20E-02	0.99
wash_6m	flg	I2	3432	3	2.30	[1.85-2.85]	6.10E-14	2.30	[1.85-2.85]	6.10E-14	0.75
wash_6m	flg	I3	3703	3	1.70	[1.36-2.13]	3.30E-06	1.70	[1.36-2.13]	3.30E-06	0.72
wash_6m	flg	S1	7049	3	0.72	[0.52-1.00]	4.90E-02	0.72	[0.52-1.00]	4.90E-02	0.98
wash_6m	flg	S2	6414	3	0.68	[0.48-0.95]	2.50E-02	0.68	[0.48-0.95]	2.50E-02	0.95
wash_6m	flg	S3	6352	3	0.64	[0.45-0.92]	1.50E-02	0.64	[0.45-0.92]	1.50E-02	1.00
wash_6m	rs10214237	I1	5718	2	0.94	[0.79-1.13]	0.51	0.94	[0.79-1.13]	0.51	0.49
wash_6m	rs10214237	I2	2517	2	1.17	[1.02-1.34]	2.30E-02	1.17	[1.02-1.34]	2.30E-02	0.86
wash_6m	rs10214237	I3	3201	2	1.07	[0.96-1.20]	0.23	1.04	[0.85-1.31]	0.7	0.12
wash_6m	rs10214237	S1	5653	2	0.93	[0.78-1.12]	0.47	0.93	[0.78-1.12]	0.47	0.52
wash_6m	rs10214237	S2	5127	2	0.95	[0.78-1.16]	0.61	0.95	[0.78-1.16]	0.61	0.46
wash_6m	rs10214237	S3	5078	2	0.94	[0.77-1.15]	0.57	0.94	[0.77-1.15]	0.57	0.47
wash_6m	rs1057258	I1	5718	2	1.09	[0.88-1.35]	0.44	0.93	[0.52-1.94]	0.8	0.06
wash_6m	rs1057258	I2	2517	2	1.00	[0.86-1.17]	0.98	1.08	[0.77-1.41]	0.66	0.17
wash_6m	rs1057258	I3	3201	2	1.08	[0.94-1.24]	0.28	1.05	[0.86-1.33]	0.62	0.18
wash_6m	rs1057258	S1	5653	2	1.08	[0.87-1.34]	0.48	0.90	[0.47-2.05]	0.74	0.05
wash_6m	rs1057258	S2	5127	2	1.03	[0.82-1.29]	0.82	0.91	[0.54-1.73]	0.72	0.10
wash_6m	rs1057258	S3	5078	2	1.02	[0.81-1.29]	0.85	0.88	[0.49-1.83]	0.67	0.07
wash_6m	rs10995251	I1	5718	2	1.05	[0.89-1.24]	0.55	1.05	[0.89-1.24]	0.55	0.48
wash_6m	rs10995251	I2	2517	2	0.98	[0.86-1.11]	0.74	0.98	[0.86-1.11]	0.74	0.45
wash_6m	rs10995251	I3	3201	2	1.03	[0.93-1.15]	0.55	1.03	[0.93-1.15]	0.55	0.86
wash_6m	rs10995251	S1	5653	2	1.05	[0.88-1.24]	0.6	1.05	[0.88-1.24]	0.6	0.41
wash_6m	rs10995251	S2	5127	2	1.00	[0.83-1.19]	0.96	1.00	[0.83-1.19]	0.96	0.66
wash_6m	rs10995251	S3	5078	2	0.99	[0.83-1.19]	0.94	0.99	[0.83-1.19]	0.94	0.58
wash_6m	rs112111458	I1	5718	2	1.08	[0.86-1.36]	0.49	1.12	[0.82-1.48]	0.48	0.26
wash_6m	rs112111458	I2	2517	2	0.93	[0.78-1.10]	0.39	0.93	[0.78-1.10]	0.39	0.87
wash_6m	rs112111458	I3	3201	2	1.05	[0.90-1.21]	0.55	1.11	[0.80-1.44]	0.53	0.05
wash_6m	rs112111458	S1	5653	2	1.06	[0.84-1.34]	0.6	1.10	[0.80-1.46]	0.56	0.26
wash_6m	rs112111458	S2	5127	2	1.05	[0.82-1.34]	0.71	1.10	[0.76-1.51]	0.62	0.22
wash_6m	rs112111458	S3	5078	2	1.03	[0.80-1.32]	0.82	1.08	[0.75-1.49]	0.68	0.22
wash_6m	rs11657987	I1	5718	2	1.11	[0.94-1.30]	0.21	1.11	[0.94-1.30]	0.21	0.82
wash_6m	rs11657987	I2	2517	2	1.05	[0.93-1.18]	0.44	1.05	[0.93-1.18]	0.44	0.87
wash_6m	rs11657987	I3	3201	2	1.16	[1.05-1.29]	4.50E-03	1.16	[1.05-1.29]	4.50E-03	0.90
wash_6m	rs11657987	S1	5653	2	1.12	[0.95-1.31]	0.18	1.12	[0.95-1.31]	0.18	0.83
wash_6m	rs11657987	S2	5127	2	1.08	[0.91-1.28]	0.4	1.08	[0.91-1.28]	0.4	0.71
wash_6m	rs11657987	S3	5078	2	1.08	[0.91-1.29]	0.37	1.08	[0.91-1.29]	0.37	0.71
wash_6m	rs12153855	I1	5718	2	1.09	[0.83-1.43]	0.55	1.07	[0.78-1.49]	0.67	0.29
wash_6m	rs12153855	I2	2517	2	1.12	[0.91-1.38]	0.27	1.12	[0.91-1.38]	0.27	0.48
wash_6m	rs12153855	I3	3201	2	1.21	[1.02-1.44]	3.20E-02	1.21	[1.02-1.44]	3.20E-02	0.42
wash_6m	rs12153855	S1	5653	2	1.11	[0.84-1.46]	0.48	1.08	[0.78-1.54]	0.64	0.28
wash_6m	rs12153855	S2	5127	2	1.08	[0.80-1.44]	0.62	1.05	[0.73-1.54]	0.79	0.27
wash_6m	rs12153855	S3	5078	2	1.09	[0.81-1.47]	0.55	1.07	[0.74-1.57]	0.72	0.27
wash_6m	rs12295535	I1	5718	2	0.92	[0.57-1.49]	0.74	0.92	[0.57-1.49]	0.74	0.79
wash_6m	rs12295535	I2	2517	2	1.25	[0.86-1.83]	0.24	1.25	[0.86-1.83]	0.24	0.65
wash_6m	rs12295535	I3	3201	2	1.14	[0.85-1.52]	0.39	1.14	[0.85-1.52]	0.39	0.78
wash_6m	rs12295535	S1	5653	2	0.94	[0.57-1.55]	0.81	0.94	[0.57-1.55]	0.81	0.56

wash_6m	rs12295535	S2	5127	2	1.03	[0.61-1.73]	0.91	1.03	[0.61-1.73]	0.91	0.61
wash_6m	rs12295535	S3	5078	2	1.00	[0.59-1.72]	0.99	1.00	[0.59-1.72]	0.99	0.63
wash_6m	rs13015714	I1	5718	2	0.87	[0.72-1.05]	0.15	0.86	[0.68-1.09]	0.19	0.29
wash_6m	rs13015714	I2	2517	2	1.20	[1.04-1.38]	1.10E-02	1.20	[1.04-1.38]	1.10E-02	0.44
wash_6m	rs13015714	I3	3201	2	1.04	[0.92-1.18]	0.5	1.04	[0.92-1.18]	0.5	0.57
wash_6m	rs13015714	S1	5653	2	0.85	[0.71-1.04]	0.11	0.85	[0.71-1.04]	0.11	0.33
wash_6m	rs13015714	S2	5127	2	0.80	[0.65-0.98]	3.10E-02	0.80	[0.65-0.98]	3.10E-02	0.53
wash_6m	rs13015714	S3	5078	2	0.77	[0.63-0.95]	1.50E-02	0.77	[0.63-0.95]	1.50E-02	0.56
wash_6m	rs16948048	I1	5718	2	1.01	[0.86-1.19]	0.89	1.01	[0.86-1.19]	0.89	0.73
wash_6m	rs16948048	I2	2517	2	1.01	[0.89-1.14]	0.9	1.01	[0.89-1.14]	0.9	0.68
wash_6m	rs16948048	I3	3201	2	1.01	[0.91-1.13]	0.8	1.01	[0.91-1.13]	0.8	0.93
wash_6m	rs16948048	S1	5653	2	1.01	[0.86-1.20]	0.87	1.01	[0.86-1.20]	0.87	0.77
wash_6m	rs16948048	S2	5127	2	1.01	[0.84-1.20]	0.95	1.01	[0.84-1.20]	0.95	0.67
wash_6m	rs16948048	S3	5078	2	1.01	[0.84-1.20]	0.93	1.01	[0.84-1.20]	0.93	0.71
wash_6m	rs17389644	I1	5718	2	1.01	[0.83-1.23]	0.9	1.01	[0.83-1.23]	0.9	0.45
wash_6m	rs17389644	I2	2517	2	1.14	[0.99-1.32]	7.00E-02	1.14	[0.99-1.32]	7.00E-02	0.80
wash_6m	rs17389644	I3	3201	2	1.10	[0.98-1.25]	0.12	1.03	[0.74-1.54]	0.88	0.02
wash_6m	rs17389644	S1	5653	2	0.99	[0.81-1.20]	0.92	0.99	[0.81-1.20]	0.92	0.53
wash_6m	rs17389644	S2	5127	2	1.06	[0.86-1.31]	0.56	1.06	[0.86-1.31]	0.56	0.33
wash_6m	rs17389644	S3	5078	2	1.03	[0.84-1.27]	0.79	1.03	[0.84-1.27]	0.79	0.42
wash_6m	rs17881320	I1	5718	2	0.90	[0.67-1.20]	0.46	0.90	[0.67-1.20]	0.46	0.69
wash_6m	rs17881320	I2	2517	2	1.13	[0.92-1.41]	0.25	1.03	[0.65-1.80]	0.91	0.17
wash_6m	rs17881320	I3	3201	2	1.00	[0.83-1.21]	0.99	0.98	[0.76-1.29]	0.86	0.26
wash_6m	rs17881320	S1	5653	2	0.89	[0.67-1.20]	0.45	0.89	[0.67-1.20]	0.45	0.71
wash_6m	rs17881320	S2	5127	2	0.98	[0.72-1.35]	0.91	0.98	[0.72-1.35]	0.91	0.73
wash_6m	rs17881320	S3	5078	2	0.96	[0.70-1.33]	0.82	0.96	[0.70-1.33]	0.82	0.79
wash_6m	rs2041733	I1	5718	2	0.87	[0.74-1.03]	0.1	0.87	[0.74-1.03]	0.1	0.71
wash_6m	rs2041733	I2	2517	2	1.10	[0.98-1.24]	0.1	1.10	[0.98-1.24]	0.1	0.76
wash_6m	rs2041733	I3	3201	2	0.96	[0.87-1.07]	0.45	0.96	[0.87-1.07]	0.45	0.97
wash_6m	rs2041733	S1	5653	2	0.87	[0.74-1.02]	9.10E-02	0.87	[0.74-1.02]	9.10E-02	0.72
wash_6m	rs2041733	S2	5127	2	0.88	[0.74-1.05]	0.16	0.88	[0.74-1.05]	0.16	0.76
wash_6m	rs2041733	S3	5078	2	0.88	[0.74-1.05]	0.15	0.88	[0.74-1.05]	0.15	0.78
wash_6m	rs2143950	I1	5718	2	1.00	[0.81-1.23]	0.99	1.00	[0.81-1.23]	0.99	0.93
wash_6m	rs2143950	I2	2517	2	1.12	[0.96-1.30]	0.14	1.12	[0.96-1.30]	0.14	0.71
wash_6m	rs2143950	I3	3201	2	1.08	[0.94-1.23]	0.28	1.06	[0.88-1.29]	0.56	0.21
wash_6m	rs2143950	S1	5653	2	0.99	[0.80-1.22]	0.9	0.99	[0.80-1.22]	0.9	0.87
wash_6m	rs2143950	S2	5127	2	1.01	[0.81-1.27]	0.91	1.01	[0.81-1.27]	0.91	0.85
wash_6m	rs2143950	S3	5078	2	1.00	[0.79-1.25]	0.98	1.00	[0.79-1.25]	0.98	0.82
wash_6m	rs2164983	I1	5718	2	0.99	[0.80-1.23]	0.93	0.99	[0.80-1.23]	0.93	0.81
wash_6m	rs2164983	I2	2517	2	1.21	[1.03-1.42]	1.70E-02	1.21	[1.02-1.44]	3.10E-02	0.31
wash_6m	rs2164983	I3	3201	2	1.15	[1.00-1.32]	5.10E-02	1.11	[0.88-1.45]	0.38	0.14
wash_6m	rs2164983	S1	5653	2	0.99	[0.80-1.23]	0.93	0.99	[0.80-1.23]	0.93	0.81
wash_6m	rs2164983	S2	5127	2	0.98	[0.78-1.23]	0.83	0.98	[0.78-1.23]	0.83	0.76
wash_6m	rs2164983	S3	5078	2	0.98	[0.77-1.23]	0.83	0.98	[0.77-1.23]	0.83	0.79
wash_6m	rs2227483	I1	5718	2	0.95	[0.81-1.12]	0.55	0.95	[0.81-1.12]	0.55	0.68
wash_6m	rs2227483	I2	2517	2	1.11	[0.99-1.26]	8.30E-02	1.11	[0.99-1.26]	8.30E-02	0.62
wash_6m	rs2227483	I3	3201	2	1.06	[0.96-1.18]	0.24	1.06	[0.96-1.18]	0.24	0.99
wash_6m	rs2227483	S1	5653	2	0.96	[0.82-1.14]	0.67	0.96	[0.82-1.14]	0.67	0.59
wash_6m	rs2227483	S2	5127	2	0.94	[0.79-1.12]	0.47	0.94	[0.79-1.12]	0.47	0.73
wash_6m	rs2227483	S3	5078	2	0.96	[0.80-1.14]	0.61	0.96	[0.80-1.14]	0.61	0.63
wash_6m	rs2228145	I1	5718	2	1.11	[0.94-1.31]	0.21	1.11	[0.94-1.31]	0.21	0.84
wash_6m	rs2228145	I2	2517	2	0.95	[0.85-1.08]	0.45	0.95	[0.85-1.08]	0.45	0.94
wash_6m	rs2228145	I3	3201	2	1.05	[0.95-1.17]	0.33	1.05	[0.95-1.17]	0.33	0.61
wash_6m	rs2228145	S1	5653	2	1.11	[0.94-1.31]	0.21	1.11	[0.94-1.31]	0.21	0.78
wash_6m	rs2228145	S2	5127	2	1.11	[0.93-1.32]	0.25	1.11	[0.93-1.32]	0.25	0.85
wash_6m	rs2228145	S3	5078	2	1.11	[0.93-1.32]	0.26	1.11	[0.93-1.32]	0.26	0.79
wash_6m	rs2897442	I1	5718	2	1.03	[0.86-1.24]	0.74	0.79	[0.36-2.26]	0.55	0.01
wash_6m	rs2897442	I2	2517	2	1.10	[0.96-1.26]	0.19	1.23	[0.82-1.63]	0.31	0.11
wash_6m	rs2897442	I3	3201	2	1.11	[0.99-1.25]	7.90E-02	1.02	[0.72-1.58]	0.92	0.01
wash_6m	rs2897442	S1	5653	2	1.04	[0.86-1.25]	0.7	0.78	[0.35-2.33]	0.56	0.01
wash_6m	rs2897442	S2	5127	2	1.07	[0.88-1.30]	0.51	0.80	[0.34-2.51]	0.61	0.00
wash_6m	rs2897442	S3	5078	2	1.08	[0.88-1.31]	0.47	0.81	[0.34-2.55]	0.62	0.00
wash_6m	rs479844	I1	5718	2	0.98	[0.83-1.16]	0.82	1.05	[0.76-1.35]	0.78	0.17
wash_6m	rs479844	I2	2517	2	1.16	[1.03-1.31]	1.80E-02	1.04	[0.72-1.68]	0.83	0.08
wash_6m	rs479844	I3	3201	2	1.12	[1.01-1.24]	3.80E-02	1.12	[1.01-1.24]	3.80E-02	0.79
wash_6m	rs479844	S1	5653	2	0.98	[0.83-1.16]	0.81	1.05	[0.75-1.38]	0.76	0.15
wash_6m	rs479844	S2	5127	2	0.99	[0.83-1.18]	0.92	1.04	[0.77-1.34]	0.79	0.19
wash_6m	rs479844	S3	5078	2	1.00	[0.84-1.20]	1	1.05	[0.77-1.36]	0.74	0.19
wash_6m	rs6010620	I1	5718	2	1.05	[0.87-1.27]	0.62	1.05	[0.87-1.27]	0.62	0.33
wash_6m	rs6010620	I2	2517	2	1.09	[0.94-1.25]	0.25	1.09	[0.94-1.25]	0.25	0.60
wash_6m	rs6010620	I3	3201	2	1.14	[1.01-1.29]	3.40E-02	1.14	[1.01-1.29]	3.40E-02	0.44
wash_6m	rs6010620	S1	5653	2	1.05	[0.86-1.27]	0.64	1.05	[0.85-1.29]	0.64	0.31
wash_6m	rs6010620	S2	5127	2	1.06	[0.87-1.31]	0.55	1.06	[0.87-1.31]	0.55	0.37
wash_6m	rs6010620	S3	5078	2	1.07	[0.87-1.32]	0.5	1.07	[0.87-1.32]	0.5	0.36
wash_6m	rs6473227	I1	5718	2	0.92	[0.78-1.09]	0.32	1.08	[0.64-1.55]	0.78	0.04
wash_6m	rs6473227	I2	2517	2	1.16	[1.03-1.31]	1.50E-02	1.06	[0.75-1.64]	0.76	0.10
wash_6m	rs6473227	I3	3201	2	1.07	[0.97-1.19]	0.18	1.09	[0.95-1.23]	0.24	0.23
wash_6m	rs6473227	S1	5653	2	0.92	[0.78-1.08]	0.3	1.07	[0.64-1.52]	0.8	0.04
wash_6m	rs6473227	S2	5127	2	0.94	[0.79-1.12]	0.5	1.10	[0.65-1.59]	0.73	0.04
wash_6m	rs6473227	S3	5078	2	0.94	[0.79-1.12]	0.49	1.09	[0.65-1.57]	0.75	0.05
wash_6m	rs7127307	I1	5718	2	0.99	[0.84-1.17]	0.92	0.99	[0.84-1.17]	0.92	0.42
wash_6m	rs7127307	I2	2517	2	1.09	[0.97-1.23]	0.14	1.09	[0.97-1.23]	0.14	0.68
wash_6m	rs7127307	I3	3201	2	1.09	[0.98-1.21]	9.60E-02	1.09	[0.98-1.21]	9.60E-02	0.44
wash_6m	rs7127307	S1	5653	2	0.99	[0.84-1.17]	0.88	0.99	[0.84-1.17]	0.88	0.38
wash_6m	rs7127307	S2	5127	2	0.99	[0.83-1.18]	0.92	0.99	[0.83-1.18]	0.92	0.39
wash_6m	rs7127307	S3	5078	2	1.00	[0.83-1.19]	0.98	1.00	[0.83-1.19]	0.98	0.39
wash_6m	rs7146581	I1	5718	2	0.94	[0.77-1.14]	0.53	0.90	[0.66-1.28]	0.5	0.22
wash_6m	rs7146581	I2	2517	2	1.11	[0.96-1.28]	0.15	1.11	[0.96-1.28]	0.15	0.61
wash_6m	rs7146581	I3	3201	2	1.02	[0.90-1.16]	0.73	0.99	[0.79-1.27]	0.91	0.12
wash_6m	rs7146581	S1	5653	2	0.93	[0.76-1.13]	0.45	0.91	[0.71-1.19]	0.46	0.28
wash_6m	rs7146581	S2	5127	2	0.88	[0.72-1.09]	0.25	0.88	[0.72-1.09]	0.25	0.36

wash_6m	rs7146581	S3	5078	2	0.88	[0.72-1.09]	0.25	0.88	[0.72-1.09]	0.25	0.36
wash_6m	rs7927894	I1	5718	2	1.02	[0.87-1.20]	0.78	1.02	[0.87-1.20]	0.78	0.57
wash_6m	rs7927894	I2	2517	2	1.06	[0.94-1.20]	0.33	1.06	[0.94-1.20]	0.33	0.67
wash_6m	rs7927894	I3	3201	2	1.08	[0.98-1.20]	0.13	1.08	[0.98-1.20]	0.13	0.81
wash_6m	rs7927894	S1	5653	2	1.03	[0.88-1.22]	0.69	1.03	[0.88-1.22]	0.69	0.65
wash_6m	rs7927894	S2	5127	2	1.00	[0.84-1.19]	0.97	1.00	[0.84-1.19]	0.97	0.52
wash_6m	rs7927894	S3	5078	2	1.00	[0.84-1.20]	0.97	1.00	[0.84-1.20]	0.97	0.56
wash_6m		M1	8040	3	1.05	[0.95-1.15]	0.34	1.02	[0.88-1.21]	0.8	0.24
wash_6m		M2	7953	3	1.05	[0.95-1.16]	0.33	1.03	[0.90-1.20]	0.68	0.28
wash_6m		M3	7289	3	1.03	[0.93-1.14]	0.61	1.01	[0.87-1.18]	0.94	0.26
wash_6m		M4	7226	3	1.03	[0.93-1.15]	0.53	1.01	[0.88-1.19]	0.85	0.27



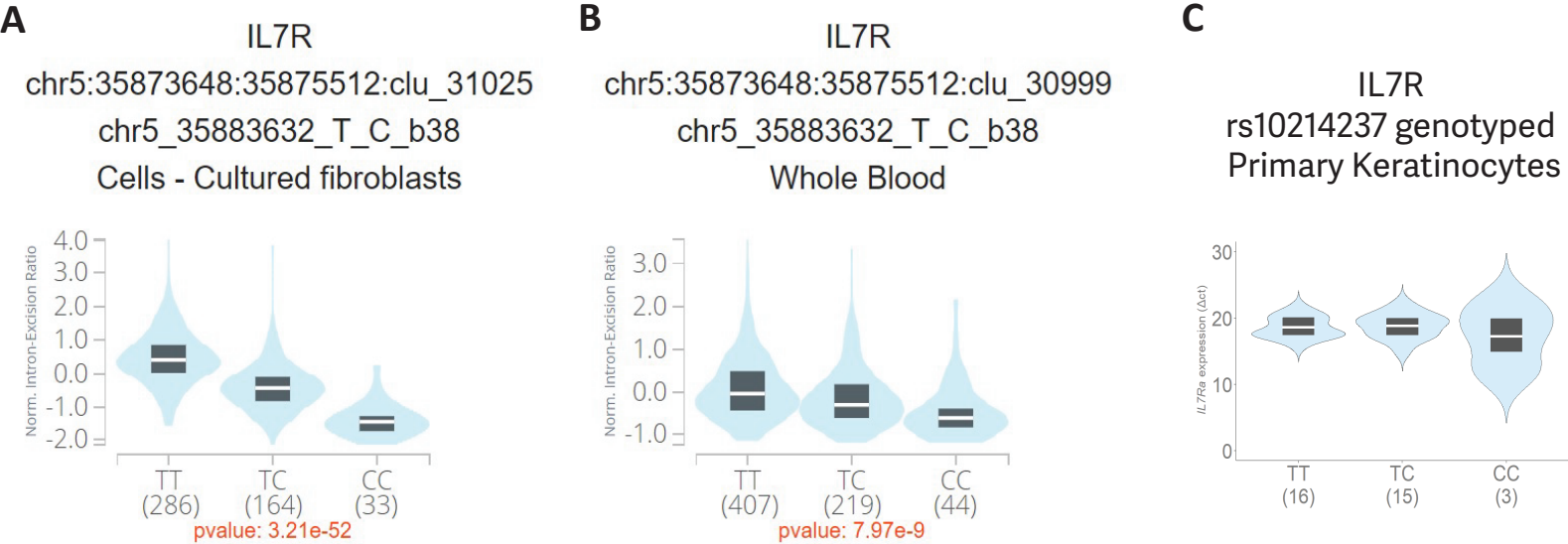
## Supplementary file 9: Full results of the replication analysis

exposure	SNP	model	N	N_studies	OR_fixed	CI_fixed	p_fixed	OR_random	CI_random	p_random	p_heterogeneity
dura_brfed	flg	M1	3060	5	1	[0.98-1.03]	0.69	1	[0.98-1.03]	0.82	0.35
dura_brfed	flg	M2	2850	5	1.01	[0.98-1.03]	0.64	1.01	[0.98-1.04]	0.73	0.34
dura_brfed	flg	M3	3060	5	1	[0.98-1.02]	0.95	1	[0.97-1.03]	0.98	0.41
dura_brfed	flg	M4	2850	5	1	[0.98-1.03]	0.83	1	[0.97-1.03]	0.89	0.36
dura_brfed	flg	I1	3056	5	1.06	[0.97-1.16]	0.22	1.06	[0.97-1.16]	0.22	0.34
dura_brfed	flg	S1	2846	5	1.04	[0.94-1.15]	0.47	1.03	[0.90-1.19]	0.71	0.14
dura_brfed	flg	S2	3056	5	1.02	[0.93-1.12]	0.66	1.02	[0.93-1.12]	0.66	0.23
dura_brfed	flg	S3	2846	5	1.01	[0.91-1.12]	0.87	1	[0.87-1.16]	0.98	0.12
siblings	flg	M1	6189	6	0.93	[0.80-1.09]	0.39	0.93	[0.80-1.09]	0.39	0.62
siblings	flg	M2	5928	6	0.96	[0.81-1.13]	0.63	0.96	[0.81-1.13]	0.63	0.76
siblings	flg	M3	6189	6	0.89	[0.76-1.04]	0.14	0.89	[0.76-1.04]	0.14	0.6
siblings	flg	M4	5928	6	0.91	[0.77-1.08]	0.28	0.91	[0.77-1.08]	0.28	0.78
siblings	flg	I1	6185	6	1.12	[0.65-1.94]	0.68	1.12	[0.65-1.94]	0.68	0.21
siblings	flg	I2	2897	6	2.26	[1.64-3.13]	7.20E-07	2.35	[1.61-3.30]	9.30E-06	0.3
siblings	flg	I3	3288	6	2.49	[1.76-3.53]	2.90E-07	2.56	[1.70-3.75]	6.70E-06	0.14
siblings	flg	S1	5924	6	1.24	[0.70-2.21]	0.46	1.24	[0.70-2.21]	0.46	0.34
siblings	flg	S2	6185	6	1.14	[0.64-2.02]	0.67	1.14	[0.64-2.02]	0.67	0.27
siblings	flg	S3	5924	6	1.27	[0.69-2.33]	0.44	1.27	[0.69-2.33]	0.44	0.31
dura_brfed	rs13015714	M1	4252	5	1	[0.98-1.03]	0.71	1	[0.97-1.04]	0.87	0.12
dura_brfed	rs13015714	M2	4252	5	1	[0.98-1.03]	0.73	1	[0.97-1.03]	0.98	0.2
dura_brfed	rs13015714	M3	4252	5	1	[0.98-1.02]	0.85	1	[0.97-1.03]	0.84	0.19
dura_brfed	rs13015714	M4	4252	5	1	[0.98-1.02]	0.82	1	[0.97-1.03]	0.99	0.26
dura_brfed	rs13015714	I1	4252	5	0.99	[0.95-1.02]	0.47	0.99	[0.95-1.02]	0.47	0.96
dura_brfed	rs13015714	S1	4252	5	0.99	[0.95-1.02]	0.47	0.99	[0.95-1.02]	0.47	0.85
dura_brfed	rs13015714	S2	4252	5	0.99	[0.95-1.02]	0.45	0.99	[0.95-1.02]	0.45	0.98
dura_brfed	rs13015714	S3	4252	5	0.99	[0.95-1.02]	0.44	0.99	[0.95-1.02]	0.44	0.89
siblings	rs10995251	M1	7529	6	0.96	[0.85-1.09]	0.54	0.96	[0.85-1.09]	0.54	0.89
siblings	rs10995251	M2	7529	6	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.9
siblings	rs10995251	M3	7529	6	0.96	[0.85-1.09]	0.55	0.96	[0.85-1.09]	0.55	0.8
siblings	rs10995251	M4	7529	6	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.81
siblings	rs10995251	I1	7529	6	1.03	[0.85-1.25]	0.74	1.03	[0.85-1.25]	0.74	0.53
siblings	rs10995251	I2	3337	6	0.97	[0.85-1.11]	0.67	0.97	[0.85-1.11]	0.67	0.65
siblings	rs10995251	I3	4192	6	1	[0.88-1.14]	1	1	[0.88-1.14]	1	0.61
siblings	rs10995251	S1	7529	6	1.04	[0.86-1.25]	0.71	1.04	[0.86-1.25]	0.71	0.61
siblings	rs10995251	S2	7529	6	1.06	[0.87-1.28]	0.57	1.06	[0.87-1.28]	0.57	0.68
siblings	rs10995251	S3	7529	6	1.06	[0.87-1.28]	0.58	1.06	[0.87-1.28]	0.58	0.7
siblings	rs7146581	M1	7529	6	0.96	[0.85-1.09]	0.54	0.96	[0.85-1.09]	0.54	0.89
siblings	rs7146581	M2	7529	6	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.9
siblings	rs7146581	M3	7529	6	0.96	[0.85-1.09]	0.55	0.96	[0.85-1.09]	0.55	0.8
siblings	rs7146581	M4	7529	6	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.81
siblings	rs7146581	I1	7529	6	1.04	[0.84-1.29]	0.73	1.04	[0.84-1.29]	0.73	0.58
siblings	rs7146581	I2	3337	6	1	[0.86-1.17]	0.96	1	[0.86-1.17]	0.96	0.54
siblings	rs7146581	I3	4192	6	1.07	[0.92-1.24]	0.38	1.07	[0.92-1.24]	0.38	0.59
siblings	rs7146581	S1	7529	6	1.04	[0.83-1.29]	0.75	1.04	[0.83-1.29]	0.75	0.54
siblings	rs7146581	S2	7529	6	1.01	[0.81-1.26]	0.94	1.01	[0.81-1.26]	0.94	0.49
siblings	rs7146581	S3	7529	6	1.01	[0.81-1.26]	0.93	1.01	[0.81-1.26]	0.93	0.47
siblings	rs7927894	M1	7529	6	0.96	[0.85-1.09]	0.54	0.96	[0.85-1.09]	0.54	0.89
siblings	rs7927894	M2	7529	6	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.9
siblings	rs7927894	M3	7529	6	0.96	[0.85-1.09]	0.55	0.96	[0.85-1.09]	0.55	0.8
siblings	rs7927894	M4	7529	6	0.96	[0.84-1.09]	0.52	0.96	[0.84-1.09]	0.52	0.81
siblings	rs7927894	I1	7529	6	1	[0.83-1.21]	0.97	0.97	[0.74-1.32]	0.84	0.1
siblings	rs7927894	I2	3337	6	1.08	[0.95-1.24]	0.24	1.09	[0.93-1.27]	0.28	0.065
siblings	rs7927894	I3	4192	6	1.04	[0.92-1.18]	0.49	1.03	[0.86-1.25]	0.75	0.097
siblings	rs7927894	S1	7529	6	1.01	[0.84-1.22]	0.92	0.98	[0.75-1.32]	0.89	0.12
siblings	rs7927894	S2	7529	6	1	[0.83-1.21]	0.98	0.97	[0.73-1.32]	0.8	0.096
siblings	rs7927894	S3	7529	6	1.01	[0.83-1.22]	0.91	0.98	[0.74-1.33]	0.87	0.11
smoke_uter	rs16948048	M1	8078	5	1.02	[0.89-1.17]	0.78	1.03	[0.83-1.27]	0.79	0.057
smoke_uter	rs16948048	M2	8078	5	1.04	[0.90-1.19]	0.63	1.04	[0.86-1.25]	0.68	0.12
smoke_uter	rs16948048	M3	8078	5	1.04	[0.90-1.20]	0.59	1.05	[0.84-1.31]	0.66	0.043
smoke_uter	rs16948048	M4	8078	5	1.05	[0.91-1.21]	0.48	1.06	[0.86-1.29]	0.57	0.084
smoke_uter	rs16948048	I1	8078	5	1.04	[0.85-1.27]	0.72	1.04	[0.85-1.27]	0.72	0.75
smoke_uter	rs16948048	I2	5074	5	0.97	[0.86-1.09]	0.6	0.98	[0.82-1.16]	0.8	0.069
smoke_uter	rs16948048	I3	3004	5	0.97	[0.82-1.15]	0.73	0.99	[0.81-1.20]	0.95	0.2
smoke_uter	rs16948048	S1	8078	5	1.06	[0.86-1.31]	0.57	1.06	[0.86-1.31]	0.57	0.5
smoke_uter	rs16948048	S2	8078	5	1.03	[0.84-1.27]	0.78	1.03	[0.84-1.27]	0.78	0.72
smoke_uter	rs16948048	S3	8078	5	1.06	[0.86-1.31]	0.61	1.06	[0.86-1.31]	0.61	0.48
cat	rs16948048	M1	49212	3	1.01	[0.96-1.07]	0.69	0.9	[0.63-1.45]	0.58	0.061
cat	rs16948048	M2	2773	3	0.93	[0.70-1.22]	0.58	0.77	[0.35-2.02]	0.5	0.018
cat	rs16948048	M3	49212	3	1.02	[0.97-1.08]	0.43	0.9	[0.59-1.56]	0.64	0.038
cat	rs16948048	M4	2773	3	0.97	[0.73-1.27]	0.81	0.78	[0.33-2.30]	0.57	0.0094
cat	rs16948048	I1	49212	3	1	[0.92-1.08]	0.98	1	[0.92-1.08]	0.98	0.64
cat	rs16948048	I2	21207	3	1.05	[0.99-1.11]	0.096	1.05	[0.99-1.11]	0.096	0.7
cat	rs16948048	I3	28005	3	1.06	[1.01-1.11]	0.029	1.06	[1.01-1.11]	0.029	0.49
cat	rs16948048	S1	2773	3	1.04	[0.70-1.54]	0.84	1.04	[0.70-1.54]	0.84	0.34
cat	rs16948048	S2	49212	3	1	[0.93-1.08]	1	1	[0.93-1.08]	1	0.67
cat	rs16948048	S3	2773	3	1.03	[0.69-1.54]	0.88	1.03	[0.69-1.54]	0.88	0.36
cat	rs2227483	M1	49212	3	1.01	[0.96-1.07]	0.69	0.9	[0.63-1.45]	0.58	0.061
cat	rs2227483	M2	2773	3	0.93	[0.70-1.22]	0.58	0.77	[0.35-2.02]	0.5	0.018
cat	rs2227483	M3	49212	3	1.02	[0.97-1.08]	0.43	0.9	[0.59-1.56]	0.64	0.038
cat	rs2227483	M4	2773	3	0.97	[0.73-1.27]	0.81	0.78	[0.33-2.30]	0.57	0.0094
cat	rs2227483	I1	49212	3	1.05	[0.97-1.13]	0.25	1.05	[0.97-1.13]	0.25	0.22
cat	rs2227483	I2	21207	3	1.04	[0.99-1.10]	0.14	1.04	[0.99-1.10]	0.14	0.65
cat	rs2227483	I3	28005	3	1.08	[1.03-1.14]	0.0016	1.08	[1.03-1.14]	0.0016	0.16
cat	rs2227483	S1	2773	3	0.99	[0.67-1.46]	0.97	1.15	[0.52-2.19]	0.72	0.084
cat	rs2227483	S2	49212	3	1.05	[0.97-1.13]	0.25	1.05	[0.97-1.13]	0.25	0.17
cat	rs2227483	S3	2773	3	0.96	[0.65-1.42]	0.84	1.13	[0.49-2.19]	0.78	0.074

cat	rs2228145	M1	49212	3	1.01 [0.96-1.07]	0.69	0.9 [0.63-1.45]	0.58	0.061
cat	rs2228145	M2	2773	3	0.93 [0.70-1.22]	0.58	0.77 [0.35-2.02]	0.5	0.018
cat	rs2228145	M3	49212	3	1.02 [0.97-1.08]	0.43	0.9 [0.59-1.56]	0.64	0.038
cat	rs2228145	M4	2773	3	0.97 [0.73-1.27]	0.81	0.78 [0.33-2.30]	0.57	0.0094
cat	rs2228145	I1	49212	3	1 [0.92-1.08]	0.93	1 [0.92-1.08]	0.93	0.4
cat	rs2228145	I2	21207	3	1.06 [1.00-1.12]	0.04	1.06 [1.00-1.12]	0.04	0.95
cat	rs2228145	I3	28005	3	1.05 [1.00-1.11]	0.037	1.05 [1.00-1.11]	0.037	0.45
cat	rs2228145	S1	2773	3	1.1 [0.74-1.65]	0.62	1.02 [0.56-2.01]	0.95	0.21
cat	rs2228145	S2	49212	3	1 [0.93-1.08]	0.99	1 [0.93-1.08]	0.99	0.43
cat	rs2228145	S3	2773	3	1.14 [0.76-1.70]	0.53	1.08 [0.64-1.94]	0.77	0.25
cat	rs2897442	M1	49212	3	1.01 [0.96-1.07]	0.69	0.9 [0.63-1.45]	0.58	0.061
cat	rs2897442	M2	2773	3	0.93 [0.70-1.22]	0.58	0.77 [0.35-2.02]	0.5	0.018
cat	rs2897442	M3	49212	3	1.02 [0.97-1.08]	0.43	0.9 [0.59-1.56]	0.64	0.038
cat	rs2897442	M4	2773	3	0.97 [0.73-1.27]	0.81	0.78 [0.33-2.30]	0.57	0.0094
cat	rs2897442	I1	49212	3	1.02 [0.94-1.11]	0.59	1.02 [0.94-1.11]	0.59	0.97
cat	rs2897442	I2	21207	3	1.04 [0.98-1.10]	0.18	1.04 [0.98-1.10]	0.18	0.73
cat	rs2897442	I3	28005	3	1.07 [1.01-1.12]	0.016	1.07 [1.01-1.12]	0.016	0.88
cat	rs2897442	S1	2773	3	1.05 [0.69-1.59]	0.83	1.05 [0.69-1.59]	0.83	0.75
cat	rs2897442	S2	49212	3	1.02 [0.94-1.11]	0.62	1.02 [0.94-1.11]	0.62	0.94
cat	rs2897442	S3	2773	3	1.02 [0.67-1.56]	0.91	1.02 [0.67-1.56]	0.91	0.68
cat	flg	M1	48246	3	1.01 [0.95-1.06]	0.83	0.84 [0.59-1.44]	0.32	0.055
cat	flg	M2	1807	3	0.71 [0.51-1.01]	0.056	0.68 [0.39-1.23]	0.16	0.13
cat	flg	M3	48246	3	1.02 [0.96-1.07]	0.59	0.83 [0.57-1.48]	0.34	0.045
cat	flg	M4	1807	3	0.71 [0.50-1.01]	0.06	0.67 [0.37-1.28]	0.19	0.11
cat	flg	I1	48246	3	0.86 [0.68-1.08]	0.19	0.68 [0.24-2.42]	0.47	0.47
cat	flg	I2	20342	3	1.78 [1.52-2.09]	1.80E-12	2.4 [1.26-3.39]	0.0077	0.025
cat	flg	I3	27904	3	1.44 [1.24-1.67]	2.40E-06	1.42 [1.10-1.85]	0.0067	0.6
cat	flg	S1	1807	3	0.22 [0.02-2.05]	0.18	0.22 [0.02-2.05]	0.18	0.98
cat	flg	S2	48246	3	0.84 [0.66-1.06]	0.15	0.49 [0.10-4.32]	0.4	0.29
cat	flg	S3	1807	3	0.14 [0.01-1.32]	0.085	0.14 [0.01-1.32]	0.085	0.98
ever_brfed	flg	M1	200351	4	0.65 [0.54-0.78]	2.90E-06	0.7 [0.37-1.22]	0.26	1.60E-07
ever_brfed	flg	M2	200351	4	0.66 [0.55-0.79]	4.60E-06	0.71 [0.37-1.25]	0.31	9.90E-08
ever_brfed	flg	M3	2430	4	0.9 [0.73-1.12]	0.35	0.9 [0.73-1.12]	0.35	0.7
ever_brfed	flg	M4	2430	4	0.92 [0.74-1.14]	0.45	0.92 [0.74-1.14]	0.45	0.61
ever_brfed	flg	I1	195879	4	1.18 [0.65-2.12]	0.59	1.18 [0.65-2.12]	0.59	0.71
ever_brfed	flg	I2	1183	4	1.81 [1.17-2.80]	0.0076	1.81 [1.17-2.80]	0.0076	0.85
ever_brfed	flg	I3	194696	4	1.89 [1.74-2.05]	8.60E-52	1.89 [1.74-2.05]	8.60E-52	0.61
ever_brfed	flg	S1	195879	4	1.16 [0.64-2.13]	0.62	1.16 [0.64-2.13]	0.62	0.66
ever_brfed	flg	S2	2426	4	1.01 [0.49-2.07]	0.98	1.01 [0.49-2.07]	0.98	0.31
ever_brfed	flg	S3	2426	4	1.01 [0.49-2.08]	0.99	1 [0.47-2.12]	0.99	0.27
smoke_child	flg	M1	150213	7	0.91 [0.87-0.96]	0.00067	0.74 [0.51-1.33]	0.11	0
smoke_child	flg	M2	103894	7	0.51 [0.45-0.57]	2.80E-32	0.69 [0.45-0.77]	0.072	0
smoke_child	flg	M3	51887	7	1.03 [0.97-1.08]	0.35	0.9 [0.73-1.26]	0.33	0.011
smoke_child	flg	M4	5568	7	0.86 [0.73-1.00]	0.057	0.85 [0.68-1.08]	0.17	0.12
smoke_child	flg	I1	147880	7	1.01 [0.81-1.25]	0.93	1.01 [0.81-1.25]	0.93	0.86
smoke_child	flg	I2	19038	7	1.75 [1.48-2.07]	4.00E-11	2 [1.53-2.29]	3.60E-07	0.15
smoke_child	flg	I3	128842	7	1.82 [1.67-1.99]	1.40E-41	1.82 [1.51-2.20]	6.00E-10	0.054
smoke_child	flg	S1	101561	7	0.89 [0.59-1.33]	0.56	0.89 [0.59-1.33]	0.56	0.85
smoke_child	flg	S2	51883	7	1.01 [0.80-1.28]	0.91	1.01 [0.80-1.28]	0.91	0.7
smoke_child	flg	S3	5564	7	0.79 [0.46-1.35]	0.39	0.79 [0.46-1.35]	0.39	0.77
wash_2y	flg	M1	1061	1	0.86 [0.52-1.43]	0.57	0.86 [0.52-1.43]	0.57	1
wash_2y	flg	M2	1061	1	0.86 [0.52-1.43]	0.57	0.86 [0.52-1.43]	0.57	1
wash_2y	flg	M3	1061	1	0.91 [0.54-1.53]	0.71	0.91 [0.54-1.53]	0.71	1
wash_2y	flg	M4	1061	1	0.9 [0.54-1.52]	0.7	0.9 [0.54-1.52]	0.7	1
wash_2y	flg	I1	1061	1	1.93 [0.29-12.99]	0.5	1.93 [0.29-12.99]	0.5	1
wash_2y	flg	I2	986	1	1.9 [1.27-2.83]	0.0017	1.9 [1.27-2.83]	0.0017	1
wash_2y	flg	I3	75	1	3.53 [0.54-22.99]	0.19	3.53 [0.54-22.99]	0.19	1
wash_2y	flg	S1	1061	1	1.64 [0.24-11.33]	0.62	1.64 [0.24-11.33]	0.62	1
wash_2y	flg	S2	1061	1	1.05 [0.15-7.39]	0.96	1.05 [0.15-7.39]	0.96	1
wash_2y	flg	S3	1061	1	1.05 [0.15-7.41]	0.96	1.05 [0.15-7.41]	0.96	1
antibio_utero	rs10995251	M1	2666	1	1.05 [0.76-1.46]	0.75	1.05 [0.76-1.46]	0.75	1
antibio_utero	rs10995251	M2	2666	1	1.06 [0.76-1.47]	0.74	1.06 [0.76-1.47]	0.74	1
antibio_utero	rs10995251	M3	2666	1	1.05 [0.76-1.45]	0.77	1.05 [0.76-1.45]	0.77	1
antibio_utero	rs10995251	M4	2666	1	1.05 [0.76-1.46]	0.76	1.05 [0.76-1.46]	0.76	1
antibio_utero	rs10995251	I1	2666	1	0.88 [0.55-1.41]	0.59	0.88 [0.55-1.41]	0.59	1
antibio_utero	rs10995251	I2	1895	1	0.95 [0.74-1.23]	0.7	0.95 [0.74-1.23]	0.7	1
antibio_utero	rs10995251	I3	771	1	0.84 [0.56-1.24]	0.38	0.84 [0.56-1.24]	0.38	1
antibio_utero	rs10995251	S1	2666	1	0.89 [0.55-1.43]	0.62	0.89 [0.55-1.43]	0.62	1
antibio_utero	rs10995251	S2	2666	1	0.86 [0.54-1.39]	0.54	0.86 [0.54-1.39]	0.54	1
antibio_utero	rs10995251	S3	2666	1	0.87 [0.54-1.40]	0.56	0.87 [0.54-1.40]	0.56	1
ever_brfed	rs13015714	M1	199300	3	0.5 [0.39-0.64]	5.20E-08	0.65 [0.27-1.19]	0.33	2.90E-06
ever_brfed	rs13015714	M2	199300	3	0.5 [0.39-0.65]	9.50E-08	0.67 [0.27-1.24]	0.39	1.60E-06
ever_brfed	rs13015714	M3	1379	3	1.01 [0.69-1.46]	0.96	1.01 [0.69-1.46]	0.96	0.66
ever_brfed	rs13015714	M4	1379	3	1.07 [0.73-1.57]	0.73	1.07 [0.73-1.57]	0.73	0.73
ever_brfed	rs13015714	I1	199300	3	0.74 [0.46-1.18]	0.2	0.74 [0.46-1.18]	0.2	0.85
ever_brfed	rs13015714	I2	644	3	1.42 [0.92-2.20]	0.11	1.42 [0.92-2.20]	0.11	0.99
ever_brfed	rs13015714	I3	198656	3	1.12 [1.08-1.17]	6.10E-10	1.12 [1.08-1.17]	6.10E-10	0.55
ever_brfed	rs13015714	S1	199300	3	0.76 [0.47-1.22]	0.25	0.76 [0.47-1.22]	0.25	0.93
ever_brfed	rs13015714	S2	1379	3	0.63 [0.28-1.41]	0.26	0.63 [0.28-1.41]	0.26	0.63
ever_brfed	rs13015714	S3	1379	3	0.71 [0.30-1.66]	0.43	0.71 [0.30-1.66]	0.43	0.88
siblings	rs10214237	M1	5049	4	0.93 [0.78-1.12]	0.47	0.93 [0.78-1.12]	0.47	0.7
siblings	rs10214237	M2	5049	4	0.93 [0.77-1.12]	0.45	0.93 [0.77-1.12]	0.45	0.71
siblings	rs10214237	M3	5049	4	0.92 [0.76-1.11]	0.37	0.92 [0.76-1.11]	0.37	0.6
siblings	rs10214237	M4	5049	4	0.91 [0.76-1.10]	0.34	0.91 [0.76-1.10]	0.34	0.62
siblings	rs10214237	I1	5049	4	1.09 [0.82-1.46]	0.55	1.09 [0.82-1.46]	0.55	0.6
siblings	rs10214237	I2	2001	4	0.92 [0.75-1.15]	0.47	0.92 [0.75-1.15]	0.47	0.96
siblings	rs10214237	I3	3048	4	1.03 [0.86-1.24]	0.75	1.05 [0.81-1.33]	0.72	0.13

siblings	rs10214237	S1	5049	4	1.1 [0.82-1.47]	0.53	1.1 [0.82-1.47]	0.53	0.63
siblings	rs10214237	S2	5049	4	1.11 [0.83-1.50]	0.47	1.11 [0.83-1.50]	0.47	0.67
siblings	rs10214237	S3	5049	4	1.12 [0.83-1.51]	0.46	1.12 [0.83-1.51]	0.46	0.68
dog	rs10214237	M1	47185	2	0.98 [0.93-1.04]	0.56	0.98 [0.93-1.04]	0.56	0.68
dog	rs10214237	M2	746	2	0.9 [0.51-1.59]	0.71	0.9 [0.51-1.59]	0.71	1
dog	rs10214237	M3	47185	2	0.98 [0.92-1.03]	0.38	0.98 [0.92-1.03]	0.38	0.82
dog	rs10214237	M4	746	2	0.93 [0.52-1.66]	0.81	0.93 [0.52-1.66]	0.81	1
dog	rs10214237	I1	47185	2	0.91 [0.83-0.99]	0.025	0.91 [0.83-0.99]	0.025	0.62
dog	rs10214237	I2	28848	2	1.09 [1.04-1.15]	0.0011	1.09 [1.04-1.15]	0.0011	0.55
dog	rs10214237	I3	18337	2	0.99 [0.93-1.06]	0.75	0.99 [0.93-1.06]	0.75	0.45
dog	rs10214237	S1	746	2	1.16 [0.40-3.33]	0.78	1.16 [0.40-3.33]	0.78	1
dog	rs10214237	S2	47185	2	0.9 [0.83-0.98]	0.02	0.9 [0.83-0.98]	0.02	0.66
dog	rs10214237	S3	746	2	1.13 [0.39-3.28]	0.83	1.13 [0.39-3.28]	0.83	1

Supplementary file 10: *IL7R* mRNA expression in cells of different rs10214237 genotype



Rs10214237 T:T genotype is associated with higher expression level of *IL7R* mRNA than C:C genotype; **4A** and **4B**, Screenshots from GTEx Portal (<https://www.gtexportal.org/home/snp/rs10214237> accessed 14/04/2024) showing T:T genotype is associated with higher *IL7R* mRNA expression in cultured fibroblasts and whole blood; **4C**, shows higher mRNA expression levels in primary human keratinocytes of T:T than C:C genotype.

<b>Cytokines in ELISA panel (n=64)</b>
Amphiregulin
CCL1/I-309
CCL11/Eotaxin
CCL17/TARC
CCL2/JE/MCP-1
CCL22/MDC
CCL27/CTACK
CCL28
CCL3/MIP-1 alpha
CCL5/RANTES
Chemerin
CRP
CXCL10/IP-10/CRG-2
CXCL11/I-TAC
CXCL16
CXCL4/PF4
CXCL9/MIG
DPPIV/CD26
Endoglin/CD105
Fas Ligand / TNFSF6
FLT3 (Duo)
GM-CSF
ICAM-1/ CD54
IFN-gamma
IGF-I
IGFBP-3
IGFBP-5
IL-1 alpha / IL-1F1
IL-1 beta IL-1F2
IL-10
IL-11
IL-12 p70
IL-17 / IL-17A
IL-2
IL-23 (duo)
IL-3
IL-6
Lipocalin-2/NGAL
MMP-3
MMP-7
MMP-9
Osteopontin
PIGF-2
Trance / Rank L (Duo)
Thrombospondin-2
TIMP-1
TNF-alpha
TREM-1
VEGF
CD80 / B7-1
granzyme B (duo)
CXCL8/IL8
CCL19/MIP-3 beta
CCL4/MIP-1 beta
CXCL1/GRO alpha
IL-12/IL-23 p40 Monomer
IL-15
IL-18/IL-1F4
IL-22
IL-31
Lymphotoxin-alpha/TNF-beta
IL-33
TSLP
IL-38

<b>Cytokine expression detected (n=28)</b>
Amphiregulin
CCL1/I-309
CCL2/JE/MCP-1
CCL27/CTACK
CCL5/RANTES
CXCL10/IP-10/CRG-2
CXCL11/I-TAC
CXCL16
CXCL4/PF4
GM-CSF
ICAM-1/ CD54
IGFBP-3
IL-1 alpha / IL-1F1
IL-1 beta IL-1F2
IL-6
Lipocalin-2/NGAL
MMP-3
MMP-9
PIGF-2
Thrombospondin-2
TIMP-1
TNF-alpha
TREM-1
VEGF
CXCL8/IL8
CCL4/MIP-1 beta
CXCL1/GRO alpha
IL-18/IL-1F4

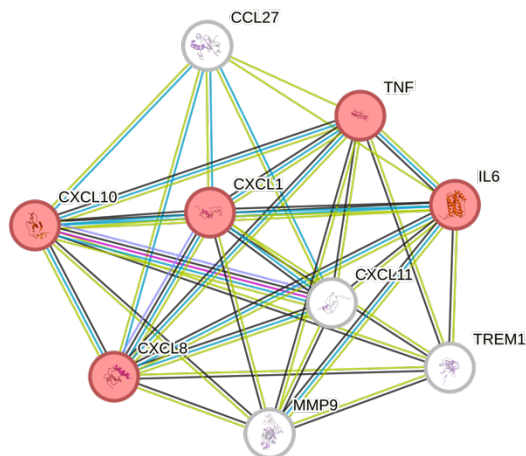
<b>Significant increase in expression (n=9)</b>	<b>p-value</b>
TREM-1	0.00015
TNF-alpha	0.003763
CXCL1/GRO alpha	0.006245
IL-6	0.016428
MMP-9	0.033438
CXCL10/IP-10/CRG-2	0.037395
CCL27/CTACK	0.040939
CXCL8/IL8	0.044355
CXCL11/I-TAC	0.045492

<b>No change in expression (n=19)</b>	<b>p-value</b>
Amphiregulin	>0.05
CCL1/I-309	>0.05
CCL2/JE/MCP-1	>0.05
CCL5/RANTES	>0.05
CXCL16	>0.05
CXCL4/PF4	>0.05
GM-CSF	>0.05
ICAM-1/ CD54	>0.05
IGFBP-3	>0.05
IL-1 alpha / IL-1F1	>0.05
IL-1 beta IL-1F2	>0.05
Lipocalin-2/NGAL	>0.05
MMP-3	>0.05
PIGF-2	>0.05
Thrombospondin-2	>0.05
TIMP-1	>0.05
VEGF	>0.05
CCL4/MIP-1 beta	>0.05
IL-18/IL-1F4	>0.05

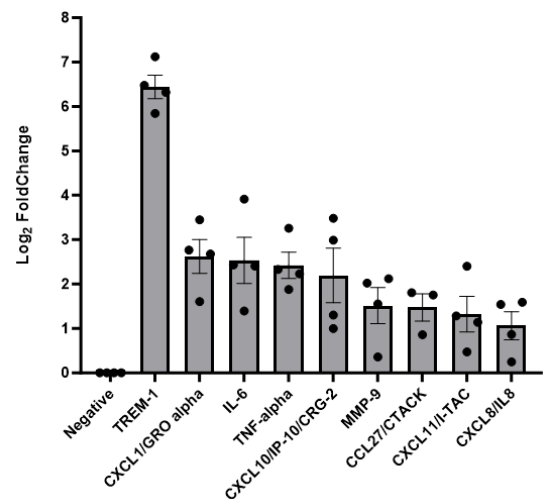
### Supplementary file 11. Results of cytokine, chemokine and receptor expression on human primary keratinocytes following dog allergen exposure.

(A) Proteins detected by ELISA array spotting (Quanterix 2470 Arrayer platform); proteins present on array but not detected; differential expression analysed using paired t-test.

(B)



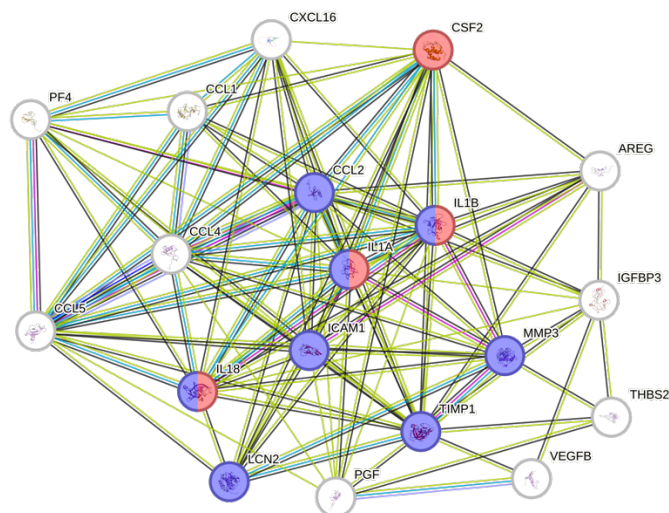
(C)



STRING v12.0 analysis shows network of upregulated proteins with significant enrichment for Reactome Pathway HSA-6783783. Red indicates IL-10 signalling (5/45 proteins, FDR 2.44e-08).

Graph represents the mean log2 fold change in cytokine expression +/- SEM from 3-4 individual human primary keratinocyte donors.

(D)



STRING v12.0 network analysis of proteins showing no significant change in expression forms a network enriched for Reactome Pathway HSA-6785807 IL-4 and IL-13 signalling (8/107 proteins, FDR 7.93e-11) and local network cluster (STRING) CL:15940 JAK-STAT signalling pathway and IL-1 family (4/138 proteins, FDR 0.0026).