

Table 5: Epigenetics associations identified in the Isle of Wight Birth Cohort participants

| Main CpG site/s | Genes | Exposure | Outcomes | Reference |
|--|--|---------------------|---|--|
| cg09791102 cg26937798 | <i>IL-4</i> <i>IL-4</i> | - | on asthma risk and temporal asthma transition | Zhang et al. Clin Epigenetics. 2014 Apr 15;6(1):8. |
| cg07548383 | <i>FLG</i> | - | eczema, | Ziyab J Eur Acad Dermatol Venereol 2012;7(3):e32721 |
| cg09791102 | <i>IL-4R</i> | - | asthma at age 18 years | Soto-Ramirez et al, Clinical Epigenetics 2013 Jan 3;5(1):1), |
| cg00666422 | <i>LEP</i> | - | lung function and asthma | Mukherjee Int J Mol Epidemiol Genet. 2016 Mar 23;7(1):1-17 |
| cg04850479 cg01427769 | <i>PROZ</i> <i>NEU1</i> | - | Eczema | Quraishi et al. Clin Epigenetics. 2015 Jul 21;7(1):68. |
| cg04983687 cg18219873 cg27469152 cg09332506 | <i>ZFPM1</i> <i>PRG2</i> <i>EPX</i> <i>COPA</i> | - | atopy and high serum IgE | Everson T Genome Med. 2015 Aug 21;7(1):89. |
| cg11807188 cg03050981 | <i>LEPR/LEPROT</i> | Smoking | Serum pleptin/BMI | Yousefi et al. Int J Mol Epidemiol Genet. 2013 Jun;4(2):86-100 |
| cg13566430 | <i>IL-13</i> | Smoking | asthma | Patil et al. Clin Epigenetics. 2013 Dec;5(1):22. |
| cg00787537 cg24577417 cg07175945 | <i>KCNH1</i> <i>HGC6.3</i> <i>ZFR</i> | Season of Birth | allergic Disease | Lockett GA Allergy. 2016 Mar 12. doi: 10.1111/all.12882. |
| cg05575921 | <i>AHRR</i> | Maternal Smoking | - | Joubert Am J Hum Genet 2016 Apr 7;98(4):680-96 |
| Cg14472551 cg01669161 | <i>KIAA1549L</i> <i>PSMG3, TFAMP1</i> | Tetanus vaccination | asthma | Janjanam et al. Vaccine. 2016 Dec 12;34(51):6493-6501 |
| CpG islands | <i>NHP2L1, WRB</i> <i>and PPIEL</i> | - | - | Docherty et al. J Med Genet. 2014 Apr;51(4):229-38 |