**Web Table 1. Odds ratios of high grade glioma for SNP associations stratified by medical center, Mayo Clinic, University of California, San Francisco (UCSF), and Duke University/University of Illinois at Chicago (DUKE/UIC), 1997-2008.**

| SNP | MA | Mayo (n=176 cases, 174 controls) | | | UCSF (n=319 cases, 602 controls) | | | Duke/UIC (n=360 cases, 384 controls) | | | Pooled (n=855 cases, 1160 controls) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OR | 95% CI | P value[a] | OR | 95% CI | P value[a] | OR | 95% CI | P value[a] | OR | 95% CI | P value[a] |
| rs2736100 (5p15.3) | A | 0.72 | 0.52, 1.0 | 0.05 | 0.77 | 0.63, 0.94 | 0.009 | 1.04 | 0.81, 1.32 | 0.8 | 0.86 | 0.75, 0.99 | 0.036 |
| rs4295627 (8q24.21) | C | 1.76 | 1.20, 2.58 | 0.004 | 1.06 | 0.82, 1.37 | 0.65 | 1.19 | 0.92, 1.54 | 0.2 | 1.22 | 1.04, 1.43 | 0.015 |
| rs1063192 (9p21.3) | G | 1.63 | 1.21, 2.21 | 0.002 | 1.34 | 1.10, 1.62 | 0.003 | 1.23 | 0.99, 1.52 | 0.06 | 1.34 | 1.18, 1.52 | <0.0001 |
| rs2157719 (9p21.3) | G | 1.64 | 1.21, 2.21 | 0.001 | 1.34 | 1.10, 1.62 | 0.003 | 1.17 | 0.94, 1.45 | 0.15 | 1.32 | 1.16, 1.50 | <0.0001 |
| rs1412829 (9p21.3) | G | 1.59 | 1.17, 2.15 | 0.003 | 1.34 | 1.11, 1.63 | 0.003 | 1.24 | 1.0, 1.54 | 0.05 | 1.35 | 1.18, 1.53 | <0.0001 |
| rs4977756 (9p21.3) | G | 1.75 | 1.29, 2.37 | <0.001 | 1.27 | 1.04, 1.53 | 0.017 | 1.17 | 0.94, 1.44 | 0.2 | 1.3 | 1.15, 1.48 | <0.0001 |
| rs498872 (11q23.3) | A | 0.95 | 0.69, 1.31 | 0.76 | 0.94 | 0.77, 1.14 | 0.52 | 1.01 | 0.8, 1.27 | 0.9 | 0.95 | 0.83, 1.09 | 0.49 |
| rs6010620 (20q13.3) | A | 0.49 | 0.33, 0.73 | <0.001 | 0.7 | 0.55, 0.91 | 0.006 | 0.6 | 0.45, 0.8 | 0.0004 | 0.62 | 0.53, 0.74 | <0.0001 |
| rs6089953 (20q13.3) | A | 0.51 | 0.35, 0.76 | 0.001 | 0.68 | 0.53, 0.88 | 0.003 | 0.62 | 0.47, 0.83 | 0.001 | 0.63 | 0.53, 0.74 | <0.0001 |
| rs4809324 (20q13.3) | G | 1.71 | 1.09, 2.68 | 0.02 | 1.73 | 1.30, 2.29 | 0.0001 | 1.55 | 1.09, 2.20 | 0.02 | 1.65 | 1.36, 2.01 | <0.0001 |

MA: Minor Allele.

[a] *P-value* from logistic regression comparing cases and controls for each variable. Analysis includes age, gender, and region (when appropriate) as covariates. The pooled analysis adjusts for medical center.

**Web Table 2. Stratified analysis of high grade glioma risk with medically significant allergy by risk allele status for three selected SNPs, Mayo Clinic, University of California, San Francisco (UCSF), and Duke University/University of Illinois at Chicago (DUKE/UIC), 1997-2008.**

| Risk allele | Number of Risk Alleles | Mayo OR (95% CI) for Allergy | P value | UCSF OR (95% CI) for Allergy | P value | DUKE/UIC OR (95% CI) for Allergy | P value |
|---|---|---|---|---|---|---|---|
| rs4295627 (8q24.21) | 0 | 0.72 (0.42, 1.23) | 0.23 | 0.51 (0.33, 0.79) | 0.003 | 0.66 (0.44, 0.97) | 0.036 |
| (allele C) | 1 or 2 | 3.16 (1.37, 7.26) | 0.007 | 0.54 (0.29, 0.98) | 0.044 | 0.37 (0.22, 0.63) | <0.001 |
| SNP-allergy interaction | | | 0.003 | | 0.8 | | 0.42 |
| rs4977756 (9p21.3) | 0 | 0.77 (0.34, 1.74) | 0.52 | 0.33 (0.17, 0.63) | <0.001 | 0.35 (0.21, 0.61) | <0.001 |
| (allele G) | 1 or 2 | 1.26 (0.75, 2.14) | 0.38 | 0.66 (0.43, 0.99) | 0.047 | 0.66 (0.45, 0.97) | 0.034 |
| SNP-allergy interaction | | | 0.12 | | 0.28 | | 0.15 |
| rs4809324 (20q13.3) | 0 | 1.50 (0.91, 2.49) | 0.11 | 0.50 (0.34, 0.77) | 0.001 | 0.58 (0.4, 0.84) | 0.004 |
| (allele G) | 1 or 2 | 0.37 (0.14, 0.94) | 0.036 | 0.54 (0.27, 1.10) | 0.088 | 0.39 (0.2, 0.76) | 0.006 |
| SNP-allergy interaction | | | 0.016 | | 0.8 | | 0.3 |

[a]Adjusted for age and gender.

**Web Table 3. Odds ratio of high grade glioma (anaplastic astrocytoma and glioblastoma) for smoking history stratified by risk allele status of three selected SNPs, Mayo Clinic, University of California, San Francisco, and Duke University/University of Illinois at Chicago 1997-2008.**

| Risk alleles | Number of risk alleles | OR (95% CI) for smoking | *P value* | SNP-smoking Pooled interaction *P-value*[a] |
|---|---|---|---|---|
| rs4295627 (8q24.21, allele C) | 0 | 0.93 (0.74, 1.16) | 0.52 | 0.19 |
| | 1 or 2 | 0.94 (0.68, 1.29) | 0.68 | |
| rs4977756 (9p21.3, allele G) | 0 | 0.88 (0.63, 1.21) | 0.42 | 0.53 |
| | 1 or 2 | 0.95 (0.76, 1.18) | 0.63 | |
| rs4809324 (20q13.3, allele G) | 0 | 0.94 (0.76, 1.17) | 0.59 | 0.76 |
| | 1 or 2 | 0.83 (0.57, 1.20) | 0.32 | |

[a]Adjusted for age, gender, and medical center.

**Web Table 4. Odds ratios for high grade glioma (anaplastic astrocytoma and glioblastoma) for three selected SNPs stratified by history of smoking, Mayo Clinic, University of California, San Francisco, and Duke University/University of Illinois at Chicago 1997-2008.**

| Risk alleles | Smoking History | OR (95% CI) for 1 or 2 versus 0 risk alleles | *P value* | SNP-smoking Pooled interaction *P-value*[a] |
|---|---|---|---|---|
| rs4295627 (8q24.21, allele C) | Yes | 1.10 (0.87, 1.38) | 0.42 | 0.19 |
| | No | 1.34 (1.06, 1.68) | 0.01 | |
| rs4977756 (9p21.3, allele G) | Yes | 1.36 (1.14, 1.62) | <0.001 | 0.53 |
| | No | 1.26 (1.05, 1.51) | 0.01 | |
| rs4809324 (20q13.3, allele G) | Yes | 1.70 (1.30, 2.21) | <0.001 | 0.76 |
| | No | 1.64 (1.22, 2.19) | 0.001 | |

[a]Adjusted for age, gender, and medical center.