**Table S5\_**Associations between rs1257220, rs3814022 and rs4953911 and the different clinical and therapeutic outcomes of UC patients, adjusted to age, gender and time of follow-up. In grey the statistically significant associations are highlighted. - Not statistically significant differences.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Family history** | | | | | **Need for colectomy** | | | | | **Need for Biologics** | | | | | **Prognosis** | | | | |
|  | **No** | **Yes** |  | | | **No** | **Yes** |  | | | **No** | **Yes** |  | | | **Good** | **Bad** |  |  |  |
|  | **N (%)** | **N (%)** | **OR** | **[95% IC]** | ***p* value** | **N (%)** | **N (%)** | **OR** | **[95% IC]** | ***p* value** | **N (%)** | **N (%)** | **OR** | **[95% IC]** | ***p* value** | **N (%)** | **N (%)** | **OR** | **[95% IC]** | ***p* value** |
| ***Discovery Cohort*** | | | | | | | | | | | | | | | | | | | | |
| **rs1257220** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G/G | **189 (53.5)** | **3 (23.1)** | **1.00** |  | **0.031** | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| A/G-A/A | **164 (46.5)** | **10 (76.9)** | **3.84** | **1.02-14.53** | - | - | - | - | - | - | - | - | - | - | - | - |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G/G-A/G | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| A/A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G\*/A (0,1,2) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **rs3814022** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C/C | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| C/G-G/G | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C/C-C/G | - | - | - |  | - | - | - | - |  | - | **282 (91.0)** | **55 (80.9)** | **1.00** |  | **0.018** | - | - | - |  | - |
| G/G | - | - | - | - | - | - | - | - | **28 (9.0)** | **13 (19.1)** | **2.57** | **1.21-5.42** |  | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C\*/G (0,1,2) | - | - | - | - | - | - | - | - | - | - | **310 (82.0)** | **68 (18.0)** | **1.62** | **1.09-2.40** | **0.017** | - | - | - | - | - |
| **rs4953911** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A/A | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| T/A-T/T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A/A-T/A | - | - | - |  | - | - | - | - |  | - | **273 (88.9)** | **53 (79.1)** | **1.00** |  | **0.023** | - | - | - |  | - |
| T/T | - | - | - | - | - | - | - | - | **34 (11.1)** | **14 (20.9)** | **2.38** | **1.16-4.89** | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A\*/T (0,1,2) | - | - | - | - | - | - | - | - | - | - | **307 (82.1)** | **67 (17.9)** | **1.54** | **1.03-2.29** | **0.034** | - | - | - | - | - |
| ***Validation Cohort*** | | | | | | | | | | | | | | | | | | | | |
| **rs1257220** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G/G | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| A/G-A/A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G/G-A/G | **402 (91.2)** | **18 (75.0)** | **1.00** |  | **0.021** | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| A/A | **39 (8.8)** | **6 (25.0)** | **3.64** | **1.34-9.91** | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G\*/A (0,1,2) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **rs3814022** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C/C | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | 236 (56.5) | 13 (37.1) | 1.00 |  | 0.071 |
| C/G-G/G | - | - | - | - | - | - | - | - | - | - | - | - | 182 (43.5) | 22 (62.9) | 2.13 | 0.92-4.93 |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C/C-C/G | 408 (92.7) | 23 (100) | 1.00 |  | 0.063 | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| G/G | 32 (7.3) | 0 (0) | 0.00 | 0.00 | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C\*/G (0,1,2) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **rs4953911** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A/A | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | 223 (53.3) | 11 (31.4) | 1.00 |  | 0.063 |
| T/A-T/T | - | - | - | - | - | - | - | - | - | - | - | - | 195 (46.7) | 24 (68.6) | 2.21 | 0.94-5.22 |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A/A-T/A | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| T/T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A\*/T (0,1,2) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 418 (92.3) | 35 (7.7) | 1.68 | 0.91-3.10 | 0.100 |
| ***Combined Cohort*** | | | | | | | | | | | | | | | | | | | | |
| **rs1257220** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G/G | **439 (55.3)** | **14 (37.8)** | **1.00** |  | **0.032** | **346 (52.3)** | **112 (60.2)** | **1.00** |  | **0.019** | - | - | - |  | - | - | - | - |  | - |
| A/G-A/A | **355 (44.7)** | **23 (62.2)** | **2.08** | **1.05-4.12** | **315 (47.7)** | **70 (38.7)** | **0.66** | **0.46-0.94** |  | - | - | - | - | - | - | - | - |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G/G-A/G | **726 (91.4)** | **29 (78.4)** | **1.00** |  | **0.015** | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| A/A | **68 (8.6)** | **8 (21.6)** | **3.07** | **1.34-7.04** | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G\*/A (0,1,2) | **794 (95.5)** | **37 (4.5)** | **1.92** | **1.21-3.04** | **0.006** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **rs3814022** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C/C | - | - | - |  | - | - | - | - |  | - | 332 (54.0) | 105 (46.5) | 1.00 |  | 0.067 | - | - | - |  | - |
| C/G-G/G | - | - | - | - | - | - | - | - | 283 (46.0) | 121 (53.5) | 1.36 | 0.98-1.83 | - | - | - | - |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C/C-C/G | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| G/G | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C\*/G (0,1,2) | - | - | - | - | - | - | - | - | - | - | **615 (73.1)** | **226 (26.9)** | **1.30** | **1.03-1.65** | **0.029** | - | - | - | - | - |
| **rs4953911** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A/A | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | 372 (48.2) | 19 (33.9) | 1.00 |  | 0.077 |
| T/A-T/T | - | - | - | - | - | - | - | - | - | - | - | - | 399 (51.8) | 37 (66.1) | 1.70 | 0.93-3.08 |
| Recessive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A/A-T/A | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - | - | - | - |  | - |
| T/T | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| log-Additive |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A\*/T (0,1,2) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |