Additional file 5. The cluster analysis by excluding those background variables with no plausible biological association with cough among 975 subjects with current cough. The ten most important variables are expressed, in order of importance. The order was defined by the p value obtained by Mann-Whitney U test or chi-square test between the clusters. The values are expressed by either means (standard deviations) or percentages, unless stated otherwise stated.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Order** | **Variable** | **Cluster A**  **N = 609** | **Cluster B**  **N = 366** | **P value** |
| 1 | Trigger sum | 2.64 (2.20) | 6.97 (2.32) | 4.19 e-98 |
| 2 | Number of cough background disorders | 0.31 (0.54) | 1.25 (0.75) | 2.72 e-79 |
| 3 | LCQ physical domain | 5.34 (0.74) | 4.22 (0.84) | 7.03 e-72 |
| 4 | Idiopathic cough | 72.7 % | 13.7 % | 1.83 e-70 |
| 5 | LCQ question 9 1 | 6.07 (1.04) | 4.31 (1.52) | 9.54 e-68 |
| 6 | LCQ total score | 16.5 (2.38) | 13.1 (2.69) | 3.21 e-67 |
| 7 | LCQ psychological domain | 5.44 (0.93) | 4.29 (1.04) | 2.28 e-54 |
| 8 | Dyspnea with wheezing | 15.8 % | 64.5 % | 5.19 e-54 |
| 9 | Poor indoor air quality as a cough trigger | 38.6 % | 89.3 % | 6.06 e-54 |
| 10 | LCQ social domain | 5.72 (0.99) | 4.57 (1.10) | 10.0 e-51 |

1 Leicester Cough Questionnaire question number 9: “In the last 2 weeks, exposure to paints or fumes has made me cough” with a 7-step scale from 1 = all of the time to 7 = none of the time.