**Supplementary table 7** Associations between RF isotypes and smoking, in anti-CCP2-positive and anti-CCP2-negative RA

| Subgroup | Exposure | OR (95% CI)<sup>a</sup> | P-value<sup>b</sup> |
|----------|----------|--------------------------|---------------------|
| CCP2+    |          |                          |                     |
| Controls |          | 1.0 (ref)                |                     |
| RF IgM-  | 39       | 1.8 (1.2-2.6)            | 0.3                 |
| RF IgM+  | 339      | 2.2 (1.8-2.5)            | <0.0001             |
| RF IgG-  | 115      | 1.4 (1.1-1.9)            |                     |
| RF IgG+  | 263      | 2.4 (2.0-2.8)            |                     |
| RF IgA-  | 218      | 1.4 (1.1-1.7)            | <0.0001             |
| RF IgA+  | 160      | 3.1 (2.5-3.8)            |                     |
| CCP2-    |          |                          |                     |
| Controls | 1208     | 1.0 (ref)                |                     |
| RF IgM-  | 247      | 1.1 (0.9-1.3)            | 0.002               |
| RF IgM+  | 57       | 1.9 (1.4-2.7)            |                     |
| RF IgG-  | 258      | 1.2 (1.0-1.4)            | 0.07                |
| RF IgG+  | 46       | 1.7 (1.2-2.4)            |                     |
| RF IgA-  | 281      | 1.2 (1.0-1.4)            | 0.01                |
| RF IgA+  | 23       | 2.2 (1.4-3.6)            |                     |

<sup>a</sup> Odds ratios (OR) were adjusted for age, gender, residential area, SE and PTPN22.

Significant ORs are shown in bold. <sup>b</sup>P-values indicate differences in ORs between RF isotype-positive and -negative RA subsets.