**Questionnaire: Work-related Physical Stress**

If you are presently working and/or worked five years ago, continue with the following questions. If you currently have, or five years ago had, two or more jobs at the same time, answer for the job you had the longest. If you are currently not working, and were not working five years ago, please continue to the next section (i.e., do not answer these questions in this section).

1. **Does/did your work require you to bend over or turn in a repetitive manner several times per hour?**
   - **Currently:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working
   - **Five years ago:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working

2. **Does/did your work involve performing repetitive hand- or finger-movements several times per minute?** (for example, typing or sorting)
   - **Currently:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working
   - **Five years ago:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working

3. **Do/did you lift or carry objects heavier than 10 kg?**
   - **Currently:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working
   - **Five years ago:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working

4. **Does/did your work involve movements where your hands are placed below knee level for more than a total of 30 minutes per day?** (for example, floor or ground work)
   - **Currently:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working
   - **Five years ago:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working

5. **What proportion of your working day do/did you work on a vibrating floor or seat?** (for example, in a car, boat, aeroplane, tractor, or lorry)
   - **Currently:**
     - not at all
     - ¼ time
     - ½ time
     - ¾ time
     - full-time
     - not working
   - **Five years ago:**
     - not at all
     - ¼ time
     - ½ time
     - ¾ time
     - full-time
     - not working

6. **What proportion of your working day do/did you work using vibrating hand-held machines?** (for example, power drill, sander, nail gun, chainsaw, levers, steering wheels, etc.)
   - **Currently:**
     - not at all
     - ¼ time
     - ½ time
     - ¾ time
     - full-time
     - not working
   - **Five years ago:**
     - not at all
     - ¼ time
     - ½ time
     - ¾ time
     - full-time
     - not working

7. **Do/did you perform work where your hands are/were placed above shoulder level for more than a total of 30 minutes per day?**
   - **Currently:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working
   - **Five years ago:**
     - never or rarely
     - 1-3 days/month
     - 1 day/week
     - 2-4 days/week
     - every working day
     - not working
### Supplementary Table S1. Characteristics of the participating subjects (t-test for continuous variables, $\chi^2$ with Yates’ correction for discrete variables).

<table>
<thead>
<tr>
<th></th>
<th>Cases</th>
<th>Controls</th>
<th>p-value (anti-CII positive vs. anti-CII negative RA)</th>
<th>p-value (All RA vs. controls)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All RA</td>
<td>Anti-CII positive RA</td>
<td>Anti-CII negative RA</td>
<td></td>
</tr>
<tr>
<td>Number of subjects (%)</td>
<td>2916</td>
<td>155 (5)</td>
<td>2761 (95)</td>
<td>5130</td>
</tr>
<tr>
<td>Age, mean±SD</td>
<td>51 (12)</td>
<td>51 (13)</td>
<td>51 (12)</td>
<td>NS</td>
</tr>
<tr>
<td>Female(%)</td>
<td>2072 (71)</td>
<td>112 (72)</td>
<td>1960 (71)</td>
<td>NS</td>
</tr>
<tr>
<td>BMI ≥25 (%)</td>
<td>1380 (47)</td>
<td>61 (39)</td>
<td>1319 (48)</td>
<td>0.0500</td>
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<tr>
<td>Ever smoker (%)</td>
<td>1962 (67)</td>
<td>98 (63)</td>
<td>1864 (68)</td>
<td>NS</td>
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<tr>
<td>Smoking intensity (%)</td>
<td></td>
<td></td>
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<tr>
<td>&lt;10 pack-years</td>
<td>597 (20)</td>
<td>28 (18)</td>
<td>569 (21)</td>
<td>NS</td>
</tr>
<tr>
<td>≥10-19 pack-years</td>
<td>496 (17)</td>
<td>26 (17)</td>
<td>470 (17)</td>
<td>NS</td>
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<tr>
<td>≥20 pack-years</td>
<td>662 (23)</td>
<td>33 (21)</td>
<td>629 (23)</td>
<td>NS</td>
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<tr>
<td>University degree (%)</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>non-drinkers</td>
<td>750 (26)</td>
<td>44 (28)</td>
<td>706 (26)</td>
<td>NS</td>
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<tr>
<td>low</td>
<td>230 (8)</td>
<td>17 (11)</td>
<td>213 (8)</td>
<td>NS (0.06)</td>
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<tr>
<td>moderate</td>
<td>1488 (51)</td>
<td>89 (57)</td>
<td>1399 (51)</td>
<td>2282 (44)</td>
</tr>
<tr>
<td>high</td>
<td>696 (24)</td>
<td>31 (20)</td>
<td>665 (24)</td>
<td>1287 (25)</td>
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<tr>
<td>Work status at baseline (%)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>working</td>
<td>2181 (75)</td>
<td>111 (72)</td>
<td>2070 (75)</td>
<td>NS</td>
</tr>
<tr>
<td>not working</td>
<td>611 (21)</td>
<td>41 (26)</td>
<td>570 (21)</td>
<td>NS</td>
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<tr>
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<td>124 (4)</td>
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<td>121 (4)</td>
<td>296 (6)</td>
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<td>Work status 5 years before baseline (%)</td>
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<td></td>
<td></td>
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<tr>
<td>working</td>
<td>2672 (92)</td>
<td>145 (94)</td>
<td>2527 (92)</td>
<td>NS</td>
</tr>
<tr>
<td>not working</td>
<td>121 (4)</td>
<td>7 (5)</td>
<td>114 (4)</td>
<td>242 (5)</td>
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<tr>
<td>missing information</td>
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<td>3 (2)</td>
<td>120 (4)</td>
<td>297 (6)</td>
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<tr>
<td>HLA-DRB1*01 or *03 (%)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>positive</td>
<td>892 (31)</td>
<td>72 (46)</td>
<td>820 (30)</td>
<td>&lt;0.0001</td>
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<td>negative</td>
<td>1212 (42)</td>
<td>48 (31)</td>
<td>1164 (42)</td>
<td>1039 (20)</td>
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<tr>
<td>missing information</td>
<td>812 (28)</td>
<td>35 (23)</td>
<td>777 (28)</td>
<td>3338 (65)</td>
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</table>