### Supplementary Table 3: Interaction between the FTO-GRS and lifestyle factors on obesity

<table>
<thead>
<tr>
<th></th>
<th>Interaction between the GRS and dietary factors on Obesity</th>
<th>Interaction between the GRS and physical activity levels on Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GRS * Fat energy %</td>
<td>GRS * carbohydrate energy %</td>
</tr>
<tr>
<td>Odds Ratio (95% CI)</td>
<td>1.096 (0.980-1.227)</td>
<td>0.962 (0.889-1.040)</td>
</tr>
<tr>
<td></td>
<td>GRS * protein energy %</td>
<td>GRS * fibre (g)</td>
</tr>
<tr>
<td></td>
<td>1.113 (0.729-1.762)</td>
<td>1.034 (0.984-1.086)</td>
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<tr>
<td></td>
<td>1.026 (0.263-4.003)</td>
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<tr>
<td>P Value</td>
<td>0.109</td>
<td>0.326</td>
</tr>
<tr>
<td></td>
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<td>0.578</td>
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<tr>
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<td>0.182</td>
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<tr>
<td></td>
<td></td>
<td>0.970</td>
</tr>
</tbody>
</table>

Values are beta coefficients ± standard errors.

P values were obtained by using binary logistic regression adjusted for age, T2D, Type 2 diabetes medication and sex