<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Controls</th>
<th>PreHD</th>
<th>HD</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bohanna</td>
<td>2011</td>
<td>14</td>
<td>Not included</td>
<td>12</td>
<td>HD: Corticostriatal connections show an anterior-posterior topographical organization.</td>
</tr>
<tr>
<td>Dumas</td>
<td>2012</td>
<td>28</td>
<td>27</td>
<td>16</td>
<td>PreHD: ↑ MD in WM pathways of the sensory motor cortex and CC HD: Extensive ↑ MD in HD</td>
</tr>
<tr>
<td>Marrakchi-Kacem</td>
<td>2013</td>
<td>15</td>
<td>Not included</td>
<td>15</td>
<td>HD: ↓ connectivity from caudate to parietal and frontal areas and from putamen to temporal, parietal and frontal regions.</td>
</tr>
<tr>
<td>Philips</td>
<td>2014</td>
<td>50</td>
<td>25</td>
<td>25</td>
<td>PreHD: ↓ FA and ↑ AD and ↑ RD in most deep WM tracts preHD HD: Same findings as in preHD plus additional deep WM tracts for each DTI metric</td>
</tr>
<tr>
<td>Poudel</td>
<td>2014</td>
<td>35</td>
<td>36</td>
<td>35</td>
<td>PreHD: Decreased connectivity between putamen and prefrontal/motor cortex HD: Decreased connectivity between prefrontal/motor/parietal cortices with caudate/putamen.</td>
</tr>
<tr>
<td>Matsui</td>
<td>2015</td>
<td>65</td>
<td>146</td>
<td>Not included</td>
<td>PreHD: Altered diffusivity in all four studied tracts in the prefrontal lobe in the high CAP group, only two tracts in the medium CAP group and none in the lower CAP group</td>
</tr>
<tr>
<td>Novak</td>
<td>2015</td>
<td>18</td>
<td>17</td>
<td>14</td>
<td>PreHD: No changes HD: Altered connectivity between basal ganglia and cortex</td>
</tr>
<tr>
<td>Phillips</td>
<td>2015</td>
<td>50</td>
<td>25</td>
<td>25</td>
<td>PreHD: No changes in the CST HD: ↓ FA and ↑ AD and ↑ RD in the CST</td>
</tr>
<tr>
<td>Muller</td>
<td>2016</td>
<td>32</td>
<td>Not included</td>
<td>34</td>
<td>HD: Diffusivity not associated with functional connectivity in the motor or thalamo-cortical networks</td>
</tr>
<tr>
<td>Orth</td>
<td>2016</td>
<td>112</td>
<td>96</td>
<td>35</td>
<td>HDGC: Sensorimotor performance explained by a pattern of GM volume and diffusivity in sensorimotor WM tracts linked to CAG repeat length. Two further components are common between controls and HD, indicating natural variation of patterns already present in healthy subjects.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Group</td>
<td>Brief Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>------</td>
<td>-------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gorges</td>
<td>2017</td>
<td>13</td>
<td>12 Not included PreHD: No differences in diffusivity before disease onset in CST or thalamo-cortical tracts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McColgan</td>
<td>2017</td>
<td>81</td>
<td>70 Not included PreHD: Negative correlations between depression scores and connectivity between cingulate, orbitofrontal, precuneus, caudate and thalamus. Positive correlations with functional connectivity in cingulate, orbitofrontal, precuneus and parahippocampal regions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McColgan</td>
<td>2017</td>
<td>66</td>
<td>64 Not included PreHD: The properties of WM in controls are associated with increases in functional connectivity in HD. Strong connections in anterior regions are increased while strong connections in posterior regions are decreased in preHD.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaffer</td>
<td>2017</td>
<td>70</td>
<td>191 Not included PreHD: Cross sectional and longitudinal differences in all DTI metrics in the connections between PMC with putamen and caudate. Differences present only in MD and AD in the connections between M1 and S1 with putamen.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gregory</td>
<td>2018</td>
<td>79</td>
<td>61 13 HDGC: Three patterns of diffusivity common to HDGC and controls explain the majority of the variability in diffusion and are accentuated in HD.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rosas</td>
<td>2018</td>
<td>37</td>
<td>31 38 PreHD: ↓ FA and ↑ RD in selected tracts only in the group closer to disease onset. Changes in RD correlated with cognitive performance HD: Widespread ↓ FA, ↑ AD and ↑ RD. Increases in AD associated with cortical thinning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>De Paepe</td>
<td>2019</td>
<td>35</td>
<td>22 24 HDGC: ↓ FA and ↑ MD in most corticostrial tracts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>