**B**

Peak statistics of mouse embryos of E10.5 used for ChIP-seq

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Peak Number</th>
<th>Total Length</th>
<th>Average Length</th>
<th>Total Tag Depth</th>
<th>Average Tag Depth</th>
<th>Genome Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>52,759</td>
<td>9,336,717</td>
<td>176</td>
<td>587,746</td>
<td>11</td>
<td>0.34</td>
</tr>
<tr>
<td>NTDs</td>
<td>13,059</td>
<td>2,046,083</td>
<td>156</td>
<td>140,562</td>
<td>10</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*Figure S2*

A

![Graphs showing relative protein expression for H3K27me3, H3K27me2, and H3K27me1 for NC and NTDs samples.]

B

**Figure S2**

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C

![Gene number distribution for various biological processes with FDR values.]

- biological regulation: 5.23E-22
- cellular process: 3.37E-18
- multicellular organismal process: 6.83E-16
- developmental process: 3.10E-15
- anatomical structure development: 5.65E-15
- nervous system development: 3.60E-11
- response to stimulus: 1.39E-10
- head development: 1.21E-09
- cell communication: 2.59E-09
- brain development: 3.38E-09
- cell differentiation: 1.14E-08
- central nervous system development: 4.29E-08