 Prediction and Characterization of Diffuse Large B-Cell Lymphoma (DLBCL) Cell of Origin (COO) Subtypes using Genomic Features from Targeted Next-Generation Sequencing

RESULTS

Table 1: Concordance* of COODC model with Nanostring for DLBCL patients

<table>
<thead>
<tr>
<th>COODC (GOYA - Test)</th>
<th>ABC</th>
<th>GCB</th>
<th>Unclassified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nanostring COO assay</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ABC</td>
<td>16</td>
<td>1</td>
<td>53</td>
</tr>
<tr>
<td>GCB</td>
<td>1</td>
<td>8</td>
<td>43</td>
</tr>
<tr>
<td>Unclassified</td>
<td>3</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 2: Concordance* of COODC model with Nanostring for DLBCL patients

<table>
<thead>
<tr>
<th>COODC (Goyna)</th>
<th>ABC</th>
<th>GCB</th>
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</tbody>
</table>

MF-clinical COODC

ABC 48 7 15
GCB 26 7 15
Unclassified 2 0 2

Figure 1: COODC-determined COO subtypes have similar breakpoints to Nanostring-determined COO

Figure 2: Similar progression-free survival for GOYA samples stratified by COODC or Nanostring-based COO

CONCLUSIONS

• We have developed a new and clinically relevant method to determine DLBCL COO using DNA only
  – in specimens with tumor purity as low as 4% – without RNA or matched normal tissue
• COODC method is 89% concordant on the test set (GOYA) and 82% concordant on the validation set (MAIN) compared with Nanostring
• COODC maintains prognostic value
• Integration of COO with comprehensive genomic profiling enabled insights into disease biology
  – identification of novel features associated with COO

DISCOVERIES

ST, ES, JM, GF, VM and LA employed by Foundation Medicine, GF, stockholder (Foundation Medicine); WE, owns interests in PLC Research, Genentech/Roche, and is a member of committees (Revolution Medicine; SM and JF) from Genentech; LA, consultant and honoraria (Bioch ImmunoGenetics, Abbvie, Amgen, Celgene, Janssen, Lundbeck, Seattle Genetics, Merck, TG Therapeutics, Morphosys, Kadcyla); MF: employment (Roche); PG and CE employment and ownership interests PLC (Roche).

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