

**Supplemental Table 3: Univariable screen of various functional forms for continuous variables & categorical variables**

Variable	AIC
<b>DR Age Difference</b>	485,267.2
<b>Log<sub>2</sub> D-Log<sub>2</sub> R Age Difference</b>	485,196.4
<b>DR Age Difference squared</b>	485,397.2
<b>DR Age ratio</b>	<b>485,126.5*</b>
<b>DR Age Categories:</b> <ul style="list-style-type: none"> <li>• &gt; 30 year Donor &lt; Recipient</li> <li>• 10-30 year Donor &lt; Recipient</li> <li>• &lt; 10 year (<i>Reference</i>)</li> <li>• &gt; 10 year Donor &gt; Recipient</li> </ul>	485,235.0
<b>Donor Age</b>	484,313.1
<b>Log<sub>2</sub> Donor Age</b>	484,759.1
<b>Donor Age squared/1000</b>	<b>484,135.5 *</b>
<b>Donor Age categories:</b> <ul style="list-style-type: none"> <li>• &lt;35 years</li> <li>• 35-60 years</li> <li>• &gt;60 years</li> </ul>	484,363.6
<b>Recipient Age</b>	484,892.2
<b>Log<sub>2</sub> Recipient Age</b>	485,112.0
<b>Recipient Age squared/1000</b>	484,704.2
<b>Recipient Age Categories</b> <ul style="list-style-type: none"> <li>• &lt;35 years</li> <li>• 35-60 years</li> <li>• &gt;60 years</li> </ul>	<b>484,589.4*</b>
<b>DR Weight Difference</b>	485,373.8
<b>Log<sub>2</sub> D-Log<sub>2</sub> R Weight Difference</b>	485,380.9
<b>DR Weight Difference squared</b>	485,406.7
<b>DR Weight ratio</b>	485,399.1
<b>DR Weight Categories:</b> <ul style="list-style-type: none"> <li>• &gt; 30 kg Donor &lt; Recipient</li> <li>• 10-30 kg Donor &lt; Recipient</li> <li>• &lt; 10 kg (<i>Reference</i>)</li> <li>• &gt;10 kg Donor &gt; Recipient</li> </ul>	<b>485,371.2*</b>
<b>Donor Weight</b>	485,421.4
<b>Log<sub>2</sub> Donor Weight</b>	485,424.5
<b>Donor Weight squared/1000</b>	<b>485,419.7*</b>
<b>Recipient Weight</b>	<b>485,248.7*</b>
<b>Log<sub>2</sub> Recipient Weight</b>	485,253.8
<b>Recipient Weight squared/1000</b>	485.256.1
<b>DR Height Difference</b>	<b>485,337.1</b>
<b>Log<sub>2</sub> D-Log<sub>2</sub> R Height Difference</b>	485,354.5
<b>DR Height ratio</b>	485,344.4
<b>D-R Height Categories:</b> <ul style="list-style-type: none"> <li>• &gt; 0.30 m Donor &lt; Recipient</li> <li>• 0.10-0.30 m Donor &lt; Recipient</li> <li>• &lt; 0.10 m (<i>Reference</i>)</li> <li>• 0.10-0.30 m Donor &gt; Recipient</li> <li>• &gt; 0.30 m Donor &gt; Recipient</li> </ul>	485,348.8

Variable	AIC
<b>DR Height Difference squared</b>	485,424.1
<b>Donor Height</b>	485,400.7
<b>Log<sub>2</sub> Donor Height</b>	485,406.6
<b>Donor Height squared</b>	<b>485,395.3*</b>
<b>Recipient Height</b>	485,354.3
<b>Log<sub>2</sub> Recipient Height</b>	485,356.4
<b>Recipient Height squared</b>	<b>485,352.8*</b>
<b>CIT</b>	<b>485,335.3*</b>
<b>Log<sub>2</sub> CIT</b>	485,342.5
<b>CIT squared/1000</b>	485,376.6
<b>Peak PRA</b>	485,408.9
<b>Peak PRA squared/1000</b>	<b>485,406.5*</b>
<b>Pear PRA Categories</b> <ul style="list-style-type: none"> <li>• &lt; 20</li> <li>• 20-80</li> <li>• &gt; 80</li> </ul>	485,409.2
<b>DR Race pairing</b> <ul style="list-style-type: none"> <li>• W/B/O vs W/B/O</li> </ul>	<b>484,890.1*</b>
<b>DR Race pairing</b> <ul style="list-style-type: none"> <li>• B/O vs B/O</li> </ul>	484,987.6
<b>HLA MM</b> <ul style="list-style-type: none"> <li>• 0/1/2/3/4/5/6</li> </ul>	<b>485,161.2*</b>
<b>HLA MM</b> <ul style="list-style-type: none"> <li>• 0 vs &gt; 0</li> </ul>	485,267.3

Donor-Recipient (DR), Cold ischemic time (CIT), Panel reactive antibody (PRA), Human leukocyte antigen (HLA), Mismatch (MM), Log<sub>2</sub> (Log base 2).