Suppl. Figure 1

A

Leukocytes ($10^3/\mu l$)

- Untreated
- Vehicle
- Ruxolitinib

Time after BMT [days]

B

Platelets ($10^3/\mu l$)

- Untreated
- Vehicle
- Ruxolitinib

Time after BMT [days]

C

- Vehicle (n=11)
- Ruxolitinib (n=10)

CD4$^+$ Central memory T cells

- p=0.02

CD8$^+$ Central memory T cells

- p=0.0035
Suppl. Figure 2

- **CD3+CD4+** (absolute numbers/µl)
  - Before: 200, During: 400
  - Ruxolitinib

- **CD3+CD8+** (absolute numbers/µl)
  - Before: 1000, During: 500
  - Ruxolitinib

- **CD3+CD4+** (absolute numbers/µl)
  - Before: 50, During: 100
  - Ruxolitinib

- **CD45RO+CD4+** (absolute numbers/µl)
  - Before: 600, During: 400
  - Ruxolitinib

- **CD3+CD8+** (absolute numbers/µl)
  - Before: 200, During: 100
  - Ruxolitinib
Supplementary Figure legend

Suppl. Figure 1: Treg induction and T cell phenotype changes during ruxolitinib treatment
A: The absolute numbers of leukocytes was determined in animals after allo-HCT from vehicle (n = 8) or ruxolitinib (n = 8) treated mice. The experiment was performed once.
B: The absolute number of platelets was determined in animals after allo-HCT from vehicle (n = 8) or ruxolitinib (n = 8) treated mice.
C: The absolute numbers of CD4⁺ CD62L⁺ CD44⁺ or CD8⁺ CD62L⁺ CD44⁺ T cells was determined in animals on d8 after allo-HCT from vehicle or ruxolitinib treated mice. Data from 2 experiments are pooled.

Suppl. Figure 2: T cell populations prior and after ruxolitinib treatment
The absolute numbers of the indicated T cell populations per µl are shown prior to ruxolitinib treatment (range 3-14 days prior) and after treatment (range 7 to 18 days after). The number of activated CD3⁺DR3⁺ cells decreased in all ruxolitinib-treated patients.
<table>
<thead>
<tr>
<th>Disease</th>
<th>Donor</th>
<th>Conditioning</th>
<th>IS</th>
<th>Age</th>
<th>Gender</th>
<th>Pt. no</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-ALL</td>
<td>MUD</td>
<td>TBI (12Gy) VP16</td>
<td>Cyclosporin A, ATG, MTX</td>
<td>38</td>
<td>male</td>
<td>01</td>
</tr>
<tr>
<td>sAML</td>
<td>MUD</td>
<td>FBM</td>
<td>Cyclosporin A, Campath</td>
<td>51</td>
<td>female</td>
<td>03</td>
</tr>
<tr>
<td>B-NHL</td>
<td>MUD</td>
<td>FBM</td>
<td>Cyclosporin A, Campath</td>
<td>64</td>
<td>male</td>
<td>04</td>
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<tr>
<td>AML M0</td>
<td>Sibling</td>
<td>Fludarabin and Treosulfan</td>
<td>Cyclosporin A, MMF</td>
<td>73</td>
<td>male</td>
<td>05</td>
</tr>
<tr>
<td>AML</td>
<td>MUD</td>
<td>FBM</td>
<td>Cyclosporin A, Campath</td>
<td>66</td>
<td>male</td>
<td>06</td>
</tr>
</tbody>
</table>

Sibling = sibling donor, MUD = matched unrelated donor, MUD = mismatched unrelated donor, AML = Acute myeloid leukemia, sAML = secondary AML, MDS= Myelodysplastic syndrome, B-ALL=B-cell acute lymphoblastic leukemia,
Suppl. Table 2: Organ specific response and therapy modification during Ruxolitinib

<table>
<thead>
<tr>
<th>Pt. no</th>
<th>IS agents at the start of ruxolitinib treatment</th>
<th>IS agents at last follow-up</th>
<th>Global grade of GvHD at the start of ruxolitinib vs at last follow-up</th>
<th>Tissue specific grade of GvHD at the start of ruxolitinib vs at last follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>- corticosteroids (30 mg) - everolimus (2 mg)</td>
<td>both disc.</td>
<td>IV vs 0</td>
<td>IV vs 0 (intestines; &gt;10 stools vs no diarrhea)</td>
</tr>
<tr>
<td>02</td>
<td>- corticosteroids (25 mg) - everolimus (2 mg)</td>
<td>5 mg disc.</td>
<td>III vs II</td>
<td>III vs I (skin; &gt;50% vs &lt;25%)</td>
</tr>
<tr>
<td>03</td>
<td>- corticosteroids (20 mg)</td>
<td>disc.</td>
<td>III vs II</td>
<td>IV vs II (skin; &gt;75% vs 25%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>II vs 0 (liver; bilirubin &gt; 2 x normal upper range vs normal range)</td>
</tr>
<tr>
<td>04</td>
<td>- corticosteroids (40 mg)</td>
<td>disc.</td>
<td>IV vs II</td>
<td>III vs I (skin; &gt;50% vs &lt;25%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IV vs 0 (intestines &gt;10 stools vs no diarrhea)</td>
</tr>
<tr>
<td>05</td>
<td>- corticosteroids (20 mg)</td>
<td>5 mg</td>
<td>III vs I</td>
<td>III vs I (skin; &gt;50% vs &lt;25%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>III vs 0 (intestines; &gt; 1500 ml diarrhea/d vs no diarrhea)</td>
</tr>
<tr>
<td>06</td>
<td>- corticosteroids (25 mg)</td>
<td>5 mg</td>
<td>III vs II</td>
<td>III vs I (skin; &gt;50% vs &lt;25%)</td>
</tr>
</tbody>
</table>

Pt.: patient, no: individual patient number, IS: immunosuppressive, disc.: medication discontinued