

**OMTO, Volume 18**

## **Supplemental Information**

**Autologous Transplantation Using Donor**

**Leukocytes Loaded *Ex Vivo* with Oncolytic Myxoma**

**Virus Can Eliminate Residual Multiple Myeloma**

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1 **Table 1. Percentages of different immune cell populations from Balb/c**  
 2 **BM or PBMCs.**

<b>Immune populations</b>	<b>Percentage from BM (Mean <math>\pm</math> SE)</b>	<b>Percentage from PBMCs (Mean <math>\pm</math> SE)</b>
CD3 <sup>+</sup>	3.5 $\pm$ 0.7	31.6 $\pm$ 2.9
CD4 <sup>+</sup>	1.0 $\pm$ 0.0	69.5 $\pm$ 4.5
CD8 <sup>+</sup>	1.0 $\pm$ 0.0	11.5 $\pm$ 0.9
Neutrophils	36.9 $\pm$ 3.6	4.2 $\pm$ 0.4
Natural killer cells (NKs)	1.04 $\pm$ 0.04	27.2 $\pm$ 9.4

3 SE, stands for standard error

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27 **Table 2. Levels of pro-immune molecules secreted from bone marrow myeloma tumor**  
 28 **microenvironment (TME) after 3 or 24 hours of treatment. The Means  $\pm$  SD of levels of the**  
 29 **secreted molecules are shown.**

<b>After 3 hours</b>	<b>Vehicle (1x-PBS)</b>	<b>BM</b>	<b>PBMCs</b>	<b>MYXV</b>	<b>BM + MYXV</b>	<b>PBMCs + MYXV</b>
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<b>IFN-<math>\gamma</math> (Th<sub>1</sub>)</b>	15.5 $\pm$ 4.5	13.0 $\pm$ 0.0	20.0 $\pm$ 5.0	21.5 $\pm$ 7.3	103.7 $\pm$ 6.3	17.7 $\pm$ 1.3
<b>IL-10 (Th<sub>1</sub>)</b>	735.0 $\pm$ 222.0	1082.5 $\pm$ 112.5	895.5 $\pm$ 106.0	981.0 $\pm$ 125.4	4034.8 $\pm$ 78.3	1676.3 $\pm$ 223.7
<b>IL-12p70 (Th<sub>1</sub>)</b>	3.5 $\pm$ 0.0	3.7 $\pm$ 0.2	4.0 $\pm$ 0.5	3.8 $\pm$ 1.4	6.1 $\pm$ 0.3	5.0 $\pm$ 0.3
<b>IL-4 (Th<sub>2</sub>)</b>	11.3 $\pm$ 1.5	12.8 $\pm$ 4.5	15.5 $\pm$ 0.7	10.5 $\pm$ 2.5	15.6 $\pm$ 3.8	10.5 $\pm$ 2.2
<b>IL-5 (Th<sub>2</sub>)</b>	7.0 $\pm$ 4.0	7.2 $\pm$ 0.2	10.7 $\pm$ 3.2	7.0 $\pm$ 3.1	11.7 $\pm$ 4.2	10.7 $\pm$ 0.9
<b>TNF<math>\alpha</math></b>	53.5 $\pm$ 14.0	60.7 $\pm$ 1.2	53.3 $\pm$ 1.7	47.5 $\pm$ 5.5	83.5 $\pm$ 8.7	65.2 $\pm$ 2.3
<b>IL-1<math>\alpha</math></b>	38.7 $\pm$ 6.2	35.5 $\pm$ 8.0	30.2 $\pm$ 3.7	34.8 $\pm$ 6.0	66.2 $\pm$ 12.2	34.8 $\pm$ 3.4
<b>IL-1<math>\beta</math></b>	112.0 $\pm$ 43.0	52.7 $\pm$ 8.7	83.0 $\pm$ 12.0	73.3 $\pm$ 5.2	167.2 $\pm$ 32.2	81.0 $\pm$ 7.0
<b>GM-CSF</b>	3.0 $\pm$ 0.0	2.5 $\pm$ 0.5	35.5 $\pm$ 0.5	3.3 $\pm$ 0.7	4.7 $\pm$ 0.3	2.7 $\pm$ 0.3
<b>MIP-1<math>\alpha</math></b>	341.0 $\pm$ 179.0	371.2 $\pm$ 2.2	301.5 $\pm$ 69.5	449.8 $\pm$ 43.0	1515.8 $\pm$ 238.2	380.7 $\pm$ 51.8
<b>IL-6</b>	17.5 $\pm$ 2.5	14.7 $\pm$ 1.2	12.0 $\pm$ 2.0	14.3 $\pm$ 1.9	20.2 $\pm$ 0.4	13.0 $\pm$ 1.7
<b>After 24 hours</b>	<b>Vehicle (1x-PBS)</b>	<b>BM</b>	<b>PBMCs</b>	<b>MYXV</b>	<b>BM+MYXV</b>	<b>PBMCs + MYXV</b>
<b>IFN-<math>\gamma</math> (Th<sub>1</sub>)</b>	20.0 $\pm$ 2.1	10.0 $\pm$ 1.5	9.0 $\pm$ 1.5	573.3 $\pm$ 225.2	196.2 $\pm$ 28.9	170.0 $\pm$ 5.6
<b>IL-10 (Th<sub>1</sub>)</b>	1110.0 $\pm$ 71.0	741.3 $\pm$ 64.6	714.3 $\pm$ 51.6	2080.0 $\pm$ 106.0	1376.0 $\pm$ 187.3	1670.3 $\pm$ 60.4
<b>IL-12p70 (Th<sub>1</sub>)</b>	2.5 $\pm$ 0.0	2.8 $\pm$ 0.9	2.2 $\pm$ 0.3	7.4 $\pm$ 1.1	5.1 $\pm$ 0.4	4.1 $\pm$ 0.2
<b>IL-4 (Th<sub>2</sub>)</b>	6.8 $\pm$ 1.5	5.3 $\pm$ 1.0	7.3 $\pm$ 1.2	21.0 $\pm$ 4.2	9.7 $\pm$ 0.7	14.2 $\pm$ 1.7
<b>IL-5 (Th<sub>2</sub>)</b>	4.5 $\pm$ 0.5	4.0 $\pm$ 0.3	5.0 $\pm$ 0.6	10.7 $\pm$ 1.6	7.4 $\pm$ 0.5	9.6 $\pm$ 0.4
<b>TNF<math>\alpha</math></b>	32.0 $\pm$ 2.5	258 $\pm$ 3.8	22.2 $\pm$ 4.5	44.2 $\pm$ 6.1	812.6 $\pm$ 124.1	24.5 $\pm$ 2.1
<b>IL-1<math>\alpha</math></b>	41.0 $\pm$ 10.5	19.5 $\pm$ 2.3	14.5 $\pm$ 3.0	69.4 $\pm$ 20.0	35.8 $\pm$ 4.9	14.1 $\pm$ 1.1
<b>IL-1<math>\beta</math></b>	44.0 $\pm$ 18.0	19.5 $\pm$ 2.3	127.3 $\pm$ 24.4	124.0 $\pm$ 80.6	35.8 $\pm$ 4.9	138.9 $\pm$ 5.7
<b>GM-CSF</b>	1.0 $\pm$ 0.0	112.0 $\pm$ 43.0	1.3 $\pm$ 0.3	7.2 $\pm$ 0.9	2.5 $\pm$ 0.5	4.3 $\pm$ 1.2
<b>MIP-1<math>\alpha</math></b>	422.0 $\pm$ 111.0	128.5 $\pm$ 16.9	121.7 $\pm$ 14.5	2966.0 $\pm$ 853.3	812.6 $\pm$ 124.1	651.0 $\pm$ 71.5
<b>IL-6</b>	4.5 $\pm$ 0.5	8.7 $\pm$ 5.2	6.2 $\pm$ 2.4	9.3 $\pm$ 1.3	1477.6 $\pm$ 438.2	9.5 $\pm$ 1.5

**SD stands for Standard Deviation**

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**Table 3. Levels of pro-immune molecules secreted from spleen myeloma tumor microenvironment (TME) after 3 or 24 hours of treatment. The Means  $\pm$  SD of levels of the secreted molecules are shown.**

<b>After 3 hours</b>	<b>Vehicle (1x-PBS)</b>	<b>BM</b>	<b>PBMCs</b>	<b>MYXV</b>	<b>BM + MYXV</b>	<b>PBMCs + MYXV</b>
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<b>IFN-<math>\gamma</math></b> <b>(Th<sub>1</sub>)</b>	122.5 $\pm$ 54.5	98.5 $\pm$ 41.5	90.5 $\pm$ 11.5	3002.0 $\pm$ 278.7	5138.5 $\pm$ 810.1	2191.7 $\pm$ 287.9
<b>IL-10</b> <b>(Th<sub>1</sub>)</b>	1046.2 $\pm$ 110.7	1282.0 $\pm$ 276.0	1145.7 $\pm$ 44.7	7718.7 $\pm$ 324.9	5791.5 $\pm$ 553.5	3813.5 $\pm$ 208.6
<b>IL-12p70</b> <b>(Th<sub>1</sub>)</b>	15.0 $\pm$ 5.0	8.0 $\pm$ 3.5	15.0 $\pm$ 1.5	17.5 $\pm$ 0.6	25.7 $\pm$ 3.2	12.8 $\pm$ 0.7
<b>IL-4</b> <b>(Th<sub>2</sub>)</b>	24.5 $\pm$ 11.7	26.3 $\pm$ 13.0	19.3 $\pm$ 1.0	66.0 $\pm$ 10.4	43.8 $\pm$ 6.4	76.3 $\pm$ 14.4
<b>IL-5</b> <b>(Th<sub>2</sub>)</b>	21.0 $\pm$ 4.0	7.0 $\pm$ 03.0	8.0 $\pm$ 1.0	17.2 $\pm$ 3.2	16.1 $\pm$ 1.1	21.7 $\pm$ 1.7
<b>TNF<math>\alpha</math></b>	44.5 $\pm$ 13.0	32.2 $\pm$ 12.2	27.0 $\pm$ 3.5	116.5 $\pm$ 7.0	250.7 $\pm$ 34.0	71.5 $\pm$ 2.5
<b>IL-1<math>\alpha</math></b>	129.0 $\pm$ 7.5	172.5 $\pm$ 44.2	90.5 $\pm$ 4.0	510.2 $\pm$ 140.9	2024.4 $\pm$ 198.8	325.8 $\pm$ 11.1
<b>IL-1<math>\beta</math></b>	188.5 $\pm$ 4.0	89.0 $\pm$ 34.0	132.5 $\pm$ 12.5	437.0 $\pm$ 136.9	2574.7 $\pm$ 622.7	204.8 $\pm$ 30.6
<b>GM-CSF</b>	6.7 $\pm$ 1.7	4.0 $\pm$ 2.0	5.0 $\pm$ 1.0	70.0 $\pm$ 8.9	160.9 $\pm$ 43.0	33.5 $\pm$ 4.8
<b>MIP-1<math>\alpha</math></b>	2112.5 $\pm$ 75.5	2700.5 $\pm$ 1700.5	1746.7 $\pm$ 348.7	10917.7 $\pm$ 819.2	11141.7 $\pm$ 1255.4	5933.8 $\pm$ 578.4
<b>IL-6</b>	16.0 $\pm$ 5.5	18.0 $\pm$ 4.0	10.5 $\pm$ 1.5	270.8 $\pm$ 124.1	1477.6 $\pm$ 438.2	62.0 $\pm$ 2.9
<b>After 24 hours</b>	<b>Vehicle (1x-PBS)</b>	<b>BM</b>	<b>PBMCs</b>	<b>MYXV</b>	<b>BM + MYXV</b>	<b>PBMCs + MYXV</b>
<b>IFN-<math>\gamma</math></b> <b>(Th<sub>1</sub>)</b>	186.2 $\pm$ 4.2	54.5 $\pm$ 2.9	122.5 $\pm$ 41.5	55.5 $\pm$ 9.1	2703.1 $\pm$ 331.2	2223.8 $\pm$ 309.1
<b>IL-10</b> <b>(Th<sub>1</sub>)</b>	1395.0 $\pm$ 294.0	867.0 $\pm$ 24.9	912.0 $\pm$ 98.1	3788.0 $\pm$ 683.3	2105.1 $\pm$ 98.2	2127.8 $\pm$ 60.9
<b>IL-12p70</b> <b>(Th<sub>1</sub>)</b>	6.5 $\pm$ 1.0	4.5 $\pm$ 1.2	3.8 $\pm$ 0.9	16.8 $\pm$ 3.2	15.2 $\pm$ 0.8	13.9 $\pm$ 1.7
<b>IL-4</b> <b>(Th<sub>2</sub>)</b>	20.0 $\pm$ 7.7	11.3 $\pm$ 1.2	12.0 $\pm$ 0.3	21.4 $\pm$ 4.3	24.7 $\pm$ 2.6	18.5 $\pm$ 1.0
<b>IL-5</b> <b>(Th<sub>2</sub>)</b>	5.5 $\pm$ 1.5	3.3 $\pm$ 0.3	5.7 $\pm$ 0.3	9.8 $\pm$ 1.0	12.0 $\pm$ 0.0	11.4 $\pm$ 1.2
<b>TNF<math>\alpha</math></b>	28.0 $\pm$ 1.5	18.5 $\pm$ 1.5	17.8 $\pm$ 2.0	80.2 $\pm$ 9.2	4692.7 $\pm$ 189.9	50.5 $\pm$ 7.0
<b>IL-1<math>\alpha</math></b>	107.6 $\pm$ 8.2	47.2 $\pm$ 7.8	42.6 $\pm$ 5.0	627.0 $\pm$ 206.0	539.5 $\pm$ 32.9	318.3 $\pm$ 56.8
<b>IL-1<math>\beta</math></b>	95.0 $\pm$ 4.0	47.2 $\pm$ 7.8	105.2 $\pm$ 7.0	233.4 $\pm$ 17.7	538.0 $\pm$ 39.0	274.3 $\pm$ 40.0
<b>GM-CSF</b>	3.5 $\pm$ 0.5	4.3 $\pm$ 0.3	4.0 $\pm$ 0.6	11.7 $\pm$ 2.9	9.5 $\pm$ 1.2	7.6 $\pm$ 0.2
<b>MIP-1<math>\alpha</math></b>	2514.5 $\pm$ 340.5	2013.2 $\pm$ 56.5	790.8 $\pm$ 136.6	11667.6 $\pm$ 2233.8	4692.7 $\pm$ 189.9	2667.3 $\pm$ 373.6
<b>IL-6</b>	14.5 $\pm$ 2.5	7.7 $\pm$ 3.3	6.3 $\pm$ 0.9	24.0 $\pm$ 7.5	20.0 $\pm$ 1.6	16.3 $\pm$ 1.6

37 **SD stands for Standard Deviation**

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