

**Supplementary Table 3.** Fold change in expression of genes involved in DNA repair or meiotic recombination. Illumina MG6 Chips were used to assess expression in MIGR1-Prdm14-induced pre-leukemic cells versus empty vector pre-leukemic cells [12]. Changes in those genes involved in DNA repair or meiosis are shown.

<b>Gene symbol</b>	<b>Fold change</b>	<b>Adjusted P value corrected for multiple testing</b>	<b>Alternate gene symbol</b>	<b>Role</b>
<i>Rsph1</i>	3.6191881	0.00270947	<i>Tsga2</i>	Meiosis
<i>Spo11</i>	2.260731973	0.00279317		Meiosis
<i>Cep164</i>	1.996555387	0.000529528	<i>D030051D21</i>	DNA Repair
<i>Zfp318</i>	1.7090723	0.017328638		Meiosis
<i>Msh5</i>	1.3772303	0.048407612		Meiosis
<i>Mgmt</i>	1.362312072	0.031249771		DNA Repair
<i>Ercc5</i>	1.362075071	0.027032501		DNA Repair
<i>Poll</i>	1.3441006	0.025402621		DNA Repair
<i>Clgn</i>	1.324112028	0.004936568		Meiosis
<i>Mbd4</i>	1.3031165	0.037776596		DNA Repair
<i>Chaf1b</i>	1.2656371	0.003541039		DNA Repair
<i>Setx</i>	1.219389	0.038398723	<i>AW060766</i>	DNA Repair
<i>Ube2a</i>	1.167635347	0.034720342		DNA Repair
<i>Ube2b</i>	1.149527262	0.04546337		Meiosis
<i>Rtel1</i>	-1.114172445	0.049838753	<i>AW540478</i>	DNA Repair
<i>Ercc3</i>	-1.199593813	0.043022755		DNA Repair
<i>Brip1</i>	-1.22568508	0.006826531		DNA Repair
<i>Cinp</i>	-1.243907244	0.024792337	<i>2810452K22Rik</i>	DNA Repair
<i>Lig3</i>	-1.249874087	0.046508525		DNA Repair
<i>Blm</i>	-1.25666748	0.005006649		DNA Repair
<i>Fancd2</i>	-1.256685205	0.027651204		DNA Repair
<i>Rad23b</i>	-1.271030696	0.034107433		DNA Repair
<i>Ddb1</i>	-1.27729361	0.039432097		DNA Repair
<i>Apbb1</i>	-1.295836127	0.007800335		DNA Repair
<i>Usp1</i>	-1.379884985	0.046051803		DNA Repair
<i>Uhrf1</i>	-1.412413922	0.009732253		DNA Repair
<i>Slk</i>	-1.949725994	0.000748194		DNA Repair
<i>Xrcc6</i>	-3.275334807	0.002152631	<i>G22p1</i>	DNA Repair