

Supplemental Table 1: Fractional effects of the different treatments for the various measures of radiation damage as indicated.

| Treatment Group | Fractional effect | SE | p value | | Fractional effect | SE | p value |
|-----------------------|-------------------|-------|---------|--|--------------------|-------|---------|
| Hydroxyproline | | | | | RS collagen | | |
| Gen 2W | 0.81 | 0.053 | <0.05 | | 0.50 | 0.10 | <0.05 |
| Euk 2W | 0.64 | 0.063 | <0.05 | | 0.64 | 0.12 | <0.05 |
| Gen 0W | 0.76 | 0.064 | <0.05 | | 0.78 | 0.16 | <0.05 |
| Euk 0W | 0.61 | 0.074 | <0.05 | | 0.62 | 0.088 | <0.05 |
| | | | | | | | |
| ED-1 | | | | | TGF beta | | |
| Gen 2W | 0.19 | 0.24 | NS | | 1.00 | 0.20 | <0.05 |
| Euk 2W | 0.14 | 0.21 | NS | | 0.75 | 0.17 | <0.05 |
| Gen 0W | 0.64 | 0.12 | NS | | 0.88 | 0.079 | <0.05 |
| Euk 0W | 0.49 | 0.14 | NS | | 0.86 | 0.094 | <0.05 |
| | | | | | | | |
| MDA | | | | | OH-dG | | |
| Gen 2W | 1.19 | 0.085 | <0.05 | | 1.53 | 0.42 | <0.05 |
| Euk 2W | 1.63 | 0.26 | <0.05 | | 1.17 | 0.45 | NS |
| Gen 0W | 1.74 | 0.27 | <0.05 | | 1.44 | 0.27 | NS |
| Euk 0W | 1.53 | 0.29 | <0.05 | | 1.02 | 0.32 | NS |

Fractional effect (FE) is calculated as the difference between the treatment group (LRT) and the radiation only group (LR) relative to the difference between the 48 wk control (CON (48)) and the radiation only (LR) group using the formula $FE = (LR-LRT)/(LR-CON(48))$. Values greater than zero indicate a reduction in the radiation-induced increase in the specific measure. Values greater than 1.0 indicate that the reduction was to levels below that observed in the 48wk control group. Standard errors are based on the SE values for the individual data sets propagated through the calculation. The statistical significance (p value) is derived from the analysis of the original data sets and not calculated from the fractional effect data.