**Supplementary table 1:** G0 MN assay - Comparison of p values for 0Gy dose between all groups.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Triple negative** | **Luminal** | **Young patients** | **Old patients** | **Young controls** | **Old controls** | **All controls** |
| **All patients** | 0.3996 | 0.7224 | 0.8452 | 0.8617 | 0.0006\* | 0.8000 | 0.0010\* |
| **Triple negative** | X | 0.2931 | 0.5449 | 0.3593 | 0.0029\* | 0.4059 | 0.0041\* |
| **Luminal** | X | X | 0.6354 | 0.8933 | 0.0039\* | 0.9443 | 0.0066\* |
| **Young patients** | X | X | X | 0.7498 | 0.0068\* | 0.7710 | 0.0100\* |
| **Old patients** | X | X | X | X | 0.0038\* | 0.8457 | 0.0062\* |
| **Young controls** | X | X | X | X | X | 0.1995 | 0.7942 |
| **Old controls** | X | X | X | X | X | X | 0.2357 |

(\*) denotes p < 0.05

**Supplementary table 2:** G0 MN assay - Comparison of p values for 2Gy dose between all groups.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Triple negative** | **Luminal** | **Young patients** | **Old patients** | **Young controls** | **Old controls** | **All controls** |
| **All patients** | 0.1613 | 0.5818 | 0.5035 | 0.5510 | 0.0082\* | 0.0010\* | 0.0018\* |
| **Triple negative** | X | 0.0900 | 0.4798 | 0.0732 | 0.9113 | 0.0153\* | 0.6742 |
| **Luminal** | X | X | 0.2923 | 0.9448 | 0.0021\* | 0.0007\* | 0.0005\* |
| **Young patients** | X | X | X | 0.2740 | 0.1598 | 0.0049\* | 0.0778 |
| **Old patients** | X | X | X | X | 0.0048\* | 0.0007\* | 0.0014\* |
| **Young controls** | X | X | X | X | X | 0.0293\* | 0.6652 |
| **Old controls** | X | X | X | X | X | X | 0.0449\* |

(\*) denotes p < 0.05

**Supplementary table 3:** G0 MN assay - Comparison of p values for 4Gy dose between all groups.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Triple negative** | **Luminal** | **Young patients** | **Old patients** | **Young controls** | **Old controls** | **All controls** |
| **All patients** | 0.1613 | 0.5151 | 0.8342 | 0.8519 | 0.0145\* | 0.1489 | 0.0094\* |
| **Triple negative** | X | 0.0756 | 0.1541 | 0.2444 | 0.9908 | 0.6979 | 0.9473 |
| **Luminal** | X | X | 0.7434 | 0.4667 | 0.0026\* | 0.0829 | 0.0016\* |
| **Young patients** | X | X | X | 0.7325 | 0.0277\* | 0.1154 | 0.0203\* |
| **Old patients** | X | X | X | X | 0.0713 | 0.2263 | 0.0573 |
| **Young controls** | X | X | X | X | X | 0.6461 | 0.9244 |
| **Old controls** | X | X | X | X | X | X | 0.6712 |

(\*) denotes p < 0.05

**Supplementary table 4:** S/G2 MN assay - Comparison of p values for 0Gy dose between all groups.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triple negative** | **Luminal** | **All controls** |
| **All patients** | 0.4111 | 0.4123 | 0.7472 |
| **Triple negative** | X | 0.1558 | 0.6021 |
| **Luminal** | X | X | 0.2766 |

**Supplementary table 5:** S/G2 MN assay - Comparison of p values for 2Gy dose between all groups.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triple negative** | **Luminal** | **All controls** |
| **All patients** | 0.4363 | 0.4359 | 0.3801 |
| **Triple negative** | X | 0.1784 | 0.9661 |
| **Luminal** | X | X | 0.1155 |

**Supplementary table 6:** S/G2 MN assay - Comparison of p values for 4Gy dose between all groups.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triple negative** | **Luminal** | **All controls** |
| **All patients** | 0.1555 | 0.1556 | 0.9724 |
| **Triple negative** | X | 0.0127\* | 0.1199 |
| **Luminal** | X | X | 0.1040 |

(\*) denotes p < 0.05

**Supplementary table 7**: G0 MN assay - Chi square test comparing patients with elevated spontaneous MN levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Chromosomally instable** | **Chromosomally stable** | **P values** |
| **All patients** | 19% | 81% | 0.0003\* |
| **Triple negative** | 47% | 53% | <0.0001\* |
| **Luminal** | 18% | 82% | 0.0005\* |
| **Controls** | 3% | 97% | - |

(\*) denotes p < 0.05 compared to controls

**Supplementary table 8**: G0 MN assay - Chi square test comparing patients RIND scores for both 2 and 4Gy.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Radiosensitive** | **Not radiosensitive** | **P values** |
| **All patients** | 28% | 72% | 0.0024\* |
| **Triple negative** | 12% | 88% | 0.8246 |
| **Luminal** | 33% | 67% | 0.0002\* |
| **Controls** | 11% | 89% | - |

(\*) denotes p < 0.05 compared to controls

**Supplementary table 9**: S/G2 MN assay - Chi square test comparing patients with elevated spontaneous MN levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Chromosomally instable** | **Chromosomally stable** | **P values** |
| **All patients** | 21% | 79% | 0.0019\* |
| **Triple negative** | 12% | 88% | 0.1382 |
| **Luminal** | 29% | 71% | <0.0001\* |
| **Controls** | 6% | 94% | - |

(\*) denotes p < 0.05 compared to controls

**Supplementary table 10**: S/G2 MN assay - Chi square test comparing patients RIND scores for both 2 and 4Gy.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Radiosensitive** | **Not radiosensitive** | **P values** |
| **All patients** | 35% | 65% | 0.0065\* |
| **Triple negative** | 24% | 76% | 0.2976 |
| **Luminal** | 47% | 53% | <0.0001\* |
| **Controls** | 18% | 82% | - |

(\*) denotes p < 0.05 compared to controls