

# Supplementary Table 1

	n=
<b>Figure 1b</b> wt ( <i>gfp</i> RNAi) 0 Gy 12 hrs	3
wt ( <i>gfp</i> RNAi) 0 Gy 24 hrs	10
wt ( <i>gfp</i> RNAi) 0 Gy 36 hrs	10
wt ( <i>gfp</i> RNAi) 30 Gy 12 hrs	6
wt ( <i>gfp</i> RNAi) 30 Gy 24 hrs	5
wt ( <i>gfp</i> RNAi) 30 Gy 36 hrs	9
wt ( <i>gfp</i> RNAi) 60 Gy 12 hrs	5
wt ( <i>gfp</i> RNAi) 60 Gy 24 hrs	6
wt ( <i>gfp</i> RNAi) 60 Gy 36 hrs	11
wt ( <i>gfp</i> RNAi) 120 Gy 12 hrs	2
wt ( <i>gfp</i> RNAi) 120 Gy 24 hrs	10
wt ( <i>gfp</i> RNAi) 120 Gy 36 hrs	11
wt ( <i>ufd-2</i> RNAi) 0 Gy 12 hrs	3
wt ( <i>ufd-2</i> RNAi) 0 Gy 24 hrs	6
wt ( <i>ufd-2</i> RNAi) 0 Gy 36 hrs	6
wt ( <i>ufd-2</i> RNAi) 30 Gy 12 hrs	4
wt ( <i>ufd-2</i> RNAi) 30 Gy 24 hrs	9
wt ( <i>ufd-2</i> RNAi) 30 Gy 36 hrs	8
wt ( <i>ufd-2</i> RNAi) 60 Gy 12 hrs	4
wt ( <i>ufd-2</i> RNAi) 60 Gy 24 hrs	7
wt ( <i>ufd-2</i> RNAi) 60 Gy 36 hrs	6
wt ( <i>ufd-2</i> RNAi) 120 Gy 12 hrs	2
wt ( <i>ufd-2</i> RNAi) 120 Gy 24 hrs	6
wt ( <i>ufd-2</i> RNAi) 120 Gy 36 hrs	9
<b>Figure 1d</b> wt 0 Gy	80
wt 30 Gy	69
wt 60 Gy	73
<i>ufd-2(tm1380)</i> 0 Gy	76
<i>ufd-2(tm1380)</i> 30 Gy	80
<i>ufd-2(tm1380)</i> 60 Gy	74
<i>ufd-2(hh1)</i> 0 Gy	73
<i>ufd-2(hh1)</i> 30 Gy	75
<i>ufd-2(hh1)</i> 60 Gy	80
<b>Figure 1f</b> wt 0 Gy	53
wt 60 Gy	43
<i>ufd-2(tm1380)</i> 0 Gy	59
<i>ufd-2(tm1380)</i> 60 Gy	37
wt; <i>UFD-2::GFP</i> 0 Gy	63
wt; <i>UFD-2::GFP</i> 60 Gy	38
<i>ufd-2(tm1380); UFD-2::GFP</i> 0 Gy	58
<i>ufd-2(tm1380); UFD-2::GFP</i> 60 Gy	36
wt; <i>UFD-2::GFP<sup>P951A</sup></i> 0 Gy	56
wt; <i>UFD-2::GFP<sup>P951A</sup></i> 60 Gy	57
<i>ufd-2(tm1380); UFD-2::GFP<sup>P951A</sup></i> 0 Gy	52
<i>ufd-2(tm1380); UFD-2::GFP<sup>P951A</sup></i> 60 Gy	52

	n=
<b>Figure 2b</b> wt 0 Gy	231
wt 60 Gy	280
<b>Figure 2d</b> <i>ufd-2(tm1380); UFD-2::GFP</i> 0 Gy	34
<i>ufd-2(tm1380); UFD-2::GFP</i> 60 Gy	51
<i>ufd-2(tm1380); UFD-2::GFP<sup>P951A</sup></i> 0 Gy	36
<i>ufd-2(tm1380); UFD-2::GFP<sup>P951A</sup></i> 60 Gy	42
<b>Figure 3d</b> wt 0 Gy	87
wt 60 Gy	107
<i>hecd-1(tm2371)</i> 0 Gy	57
<i>hecd-1(tm2371)</i> 60 Gy	52
<i>atx-3(gk193)</i> 0 Gy	36
<i>atx-3(gk193)</i> 60 Gy	53
<b>Figure 3e</b> wt 0 Gy	48
wt 60 Gy	45
<i>ufd-2(tm1380)</i> 0 Gy	47
<i>ufd-2(tm1380)</i> 60 Gy	52
<i>hecd-1(tm2371)</i> 0 Gy	46
<i>hecd-1(tm2371)</i> 60 Gy	39
<i>ufd-2(tm1380); hecd-1(tm2371)</i> 0 Gy	42
<i>ufd-2(tm1380); hecd-1(tm2371)</i> 60 Gy	41
<b>Figure 3f</b> wt 0 Gy	51
wt 60 Gy	38
<i>ufd-2(tm1380)</i> 0 Gy	44
<i>ufd-2(tm1380)</i> 60 Gy	42
<i>atx-3(gk193)</i> 0 Gy	42
<i>atx-3(gk193)</i> 60 Gy	44
<i>ufd-2(tm1380); atx-3(gk193)</i> 0 Gy	41
<i>ufd-2(tm1380); atx-3(gk193)</i> 60 Gy	39
<b>Figure 4d</b> wt 0 Gy	39
wt 20 Gy 1 h	40
wt 20 Gy 7 hrs	37
wt 20 Gy 16 hrs	35
wt 20 Gy 48 hrs	37
<i>ufd-2(tm1380)</i> 0 Gy	41
<i>ufd-2(tm1380)</i> 20 Gy 1 h	43
<i>ufd-2(tm1380)</i> 20 Gy 7 hrs	36
<i>ufd-2(tm1380)</i> 20 Gy 16 hrs	36
<i>ufd-2(tm1380)</i> 20 Gy 48 hrs	39
<b>Figure 5b</b> wt 0 Gy	122
wt 60 Gy	106
<i>rad-51(ok2218)</i> 0 Gy	93
<i>rad-51(ok2218)</i> 60 Gy	76
<i>gen-1(tm2940)</i> 0 Gy	74
<i>gen-1(tm2940)</i> 60 Gy	92

# Supplementary Table 1, continued

	n=
<b>Figure 5c</b> wt 0 Gy	130
wt 60 Gy	150
<i>cep-1(lg1250)</i> 0 Gy	57
<i>cep-1(lg1250)</i> 60 Gy	63
<i>gld-1(op236)</i> 0 Gy	146
<i>gld-1(op236)</i> 60 Gy	162
<i>gld-1(op236); cep-1(lg1250)</i> 0 Gy	45
<i>gld-1(op236); cep-1(lg1250)</i> 60 Gy	50
<i>egl-1(n1084n3082); ced-13(tm536)</i> 0 Gy	55
<i>egl-1(n1084n3082); ced-13(tm536)</i> 60 Gy	63
<b>Figure 5d</b> wt 0 Gy	35
wt 20 Gy	63
<i>ufd-2(tm1380)</i> 0 Gy	39
<i>ufd-2(tm1380)</i> 20 Gy	40
<i>ufd-2(tm1380); UFD-2::GFP</i> 0 Gy	38
<i>ufd-2(tm1380); UFD-2::GFP</i> 20 Gy	38
<i>RAD-51::GFP</i> 0 Gy	36
<i>RAD-51::GFP</i> 20 Gy	34
<b>Figure 5e</b> wt 0 Gy	71
wt 60 Gy	74
<i>ufd-2(tm1380)</i> 0 Gy	73
<i>ufd-2(tm1380)</i> 60 Gy	65
<i>ufd-2(tm1380); UFD-2::GFP</i> 0 Gy	74
<i>ufd-2(tm1380); UFD-2::GFP</i> 60 Gy	82
<i>RAD-51::GFP</i> 0 Gy	61
<i>RAD-51::GFP</i> 60 Gy	67

# Supplementary Table 2

		n=
<b>Supplementary Figure 1a</b>	<i>ced-1(e1735)</i>	38
	<i>ced-1(e1735); ufd-2(tm 1380)</i>	33
<b>Supplementary Figure 1b</b>	wt	45
	<i>ufd-2(tm 1380)</i>	45
	<i>gla-3(op216)</i>	44
	<i>gla-3(op216); ufd-2(tm 1380)</i>	45
<b>Supplementary Figure 1d</b>	wt 0 Gy	30
	wt 60 Gy	32
	<i>ufd-2(tm 1380)</i> 0 Gy	33
	<i>ufd-2(tm 1380)</i> 60 Gy	33
	<i>hus-1(op244)</i> 0 Gy	25
	<i>hus-1(op244)</i> 60 Gy	23
<b>Supplementary Figure 2c</b>	wt 5 hrs 0 Gy	31
	wt 5 hrs 60 Gy	32
	wt 24 hrs 0 Gy	20
	wt 24 hrs 60 Gy	17
<b>Supplementary Figure 3a</b>	wt 0 Gy	79
	wt 60 Gy	69
	wt 600 J/m <sup>2</sup>	96
<b>Supplementary Figure 3b</b>	wt 0 Gy	147
	wt 30 Gy	147
	wt 60 Gy	144
	<i>ufd-2(tm 1380)</i> 0 Gy	144
	<i>ufd-2(tm 1380)</i> 30 Gy	144
	<i>ufd-2(tm 1380)</i> 60 Gy	144
	<i>ufd-2(hh1)</i> 0 Gy	75
	<i>ufd-2(hh1)</i> 30 Gy	75
	<i>ufd-2(hh1)</i> 60 Gy	75
	<i>rad-51(ok2218)het.</i> 0 Gy	111
	<i>rad-51(ok2218)het.</i> 30 Gy	117
	<i>rad-51(ok2218)het.</i> 60 Gy	117
<b>Supplementary Figure 4e</b>	wt 0 Gy	35
	wt 20 Gy	42
	<i>atx-3(gk193)</i> 0 Gy	43
	<i>atx-3(gk193)</i> 20 Gy	48