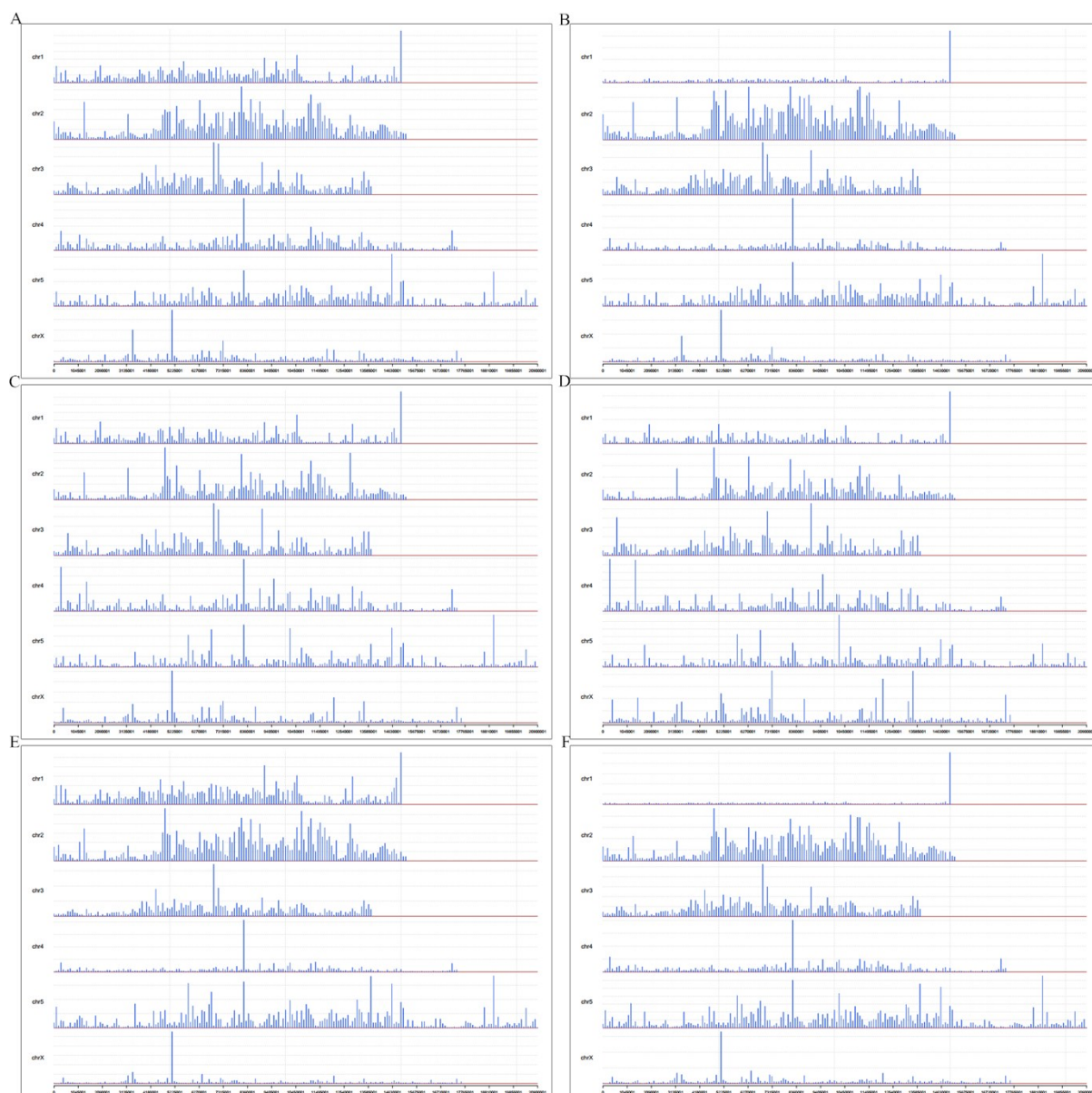


Supplementary Figure 1. Gene coverage of the 6 samples. Sample 1: X-ray 0 Gy vs X-ray 200 Gy (A), sample 2: X-ray 0 Gy vs X-ray 200 Gy (B), sample 3: X-ray 0 Gy vs X-ray 400 Gy (C), sample 4: X-ray 0 Gy vs X-ray 400 Gy (D), sample 5: X-ray 200 Gy vs X-ray 400 Gy (E), sample 6: X-ray 200 Gy vs X-ray 400 Gy (F).



Supplementary Table 1. Summary of RNA-seq and alignment results

Sample	0 Gy	0 Gy	200 Gy	200 Gy	400 Gy	400 Gy
Effective reads	13,738,981	13,493,221	12,744,402	15,802,155	15,686,168	14,110,262
Total mapped	13,455,392 (97.94%)	13,062,182 (96.81%)	12,410,624 (97.38%)	15,276,711 (96.67%)	15,381,028 (98.05%)	13,710,527 (97.17%)
Multiple mapped	554,811 (4.04%)	739,162 (5.48%)	436,649 (3.43%)	703,751 (4.45%)	592,837 (3.78%)	832,474 (5.9%)
Uniquely mapped	12,900,581 (93.9%)	12,323,020 (91.33%)	11,973,975 (93.95%)	14,572,960 (92.22%)	14,788,191 (94.28%)	12,878,053 (91.27%)

Supplementary Table 2. Intersection of differentially expressed genes in all comparisons

Gene	Description	Log2 Fold Change		
		0 VS 200 Gy	0 VS 400 Gy	200 Gy VS 400 Gy
chd-7	Chromodomain and helicase domain protein	-3.3918	1.49903247	4.886157
folt-2	Folate-like transporter 2	3.48088	1.79690085	-1.6662
dpy-22	Mediator of RNA polymerase II transcription subunit 12	-3.4252	2.15789259	5.588007
rig-4	Protein sidekick homolog	-2.9079	1.34252555	4.261393
fli-1	Protein flightless-1 homolog	-2.8954	1.22315761	4.130967
eea-1	EEA1 (Early Endosome Antigen, Rab effector) homolog	-2.8662	1.39161318	4.263046
T08G11.1	Hypothetical protein	-2.7291	2.14463797	4.886249
C44E4.1	Protein coding	-2.5922	1.68929885	4.294254
dcr-1	Endoribonuclease dcr-1	-2.585	1.38921922	3.986044
ced-7	ABC transporter ced-7	-2.533	1.40001495	3.940759
spat-3	Suppressor of Par-Two defect	-2.5587	1.92312767	4.483789
epg-5	Ectopic P granules protein 5	-2.8393	1.29747554	4.136039
smg-1	Serine/threonine-protein kinase smg-1	-2.3853	1.69006669	4.078294
ins-19	INSulin related	-2.5826	-6.1915871	-3.59217
F39C12.1	hypothetical protein	-2.5261	2.49250531	5.025321
fasn-1	Fatty Acid SyNthase	-2.1426	1.53333252	3.679828
F59E12.9	Hypothetical protein	-2.0524	1.5425462	3.593745
C25H3.8	Hypothetical protein	-2.2193	2.03133348	4.261073

W06H8.6	Hypothetical protein	-2.1931	1.27590273	3.459691
daf-2	Insulin-like receptor subunit beta	-2.0034	1.72590186	3.71736
Y32H12A.8	Hypothetical protein	-2.2824	2.45992086	4.751367
sdc-3	Zinc finger protein sdc-3	-2.7231	1.99696131	4.724168
din-1	Daf-12-interacting protein 1	-1.9786	1.60116092	3.570732
gei-8	Nuclear receptor corepressor 1	-2.1312	1.70430126	3.829353
dpy-21	DumPY: shorter than wild-type	-1.8826	1.42717076	3.303257
hgap-2	Heterodimeric GTPase- Activating Protein subunit	-2.0038	1.42502164	3.435778
C52B9.8	Hypothetical protein	-2.3575	1.5084498	3.876401
F36A2.13	Protein coding	-1.7864	2.35973703	4.150931
C25H3.11	Hypothetical protein	-2.7195	2.40093875	5.131261
lpd-3	Lipid Depleted	-2.0721	2.53428647	4.615137
lin-59	Probable histone-lysine N- methyltransferase lin-59	-1.7833	1.29782023	3.071628
dnc-1	DyNactin Complex component	-1.8426	1.44054446	3.297867
F10G7.10	Hypothetical protein	-1.7935	1.34795499	3.149539
Y47G6A.29	Protein coding	-2.0709	2.82030277	4.901031
pqn-15	Prion-like-(Q/N-rich)-domain- bearing protein	-2.5825	2.01167332	4.592746
agef-1	Arf-1 Guanine nucleotide Exchange Factor homolog	-1.7467	1.6788463	3.433445
mup-4	Transmembrane matrix receptor MUP-4	-1.8065	1.86174584	3.671173
T24B8.7	Ubiquitin carboxyl-terminal hydrolase	-2.1786	2.37237082	4.561528
pld-1	Phospholipase D	-1.6667	1.48525817	3.161935
let-765	Hypothetical protein	-1.6633	1.88881297	3.543249

tin-13	Mitochondrial import inner membrane translocase subunit tim-13	1.69213	-1.2150175	-2.90297
gon-1	A disintegrin and metalloproteinase with thrombospondin motifs gon-1	-2.3978	2.19918695	4.615009
C10C5.1	Piezo-type mechanosensitive ion channel component	-1.6589	1.752036	3.415606
lrp-2	Low-density lipoprotein Receptor related	-2.1673	2.07937629	4.264305
lam-2	Laminin-like protein lam-2	-1.7147	1.97711654	3.687911
pqn-85	Nipped-B-like protein pqn-85	-1.8575	2.46712434	4.330448
ptrn-1	Patronin (microtubule-binding protein) homolog	-1.8387	1.3741093	3.219412
cnc-2	Caenorhabditis bacteriocin	1.73981	-2.4090362	-4.18844
C32E12.4	Hypothetical protein	-2.2448	1.71937269	3.952856
gtl-1	Gon-Two Like (TRP subfamily)	-1.7458	1.5735785	3.333688
Y105E8A.2	Protein coding	-1.4986	1.52562931	3.017875
4				
par-1	Serine/threonine-protein kinase par-1	-1.4339	1.31443905	2.74722
lrk-1	Leucine-rich repeat serine/threonine-protein kinase 1	-1.712	1.41731415	3.140301
plc-1	1-phosphatidylinositol 4,5- bisphosphate phosphodiesterase epsilon-1	-2.3593	1.68265324	4.05058
Y105E8A.2	Hypothetical protein	-1.7347	1.7282113	3.459838

5				
mig-38	Abnormal cell migration protein 38	-3.0595	1.67546539	4.740421
sma-1	SMAII	-2.9189	2.21857555	5.1482
let-716	Hypothetical protein	-2.4973	1.4906533	3.994332
let-363	Target of rapamycin homolog	-2.5426	1.99168075	4.549131
let-19	Mediator of RNA polymerase II transcription subunit 13	-2.8194	1.84495962	4.670756
F59A2.6	Protein coding	-2.6239	1.77850603	4.407793
ced-5	Hypothetical protein	-2.4744	1.46093196	3.946866
taf-1	Transcription initiation factor TFIID subunit 1	-2.545	2.0787109	4.633003
F54B3.1	Hypothetical protein	-2.4649	2.37575235	4.863045
tag-184	CRE-TAG-184 protein	-2.6031	1.49882566	4.115382
met-1	Histone-lysine N-methyltransferase	-2.353	1.96466069	4.324936
wdfy-3	WD40 and FYVE domain protein	-2.7066	1.42191843	4.141387
let-418	Protein let-418	-2.246	2.12036986	4.371435
attf-5	AT hook Transcription Factor family	-3.8207	1.44039984	5.26774
sql-1	Suppressor of gpa-3QL dye-filling defect	-2.5929	1.63414622	4.233438
C56E6.9	Hypothetical protein	-2.7692	1.35547099	4.142651
sma-9	SMAII	-2.4338	1.52605046	3.963811
lin-49	Protein lin-49	-2.366	1.21585873	3.595214
T28C6.7	Hypothetical protein	-2.3713	1.75726613	4.137627
F55F10.1	Midasin	-2.0752	3.07411922	5.151674
spr-4	Suppressor of presenilin	-2.1637	1.39648003	3.567622

	protein 4			
ten-1	TENeurin	-2.0722	1.60165959	3.662898
unc-70	Hypothetical protein	-2.2117	1.67293746	3.880096
lam-1	LAMinin related	-2.0895	1.3663123	3.468014
C36C9.10	ncRNA	1.96842	-2.2127163	-4.19967
cbp-1	Protein cbp-1	-1.7888	2.10094063	3.883003
F59A2.2	Hypothetical protein	-2.3088	1.59175219	3.914786
wnk-1	Serine/threonine-protein kinase WNK	-1.7465	2.13731956	3.885542
ebax-1	Elongin-B/C E3 ligase in Axon guidance	-2.1518	1.39923682	3.556779
mel-28	Hypothetical protein	-2.2083	2.18402614	4.400261
nmy-1	Non-muscle MYosin	-1.9281	1.9308583	3.870542
frm-7	FERM domain (protein4.1- ezrin-radixin-moesin) family	-1.948	1.43612189	3.387423
ZK1067.2	Hypothetical protein	-1.7975	2.70221298	4.502042
sdc-2	Sex determination and dosage compensation defect	-2.3976	1.38397022	3.791939
cdh-1	Cadherin family	-2.2095	1.35398779	3.555707
pac-1	GTPase-activating protein pac- 1	-1.6951	1.69278003	3.387361
T14G8.3	Hypothetical protein	-1.7968	1.44469094	3.2421
F23A7.4	Hypothetical protein	1.70614	-1.6435264	-3.35695
rbc-1	RaBConnectin related	-1.6963	2.42568544	4.115034
F23A7.8	Hypothetical protein	1.66968	-1.7933502	-3.47808
ssl-1	Helicase ssl-1	-1.5232	1.87215076	3.395817
alg-1	Protein argonaute	-1.6977	1.31247101	3.013352
F21C10.7	Hypothetical protein	-2.5393	2.74997688	5.285695
atg-2	AuTophaGy (yeast Atg	-1.787	1.98557854	3.764355

	homolog)			
ver-3	Tyrosine-protein kinase receptor ver-3	-1.8524	1.38484489	3.234826
tag-241	Protein TAG-241	-3.01	1.74121517	4.757289
R11A8.7	Ankyrin repeat and KH domain-containing protein R11A8.7	-1.8588	2.34571646	4.206637
ntl-4	NOT-Like (yeast CCR4/NOT complex component)	-1.6354	1.51800757	3.146868
dhc-1	Dynein heavy chain	-1.7004	2.52763746	4.23865
K09A9.6	Hypothetical protein	-1.8921	1.29903648	3.188371
C04H5.7	Hypothetical protein	1.50333	-1.8317188	-3.33594
Y53F4B.13	Cap-specific mRNA (nucleoside-2'-O-)- methyltransferase 1	-1.7179	1.57346638	3.292449
zfh-2	Zinc finger and homeobox	-1.5985	1.28373286	2.872112
spp-12	Saposin-like protein family	-2.4136	-6.0058327	-3.66101

Supplementary Table 3. Genes enriched in biological process

terms

Term	Background number	Gene Names
movement of cell or subcellular component	242	mig-38;lrp-2;lam-1;gon-1;let-765;ced-5; lam-2;cbp-1;ten-1;Y105E8A.25;unc-70
cell migration	212	mig-38;lrp-2;lam-1;gon-1;let-765;ced-5; lam-2;cbp-1;ten-1;Y105E8A.25
cell motility	212	mig-38;lrp-2;lam-1;gon-1;let-765;ced-5; lam-2;cbp-1;ten-1;Y105E8A.25
localization of cell	212	mig-38;lrp-2;lam-1;gon-1;let-765;ced-5; lam-2;cbp-1;ten-1;Y105E8A.25
dendrite development	35	Y47G6A.29;lin-59;dnc-1;unc-70
neuron recognition	69	lpd-3;Y47G6A.29;lin-59;ten-1;unc-70
cell recognition	69	lpd-3;Y47G6A.29;lin-59;ten-1;unc-70
axonal fasciculation	69	lpd-3;Y47G6A.29;lin-59;ten-1;unc-70
response to nutrient levels	8	fasn-1;unc-70
response to starvation	8	fasn-1;unc-70
response to extracellular stimulus	8	fasn-1;unc-70
neuron projection development	114	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70
cell projection organization	114	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70
neurogenesis	117	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70
neuron development	117	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70

neuron differentiation	117	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70
nervous system development	117	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70
generation of neurons	117	lin-59;Y47G6A.29;dnc-1;lpd-3;ten-1;unc-70
lipid metabolic process	31	lpd-3;fasn-1;let-363
inductive cell migration	129	mig-38;let-765;ced-5;cbp-1;gon-1;Y105E8A.25
single-organism metabolic process	35	lpd-3;fasn-1;let-363
positive regulation of post-embryonic development	35	sdc-2;din-1;dpy-22
positive regulation of vulval development	35	sdc-2;din-1;dpy-22
positive regulation of nematode larval development	35	sdc-2;din-1;dpy-22
response to heat	14	daf-2;let-363
response to temperature stimulus	14	daf-2;let-363
axon development	101	lpd-3;Y47G6A.29;lin-59;ten-1;unc-70
dauer larval development	16	daf-2;let-363
entry into diapause	16	daf-2;let-363
dormancy process	16	daf-2;let-363
dauer entry	16	daf-2;let-363
establishment of	44	dhc-1;mel-28;dnc-1

organelle localization		
pronuclear migration	44	dhc-1;mel-28;dnc-1
establishment of nucleus localization	44	dhc-1;mel-28;dnc-1
nucleus localization	44	dhc-1;mel-28;dnc-1
single fertilization	44	dhc-1;mel-28;dnc-1
organelle localization	44	dhc-1;mel-28;dnc-1
nuclear migration	44	dhc-1;mel-28;dnc-1
cell differentiation	509	pqn-85;cbp-1;sma-1;lin-59;ebax-1;dhc-1; Y105E8A.24;alg-1;dnc-1;mup-4;lpd-3;Y47G6A.29; ten-1;unc-70
cell development	509	pqn-85;cbp-1;sma-1;lin-59;ebax-1;dhc-1; Y105E8A.24;alg-1;dnc-1;mup-4;lpd-3;Y47G6A.29; ten-1;unc-70
fertilization	46	dhc-1;mel-28;dnc-1
cellular developmental process	513	pqn-85;cbp-1;sma-1;lin-59;ebax-1;dhc-1; Y105E8A.24;alg-1;dnc-1;mup-4;lpd-3;Y47G6A.29; ten-1;unc-70
response to external stimulus	53	fasn-1;ten-1;unc-70
response to abiotic stimulus	24	daf-2;let-363
locomotion	1414	sma-1;rig-4;met-1;lam-1;epg-5;ten-1;let-765;sdc-2;lrp-2;lam-2;gon-1;pqn-85;nmy-1;alg-1;C56E6.9;dcr-1;cdh-

		1;ced-5;daf-2;ssl-1;taf-1;cbp-1;Y105E8A.25;mig-38;lin-59;mup-4;lin-49;dpy-22;mel-28;unc-70
centrosomal and pronuclear rotation	5	dhc-1
cellular component morphogenesis	191	sma-1;ebax-1;pqn-85;mup-4;ten-1;unc-70
system development	1073	smg-1;dcr-1;lpd-3;Y47G6A.29;ten-1;let-765; sdc-2;ebax-1;gon-1;alg-1;fli-1;let-716;let-363;ssl-1;taf-1;Y105E8A.25;let-418;lin-59;dnc-1;let-19; din-1;dpy-22;unc-70
taxis	38	ten-1;unc-70
axon guidance	38	ten-1;unc-70
chemotaxis	38	ten-1;unc-70
neuron projection guidance	38	ten-1;unc-70
single-organism organelle organization	260	sma-1;ebax-1;dhc-1;rig-4;pqn-85;dnc-1;mup-4
cuticle development	80	nmy-1;sma-1;taf-1
collagen and cuticulin-based cuticle development	80	nmy-1;sma-1;taf-1
oocyte development	9	dhc-1
oocyte differentiation	9	dhc-1
reproductive process	1233	sma-1;smg-1;dcr-1;ten-1;let-765;sdc-2;gon-1;ebax-1;dhc-1;alg-1;fli-1;let-716;Y105E8A.24;daf-2;let-363;ssl-1;taf-

		1;cbp-1;Y105E8A.25;let-418;lin-59;wnk-1;dnc-1;dpy-22;mel-28
single-organism	1068	smg-1;dcr-1;ten-1;let-765;sdc-2;gon-
reproductive process		1;ebax-1;dhc-1;alg-1;fli-1;let-716;Y105E8A.24;daf-2;let-363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-418;dnc-1;dpy-22;
		mel-28
cell part morphogenesis	46	ten-1;unc-70
cell projection	46	ten-1;unc-70
morphogenesis		
neuron projection	46	ten-1;unc-70
morphogenesis		
cell morphogenesis	46	ten-1;unc-70
involved in		
differentiation		
cell morphogenesis	46	ten-1;unc-70
involved in neuron		
differentiation		
cell morphogenesis	46	ten-1;unc-70
axonogenesis	46	ten-1;unc-70
mitotic nuclear division	47	dnc-1;rig-4
multi-organism	659	let-716;cbp-1;sma-1;lin-59;dpy-22;wnk-
reproductive process		1;alg-1;dnc-1;daf-2;dcr-1;dhc-1;Y105E8A.24;ten-1;mel-28
defecation	12	ten-1
excretion	12	ten-1
cellular process	1445	pqn-85;sma-1;rig-4;fasn-1;met-1;lpd-3;lam-1;Y47G6A.29;gon-1;let-765;lrp-

		2;lam-2;ebax-1;dhc-1;alg-1;ten-1;Y105E8A.24;ced-5;mup-4;let-363;cbp-1;
		Y105E8A.25;mig-38;lin-59;dnc-1;dcr-1;mel-28;unc-70
response to stimulus	237	fasn-1;daf-2;let-363;dcr-1;ten-1;unc-70
multi-organism process	664	let-716;cbp-1;sma-1;lin-59;dpy-22;wnk-1;alg-1;dnc-1;daf-2;dcr-1;dhc-1;Y105E8A.24;ten-1;mel-28
response to stress	189	fasn-1;daf-2;let-363;dcr-1;unc-70
single-organism cellular process	1409	pqn-85;sma-1;rig-4;fasn-1;dcr-1;lpd-3;lam-1;Y47G6A.29;gon-1;let-765;lrp-2;lam-2;ebax-1;dhc-1;alg-1;ten-1;Y105E8A.24;ced-5;mup-4;cbp-1;Y105E8A.25;mig-38;lin-59;dnc-1;met-1;mel-28;unc-70
organelle assembly	145	ebax-1;pqn-85;mup-4;sma-1
anatomical structure formation involved in morphogenesis	145	ebax-1;pqn-85;mup-4;sma-1
myosin filament assembly	145	ebax-1;pqn-85;mup-4;sma-1
cellular component assembly involved in morphogenesis	145	ebax-1;pqn-85;mup-4;sma-1
striated muscle cell differentiation	145	ebax-1;pqn-85;mup-4;sma-1
muscle structure development	145	ebax-1;pqn-85;mup-4;sma-1

actomyosin structure	145	ebax-1;pqn-85;mup-4;sma-1
organization		
myosin filament	145	ebax-1;pqn-85;mup-4;sma-1
organization		
striated muscle myosin	145	ebax-1;pqn-85;mup-4;sma-1
thick filament assembly		
myofibril assembly	145	ebax-1;pqn-85;mup-4;sma-1
actin cytoskeleton	145	ebax-1;pqn-85;mup-4;sma-1
organization		
actin filament-based	145	ebax-1;pqn-85;mup-4;sma-1
process		
striated muscle cell	145	ebax-1;pqn-85;mup-4;sma-1
development		
muscle cell development	145	ebax-1;pqn-85;mup-4;sma-1
muscle cell	145	ebax-1;pqn-85;mup-4;sma-1
differentiation		
sexual reproduction	404	let-716;cbp-1;dhc-1;Y105E8A.24;dnc-1;daf-2;alg-1;ten-1;mel-28
cellular component	680	pqn-85;sma-1;lin-59;ebax-1;dhc-1;rig-4;Y47G6A.29;ced-5;dnc-1;mup-4;dcr-1;lpd-3;ten-1;unc-70
organization or		
biogenesis		
cellular component	680	pqn-85;sma-1;lin-59;ebax-1;dhc-1;rig-4;Y47G6A.29;ced-5;dnc-1;mup-4;dcr-1;lpd-3;ten-1;unc-70
organization		
response to chemical	54	ten-1;unc-70
translation	15	let-363
anatomical structure	747	sdc-2;sma-1;ebax-1;nmy-1;dpy-22;lam-2;pqn-85;mup-4;sdc-3;taf-1;let-19;lam-1;din-1;ten-1;unc-70
morphogenesis		

development of primary sexual characteristics	809	sdc-2;let-716;ebax-1;ten-1;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;taf-1;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
gonad development	809	sdc-2;let-716;ebax-1;ten-1;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;taf-1;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
reproductive system development	809	sdc-2;let-716;ebax-1;ten-1;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;taf-1;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
sex differentiation	809	sdc-2;let-716;ebax-1;ten-1;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;taf-1;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
reproductive structure development	809	sdc-2;let-716;ebax-1;ten-1;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;taf-1;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
cellular localization	154	lrp-2;dnc-1;mel-28;dhc-1
establishment of localization in cell	154	lrp-2;dnc-1;mel-28;dhc-1
developmental process involved in reproduction	990	sdc-2;let-716;cbp-1;taf-1;ebax-1;ten-1;Y105E8A.24;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;dhc-1;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
mitotic cell cycle process	109	dhc-1;rig-4;dnc-1
protein complex assembly	160	ebax-1;pqn-85;mup-4;sma-1
protein complex biogenesis	160	ebax-1;pqn-85;mup-4;sma-1
cellular component	160	ebax-1;pqn-85;mup-4;sma-1

assembly		
cellular component	160	ebax-1;pqn-85;mup-4;sma-1
biogenesis		
macromolecular	160	ebax-1;pqn-85;mup-4;sma-1
complex assembly		
cellular macromolecular	160	ebax-1;pqn-85;mup-4;sma-1
complex assembly		
cellular protein complex	160	ebax-1;pqn-85;mup-4;sma-1
assembly		
body morphogenesis	600	sdc-2;sma-1;pqn-85;nmy-1;dpy-22;lam-2;sdc-3;taf-1;let-19;lam-1;din-1;ten-1
ovulation	20	ten-1
organ development	956	sdc-2;let-716;din-1;ebax-1;ten-1;fli-1;let-765;dpy-22;alg-1;let-363;ssl-1;taf-1;let-19;dcr-1;smg-1;gon-1;Y105E8A.25;let-418
macromolecular	226	ebax-1;dhc-1;mup-4;sma-1;pqn-85
complex subunit		
organization		
protein complex subunit	226	ebax-1;dhc-1;mup-4;sma-1;pqn-85
organization		
cytoskeleton	226	ebax-1;dhc-1;mup-4;sma-1;pqn-85
organization		
oviposition	282	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
multicellular organism	624	let-716;cbp-1;sma-1;lin-59;dpy-22;wnk-1;alg-1;daf-2;dcr-1;dhc-1;Y105E8A.24;ten-1
reproduction		
multicellular organismal	624	let-716;cbp-1;sma-1;lin-59;dpy-22;wnk-

reproductive process		1;alg-1;daf-2;dcr-1;dhc-1;Y105E8A.24;ten-1
phagocytosis	71	ced-5;Y47G6A.29
membrane organization	71	ced-5;Y47G6A.29
apoptotic cell clearance	71	ced-5;Y47G6A.29
engulfment of apoptotic cell	71	ced-5;Y47G6A.29
phagocytosis, engulfment	71	ced-5;Y47G6A.29
membrane invagination	71	ced-5;Y47G6A.29
multicellular organismal reproductive behaviour	291	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
multi-multicellular organism process	291	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
multi-organism reproductive behaviour	291	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
reproductive behaviour	291	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
positive regulation of developmental process	348	sdc-2;sma-1;alg-1;C32E12.4;sma-9;din-1;dpy-22
positive regulation of multicellular organismal process	348	sdc-2;sma-1;alg-1;C32E12.4;sma-9;din-1;dpy-22
multi-organism behaviour	292	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
negative regulation of vulval development	185	sdc-2;let-19;din-1;dpy-22
negative regulation of nematode larval	185	sdc-2;let-19;din-1;dpy-22

development		
negative regulation of post-embryonic development	185	sdc-2;let-19;din-1;dpy-22
negative regulation of developmental process	185	sdc-2;let-19;din-1;dpy-22
negative regulation of multicellular organismal process	187	sdc-2;let-19;din-1;dpy-22
gamete generation	358	let-716;cbp-1;dhc-1;Y105E8A.24;daf-2;alg-1;ten-1
behaviour	302	let-716;sma-1;wnk-1;lin-59;dcr-1;dpy-22
system process	28	ten-1
primary metabolic process	191	lpd-3;fasn-1;mup-4;let-363
female gamete generation	194	dhc-1;cbp-1;ten-1;Y105E8A.24
mitotic cell cycle	138	dhc-1;rig-4;dnc-1
moulting cycle	253	let-19;mup-4;cbp-1;dpy-22;alg-1
moulting cycle, collagen and cuticulin-based cuticle	253	let-19;mup-4;cbp-1;dpy-22;alg-1
cellular protein metabolic process	30	let-363
regulation of multicellular organismal development	200	sdc-2;let-19;din-1;dpy-22
regulation of nematode	200	sdc-2;let-19;din-1;dpy-22

larval development		
regulation of vulval development	200	sdc-2;let-19;din-1;dpy-22
regulation of post-embryonic development	200	sdc-2;let-19;din-1;dpy-22
growth	439	atg-2;sma-1;alg-1;C32E12.4;let-363;sma-9;epg-5;dpy-22
macromolecule biosynthetic process	34	let-363
cellular biosynthetic process	34	let-363
organic substance biosynthetic process	34	let-363
cellular macromolecule biosynthetic process	34	let-363
positive regulation of biological process	394	sdc-2;sma-1;alg-1;C32E12.4;sma-9;din-1;dpy-22
hermaphrodite genitalia development	732	sdc-2;ebax-1;dpy-22;let-765;smg-1;dcr-1;ssl-1;taf-1;alg-1;gon-1;Y105E8A.25;let-418
genitalia development	732	sdc-2;ebax-1;dpy-22;let-765;smg-1;dcr-1;ssl-1;taf-1;alg-1;gon-1;Y105E8A.25;let-418
vulval development	236	sdc-2;let-19;din-1;dpy-22
post-embryonic organ development	236	sdc-2;let-19;din-1;dpy-22
oogenesis	175	dhc-1;cbp-1;Y105E8A.24

single-organism	176	ced-5;lrp-2;Y47G6A.29
transport		
single-organism	176	ced-5;lrp-2;Y47G6A.29
localization		
negative regulation of	304	sdc-2;let-19;din-1;dpy-22;dcr-1
biological process		
regulation of	498	sdc-2;sma-1;alg-1;C32E12.4;let-19;sma-
developmental process		9;
		din-1;dpy-22
regulation of	500	sdc-2;sma-1;alg-1;C32E12.4;let-19;sma-
multicellular organismal		9;
process		din-1;dpy-22
organic substance	309	lpd-3;fasn-1;mup-4;let-363;dcr-1
metabolic process		
cellular macromolecule	51	let-363
metabolic process		
cytokinesis	52	dhc-1
metabolic process	317	lpd-3;fasn-1;mup-4;let-363;dcr-1
positive regulation of	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1
growth		
regulation of	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1
multicellular organism		
growth		
multicellular organism	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1
growth		
positive regulation of	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1
multicellular organism		
growth		
positive regulation of	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1

developmental growth		
regulation of	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1
developmental growth		
regulation of growth	319	C32E12.4;sma-1;sma-9;dpy-22;alg-1
organelle organization	515	sma-1;ebax-1;dhc-1;rig-4;pqn-85;dnc-1;mup-4;dcr-1
cellular process involved	259	dhc-1;Y105E8A.24;cbp-1;alg-1
in reproduction in		
multicellular organism		
germ cell development	259	dhc-1;Y105E8A.24;cbp-1;alg-1
developmental growth	328	C32E12.4;sma-1;sma-9;dpy-22;alg-1
cellular metabolic	61	let-363
process		
ageing	732	sdc-2;lin-59;daf-2;fasn-1;spp-12;met-1;hgap-2;let-363;cbp-1;let-765;unc-70
determination of adult	732	sdc-2;lin-59;daf-2;fasn-1;spp-12;met-1;hgap-2;
lifespan		let-363;cbp-1;let-765;unc-70
multicellular organismal	732	sdc-2;lin-59;daf-2;fasn-1;spp-12;met-1;hgap-2;let-363;cbp-1;let-765;unc-70
aging		
nuclear division	277	dhc-1;dcr-1;rig-4;dnc-1
organelle fission	277	dhc-1;dcr-1;rig-4;dnc-1
protein metabolic	142	mup-4;let-363
process		
spindle organization	72	dhc-1
mitotic spindle	72	dhc-1
organization		
reproduction	2353	plc-1;sma-1;fasn-1;met-1;lam-1;ten-1;let-765;sdc-2;Y53F4B.13;lam-2;gon-

		1;ebax-1;nmy-1;alg-1;gtl- 1;C25H3.8;dcr-1;let- 716;Y105E8A.24;daf-2;let-363;ssl-1;taf- 1;cbp-1;Y105E8A.25;let-418;lin- 59;wnk-1;mup-4;dnc-1;dhc-1;lin-49;din- 1;dpy-22;mel-28
gene expression	153	dcr-1;let-363
regulation of biological process	713	sdc-2;sma-1;dhc-1;alg-1;C32E12.4;dcr- 1;let-19;sma-9;din-1;dpy-22
apoptotic process	442	fasn-1;mup-4;met-1;dcr-1;cbp- 1;Y105E8A.25
programmed cell death	442	fasn-1;mup-4;met-1;dcr-1;cbp- 1;Y105E8A.25
microtubule cytoskeleton organization	81	dhc-1
microtubule-based process	81	dhc-1
regulation of meiosis	86	dhc-1
regulation of cell proliferation	86	dhc-1
cell proliferation	86	dhc-1
localization	1423	mig-38;lrp-2;lam-1;lin-59;gon-1;dnc- 1;let-765;daf-2;Y47G6A.29;ced-5;fasn- 1;mup-4;taf-1;dhc-1;lpd-3;lam-2;cbp- 1;ten-1;Y105E8A.25;mel-28
regulation of cell division	90	dhc-1
regulation of nuclear division	90	dhc-1
regulation of cell cycle	90	dhc-1

process		
regulation of cellular component organization	90	dhc-1
regulation of organelle organization	90	dhc-1
cell division	175	dhc-1;mel-28
establishment of localization	837	mig-38;lrp-2;lin-59;dhc-1;Y47G6A.29;ced-5; dnc-1;mup-4;taf-1;let-765;mel-28
death	484	fasn-1;mup-4;met-1;dcr-1;cbp-1;Y105E8A.25
cell death	484	fasn-1;mup-4;met-1;dcr-1;cbp-1;Y105E8A.25
cell cycle process	350	dhc-1;dcr-1;rig-4;dnc-1
meiotic cell cycle process	105	dcr-1
meiotic chromosome segregation	105	dcr-1
secretion by cell	107	lrp-2
secretion	107	lrp-2
gene silencing	109	dcr-1
negative regulation of macromolecule metabolic process	109	dcr-1
regulation of gene expression, epigenetic	109	dcr-1
posttranscriptional gene silencing	109	dcr-1
chromosome segregation	109	dcr-1
negative regulation of	109	dcr-1

metabolic process		
negative regulation of gene expression	109	dcr-1
posttranscriptional regulation of gene expression	109	dcr-1
posttranscriptional gene silencing by RNA	109	dcr-1
gene silencing by RNA	109	dcr-1
RNA interference	109	dcr-1
macromolecule	281	dcr-1;mup-4;let-363
metabolic process		
regulation of meiotic cell cycle	111	dhc-1
macromolecule catabolic process	116	mup-4
regulation of cell cycle	116	dhc-1
protein catabolic process	116	mup-4
organic substance	116	mup-4
catabolic process		
cell cycle	384	dhc-1;dcr-1;rig-4;dnc-1
regulation of metabolic process	125	dcr-1
regulation of gene expression	125	dcr-1
regulation of macromolecule	125	dcr-1
metabolic process		
catabolic process	126	mup-4

biological regulation	1212	sdc-2;cbp-1;sma-1;fasn-1;dhc-1;alg-1;C32E12.4;lpd-3;daf-2;dcr-1;let-19;sma-9;din-1;dpy-22;let-765
defence response	133	dcr-1
meiotic nuclear division	242	dhc-1;dcr-1
regulation of cellular process	144	dhc-1
larval development	1929	lam-1;fasn-1;dcr-1;lpd-3;let-765;sdc-2;lam-2;nmy-1;alg-1;gtl-1;C56E6.9;cdh-1;let-716;daf-2;let-363;ssl-1;taf-1;let-418;lin-59;mup-4;dhc-1;let-19;din-1;dpy-22
nematode larval development	1929	lam-1;fasn-1;dcr-1;lpd-3;let-765;sdc-2;lam-2;nmy-1;alg-1;gtl-1;C56E6.9;cdh-1;let-716;daf-2;let-363;ssl-1;taf-1;let-418;lin-59;mup-4;dhc-1;let-19;din-1;dpy-22
post-embryonic development	1930	lam-1;fasn-1;dcr-1;lpd-3;let-765;sdc-2;lam-2;nmy-1;alg-1;gtl-1;C56E6.9;cdh-1;let-716;daf-2;let-363;ssl-1;taf-1;let-418;lin-59;mup-4;dhc-1;let-19;din-1;dpy-22
meiotic cell cycle	262	dhc-1;dcr-1
lipid localization	547	lpd-3;fasn-1;daf-2;cbp-1;let-765
maintenance of location	547	lpd-3;fasn-1;daf-2;cbp-1;let-765
lipid storage	547	lpd-3;fasn-1;daf-2;cbp-1;let-765
regulation of biological quality	552	lpd-3;fasn-1;daf-2;cbp-1;let-765
transport	801	mig-38;lrp-2;lin-59;Y47G6A.29;ced-

		5;mup-4;taf-1;let-765
macromolecule	567	lpd-3;fasn-1;daf-2;cbp-1;let-765
localization		
vesicle-mediated	753	mig-38;lin-59;Y47G6A.29;ced-5;mup-4;taf-1;let-765
transport		
endocytosis	753	mig-38;lin-59;Y47G6A.29;ced-5;mup-4;taf-1;let-765
receptor-mediated	699	mig-38;taf-1;mup-4;let-765;lin-59
endocytosis		
multicellular organismal	4086	pqn-85;sma-9;let-765;rig-4;smg-1;fasn-1;met-1;lpd-3;sma-1;Y47G6A.29;ten-1;F54B3.1;sdc-2;lam-2;gon-1;ebax-1;nmy-1;alg-1;gtl-1;lam-1;C56E6.9;daf-2;
process		cdh-1;let-716;Y105E8A.24;C32E12.4;hgap-2;mup-4;let-363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-418;mig-38;lin-59;fli-1;wnk-1;spp-12;dnc-1;dhc-1;let-19;dcr-1;din-1;dpy-22;mel-28;unc-70
anatomical structure	3507	pqn-85;sma-1;let-765;rig-4;smg-1;fasn-1;dcr-1;lpd-3;lam-1;alg-1;ten-1;F54B3.1;sdc-2;lam-2;gon-1;ebax-1;nmy-1;Y47G6A.29;C56E6.9;fli-1;let-716;Y105E8A.24;mup-4;let-363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-418;mig-38;lin-59;dnc-1;sdc-3;dhc-1;let-19;din-1;dpy-22;
development		mel-28;unc-70

single-multicellular organism process	3992	sma-9;let-765;rig-4;smg-1;fasn-1;met-1;lpd-3;sma-1;Y47G6A.29;ten-1;F54B3.1;sdc-2;lam-2;gon-1;ebax-1;nmy-1;alg-1;gtl-1;lam-1;C56E6.9;daf-2;cdh-1;let-716;pqn-85;C32E12.4;hgap-2;mup-4;let-363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-418;mig-38;lin-59;fli-1;spp-12; dnc-1;dhc-1;let-19;dcr-1;din-1;dpy-22;mel-28;unc-70
single-organism developmental process	4141	pqn-85;sma-9;let-765;rig-4;smg-1;fasn-1;met-1;lpd-3;sma-1;Y47G6A.29;ten-1;F54B3.1;sdc-2;lam-2;gon-1;ebax-1;nmy-1;alg-1;gtl-1;lam-1;C56E6.9;daf-2;cdh-1;let-716;Y105E8A.24;C32E12.4;hgap-2;mup-4;let-363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-418;mig-38;lin-59;fli-1;spp-12;dnc-1;sdc-3;dhc-1;let-19;dcr-1;din-1;dpy-22;mel-28;unc-70
developmental process	4145	pqn-85;sma-9;let-765;rig-4;smg-1;fasn-1;met-1;lpd-3;sma-1;Y47G6A.29;ten-1;F54B3.1;sdc-2;lam-2;gon-1;ebax-1;nmy-1;alg-1;gtl-1;lam-1;C56E6.9;daf-2;cdh-1;let-716;Y105E8A.24;C32E12.4;hgap-2;mup-4;let-363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-418;mig-38;lin-59;fli-1;spp-12;dnc-1;sdc-3;dhc-1;let-

multicellular organismal development	3894	19; dcr-1; din-1; dpy-22; mel-28; unc-70 sma-1; let-765; rig-4; smg-1; fasn-1; met-1; lpd-3; lam-1; alg-1; ten-1; F54B3.1; sdc-2; lam-2; gon-1; ebax-1; nmy-1; Y47G6A.29; gtl-1; C56E6.9; daf-2; cdh-1; let-716; pqn-85; hgap-2; mup-4; let-363; ssl-1; taf-1; cbp-1; Y105E8A.25; let-418; mig-38; lin-59; fli-1; spp-12; dnc-1; dhc-1; let-19; dcr-1; din-1; dpy-22; mel-28; unc-70
single-organism process	4370	pqn-85; sma-9; let-765; rig-4; smg-1; fasn-1; met-1; lpd-3; sma-1; Y47G6A.29; ten-1; F54B3.1; sdc-2; lrp-2; lam-2; gon-1; ebax-1; nmy-1; alg-1; gtl-1; lam-1; C56E6.9; daf-2; cdh-1; let-716; Y105E8A.24; C32E12.4; hgap-2; mup-4; let-363; ssl-1; taf-1; cbp-1; Y105E8A.25; let-418; mig-38; ced-5; lin-59; fli-1; spp-12; dnc-1; sdc-3; dhc-1; let-19; dcr-1; din-1; dpy-22; mel-28; unc-70
embryo development ending in birth or egg hatching	2897	lam-1; rig-4; fasn-1; gon-1; let-765; F54B3.1; sdc-2; lam-2; pqn-85; nmy-1; alg-1; C56E6.9; let-716; ten-1; let-363; ssl-1; taf-1; cbp-1; Y105E8A.25; let-418; mig-38; dnc-1; dhc-1; let-19; din-1; dpy-22; mel-28
embryo development	2901	lam-1; rig-4; fasn-1; gon-1; let-765; F54B3.1; sdc-2; lam-2; pqn-85; nmy-

1;alg-1;C56E6.9;let-716;ten-1;let-
363;ssl-1;taf-1;cbp-1;Y105E8A.25;let-
418;mig-38;dnc-1;dhc-1;let-19;din-
1;dpy-22;mel-28
