## Table S13

- Maternal genes identified by SOM analysis, gradual decline
- Gene ID mixed annotation (+ indicates sequence confirmation)
- + unknown \* 5e-08 No definition line found \* 5e-16 PSD-95/SAP90-associated protein-2 \* 1e-16 PSD-95 binding protein \* 1e-171
- CG8390 inserted at base Unknown 5' end of [NLS\_BP] CG8390 LD44824 41E5-41E5 ID:103F11
  + CDC45L DNA replication factor \* CDC45L \* 2e-31 Cdc45p: assembles into a complex with Cdc46p/Mcm5p \* CDC45L \* 1e-30
- CG3658 predicted using Genefinder; cDNA EST yk307h3.3 comes from this ge CG3658 LD35753 1E1-1E1 ID:95D1
- CG7143 + DNA repair protein CG7143 SD05329 dup:2/2 ID:118F3
- + RfC40 DNA\_replication\_factor \* 3e-99 RFC4\_YEAST ACTIVATOR KD SUBUNIT (REPLICATION FACTOR C KD SUBUNIT) \* AC14\_DROME ACTIVATOR KD SUBUNIT (REPLICATION FACTOR C KD SUBUNIT) (A1 \* 1 [ATP\_GTP\_A] CG14999 LD40483 CG14999 64A10-64A10 dup:2/2 ID:99E11
- CG9924 + actin binding CG9924 LD28030 dup:2/2 ID:87B2
- + transmembrane\_receptor \* HYPOTHETICAL PROTEIN \* cysteine-rich protein (intestinal)(aa) \* 4e-09 MLP2\_DROME MUSCLE LIM PROTEIN MLP84B muscle L \* 4e-18 gene product [LIM\_DOMAIN\_1 // LIM // LIM\_DOMAIN\_2 // ] CG4656 LD45535 94E-94E CG4656 dup:2/2 ID:104D3
- + motor\_protein \* 8e-08 /motif=(desc: \* 7e-11 contains similarity to a C3HC4-class zinc finger \* 1e-20 mTRIP \* 3e-20 hTRIP [zf-
- CG5140 C3HC4 // NLS\_BP // ZF\_RING] CG5140 GH03577 55B9-55B9 ID:56A7
- + Orc4 DNA\_replication\_factor \* 56-kDa subunit of recognition complex (ORC); Orc4p(aa) \* recognition complex subunit 4-related CG2917 protein Orp4p(aa) \* recognition complex, subunit (yea [ATP\_GTP\_A2 // ATP\_GTP\_A] CG2917 LD43280 60D16-60D16 ID:102C1
- + transcription\_factor\_binding \* WD-repeat protein(aa) \* 3e-05 YGA3\_YEAST HYPOTHETICAL 62.8 KD TRP-ASP REPEATS

  CONTAINING PROTEIN IN PMC1-TFG2 \* 1e-07 Method: conceptual translation [WD40\_REGION // WD40] CG11330 LD43270 26F5-CG11330 26F6 ID:102B11
- CG6407 + signal transduction CG6407 dup:3/3 ID:87H5
- CG17678+ CG17678 dup:2/2 ID:89B3
- CG6311 + unknown \* CG6311 LD37618 74D2-74D2 dup:1/2 ID:96H12
  - + protein\_phosphatase \* myotubularin related protein 1(aa) \* 3e-14 YJ80\_YEAST HYPOTHETICAL 80.2 KD PROTEIN IN CPA2-
- CG5026 NNF1 INTERGENIC REGION \* 2e-19 SET domain binding factor CG5026 LD48015 66E5-66E5 ID:107C5
  - + nod motor\_protein \* DMKINLA\_3 nod \* KINESIN-LIKE PROTEIN NOD(aa) \* 4e-19 Cin8p kinesin-related \* 9e-46 similar to Kinesin motor domain; cDNA EST yk256h1.3 comes from t [kinesin // KINESIN\_MOTOR\_DOMAIN1 // KIN] CG1763 SD02282 10C5-10C6
- CG1763 ID:113H6
- + RpA-70 DNA\_replication\_factor \* DMRPA1\_3 RpA-70 \* REPLICATION PROTEIN A KD DNA-BINDING SUBUNIT (RP-A) (RF-A) (REPLICATION FACTOR-A PROTEIN 1) (SINGLE-STRANDED DNA-BINDING PROTEIN) CG9633 LD40420 84F-84F dup:4/4 CG9633 ID:99E5
- Unknown \* Fo 70 wook o
- + unknown \* 5e-70 weak similarity to HSP90 \* 1e-05 YXAQ\_BACSU HYPOTHETICAL 37.5 KD PROTEIN IN GNTR-HTPG
- CG2982 INTERGENIC REGION \* CG2982 LD40453 4B5-4B5 dup:2/2 ID:99E8
- CG4947 + unknown \* queuine trna-ribosyltransferase(aa) \* 7e-98 TGT\_CAEEL PUTATIVE QUEUINE TRNA-RIBOSYLTRANSFERASE

(TRNA-GUANINE TRANSGLYCOSYLA \* TGT\_BACSU QUEUINE TR CG4947 LP01967 21F1-21F1 ID:107H4

- + transcription\_factor \* DMSUHW\_6 su(Hw) \* crol \* zf43C \* 7e-08 zinc finger 30C [zf-C2H2 // ZINC\_FINGER\_C2H2 // ZINC\_FIN] CG7101 CG7101 GH24178 17E1-17E1 ID:77C7
- CG13773+ enzyme \* 4e-10 match to \* 3e-06 hypothetical protein \* [NLS\_BP] CG13773 GH23590 27C3-27C3 ID:76D12
- CG4300 + unknown spermine synthase SAM\_BIND CG4300 LD28457 ID:45F5
- CG11329+ unknown \* 1e-16 inserted at base 5' end of P element Inverse PCR \* \* CG11329 LD26217 26F6-26F6 ID:44C11
- + lic protein\_kinase (licorn) stress activated MAP kinase kinase 3 [Drosophila melanogaster] PROTEIN\_KINASE\_DOM,
- CG12244 PROTEIN\_KINASE\_ST, p] CG12244 SD04985 ID:118B12
- + az2 transcription\_factor \* zf43C \* 2e-09 AZF1\_YEAST ASPARAGINE-RICH ZINC FINGER PROTEIN AZF1 fin \* putative zinc finger protein \* 3e-09 similar to Zinc finger, C2H2 type (3 do [SERPIN // zf-C2H2 // ZINC\_FINGER\_C2H2] CG1605 43D3-43D3 dup:3/3 CG1605 ID:77E5
- + Lrr47 actin\_binding \* LRR47 protein fruit fly (Drosophila melanogaster)(aa) \* DMLRR47\_3 Lrr47 \* 2e-05 predicted using Genefinder; CG6098 Similarity to Glucose-repressible alco [LRR // LEURICHRPT] CG6098 GH06740 31E6-31E6 ID:59B11
- + motor\_protein \* kda paraneoplastic cerebellar degeneration-associated antigen Peptide, \* MYOSIN HEAVY CHAIN D (MHC
- CG1962 D)(aa) \* CLIP-190 \* 7e-05 microtubule binding pro [NLS\_BP] CG1962 38E-38E dup:3/5 ID:48G3
- CG11403+ DNA\_repair\_protein CG11403 LD24267 dup:2/2 ID:84C8
- CG10346+ chaperone \* CG10346 37A4-37A4 dup:1/3 ID:87G7
- + TfIIS transcription\_factor \* 2e-20 DST1 DNA strand transferase alpha \* 1e-124 TFS2\_DROME TRANSCRIPTION ELONGATION CG3710 FACTOR S-II (RNA POLYMERASE II ELONGATION FA \* 3e-42 TFS2\_CAEEL [TFIIS] CG3710 LD34766 35C1-35C1 ID:49F1
- + unknown \* BLASTX 4.0E-27 YER156C|Protein of unknown function(dna) \* HYPOTHETICAL 38.2 KD PROTEIN IN BEM2-NCB1 CG11980 INTERGENIC REGION(aa) \* 6e-60 similar to Yeast h CG11980 LD44814 85C3-85C3 dup:2/2 ID:103F9
- CG10018+ DNA\_repair\_protein homology to mouse and human SNM1 protein NLS\_BP CG10018 LD28027 dup:1/2 ID:45C8
- + Rbf cell\_cycle\_regulator \* DMRBFPRTN\_2 Rbf \* EST comes from the 3' UTR m \* 3e-24 similar to retinoblastoma proteins \* 1e-84 CG7413 RBL1 MOUSE RETINOBLASTOMA-LIKE PROTEIN (107 KD RETI CG7413 GH05946 1C2-1C2 ID:58D10
- CG3273 + unknown \* CG3273 GH05256 42B3-42B3 dup:2/2 ID:33E8
  - + bcd transcription\_factor \* DNA-binding-protein,transcription-factor(aa) \* DMBCDG\_3 bcd \* 1e-125 bcd protein \* 8e-52 homeotic
- CG1034 protein bicoid fruit fly (Drosophila ps[RNP\_1 // HOMEOBOX\_1 // homeobox // HOME] CG1034 LD27003 84D1-84D1 dup:1/2 ID:86A8 + RnrS enzyme \* 1e-113 RIR2\_YEAST RIBONUCLEOSIDE-DIPHOSPHATE REDUCTASE SMALL CHAIN (RIBONUCLEOTIDE R \* 1e-107 RIR2\_DROME PROBABLE RIBONUCLEOSIDE-DIPHOSPHATE REDUCTA [RIBORED\_SMALL] CG8975 LD32770 48D8-48D8 CG8975 ID:48D10
- + transcription\_factor \* 5e-87 inserted at base 5' end of P element Inverse PCR \* \* [zf-C2H2 // ZINC\_FINGER\_C2H2 // ZINC\_FIN] CG8961 CG8961 LD32631 53F5-53F5 ID:48D3
- + dah unknown \* dystrobrevin(aa) \* similar to the kDA Torpedo acetylcholine receptor-associated protein; similar to rat apodystrophin-CG6157 3, PIR Accession Number \* dah [ZF\_ZZ // ZZ] CG6157 LD47411 13C1-13C1 ID:106D2
- + transcription\_factor \* 7e-10 AZF1\_YEAST ASPARAGINE-RICH ZINC FINGER PROTEIN AZF1 fin \* 2e-37 transcription factor CG3445 YY1 homolog \* 1e-14 contains similarity to C2H2-type z[zf-C2H2 // ZINC\_FINGER\_C2H2 // ZINC\_FIN] CG3445 67B4-67B4 dup:3/4

## ID:56G10

- CG3918 + NLS BP, ZF CCHC CG3918 ID:56H5
- + unknown \* androgen-induced prostate proliferative shutoff associated protein(aa) \* protein(aa) \* 1e-28 unknown \* 6e-40 cDNA CG17509 EST comes from this gene elegan CG17509 GH12788 48E2-48E2 dup;3/3 ID:64H3
- + Orc2 DNA\_replication\_factor \* recognition complex, subunit (yeast homolog)-like(aa) \* ORIGIN RECOGNITION COMPLEX PROTEIN, SUBUNIT (XORC2)(aa) \* Orc2 \* ORIGIN RECOGNITION COMPLE[ALDOKETO\_REDUCTASE\_3 // SUBTILASE\_ASP] CG3041 GH13824 88A4-88A4 ID:40H11
- + TfIIEalpha transcription\_factor \* 6e-23 T2EA\_YEAST TRANSCRIPTION INITIATION FACTOR IIE, ALPHA SUBUNIT (TFIIE-ALPHA) CG10415 (TRA \* TFIIE large subunit \* 7e-35 cDNA EST yk210d12.5 comes from CG10415 GH11150 68C13-68C13 ID:38F9
- CG11484+ transcription\_factor\_binding \* [UBA] CG11484 LD47780 102D1-102D3 ID:106H12
- CG7825 + Rad17 DNA\_repair\_protein DNA repair protein ATP\_GTP\_A, ATP\_GTP\_A2, RFC CG7825 LD27993 ID:45C7
- + ial protein\_kinase \* Ipl1/aur serine/threonine kinase(aa) \* 2e-68 IPL1\_YEAST SERINE/THREONINE-PROTEIN KINASE IPL1 probable \* 1e-75 protein kinase (EC 2.7.1.37) aurora [PROTEIN\_KINASE\_ST // TYRKINASE // PROTE] CG6620 32B4-32B4 dup:4/5 CG6620 ID:98E9
- + DNA\_binding \* protein(aa) \* 3e-65 YEZ9\_YEAST PUTATIVE 90.2 KD ZINC FINGER PROTEIN IN CCA1-ADK2 INTERGENIC CG15835 REGION > \* 2e-26 Similarity to Human XE169 protein (SW:X CG15835 LD33386 43F5-43F5 ID:48H3
- + motor\_protein \* Mklp1 \* kinesin motor protein KIFC3(aa) \* 2e-20 NUF1\_YEAST NUF1 PROTEIN (SPINDLE POLY BODY SPACER PROTEIN SPC110) \* 4e-30 microtubule binding prote [kinesin // KINESIN\_MOTOR\_DOMAIN1 // KIN] CG4831 LD36932 32E4-CG4831 32E4 ID:96D1
- + E2f2 transcription\_factor \* E2f2 \* 1e-174 E2F-like transcription factor (E2F2) \* 7e-14 predicted using Genefinder; cDNA EST comes CG1071 from this \* 3e-18 E2F5 MOUSE TRANSCRIPTION FAC CG1071 GH13089 39B3-39B3 ID:40D1
- CG3510 + CycB cell\_cycle\_regulator G2/MITOTIC-SPECIFIC CYCLIN B CYCLINS, cyclin CG3510 dup:2/4 ID:43B3
- CG7730 + unknown \* CG7730 LD31138 73E4-73E4 dup:2/2 ID:47E12