



Margaret T. Fuller

Reed-Hodgson Professor of Human Biology, Katharine Dexter McCormick and Stanley McCormick Memorial Professor and Professor of Genetics and of Obstetrics/Gynecology (Reproductive and Stem Cell Biology)

Developmental Biology

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Professor, Developmental Biology
- Professor, Genetics
- Professor, Obstetrics & Gynecology - Reproductive Biology
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Reed-Hodgson Professor, Human Biology (2004-present)
- Katherine Dexter McCormick and Stanley McCormick Memorial Professor, Stanford University School of Medicine (2022 - present)
- Member, American Academy of Arts and Sciences (2006-present)
- Member, National Academy of Sciences (2008-present)
- Member, Institute of Medicine (2011-present)

PROFESSIONAL EDUCATION

- Ph. D., Mass Inst Tech , Microbiology (1980)
- B. A., Brandeis Univ. , Physics (1974)
- Postdoctoral, Indiana University , Developmental Genetics (1983)

LINKS

- FullerLab Website: <http://fullerlab.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My laboratory uses the *Drosophila* male germ line as a model to investigate how self-renewal, proliferation and differentiation are regulated in adult stem cell lineages. The central characteristic of adult stem cells is their long-term capacity to divide as relatively undifferentiated precursors while also producing daughter cells that initiate differentiation. Understanding the mechanisms that regulate stem cell specification and the choice between stem cell self-renewal and differentiation is crucial for realizing the potential of stem cells for regenerative medicine. We are using the *Drosophila* male germ line as a powerful genetic system to identify both the cell autonomous determinants and the extrinsic cell-cell interactions that govern stem cell specification, self-renewal, and differentiation. One of the great advantages of this system is that stem cells can be studied in situ, in the context of their normal support cells. Our results indicate that signals from surrounding somatic support cells specify asymmetric division of male germ line stem cells by inducing one daughter cell to self-renew stem cell identity while directing the other daughter cell to differentiate. A second focus of our work concerns how the developmental program directs cellular differentiation. Fundamental cellular functions like the cell cycle, the cytoskeleton, and the general transcription machinery are remodeled during development to give rise to specialized cell types. Several lines of research in our laboratory have recently converged on the molecular mechanisms underlying the developmentally programmed switch from proliferation to differentiation, a key regulatory point in the adult stem cell lineages that underlie tissue maintenance and repair. Failure to cleanly execute this switch may contribute to genesis of cancer. Our results implicate a number of molecular and cellular mechanisms in regulating this critical switch. We find that RNA binding proteins involved in translational control and alternative splicing act cell autonomously to regulate the cessation of proliferation and that progression of differentiation requires communication from associated somatic support cells. We discovered that a developmentally regulated alternate choice of site at which certain nascent transcripts are cut to form 3' ends, leading to production of novel mRNA isoforms with shortened 3'UTRs, controls dramatic changes in the suite of proteins expressed in differentiating spermatocytes compared to proliferating spermatogonia. We found that dramatic changes in chromatin open over 2000 new promoters with novel core sequence structure to turn on the new cell type specific transcription program when cells initiate spermatocyte differentiation. Some of the earliest genes turned on in this differentiation program encode chromatin associated proteins that prevent spurious opening of normally cryptic promoters, thus preventing massive misexpression of genes associated with the wrong cell type. Other transcripts upregulated with differentiation onset encode cell type-specific translational regulators that delay production of core G2/M cell cycle machinery to program the extended G2 phase of meiotic prophase. Our goal over the next 5 years is to map how these processes collaborate to form the regulatory circuitry that initiates then executes the switch from proliferation to differentiation.

CLINICAL TRIALS

- Testing the Safety and Tolerability of CX-4945 in Patients With Recurrent Medulloblastoma Who May or May Not Have Surgery, Recruiting

Teaching

COURSES

2023-24

- From Cells to Organisms: HUMBIO 3A (Win)

2022-23

- Cell and Developmental Biology: HUMBIO 3A (Win)

2021-22

- Cell and Developmental Biology: HUMBIO 3A (Win)

2020-21

- Cell and Developmental Biology: HUMBIO 3A (Win)
- Foundations in Experimental Biology: BIOS 200 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Naz Koska, John Vaughen, Xue Yang

Postdoctoral Faculty Sponsor

Lorenzo Gallicchio, Hannah Vicars

Doctoral Dissertation Advisor (AC)

Devon Harris, Sarah Stern, Eric Wong

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Developmental Biology (Phd Program)
- Genetics (Phd Program)
- Stem Cell Biology and Regenerative Medicine (Phd Program)

Publications

PUBLICATIONS

- **Developmental Regulation of Alternative Polyadenylation in an Adult Stem Cell Lineage.** *bioRxiv : the preprint server for biology*
Gallicchio, L., R Matias, N., Morales-Polanco, F., Nava, I., Stern, S., Zeng, Y., Fuller, M. T.
2024
- **Cell-type-specific interacting proteins collaborate to regulate the timing of Cyclin B protein expression in male meiotic prophase.** *Development (Cambridge, England)*
Baker, C. C., Gallicchio, L., Matias, N. R., Porter, D. F., Parsanian, L., Taing, E., Tam, C., Fuller, M. T.
2023
- **Developmentally regulated alternate 3' end cleavage of nascent transcripts controls dynamic changes in protein expression in an adult stem cell lineage.** *Genes & development*
Berry, C. W., Olivares, G. H., Gallicchio, L., Ramaswami, G., Glavic, A., Olguín, P., Li, J. B., Fuller, M. T.
2022
- **Fly Cell Atlas: A single-nucleus transcriptomic atlas of the adult fruit fly.** *Science (New York, N.Y.)*
Li, H., Janssens, J., De Waegeneer, M., Kolluru, S. S., Davie, K., Gardeux, V., Saelens, W., David, F. P., Brbic, M., Spanier, K., Leskovec, J., McLaughlin, C. N., Xie, et al
2022; 375 (6584): eabk2432
- **Developmental regulation of cell type-specific transcription by novel promoter-proximal sequence elements.** *Genes & development*
Lu, D. n., Sin, H. S., Lu, C. n., Fuller, M. T.
2020
- **Somatic support cells regulate germ cell survival through the Baz/aPKC/Par6 complex** *DEVELOPMENT*
Brantley, S. E., Fuller, M. T.
2019; 146 (8)
- **Developmental phosphoproteomics identifies the kinase CK2 as a driver of Hedgehog signaling and a therapeutic target in medulloblastoma.** *Science signaling*
Purzner, T., Purzner, J., Buckstaff, T., Cozza, G., Gholamin, S., Rusert, J. M., Hartl, T. A., Sanders, J., Conley, N., Ge, X., Langan, M., Ramaswamy, V., Ellis, et al
2018; 11 (547)
- **The conserved RNA helicase YTHDC2 regulates the transition from proliferation to differentiation in the germline** *ELIFE*
Bailey, A. S., Batista, P. J., Gold, R. S., Chen, Y., de Rooij, D. G., Chang, H. Y., Fuller, M. T.
2017; 6

- **Blocking promiscuous activation at cryptic promoters directs cell type-specific gene expression** *SCIENCE*
Kim, J., Lu, C., Srinivasan, S., Awe, S., Brehm, A., Fuller, M. T.
2017; 356 (6339): 717-721
- **Cell type-specific translational repression of Cyclin B during meiosis in males** *DEVELOPMENT*
Baker, C. C., Gim, B. S., Fuller, M. T.
2015; 142 (19): 3394-3402
- **Somatic cell lineage is required for differentiation and not maintenance of germline stem cells in Drosophila testes** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Lim, J. G., Fuller, M. T.
2012; 109 (45): 18477-18481
- **A Self-Limiting Switch Based on Translational Control Regulates the Transition from Proliferation to Differentiation in an Adult Stem Cell Lineage** *CELL STEM CELL*
Insko, M. L., Bailey, A. S., Kim, J., Olivares, G. H., Wapinski, O. L., Tam, C. H., Fuller, M. T.
2012; 11 (5): 689-700
- **Asymmetric inheritance of mother versus daughter centrosome in stem cell division** *SCIENCE*
Yamashita, Y. M., Mahowald, A. P., Perlin, J. R., Fuller, M. T.
2007; 315 (5811): 518-521
- **Tissue-specific TAFs counteract polycomb to turn on terminal differentiation** *SCIENCE*
Chen, X., Hiller, M., Sancak, Y., Fuller, M. T.
2005; 310 (5749): 869-872
- **Orientation of asymmetric stem cell division by the APC tumor suppressor and centrosome** *SCIENCE*
Yamashita, Y. M., Jones, D. L., Fuller, M. T.
2003; 301 (5639): 1547-1550
- **An organism-wide atlas of hormonal signaling based on the mouse lemur single-cell transcriptome.** *Nature communications*
Liu, S., Ezran, C., Wang, M. F., Li, Z., Awayan, K., Long, J. Z., De Vlaminck, I., Wang, S., Epelbaum, J., Kuo, C. S., Terrien, J., Krasnow, M. A., Ferrell, et al
2024; 15 (1): 2188
- **Emergent dynamics of adult stem cell lineages from single nucleus and single cell RNA-Seq of Drosophila testes.** *eLife*
Raz, A. A., Vida, G. S., Stern, S. R., Mahadevaraju, S., Fingerhut, J. M., Viveiros, J. M., Pal, S., Grey, J. R., Grace, M. R., Berry, C. W., Li, H., Janssens, J., Saelens, et al
2023; 12
- **YTHDC2 serves a distinct late role in spermatocytes during germ cell differentiation.** *bioRxiv : the preprint server for biology*
Bailey, A. S., Fuller, M. T.
2023
- **Regulation and function of alternative polyadenylation in development and differentiation.** *RNA biology*
Gallicchio, L., Olivares, G. H., Berry, C. W., Fuller, M. T.
2023; 20 (1): 908-925
- **Identification of Protein-RNA Interactions in Mouse Testis Tissue Using fRIP.** *Bio-protocol*
Bailey, A. S., Batista, P. J., Chang, H. Y., Fuller, M. T.
2022; 12 (1): e4286
- **Identification of Protein-RNA Interactions in Mouse Testis Tissue Using fRIP** *BIO-PROTOCOL*
Bailey, A., Batista, P., Chang, H., Fuller, M.
2022; 12 (01)
- **DREF Genetically Counteracts Mi-2 and Caf1 to Regulate Adult Stem Cell Maintenance.** *PLoS genetics*
Angulo, B., Srinivasan, S., Bolival, B. J., Olivares, G. H., Spence, A. C., Fuller, M. T.
2019; 15 (6): e1008187
- **The Dig Module and Clathrin-Mediated Endocytosis Regulate EGFR Signaling and Cyst Cell-Germline Coordination in the Drosophila Testis** *STEM CELL REPORTS*

- Papagiannouli, F., Berry, C., Fuller, M. T.
2019; 12 (5): 1024–40
- **The Dlg Module and Clathrin-Mediated Endocytosis Regulate EGFR Signaling and Cyst Cell-Germline Coordination in the Drosophila Testis.** *Stem cell reports*
Papagiannouli, F., Berry, C. W., Fuller, M. T.
2019
 - **Somatic support cells regulate germ cell survival through the Baz/aPKC/Par6 complex.** *Development (Cambridge, England)*
Brantley, S. E., Fuller, M. T.
2019
 - **Drosophila doublefault protein coordinates multiple events during male meiosis by controlling mRNA translation.** *Development (Cambridge, England)*
Sechi, S. n., Frappaolo, A. n., Karimpour-Ghahnavieh, A. n., Gottardo, M. n., Burla, R. n., Di Francesco, L. n., Szafer-Glusman, E. n., Schininà, E. n., Fuller, M. T., Saggio, I. n., Riparbelli, M. G., Callaini, G. n., Giansanti, et al
2019
 - **Testis-specific ATP synthase peripheral stalk subunits required for tissue-specific mitochondrial morphogenesis in Drosophila.** *BMC cell biology*
Sawyer, E. M., Brunner, E. C., Hwang, Y., Ivey, L. E., Brown, O., Bannon, M., Akrobetu, D., Sheaffer, K. E., Morgan, O., Field, C. O., Suresh, N., Gordon, M. G., Gunnell, et al
2017; 18 (1): 16
 - **Testis-specific ATP synthase peripheral stalk subunits required for tissue-specific mitochondrial morphogenesis in Drosophila** *BMC CELL BIOLOGY*
Sawyer, E. M., Brunner, E. C., Hwang, Y., Ivey, L. E., Brown, O., Bannon, M., Akrobetu, D., Sheaffer, K. E., Morgan, O., Field, C. O., Suresh, N., Gordon, M. G., Gunnell, et al
2016; 18
 - **Differentiation in Stem Cell Lineages and in Life: Explorations in the Male Germ Line Stem Cell Lineage** *ESSAYS ON DEVELOPMENTAL BIOLOGY, PT A*
Fuller, M. T.
2016; 116: 375-390
 - **Recruitment of Mediator Complex by Cell Type and Stage-Specific Factors Required for Tissue-Specific TAF Dependent Gene Activation in an Adult Stem Cell Lineage** *PLOS GENETICS*
Lu, C., Fuller, M. T.
2015; 11 (12)
 - **Recruitment of Mediator Complex by Cell Type and Stage-Specific Factors Required for Tissue-Specific TAF Dependent Gene Activation in an Adult Stem Cell Lineage.** *PLoS genetics*
Lu, C., Fuller, M. T.
2015; 11 (12): e1005701
 - **Exocyst-Dependent Membrane Addition Is Required for Anaphase Cell Elongation and Cytokinesis in Drosophila** *PLOS GENETICS*
Giansanti, M. G., Vanderleest, T. E., Jewett, C. E., Sechi, S., Frappaolo, A., Fabian, L., Robinett, C. C., Brill, J. A., Loerke, D., Fuller, M. T., Blankenship, J. T.
2015; 11 (11)
 - **Escargot Restricts Niche Cell to Stem Cell Conversion in the Drosophila Testis** *CELL REPORTS*
Voog, J., Sandall, S. L., Hime, G. R., Resende, L. P., Loza-Coll, M., Aslanian, A., Yates, J. R., Hunter, T., Fuller, M. T., Jones, L.
2014; 7 (3): 722-734
 - **GOLPH3 Is Essential for Contractile Ring Formation and Rab11 Localization to the Cleavage Site during Cytokinesis in Drosophila melanogaster** *PLOS GENETICS*
Sechi, S., Colotti, G., Belloni, G., Mattei, V., Frappaolo, A., Raffa, G. D., Fuller, M. T., Giansanti, M. G.
2014; 10 (5)
 - **The actin-binding protein profilin is required for germline stem cell maintenance and germ cell enclosure by somatic cyst cells** *DEVELOPMENT*
Shields, A. R., Spence, A. C., Yamashita, Y. M., Davies, E. L., Fuller, M. T.
2014; 141 (1): 73-82
 - **The Histone Variant His2Av is Required for Adult Stem Cell Maintenance in the Drosophila Testis.** *PLoS genetics*
Morillo Prado, J. R., Srinivasan, S., Fuller, M. T.
2013; 9 (11)

- **The histone variant His2Av is required for adult stem cell maintenance in the Drosophila testis.** *PLoS genetics*
Morillo Prado, J. R., Srinivasan, S., Fuller, M. T.
2013; 9 (11)
- **The polyubiquitin gene Ubi-p63E is essential for male meiotic cell cycle progression and germ cell differentiation in Drosophila.** *Development*
Lu, C., Kim, J., Fuller, M. T.
2013; 140 (17): 3522-3531
- **Three levels of regulation lead to protamine and Mst77F expression in Drosophila** *DEVELOPMENTAL BIOLOGY*
Barckmann, B., Chen, X., Kaiser, S., Jayaramaiah-Raja, S., Rathke, C., Dottermusch-Heidel, C., Fuller, M. T., Renkawitz-Pohl, R.
2013; 377 (1): 33-45
- **The transcriptional regulator lola is required for stem cell maintenance and germ cell differentiation in the Drosophila testis** *DEVELOPMENTAL BIOLOGY*
Davies, E. L., Lim, J. G., Joo, W. J., Tam, C. H., Fuller, M. T.
2013; 373 (2): 310-321
- **Polycomb Group Genes Psc and Su(z)2 Maintain Somatic Stem Cell Identity and Activity in Drosophila** *PLOS ONE*
Prado, J. R., Chen, X., Fuller, M. T.
2012; 7 (12)
- **Mutations in Cog7 affect Golgi structure, meiotic cytokinesis and sperm development during Drosophila spermatogenesis** *JOURNAL OF CELL SCIENCE*
Belloni, G., Sechi, S., Riparbelli, M. G., Fuller, M. T., Callaini, G., Giansanti, M. G.
2012; 125 (22): 5441-5452
- **What Drosophila Spermatocytes Tell Us About the Mechanisms Underlying Cytokinesis** *CYTOSKELETON*
Giansanti, M. G., Fuller, M. T.
2012; 69 (11): 869-881
- **A Novel Human Polycomb Binding Site Acts As a Functional Polycomb Response Element in Drosophila** *PLOS ONE*
Cuddapah, S., Roh, T., Cui, K., Jose, C. C., Fuller, M. T., Zhao, K., Chen, X.
2012; 7 (5)
- **The receptor tyrosine phosphatase Lar regulates adhesion between Drosophila male germline stem cells and the niche** *DEVELOPMENT*
Srinivasan, S., Mahowald, A. P., Fuller, M. T.
2012; 139 (8): 1381-1390
- **Polycomb group genes Psc and Su(z)2 maintain somatic stem cell identity and activity in Drosophila.** *PloS one*
Morillo Prado, J. R., Chen, X., Fuller, M. T.
2012; 7 (12)
- **Germline Stem Cells** *COLD SPRING HARBOR PERSPECTIVES IN BIOLOGY*
Spradling, A., Fuller, M. T., Braun, R. E., Yoshida, S.
2011; 3 (11)
- **Role of Survivin in cytokinesis revealed by a separation-of-function allele** *MOLECULAR BIOLOGY OF THE CELL*
Szafer-Glusman, E., Fuller, M. T., Giansanti, M. G.
2011; 22 (20): 3779-3790
- **Sequential changes at differentiation gene promoters as they become active in a stem cell lineage** *DEVELOPMENT*
Chen, X., Lu, C., Prado, J. R., Eun, S. H., Fuller, M. T.
2011; 138 (12): 2441-2450
- **E-Cadherin Is Required for Centrosome and Spindle Orientation in Drosophila Male Germline Stem Cells** *PLOS ONE*
Inaba, M., Yuan, H., Salzmann, V., Fuller, M. T., Yamashita, Y. M.
2010; 5 (8)
- **The Drosophila SUN protein Spag4 cooperates with the coiled-coil protein Yuri Gagarin to maintain association of the basal body and spermatid nucleus** *JOURNAL OF CELL SCIENCE*
Kracklauer, M. P., Wiora, H. M., Deery, W. J., Chen, X., Bolival, B., Romanowicz, D., Simonette, R. A., Fuller, M. T., Fischer, J. A., Beckingham, K. M.

2010; 123 (16): 2763-2772

- **Phosphatidylinositol 4,5-bisphosphate Directs Spermatid Cell Polarity and Exocyst Localization in Drosophila** *MOLECULAR BIOLOGY OF THE CELL*
Fabian, L., Wei, H., Rollins, J., Noguchi, T., Blankenship, J. T., Bellamkonda, K., Polevoy, G., Gervais, L., Guichet, A., Fuller, M. T., Brill, J. A.
2010; 21 (9): 1546-1555
- **Accumulation of a differentiation regulator specifies transit amplifying division number in an adult stem cell lineage** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Insko, M. L., Leon, A., Tam, C. H., McKearin, D. M., Fuller, M. T.
2009; 106 (52): 22311-22316
- **TRAPPII is required for cleavage furrow ingression and localization of Rab11 in dividing male meiotic cells of Drosophila** *JOURNAL OF CELL SCIENCE*
Robinett, C. C., Giansanti, M. G., Gatti, M., Fuller, M. T.
2009; 122 (24): 4526-4534
- **Regulation of self-renewal, proliferation and differentiation in an adult stem cell lineage** *16th Annual Conference of the International-Society-of-Development-Biologists*
Fuller, M. T., Davies, E., Spence, A.
ELSEVIER SCIENCE BV.2009: S3-S3
- **Molecular Evolution of the Testis TAFs of Drosophila** *MOLECULAR BIOLOGY AND EVOLUTION*
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2009; 26 (5): 1103-1116
- **Centrosome misorientation reduces stem cell division during ageing** *NATURE*
Cheng, J., Turkel, N., Hemati, N., Fuller, M. T., Hunt, A. J., Yamashita, Y. M.
2008; 456 (7222): 599-U40
- **A role for very-long-chain fatty acids in furrow ingression during cytokinesis in Drosophila spermatocytes** *CURRENT BIOLOGY*
Szafer-Glusman, E., Giansanti, M. G., Nishihama, R., Bolival, B., Pringle, J., Gatti, M., Fuller, M. T.
2008; 18 (18): 1426-1431
- **Moesin and its activating kinase Slik are required for cortical stability and microtubule organization in mitotic cells** *JOURNAL OF CELL BIOLOGY*
Carreno, S., Kouranti, I., Glusman, E. S., Fuller, M. T., Echard, A., Payre, F.
2008; 180 (4): 739-746
- **Asymmetric centrosome behavior and the mechanisms of stem cell division** *JOURNAL OF CELL BIOLOGY*
Yamashita, Y. M., Fuller, M. T.
2008; 180 (2): 261-266
- **Regulation of Self-renewal and Differentiation in Adult Stem Cell Lineages: Lessons from the Drosophila Male Germ Line** *73rd Cold Spring Harbor Symposium on Quantitative Biology*
Davies, E. L., Fuller, M. T.
COLD SPRING HARBOR LABORATORY PRESS.2008: 137-145
- **Centrosome misorientation reduces stem cell division during ageing.** *Nature*
Cheng, J., N. Turkel, N. Hemati, M. T. Fuller, A. J. Hunt, Y. M. Yamashita
2008; 456: 599-604
- **The Drosophila homolog of the Exo84 exocyst subunit promotes apical epithelial identity** *JOURNAL OF CELL SCIENCE*
Blankenship, J. T., Fuller, M. T., Zallen, J. A.
2007; 120 (17): 3099-3110
- **Translational control of meiotic cell cycle progression and spermatid differentiation in male germ cells by a novel eIF4G homolog** *DEVELOPMENT*
Baker, C. C., Fuller, M. T.
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- **Antagonistic roles of Rac and Rho in organizing the germ cell microenvironment** *CURRENT BIOLOGY*
Sarkar, A., Parikh, N., Hearn, S. A., Fuller, M. T., Tazuke, S. I., Schulz, C.
2007; 17 (14): 1253-1258

- **Male and female *Drosophila* germline stem cells: Two versions of immortality** *SCIENCE*
Fuller, M. T., Spradling, A. C.
2007; 316 (5823): 402-404
- **Phosphorylation of histone H4 Ser1 regulates sporulation in yeast and is conserved in fly and mouse spermatogenesis** *GENES & DEVELOPMENT*
Krishnamoorthy, T., Chen, X., Govin, J., Cheung, W. L., Dorsey, J., Schindler, K., Winter, E., Allis, C. D., Guacci, V., Khochbin, S., Fuller, M. T., Berger, S. L.
2006; 20 (18): 2580-2592
- **Stem cells and cancer: Two faces of eve** *CELL*
Clarke, M. F., Fuller, M.
2006; 124 (6): 1111-1115
- **Histone modifications in spermatogenesis** *31st Annual Meeting of the American-Society-of-Andrology*
Chang, S. L., Chen, X., McCallum, S., Fuller, M. T.
AMER SOC ANDROLOGY, INC.2006: 34-34
- **The class IPITP giotto is required for *Drosophila* cytokinesis** *CURRENT BIOLOGY*
Giansanti, M. G., Bonaccorsi, S., Kurek, R., Farkas, R. M., Dimitri, P., Fuller, M. T., Gatti, M.
2006; 16 (2): 195-201
- **Asymmetric stem cell division and function of the niche in the *Drosophila* male germ line** *INTERNATIONAL JOURNAL OF HEMATOLOGY*
Yamashita, Y. M., Fuller, M. T.
2005; 82 (5): 377-380
- **Signaling in stem cell niches: lessons from the *Drosophila* germline** *JOURNAL OF CELL SCIENCE*
Yamashita, Y. M., Fuller, M. T., Jones, D. L.
2005; 118 (4): 665-672
- **Belle is a *Drosophila* DEAD-box protein required for viability and in the germ line** *DEVELOPMENTAL BIOLOGY*
Johnstone, O., Deuring, R., Bock, R., Linder, P., Fuller, M. T., Lasko, P.
2005; 277 (1): 92-101
- **Testis-specific TAF homologs collaborate to control a tissue-specific transcription program** *DEVELOPMENT*
Hiller, M., Chen, X., Pringle, M. J., Suchorolski, M., Sancak, Y., Viswanathan, S., Bolival, B., Lin, T. Y., Marino, S., Fuller, M. T.
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Hwa, J. J., Zhu, A. J., Hiller, M. A., Kon, C. Y., Fuller, M. T., Santel, A.
2004; 572 (1-3): 141-146
- **A misexpression screen reveals effects of bag-of-marbles and TGF beta class signaling on the *Drosophila* male germ-line stem cell lineage** *GENETICS*
Schulz, C., Kiger, A. A., Tazuke, S. I., Yamashita, Y. M., Pantalena, L. C., Jones, D. L., Wood, C. G., Fuller, M. T.
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Giansanti, M. G., Farkas, R. M., Bonaccorsi, S., Lindsley, D. L., Wakimoto, B. T., Fuller, M. T., Gatti, M.
2004; 15 (5): 2509-2522
- **Regulation of transcription of meiotic cell cycle and terminal differentiation genes by the testis-specific Zn-finger protein matotopetli** *DEVELOPMENT*
Perezgasga, L., Jiang, J. Q., Bolival, B., Hiller, M., Benson, E., Fuller, M. T., White-Cooper, H.
2004; 131 (8): 1691-1702
- **Germ line stem cell differentiation in *Drosophila* requires gap junctions and proceeds via an intermediate state** *DEVELOPMENT*
Gilboa, L., Forbes, A., Tazuke, S. I., Fuller, M. T., Lehmann, R.
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Santel, A., Frank, S., Gaume, B., Herrier, M., Youle, R. J., Fuller, M. T.
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Farkas, R. M., Giansanti, M. G., Gatti, M., Fuller, M. T.
2003; 14 (1): 190-200
- **Spatial and temporal association of Bax with mitochondrial fission sites, Drp1, and Mfn2 during apoptosis** *JOURNAL OF CELL BIOLOGY*
Karbowski, M., Lee, Y. J., Gaume, B., Jeong, S. Y., Frank, S., Nechushtan, A., Santel, A., Fuller, M., Smith, C. L., Youle, R. J.
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Schulz, C., Wood, C. G., Jones, D. L., Tazuke, S. I., Fuller, M. T.
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Hwa, J. J., Hiller, M. A., Fuller, M. T., Santel, A.
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