**Curriculum Vitae**

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature  Date March 7, 2022

1. **Personal Information**
	1. UID, 107688828

Pick, Leslie

Department of Entomology

4291 Fieldhouse Drive

University of Maryland

College Park, MD 20742

lpick@umd.edu

Lab website: https://lpicklab.weebly.com/

* 1. Academic Appointments at UMD

2003-present Associate, Full Professor, Department of Entomology, University of Maryland, College Park, Maryland

2005-present Affiliate, Cell Biology & Molecular Genetics Department

* 1. Administrative Appointments at UMD

2004 -2008 Director, Graduate Program in Molecular & Cell Biology

2013-present Chair, Department of Entomology

* 1. Other Employment

1979-1980 Research Technician, Albert Einstein College of Medicine, N.Y., Dr. S.Gluecksohn-Waelsch

1980-1985 Graduate Student, Albert Einstein College of Medicine, N.Y., Dr. J. Hurwitz

1986-1989 Postdoctoral Fellow, Biozentrum, University of Basel, Switzerland, Dr. W. J. Gehring

1990-2003 Assistant, Associate Professor, Brookdale Center for Molecular Biology, Mount Sinai School of Medicine, N.Y.

2012-2013 Program Director, Division of Integrated Organismal Sciences, National Science Foundation (Rotater)

* 1. Educational Background

1977 B.A., Wesleyan University, Middletown, CT,

Psychology/Biology Joint Major

1986 Ph.D., Albert Einstein College of Medicine, Bronx, N.Y.

* 1. Continuing Education

Courses audited: Molecular Systematics (Professor Charles Mitter); Integrated Pest Management (Professor Kelly Hamby)

Academics for Black Survival and Wellness, Anti-Racism Training. 7-day Training, summer 2020

Working group, “Anti-Racist Learning Communities”, University of Maryland. (Spring 2021).

* 1. Professional Certifications, Licenses, and Memberships

**Member**

Genetics Society of America

Society for Developmental Biology

AAAS

Entomological Society of America

Pan American Society for Evolutionary Developmental Biology

1. Research, Scholarly, Creative and/or Professional Activities
	* 1. **Books Edited**

Pick L., Editor (2017) Fly Models of Human Diseases in Current Topics in Developmental Biology, 121:xv-xix. doi: 10.1016/S0070-2153(16)30214-9. PMID:28057310

* 1. **Book Chapters**

Perkins, K.K., Furneaux, H.M., Freyer, G.A., Arenas, J., Pick, L.[[1]](#footnote-1) and Hurwitz, J. (1986) Analysis of mRNA splicing using fractions isolated from HeLa cells and mutant adenovirus pre-mRNAs. In Cancer Cells 4/ Tumor Viruses, Cold Spring Harbor Laboratory, N.Y.

Pick, L.3, Furneaux, H. and Hurwitz, J. (1990) Wheat germ RNA ligase and associated activities. Methods in Enzymology 181:480 - 499.

Zhao, J. J., Vanario-Alonso, C.E. and Pick, L.5 (1999) Targeted ribozymes to study gene function in *Drosophila*. In "Intracellular Ribozyme Applications: Principles and Protocols" Ed. J. J. Rossi and L. Couture. Horizon Scientific Press, Norfolk, England.

Pick, L.10, Lohr, U. and Yu, Y. (2000) A Double Interaction Screen to isolate DNA binding and protein tethered transcription factors. In "Yeast Hybrid Techniques - genetic assay system for protein interactions." Ed. L. Zhu and G.J. Hannon. Eaton Publishing, Natick, MA.

Pick, L.10 Shultz, J., Anderson, W.R. and Woodard, C. (2006) The *Ftz*-F1 family: orphan nuclear receptors regulated by novel protein-protein interactions. In "Nuclear Receptors in Development." R. Taneja, Volume editor.

Heffer, A. and Pick, L.10 (2013) “Conservation and variation in *Hox* genes: how insect

models pioneered the evo-devo field.” Invited review for Annual Reviews of

Entomology 58:161–79. doi: 10.1146/annurev-ento-120811-153601.

Cheatle Jarvela, A.M. and Pick, L.5 (2016) Evo-Devo: discovery of diverse mechanisms regulating development. In “50th anniversary volume of Current Topics in Developmental Biology” Ed. P. Wassarman, 117:253-74. PMID:26969982

Graham, P. and Pick, L.5 (2017) “*Drosophila* as a Model for Diabetes and Diseases of Insulin Resistance.” In Current Topics in Developmental Biology, 121:397-419. doi: 10.1016/bs.ctdb.2016.07.011.

Cheatle Jarvela, A.M. and Pick, L.5 (2017) “The Function and Evolution of Nuclear Receptors in Insect Embryonic Development” In Current Topics in Developmental Biology, 125:39-70. doi: 10.1016/bs.ctdb.2017.01.003.

* + 1. **Refereed Journal Articles**

Gluecksohn-Waelsch, S., Teicher, L.S., Pick, L.[[2]](#footnote-2) and Cori, C.F. (1980) Genetic rescue of lethal genotypes in the mouse. **Developmental Genetics** 1:219-228.

Cori, C.F., Gluecksohn-Waelsch, S., Klinger, H.P., Pick, L.2, Schlagman, S.L., Teicher, L.S. and Wang-Chang, H.F. (1981) Complementation of gene deletions by cell hybridization. **Proc. Natl. Acad. Sci. USA** 78:479-483.

Pick, L.[[3]](#footnote-3), Schiffer, S.G., Robinson, C. and Gluecksohn-Waelsch, S. (1982) Tyrosine aminotransferase induced in cells genetically and epigenetically deficient for this enzyme. **Developmental Biology** 92:275-278.

Furneaux, H., Pick, L.2 and Hurwitz, J. (1983) Isolation and characterization of RNA ligase from wheat germ. **Proc. Natl. Acad. Sci. USA** 80:3933-3937.

Pick, L.3 and Hurwitz, J. (1986) Purification of wheat germ RNA ligase I: Characterization of a ligase-associated 5´-hydroxyl polynucleotide kinase activity. **J. Biol. Chem**. 261:6684-6693.

Pick, L.3, Furneaux, H. and Hurwitz, J. (1986) Purification of wheat germ RNA ligase II: Mechanism of action of wheat germ RNA ligase. **J. Biol. Chem.** 261:6694-6704.

Freyer, G.A., Arenas, J., Perkins, K.K., Furneaux, H.M., Pick, L.2, Young, B., Roberts, R.J. and Hurwitz, J. (1986) In vitro formation of a lariat structure containing a G2´-5´G linkage. **J. Biol. Chem**. 262:4267-4273.

Giller, T., Brunner, L., Pick, L.[[4]](#footnote-4) and Brack, Ch. (1987) A homologous in vitro system to analyze transcription of mouse immunoglobulin µ heavy-chain gene. **Eur. J. Biochem**. 172:679-685.

Pick, L.3, Schier, A., Affolter, M., Schmidt-Glenewinkel, T. and Gehring, W.J. (1990) Analysis of the *ftz* upstream element: germ layer specific enhancers are independently autoregulated. **Genes & Development** 4: 1224 - 1239.

Amati, B., Pick, L.2, LaRoche,T. and Gasser, S. (1990) Nuclear scaffold attachment stimulates, but is not essential for ARS activity in Saccharomyces cerevisiae: analysis of the *Drosophila ftz* SAR. **EMBO Journal** 9, 4007-4016.

Furukubo-Tokunaga, K., Muller, M., Affolter, M., Pick, L.2, Kloter, U. and Gehring, W.J. (1992) In vivo Analysis of the Helix-Turn-Helix Motif of the *fushi tarazu* Homeodomain of *Drosophila melanogaster*. **Genes & Development** 6: 1082-1096.

Zhao, J., Lazzarini, R.A. and Pick, L.[[5]](#footnote-5) (1993) The mouse *Hox 1.3* gene is functionally equivalent to the *Drosophila Sex combs reduced* gene. **Genes & Development** 7: 343-354.

Han, W., Yu, Y., Altan, N.^ and Pick, L.5 (1993) Multiple proteins interact with the *fushi tarazu* proximal enhancer. **Molecular & Cellular Biology** 13: 5549-5559.

Zhao, J. and Pick, L.5 (1993) Generating loss-of-function phenotypes of the *fushi tarazu* gene with a targeted ribozyme in *Drosophila*. **Nature** 365:448-451.

Gutjahr, T. Alonso, C. Pick, L.4 and Noll, M. (1994) Multiple regulatory elements direct the complex expression pattern of the *Drosophila* segmentation gene paired. **Mechanisms of Development** 48: 119-128.

Yu, Y. and Pick, L.5 (1995) Non-periodic cues generate seven *ftz* stripes in the *Drosophila* embryo. **Mechanisms of Development** 50: 163-175.

Jost, W., Yu, Y., Pick, L.[[6]](#footnote-6), Preiss, A. and Maier, D. (1995) Structure and regulation of the *fushi tarazu* gene from *Drosophila hydei*. **Roux’s Archives of Developmental Biology** 205: 160-170.

Vanario-Alonso, C.E., O’Hara, E., McGinnis, W. and Pick, L.5 (1995) Targeted ribozymes reveal a conserved function of the *Drosophila paired* gene in sensory organ development. **Mechanisms of Development** 53: 323-328.

Zhao, J.J., Lazzarini, R.A. and Pick, L.5 (1996) Functional dissection of the mouse *HoxA5* gene. **EMBO Journal** 15: 1313-1322.

Yu, Y., Li, W., Su, K., Yussa, M., Han, W., Perrimon, N. and Pick, L.5 (1997) The nuclear hormone receptor *Ftz*-F1 is a cofactor for the *Drosophila* homeodomain protein *Fushi tarazu*. **Nature**  358: 552-555.

Han, W., Yu, Y., Kohanski, R.A. and Pick, L.5 (1998) An essential site in the *ftz* proximal enhancer interacts with multiple transcriptional activators. **Molecular & Cellular Biology** 18: 3384-3394.

Pick, L.[[7]](#footnote-7) and Lawrence, P.A. (1998) How does the *fushi tarazu* gene activate *engrailed* in the *Drosophila* embryo? **Developmental Genetics** 23:28-34.

Yu, Y., Yussa, M., Song, J., Hirsch, J. and Pick, L.5 (1999) A Double Interaction Screen identifies positive and negative *ftz* gene regulators and *Ftz*-interacting protein. **Mechanisms of Development** 83: 95-105.

Yussa, M., Lohr, U., Su, K. and Pick, L.5 (2001) The nuclear receptor *Ftz*-F1 and homeodomain protein *Ftz* interact through evolutionarily conserved protein domains. **Mechanisms of Development** 107: 39-52.

Lohr, U., Yussa, M. and Pick, L.5 (2001) *Drosophila fushi tarazu*: a gene on the border of homeotic function. **Current Biology** 11:1 403-1412.

Song, J., Wu, L., Chen, Z., Kohanski, R.A. and Pick, L.5 (2003) Axons guided by Insulin Receptor in the *Drosophila* Visual System. **Science** 300: 502 - 505. Additional online Supplementary Material. Comment in same issue, Dickson, B.J. (2003) Science 300:440-1

Lohr, U. and Pick, L.5 (2005) Cofactor interaction motifs and the cooption of a homeotic Hox protein into the segmentation pathway of *Drosophila melanogaster*. **Current Biology** 15: 643-649.

Oishi,K., Gaengel,K., Kamiya,K., Kim, I-K., Ying, H., Weber, U., Perkins,L.,

Tartaglia, M., Mlodzik, M., Pick, L.[[8]](#footnote-8) and Gelb, B.D. (2006) Transgenic *Drosophila* models of Noonan syndrome-causing *RTPN11* gain-of-function mutations. **Human Molecular Genetics** 15: 543-553.

Bowler, T., Kosman, D., Anderson, W.R. and Pick, L.5 (2006) A computational screen to identify genomic targets of the *Ftz*/*Ftz*-F1 homeodomain/nuclear receptor heterodimer. **Developmental Biology** 299:78-90.

Junell, A., Uvell, H., Pick, L.[[9]](#footnote-9) and Engström, Y. (2007) Isolation of regulators of *Drosophila* immune defense genes by a double interaction screen in yeast. **Insect Biochemistry & Molecular Biology** 37: 202-212.

Hou, H.Y., Heffer, A., Anderson, W.R., Liu, J., Bowler, T. and Pick, L.5 (2009) Stripy *Ftz* target genes are coordinately regulated by *Ftz*-F1. **Developmental Biology** 335:442-53. (Cover Photo) doi: 10.1016/j.ydbio.2009.08.004

Zhang, H., Liu, J., Li, C.R., Momen, B., Kohanski, R.A. and Pick, L.5 (2009) Deletion of *Drosophila* Insulin-Like peptides causes growth defects and metabolic abnormalities. **Proc. Natl. Acad. Sci. USA**. 106:19617-19622

Junell, A., Uvell, H., Davis, M.M., Edlundh-Rose, E., Antonsson, A., Pick, L.9, Engström, Y. (2010) The POU transcription factor Drifter/Ventral veinless regulates expression of *Drosophila* immune defense genes. **Molecular & Cellular Biology** 14:3672-84.

Heffer, A., Shultz, J. and Pick, L.5 (2010) Surprising flexibility in a conserved transcription factor over 550 million years of evolution. **Proc. Natl. Acad. Sci. USA** 107: 18040-18045. doi: 10.1073/pnas.1010746107.

Heffer, A. and Pick, L.5 (2011) Rapid isolation of gene homologs across taxa: Efficient identification and isolation of gene orthologs from non-model organism genomes, a technical report. **Evo Devo**. 2:7. doi: 10.1186/2041-9139-2-7.

Heffer, A., Xiang, J. and Pick, L.5 (2013) Variation and constraint in *Hox* gene

evolution. **Proc. Natl. Acad. Sci. USA** 110:2211-2216. doi:10.1073/pnas.1210847110.

Lu, Y., Anderson, W.R., Zhang, H., Feng, S., and Pick, L.5 (2013) Functional conservation of *Drosophila* *FTZ*-F1 and its mammalian homologs suggests ligand-independent regulation of NR5A family transcriptional activity. **Development, Genes and Evolution** 223:199-205. doi: 10.1007/s00427-012-0435-3.

Heffer, A., Mahaffey, J., Grubbs, N. and Pick, L.5 (2013) The evolving role of the orphan nuclear receptor *ftz-f1*, a pair-rule segmentation gene. **Evolution & Development** 15:406-17. doi: 10.1111/ede.12050

Crivat, G., Lizunov, V.A., Li, C. R., Stenkula, K.G., Zimmerberg, J., Cushmam, S.W., and Pick, L.5 (2013) Insulin stimulates translocation of human GLUT4 to the membrane in fat bodies of transgenic *Drosophila melanogaster*. **PLoS One** 10.1371/journal.pone.0077953.

Li, C.R., Guo, D. and Pick, L.5 (2014) Independent signaling by *Drosophila* insulin receptor for axon guidance and growth. **Frontiers Physiology** 4:385. doi: 10.3389/fphys.2013.00385

Ioannidis, P., Lu, Y., Kumar, N., Creasy, T., Daugherty, S., Chibucos, M.C., Orvis, J.,Shetty,A., Ott, S., Flowers, M., Sengamalay, N., Tallon, L.J., Pick, L.11, Dunning Hotopp, J.C. (2014) Rapid transcriptome sequencing of an invasive pest, the brown marmorated stink bug *Halyomorpha halys*. **BMC Genomics** 15:738  doi:10.1186/1471-2164-15-738.

Xiang, J., Forrest, I.S., and Pick, L.5 (2015) *Dermestes maculatus*: an intermediate-germ beetle model system for evo-devo, **Evo Devo** 6:32. DOI: 10.1186/s13227-015-0028-0.

Xiang, J., Reding, K. and Pick, L.5 (2016) Rearing and double-stranded RNA-mediated gene knockdown in the hide beetle, *Dermestes maculatus*. **J Vis Exp.** Dec 28;(118). doi: 10.3791/54976. PMID:28060304.

Field, A., Xiang, J., Anderson W.R., and Pick, L.5 (2016) Activation of *Ftz*-F1-resposnive genes through *Ftz*/*Ftz*-F1 dependent enhancers. **PLoS One** 11(10):e0163128. doi: 10.1371/journal.pone.0163128.

Lu, Y., Chen, M., Reding, L. and Pick, L.5 (2017) Molecular approaches to study gene expression and function in an invasive hemipteran, *Halyomorpha halys*. **Evo Devo** 8:15 doi: 10.1186/s13227-017-0078-6.

Xiang, J., Reding, K., Heffer, A. and Pick, L.5 (2017) Conservation and variation of pair-rule patterning mechanisms revealed in *Dermestes maculatus*. **Development** 144:4625-4636. doi: 10.1242/dev.154039.

Daffern, N., Chen, Z., Zhang, Y., Pick, L.11, and Radhakrishnan,I. (2018) Solution NMR Studies of the Ligand-Binding Domain of an Orphan Nuclear Receptor Reveals a Dynamic Helix in the Ligand-Binding Pocket. **Biochemistry** 57:1977-1986. doi10.1021/acs.biochem.8b00069. PMID:29547262

Splinter, K., Adams D.R., Bacino, C.A., Bellen, H.J., Bernstein, J.A., Cheatle-Jarvela, A.M., Eng, C.M., Esteves, C., Gahl, W.A., Hamid, R., Jacob, H.J., Kikani, B.^, Koeller, D.M., Kohane, I.S., Lee, B.H., Loscalzo, J., Luo, X., McCray, A.T., Metz, A.T., Mulvihill, J.J., Nelson, S.F., Palmer, C.G.S., Phillips, J.A. 3rd, Pick, L.11, Postlethwait, J.H., Reuter, C., Shashi, V., Sweetser, D.A., Tifft, C.J., Walley, N.M., Wangler, M.F., Westerfield, M., Wheeler, M.T., Wise, A.L., Worthey, E.A., Yamamoto, S., Ashley, E.A., Undiagnosed Diseases Network. (2018) Actionable Clincal Diagnosis for Patients with Undiagnosed Disease. **New England Journal of Medicine** 379:2131-2139. doi: 10.1056/NEJMoa1714458.PMID:30304647

Panfilio, K.A., Vargas Jentzsch, I.M., Benoit, J.B., Erezyilmaz, D., Suzuki, Y., Colella, S., Robertson, H.M., Poelchau, M.F., Waterhouse, R.M., Ioannidis, P., Weirauch, M.T., Hughes, D.S.T., Murali, S.C., Werren, J.H., Jacobs , C.G.C., Duncan, E.J., Armisén, D., Vreede, B.M.I., Baa-Puyoulet, P., Berger, C.S., Chang, C-C., Chao, H., Chen, C-J.M., Chen, Y-T., Childers, C.P., Chipman, A.D., Cridge, A.G., Crumière, A.J.J., Dearden, P.K., Didion, E.M., Huyen Dinh, H., Doddapaneni, H., Dolan, A., Dugan, S., Extavour, C.G., Febvay, G., Friedrich, M., Ginzburg, N., Han, Y., Heger, P., Horn, T., Hsiao, Y.-M., Jennings, E.C., Johnston, J.S., Jones, T.E., Jones, J.W., Khila, A., Koelzer, S., Kovacova, V., Leask, M., Lee, S.L., Lee, C.-L., Lovegrove, M.R., Lu, H.-L., Lu, Y., Moore, P.J., Munoz-Torres, M.C., Muzny, D.M., Palli, S.R., Parisot, N., Pick, L.11, Porter, M., Qu, J., Refki, P.N., Richter, R., Rivera Pomar, R., Rosendale, A.J., Roth, S., Sachs, L., Santos, M.E., Seibert, J., Sghaier, E., Shukla, J.N., Stancliffe, R.J., Tidswell, O., Traverso, L., van der Zee, M., Viala, S., Worley, K.C., Zdobnov, E.M., Gibbs, R.G., Richards, S (2019) Molecular evolutionary trends and feeding ecology diversification in the Hemiptera, anchored by the milkweed bug genome. **Genome Biology** 2:64. doi: 10.1186/s13059-019-1660-0. PMID:30935422.

Graham, P.L., Anderson, W.R., Brandt, E.A., Xiang, J. and Pick, L.5 (2019) Dynamic expression of *Drosophila* segmental cell surface-encoding genes and their pair-rule regulators. **Developmental Biology** 447: 147-156. doi: 10.1016/j.ydbio.2019.01.015. PMID:30695684

Reding, K., Chen, M., Lu, Y., Cheatle Jarvela, A.M. and Pick, L.5 (2019) Shifting roles of *Drosophila* pair-rule gene orthologs: segmental expression and function in the milkweed bug *Oncopeltus fasciatus*. **Development** 146: 1-11. doi: 10.1242/dev.181453. PMID:31444220

Sparks, M.E., Bansal, R., Benoit, J.B., Blackburn, M.B., Chao, H., Chen, M., Cheng, S., Childers, C., Dinh, H., Doddapaneni, H.V., Dugan, S., Elpidina, E.N., Farrow, D.W., Friedrich, M., Gibbs, R.A., Hall, B., Han, Y., Hardy, R.W., Holmes, C.J., Hughes, D.S.T., Ioannidis, P., Cheatle Jarvela, A.M., Johnston, J.S., Jones, J.W., Kronmiller, B.A., Kung, F,, Lee, S.L., Martynov, A.G., Masterson, P., Maumus, F., Munoz-Torres, M., Murali, S.C., Murphy, T.D., Muzny, D.M., Nelson, D.R., Oppert, B., Panfilio, K.A., Paula, D.P., Pick, L11, Poelchau, M.F., Qu, J., Reding, K., Rhoades, J.H., Rhodes, A., Richards, S., Richter, R., Robertson, H.M., Rosendale, A.J., Tu, Z.J., Velamuri, A.S., Waterhouse, R.M., Weirauch, M.T., Wells, J.T., Werren, J.H., Worley, K.C., Zdobnov, E.M., Gundersen-Rindal, D.E. (2020) Brown marmorated stink bug, *Halyomorpha* halys (Stål), genome: putative underpinnings of polyphagy, insecticide resistance potential and biology of a top worldwide pest. **BMC Genomics14**:227. doi: 10.1186/s12864-020-6510-7. PMID: 32171258

Hernandez, J. Pick, L.5 and Reding, K. (2020) *Oncopeltus*-like gene expression patterns in *Murgantia histrionica*, a new hemipteran model system, suggest ancient regulatory network divergence . **Evo Devo** 11:9. doi: 10.1186/s13227-020-00154-x. eCollection 2020.PMID: 32337018

Reding, K. and Pick, L.5 (2020) High Efficiency CRISPR/Cas9 mutagenesis of the *white* gene in the milkweed bug *Oncopeltus fasciatus*. **Genetics** 215: 1027 -1037; https://doi.org/10.1534/genetics.120.303269 PMID: 32493719

 Selected for Genetics 2020 Spotlight collection

Cheatle Jarvela, A.M., Trelstad, C. S.^ and Pick, L.5 (2020) Regulatory gene function handoff allows essential gene loss in mosquitoes. **Communications Biology** 3:540. doi: 10.1038/s42003-020-01203-w.PMID: 32999445

Graham, P. L., Fischer, M., Giri, A.^ and Pick, L.5 (2021) The *fushi tarazu* zebra element is not required for *Drosophila* viability or fertility. **G3: Genes, Genomes, Genetics** 11(11):jkab300. doi: 10.1093/g3journal/jkab300.

Cheatle Jarvela, A.M., Trelstad, C. S.^ and Pick, L.5(2021) Anterior-posterior patterning of segments in *Anopheles stephensi* offers insights into the transition from sequential to simultaneous segmentation in holometabolous insects. **J. Exp. Zool – B,** Nov 3. doi: 10.1002/jez.b.23102

* + 1. **Peer-reviewed Review Articles**

Heffer, A., Löhr, U. and Pick, L.5 (2011) *ftz* evolution: findings, hypotheses and speculations (response to DOI 10.1002/bies.201100019). **Bioessays** 33:910-8. doi: 10.1002/bies.201100112 (Back cover photo)

Pick, L.[[10]](#footnote-10) and Heffer, A. (2012) *Hox* gene evolution: multiple mechanisms contributing to evolutionary novelties. **Annal N.Y. Acad. Sci.,** Issue, This Year in Evolutionary Biology. doi: 10.1111/j.1749-6632.2011.06385.x

Pick, L.10 (2016) *Hox* genes, evo-devo and the case of the *ftz* gene. **Chromosoma** 125:535-551. PMID:26596987

**Editorial Overviews**

Pick, L.10 (1998) Segmentation: painting stripes from flies to vertebrates. **Developmental Genetics** 23:1-10.

Extavour, C.G. and Pick, L.10 (2016) Editorial Overview: Development, regulation and evolution of organ systems. **Current Opinion in Insect Science** 13: vii-ix.

* + 1. Other

**Non-peer reviewed article**

Graham, P.L., Fischer, M.D. and Pick, L.5 (2020) Efficient screening of CRISP/Cas9 genome editing in *Drosophila* without a visible marker. ***Drosophila* Information Service,** 103: 80-83

* 1. Conferences, Workshops, and Talks
		1. **Conference Abstracts**

Pick, L. (1980). Inducibility of TAT activity in enzyme deficient mouse cells hybridized to rat hepatoma. 10th Annual Biochemical Genetics Workshop, The Jackson Laboratory, Bar Harbor, Maine.

Furneaux, H.M., Pick, L., Arenas, J., Reinberg, D. and Hurwitz, J. (1983). Isolation and characterization of an RNA ligase from wheat germ. RNA Processing Meeting, Cold Spring Harbor Laboratory, Abst. p. 119.

Furneaux, H.M., Arenas, J., Perkins, K.K., Reinberg, D., Pick, L., Adhya, S., Carleton, S. and Hurwitz, J. (1984). Purification and properties of an RNA cyclase and RNA ligase from HeLa cells. RNA Processing meeting, Cold Spring Harbor Laboratory, Abst. p. 14.

Pick, L., Furneaux, H.M. and Hurwitz, J. (1985). Purification and properties of wheat germ RNA ligase. EMBO-NSF Workshop on Eukaryotic RNA Processing, Rome, Italy.

Wirz, J., Weber, U., Pick, L. and Gehring, W.J. (1987). Regulation of *Antp* gene expression and function of its gene product. Experientia 43:647.

Pick, L., Quiring, R. and Gehring, W.J. (1987). In vitro transcription of homeobox-containing genes. Tenth European *Drosophila* Research Conference, Barcelona, Spain. Abst. p. 197.

Schier, A., Pick, L., Hiromi, Y. and Gehring, W.J. (1989). Analysis of the *ftz* upstream element: A developmentally regulated enhancer. Experentia 45 : A24.

Schier, A., Pick, L., Affolter, M. and Gehring, W.J. (1989). Analysis of the *ftz* upstream element: a developmentally regulated enhancer. 11th European *Drosophila* Research Conference; Marseilles, France. Abst. p. 168.

Affolter, M., Muller, M., Pick, L., Dalle Carbonare, B. and Gehring, W.J. (1989). The homeobox encodes a DNA binding domain. 11th European *Drosophila* Research Conference; Marseille, France. Abst. p. 220.

Pick, L., Schier, A., Affolter, M. and Gehring, W.J. (1989). Deletion analysis of the *ftz* upstream element. EMBO Workshop on Homeoboxes in Development. Gwatt, Switzerland.

Pick, L., Schier, A., Affolter, M. and Gehring, W.J. (1990) The *fushi tarazu* (*ftz*) upstream element contains multiple regulatory units. 31st Annual *Drosophila* Research Conference, Asilomar, California. Abst. p. 21.

Yu Y., Altan, N., Han, W., Su, B-D and Pick, L. (1991) Expression and regulation of the segmentation gene *fushi tarazu* (*ftz*) 32nd Annual *Drosophila* Research Conference, Chicago, Illinois. Abst. 23.51, p. 48.

Han, W., Yu, Y. and Pick, L. (1992). Identification of multiple DNA-binding proteins interacting with a 300 bp region of the *fushi tarazu* (*ftz*) proximal enhancer. 33rd Annual *Drosophila* Research Conference, Philadelphia, PA. Abstr. 9.10, p. 15.

Pick, L., Han, W., Yu, Y., and Zhao, J. (1992). Complexities in the regulation of *ftz* gene expression. EMBO Workshop: The homeobox and the genetic control of development. Ascona, Switzerland.

Furukubo-Tokunaga, K., Muller, M., Affolter, M., Pick, L., Kloter, U. and Gehring, W.J. (1992). The helix-turn-helix motif of the *fushi tarazu* homeodomain of *Drosophila* *melanogaster:* Importance of class-specific DNA backbone contacts. EMBO Workshop: The homeodomain and the genetic control of development. Ascona, Switzerland.

Zhao, J., Lazzarini, R.A. and Pick, L. (1992) Mouse Hox 1.3 exerts Scr-like specificities in *Drosophila*. Cold Spring Harbor Meeting on Mouse Molecular Genetics.

Alonso, C.E.V., Gutjahr, T. Noll, M. and Pick, L. (1993). Identification and characterization of *paired* regulatory sequences. 34th Annual *Drosophila* Research Conference, San Diego, CA. Abstr. 115A

Zhao, J.J., Lazzarini, R.A and Pick, L. (1993). Functional Analysis of mouse Hox 1.3 in *Drosophila*. 34th Annual *Drosophila* Research Conference, San Diego, CA. Abstr. 278B.

Han, W. and Pick, L. (1993). Multiple DNA-binding proteins activate transcription of the *fushi tarazu* gene. 34th Annual *Drosophila* Research Conference, San Diego, CA. Abstr. 302A.

Pick, L. and Zhao, J. (1994) Antisense technologies and their use in Developmental Biology. NIH Symposium, March 1994.

Yussa, M., Yu, Y. and Pick, L. (1996) Ftz-F1 acts as both a *ftz* upstream regulator and a Ftz interacting factor. 37th Annual *Drosophila* Research Conference, San Diego, CA

Yu, Y. and Pick, L. (1996) A double interaction screen in yeast to identify *ftz* regulators and Ftz cofactors. 37th Annual *Drosophila* Research Conference, San Diego, CA

Lohr, U., Zhou, B., Komenda, L., Beckendorf, S. and Pick, L. (1998) A modified yeast two hybrid screen to identify Scr cofactors. 39th Annual *Drosophila* Research Conference.

Lieb, M., Moschella, Pick, L. and Taubman, M. (1998) A *Drosophila* homologue of the novel mammalian gene *SM-20*. 39th Annual *Drosophila* Research Conference.

Pick, L. (1998) Ftz-F1 is a DNA binding cofactor for the homeodomain protein Ftz. *Drosophila* Crete Meeting

Wu, X., Kosman, D., Pick, L., Reinitz, J., Small, S. (1999). Combinatorial activation of individual *fushi-tarazu* stripes in the blastoderm. 40th Annual *Drosophila* Research Conference.Abstract183B

Lieb, M.E., Bhat, M., Pick, L., Ni, R., Taubman, M.B. (2000). The *Drosophila* homologue of SM-20 is an essential gene that appears to be required for normal neuromuscular function in developing larva. Circulation 2000 102(18 Suppl.):II.324

Yussa, M. and Pick, L. (2000) Characterization of the homeodomain protein Ftz and its cofactor, the nuclear hormone receptor Ftz-F1. 41st Annual *Drosophila* Research Conference, Pittsburgh, PA, USA.

Song, J., Kohanski, R.A. and Pick, L. (2000) Analysis of the *Drosophila* insulin receptor. 41st Annual *Drosophila* Research Conference, Pittsburgh, PA, USA.

Pick, L. (2000) Regulating the specificity of Ftz protein. EMBO Workshop “Master Control Genes in Development and Evolution” Ascona, Switzerland.

Lohr, U., Yussa, M. and Pick, L. (2001) The functional evolution of *ftz* from a homeotic to a segmentation gene. 42nd Annual *Drosophila* Research Conference, Washington, D.C., USA.

Song, J., Kohanski, R.A. and Pick, L. (2001) The *Drosophila* insulin receptor directs photoreceptor axon guidance by interaction with Dreadlocks. 42nd Annual *Drosophila* Research Conference, Washington, D.C., , USA

Junell, A., Pick, L. and Engstrom, Y. (2001) Isolation of Rel-protein co-regulators during an innate immune response in *Drosophila* melanogaster. European *Drosophila* Research Conference, Edinborough , Scotland

Lohr, U., Yussa, M. and Pick, L. (2001) The molecular analysis of *fushi tarazu* evolution. European *Drosophila* Research Conference Edinborough , Scotland

Bowler, T.G., Pick, L. (2002) Identification of the downstream targets of Ftz and Ftz-F1. 43th Annual North American *Drosophila* Research Conference. Abstract 43 :356B

Lohr, U., Pick, L. (2002) The role of cofactor interactions in the functional evolution of Fushi tarazu. 43th Annual North American *Drosophila* Research Conference. Abstract 43:873C

Kimihiko Oishi, Marco Tartaglia, Mark Lieb, Leslie Pick, Bruce D. Gelb (2003)

Noonan syndrome-causative gain-of-function mutations in *PTPN11* result in wing abnormalities and embryonic lethality in *Drosophila*. American Heart Association

Ulrike Löhr and Leslie Pick (2004) Changes in Cofactor Interaction domains correlate with the evolution of Ftz function. Evolution of Developmental Diversity, Cold Spring Harbor

Miles Lepping, Galen Dively, Paula Shrewsbury, and Leslie Pick (2005) Diet breadth of ground-dwelling beetles in rootworm-resistant cornfields. Entomological Society of America, Fort Lauderdale, FL.

H. Hou, T. and L. Pick. (2006) Identification and Characterization of *ftz* Downstream Targets Involved in Embryogenesis. 47th Annual North American *Drosophila* Research Conference. Houston, Texas.

Dongyu Guo, Michael Ketteringhom, and Leslie Pick (2006) *Drosophila* insulin receptor and Dock interact to regulate axon guidance in the visual system. 47th Annual North American *Drosophila* Research Conference. Houston, Texas.

Ray Anderson and Leslie Pick (2006). Identifying Targets of FTZ and FTZ-F1. 47th Annual North American *Drosophila* Research Conference. Houston, Texas.

Tamar Sterling, Ronald A. Kohanski and Leslie Pick (2007). *Drosophila* Insulin Receptor Signaling in the Embryonic Central Nervous System. 48th Annual North American *Drosophila* Research Conference. Philadelphia, PA.

Ray Anderson and Leslie Pick (2007). Microarray Identification of FTZ-F1/FTZ Targets in the Early Embryo. 48th Annual North American *Drosophila* Research Conference. Philadelphia, PA.

Miles D. Lepping, Galen P. Dively, Paula M. Shrewsbury, Leslie Pick, and Zain Hasan (2007) Estimating carabid beetle exposure to rootworm-resistant Bt protein. Entomological Society of America Meeting, San Diego

Alison Heffer and Leslie Pick (2008). Investigating the acquisition of segmentation function of *fushi tarazu* during arthropod evolution. 49th Annual North American *Drosophila* Research Conference, San Diego, CA.

W. Ray Anderson and Leslie Pick (2008) Reading between the lines: pair-rule regulation of cell adhesion molecules. 49th Annual North American *Drosophila* Research Conference, San Diego, CA.

Alison Heffer and Leslie Pick (2009) Evolution of the *Hox* gene *fushi tarazu* in arthropods. Society for Developmental Biology Regional Meeting, College Park, Maryland

W. Ray Anderson and Leslie Pick (2009) Pair-rule regulation of Cell Adhesion molecules. Society for Developmental Biology Regional Meeting, College Park, Maryland.

Caroline R. Li, Hua Zhang, Jingnan Liu, Bahram Momen and Leslie Pick (2009) A diabetic fly model: growth and metabolic defects are caused by deletion of *Drosophila* Insulin-Like peptides. Mid-Atlantic Diabetes Research Symposium. National Institutes of Health, Bethesda, MD.

Alison Heffer, Jeffrey Shultz and Leslie Pick (2010) Evolution of the *Hox* gene *fushi tarazu* in arthropods. 51st Annual North American *Drosophila* Research Conference, Washington, D.C.

Caroline R. Li, Dongyu Guo, Julie Hou and Leslie Pick (2010) Which sites on the *Drosophila* insulin receptor mediate its role in growth regulation versus axon guidance? 51st Annual North American *Drosophila* Research Conference, Washington, D.C.

Yong Lu and Leslie Pick (2010) Evolution and Function of *ftz* and *ftz*-f1 in Hemipteroid Assemblage Insects. Mid-Atlantic Society for Developmental Biology Meeting, Baltimore, MD

Alison Heffer and Leslie Pick (2010) Evolution of the *Hox* gene *fushi tarazu* in arthropods. Mid-Atlantic Society for Developmental Biology Meeting, Baltimore, MD

Caroline R. Li, Dongyu Guo and Leslie Pick (2010) Functional dissection of the *Drosophila* insulin receptor. Mid-Atlantic Society for Developmental Biology Meeting, Baltimore, MD

Amanda Field, W. Ray Anderson and Leslie Pick. Identification of Ftz/Ftz-F1 Genomic

Targets. To be presented at the 52st Annual North American *Drosophila* Research

Conference, San Diego, CA, 2011.

Amanda Field, W. Ray Anderson and Leslie Pick (2011) Identification of Ftz/Ftz-F1 Genomic Targets. 52st Annual North American *Drosophila* Research Conference, San Diego, CA,

Alison Heffer, Yong Lu, Jeffrey Shultz and Leslie Pick (2011) Evolution of the *Hox* gene

*fushi tarazu* in arthropods. 52st Annual North American *Drosophila* Research

Conference, San Diego, CA

Leslie Pick, Alison Heffer, Yong Lu and W. Ray Anderson (2011) Modularity permits

extensive variation in *Hox* gene expression and function. Keystone Meeting on Evolutionary Developmental Biology

Georgeta Crivat, Vladimir A. Lizunov, Caroline R. Li, Karin Stenkula, Joshua Zimmerberg, Samuel W. Cushman and Leslie Pick (2012) An insulin-dependent sugar transport response in *Drosophila*. Annual Mid-Atlantic Diabetes Research Symposium, Bethesda, MD

Yong Lu , Leslie Pick (2012) Function and Evolution of *ftz* and *ftz*-f1 in

Hemipteroid  Assemblage  Insects. Annual meeting of Society for Integrative & Comparative Biology.  Charleston, SC

Jie Xiang and Leslie Pick (2012) Regulation of Diverse Modes of Segmentation in Coleoptera (Beetles). Annual MOCB Concentration Area Retreat, College Park, MD,

Jie Xiang and Leslie Pick (2012) Regulation of Diverse Modes of Segmentation in Coleoptera (Beetles). Bioscience Day, College Park, MD

A. Heffer and L. Pick (2012) A Homeodomain-dependent Function in a Rapidly Evolving *Hox* Gene in Insects. 53rd Annual *Drosophila* Conference. Chicago, IL.

Amanda Field, Jie Xiang, and Leslie Pick (2012) Identification of Ftz/Ftz-F1 Genomic Targets.  Bioscience Day, University of Maryland

Jie Xiang, Alison Heffer and Leslie Pick (2013) Regulation of Diverse Modes of Segmentation in Coleoptera (Beetles). 54th Annual North American *Drosophila* Research Conference, Washington, DC

Georgeta Crivat, Vladimir A. Lizunov, Caroline R. Li, Karin Stenkula, Joshua Zimmerberg, Samuel W. Cushman, and Leslie Pick (2013) *Drosophila* *melanogaster* harbor the machinery to mediate an insulin-responsive sugar uptake response.  54th Annual *Drosophila* Research Conference, Washington DC

Jie Xiang, Alison Heffer and Leslie Pick (2013) Poster, Regulation of Diverse Modes of Segmentation in Coleoptera (Beetles). Annual MOCB Concentration Area Retreat, University of Maryland, College Park, MD

Yong Lu and Leslie Pick (2013) Evolution and Function of *ftz* and *ftz*-f1 in Hemipteroid

Assemblage Insects. Annual MOCB Concentration Area Retreat, College Park, MD.

Leslie Pick (2013) Variation and constraint in *Hox* gene evolution. Society for Molecular Biology and Evolution Meeting. Chicago, Illinois

Leslie Pick (2013) Constraint and variation in *Hox* genes. Symposium: Neuronal Development, Function and Demise: a genetic perspective. Baylor College of Medicine, Houston, TX

Yong Lu and Leslie Pick (2013) Genetic studies of Brown Marmorated Stink Bug.

USDA NIFA SCRI CAP Project, Stakeholder Advisory Panel Meeting, Kearneysville, WV

Jie Xiang and Leslie Pick (2014) “Establishing an intermediate-germ beetle, *Dermestes maculatus*, as a new model insect to study the evolution of segmentation patterning.” 55th Annual *Drosophila* Research Conference, San Diego, CA

Iain Forrest, Jie Xiang and Leslie Pick (2014) Early development of *Dermestes maculatus*. Bioscience Day, U. Maryland

Jie Xiang, Iain Forrest and Leslie Pick (2015) *Dermestes maculatus*: An intermediate germ beetle model system for evo-devo. Inaugural Meeting of the Pan American Society for Evolutionary Developmental Biology, Berkeley, CA

Jie Xiang, Iain Forrest and Leslie Pick (2015) *Dermestes maculatus*: An intermediate germ beetle model system for evo-devo. BISI Retreat, College Park, MD

Jie Xiang and Leslie Pick (2016) Investigating pair-rule gene orthologs in an intermediate-germ beetle, *Dermestes maculatus*. Mid-Atlantic Society for Developmental Biology Meeting, Washington, DC

Katie Reding, Mengyao Chen, Lakshmi Kirkire, Alys Jarvela, and Leslie Pick (2016) Isolation of *Drosophila* pair-rule gene orthologs in the sequentially segmenting insect *Oncopeltus fasciatus* (Hemiptera: Lygaeidae). Mid-Atlantic Society for Developmental Biology Meeting, Washington, DC

Leslie Pick, Yong Lu, Katie Reding, and Mengyao Chen (2016) Segmentation genes in the brown marmorated stink bug, *Halyomorpha halys*. International Congress of Entomology, Orlando, FL

Leslie Pick, Yong Lu, Jie Xiang and Alys Cheatle Jarvela (2017) The function and evolution of embryonic *ftz*-f1. 58th Annual *Drosophila* Research Conference, San Diego, CA

Alys M. Cheatle Jarvela, Alicia Briscoe, and Leslie Pick (2017) "Regulation of αFtz-F1 Pair-Rule Function by Transcriptional Corepressors." 58th Annual *Drosophila* Research Conference, San Diego, CA

Katie Reding, Mengyao Chen, Yong Lu, and Leslie Pick (2017) "*Drosophila* pair-rule gene orthologs in the sequentially segmenting insect *Oncopeltus fasciatus* (Hemiptera: Lygaeidae)." 58th Annual *Drosophila* Research Conference, San Diego, CA

Bijal Kikani, Alys Jarvela and Leslie Pick (2017) “Investigating Candidate Corepressors of *Ftz*-F1 in *Drosophila* melanogaster.” Maryland Center for Undergraduate Research, Undergraduate Research Day

Jie Xiang, Katie Reding, Alison Heffer, Iain Forrest and Leslie Pick (2017) “Investigating pair-rule gene orthologs in an intermediate germ beetle, *Dermestes maculatus*” Mid-Atlantic Regional Society for Developmental Biology Meeting, Baltimore, MD.

 \*2nd Prize for Best Graduate Poster presentation

 Alys M. Cheatle Jarvela and Leslie Pick (2018)  “The Show Must Go On: Maintaining a Segmented Body Plan after Loss of Key Developmental Gene” 59th Annual *Drosophila* Research Conference, Philadelphia, PA

Katie Reding, Mengyao Chen, Yong Lu, Alys Jarvela, and Leslie Pick (2018)

“*Drosophila* pair-rule gene orthologs in the sequentially segmenting insect *Oncopeltus fasciatus* (Hemiptera: Lygaeidae),” UMD 2018 Bioscience Day

Judith Wexler, Alys Jarvela, and Leslie Pick (2019) How to build a cricket: probing the segmentation gene network in *Gryllus bimaculatus*. Mid-Atlantic Regional Meeting of the Society for Developmental Biology. University Park, PA

Ebony Argaez and Leslie Pick (2019) A mechanism-based strategy to assess risks of RNA interference in diverse insects. 3rd BiAnnual Meeting of the Pan-American Society for Developmental Biology, Miami, FL

Jessica Hernandez, Katie Reding, and Leslie Pick (2019) Isolation of *Drosophila* pair-rule gene orthologs from the harlequin bug *Murgantia histrionica* (Hemiptera: Pentatomidae). 3rd BiAnnual Meeting of the Pan-American Society for Developmental Biology, Miami, FL

Katie Reding\* and Leslie Pick (2019) Combining RNA-seq and a candidate gene approach to probe the segmentation gene network of a sequentially segmenting insect *Oncopeltus fasciatus* (Hemiptera: Lygaeidae). 3rd BiAnnual Meeting of the Pan-American Society for Developmental Biology, Miami, FL

Alys M. Cheatle Jarvela\*, Catherine S. Trelstad and Leslie Pick (2020) How can an essential gene be lost from a genome?  13th Annual Arthropod Genomics Symposium, Virtual Poster presentation

Alys M. Cheatle Jarvela\*, Catherine S. Trelstad and Leslie Pick (2020) Genome editing in mosquitoes reveals regulatory gene function handoff. Protostome functional genetics: *Tribolium* & Friends Symposium,  German Zoological Society (DZG) Virtual Oral Presentation

Katie Reding, Jessica Hernandez, Judith Wexler and Leslie Pick\* (2020) Evolutionary variability in gene networks controlling a highly conserved body plan. Protostome Functional Genetics: *Tribolium* & Friends meeting, German Zoological Society (DZG) Virtual Oral Presentation

Alys M. Cheatle Jarvela\*, Catherine S. Trelstad and Leslie Pick (2020) Genome editing in mosquitoes reveals evolutionary handover of regulatory gene function. Biodiversity Genomics Conference, Wellcome Sanger Institute, Virtual Oral Presentation

Alys M. Cheatle Jarvela\*, Catherine S. Trelstad, and Leslie Pick (2020) Genome editing in mosquitoes reveals evolutionary handover of regulatory gene function. Entomology 2020, ESA’s Virtual Annual Meeting

Alys M. Cheatle Jarvela\*, Catherine S. Trelstad, and Leslie Pick (2021) Genome editing in mosquitoes reveals evolutionary handover of regulatory gene function. Society for Integrative and Comparative Biology Virtual Annual Meeting 2021- Session Evo-Devo: Deep Homology

Fischer, M., Graham, P. and Pick, L. (2021) *ftz* expression and insect viability do not require the zebra or upstream elements in *Drosophila* melanogaster. Poster presentation, 80th Annual Meeting of the Society for Developmental Biology, virtual conference.

Matthew Fischer\*, Patricia Graham, and Leslie Pick (2022) Necessity versus sufficiency: furthering understanding of *ftz cis*-regulatory elements in *Drosophila melanogaster*. Poster presentation, 63rd Annual Drosophila Research Conference of the Genetics Society of America, San Diego, CA.

Ximena Gutierrez-Ramos\*, Patricia L. Graham and Leslie Pick (2022). *fushi tarazu* and *fushi tarazu factor 1*, novel re-wiring in the *Tribolium castaneum* pair-rule network. Online poster presentation, 63rd Annual Drosophila Research Conference, San Diego, CA.

Ebony Michelle Argaez \*, James B. Digel, Kelly A. Hamby, Leslie Pick

(2022) Using *Drosophila*regulatory genes to assess risk of RNA interference in *Oncopeltus fasciatus.*Poster Presentation, Joint Society for Developmental Biology 81st Annual Meeting- Pan-American Society for Evolutionary Developmental Biology 4th Biennial Meeting, Vancouver, Canada

Ebony Michelle Argaez \*, James B. Digel, Kelly A. Hamby, Leslie Pick (2022) A parameter-based strategy to assess risk of RNA interference in *Oncopeltus fasciatus*. Poster Presentation, 2022 SACNAS National Diversity in STEM (NDiSTEM) Conference, San Juan, Puerto Rico

Pick, L.\* (2022) Evolutionary re-wiring of regulatory genes in insects. Invited Oral Presentation Joint Society for Developmental Biology 81st Annual Meeting- Pan-American Society for Evolutionary Developmental Biology 4th Biennial Meeting, Vancouver, Canada

* 1. Works in Progress

Cheatle Jarvela, A.M., Trelstad, C. S.^ and Pick, L.5 (2020) Regulatory gene function handoff allows essential gene loss in mosquitoes. **Journal of Experimental Zoology – Part B** *under revision*

* 1. Sponsored Research and Programs – Administered by the Office of Research Administration (ORA)
		1. **Grants**

ACTIVE

National Institutes of Health, 1R01GM113230 05/01/2015 – 04/30/2023

Role: Principal Investigator Total costs: $2,368,010

Title: “Functional evolution of segmentation gene regulatory networks in insects”

This grant is to study the functional evolution of segmentation genes in insects.

National Institutes of Health, 1R01GM113230S1 $57,004

Supplement for purchase of microinjection equipment

USDA – NIFA BRAG, 2018-33522-28712 09/01/2018-08/31-2022

Role: Principal Investigator Total Costs: $500,000

Title: “A mechanism-based strategy to assess risks of RNA interference in agricultural systems.”

This grant is to use molecular genetic approaches to determining risk posed to non-target insects by RNAi-based pesticides. Co-PIs are Drs. Kelly Hamby and Antony Jose.

COMPLETED

Alexander and Alexandrine L. Sinsheimer Fund 1990-1993

Role: Principal Investigator $60,000

National Institutes of Health (NICHD) RO1 HD 27937 1992-2004

Role: Principal Investigator $1,366,855

Title: "Control of gene expression during *Drosophila* development."

This project was to study the regulation and function of the *Drosophila* *ftz* gene.

American Cancer Society 1992-1994

Role: Principal Investigator $180,000

Title: " The molecular basis of cellular determination and differentiation."

Irma T. Hirschl Career Scientist Award, 1992-1996

Role: Principal Investigator $100,000

Title: "Transcriptional regulation of a *Drosophila* homeobox-containing gene.

March of Dimes Basic Research Grant 1998-2002

Role: Principal Investigator $257,296

Title: "Protein-protein interactions determine as Hox specificity in vivo"

Mount Sinai Dean’s Award 1999

Co-PI’s L. Pick and R. A. Kohanski $ 17,425

Title: "*Drosophila* as a model to study insulin receptor function."

National Institutes of Health (GM) T32 GM08553 1999-2003

Role: Program Director. $945,025

Title: "Training Program in Cellular and Molecular Biology."

This training grant provides support for graduate students and was passed on to a new program director when I left Mount Sinai.

National Institutes of Health (NEI) R01 EY14290 2003-2008

Role: Principal Investigator $1,478,021

Title: "The insulin receptor regulates *Drosophila* axon guidance."

This project was to study the role of the *Drosophila* insulin receptor in

axon guidance in the developing visual system

National Science Foundation, 0641717 2007 - 2010

Role: Principal Investigator $390,000

Title: "Rapid Hox Gene Evolution and the Arthropod Body Plan"

This grant studied the functional evolution of the Hox gene *fushi tarazu*.

National Science Foundation MRI 2008-2011

Role: Co-Principal Investigator $809,846

P.I. Mather, I.H., co-P.I's, Wolniak, S.M., Delwiche, C.F., Kwak, J.M., and Pick, L.

This grant was for the acquisition of a Leica confocal microscope to develop a visual imaging center.

General Research Board, University of Maryland Summer 2009

Salary and Research Support Awards $11,530

Title: "A *Drosophila* Model for Type II Diabetes"

This award supported studies of the function of the *Drosophila* insulin receptor.

National Institutes of Health, T32GM080201 2009– 2020

Role: Co-Program Director $1,518,978

Title: “Training Program in Cell and Molecular Biology”

This grant funds students in the MOCB Graduate Program. After running the Program as Program Director, including obtaining the first round of funding (2009), I brought this training grant through it’s first renewal and site visit, and then have moved from PD to co-PD to allow other faculty to gain leadership experience.

March of Dimes Birth Defects Foundation 2010-2013

Role: Principal Investigator $207,072

Title: “*Drosophila* as a model to study genetic underpinnings of diabetes and obesity”

This grant used *Drosophila* as a model to study syndromes resulting from defective insulin signaling.

National Science Foundation, IOS-0950765 2010 - 2015

Role: Principal Investigator $750,000

Title: “Rapid Hox Gene Evolution and the Arthropod Body Plan”

This grant is to study the functional evolution of the Hox gene *fushi tarazu*

in insect lineages.

Maryland Soybean Board 2011 – 2012

 Role: Principal Investigator $18,000

Title: “Long Term Control of Brown Marmorated Stink Bug through RNA Interference.”

This proposal was to develop RNAi technology to target invasive BMSB populations.

USDA NIFA SCRI     2011 –2016

Role: Co-PI, PI is Cerruti Hooks Total Costs to LP $118,034

Biology, Ecology, and Management of Brown Marmorated Stink Bug in Orchard Crops,

Small Fruit, Grapes, Vegetables, and Ornamentals.

Dr. Pick’s portion of this grant was to sequence the transcriptome of BMSB and establish methods for RNAi in this species.

National Science Foundation, IOS-1457145 2015-2018

Role: Principal Investigator $745,000

Title: “Regulation of Nuclear Receptor Function during *Drosophila* development.”

This grant was to study mechanisms regulating the activity of orphan nuclear receptors in vivo. Subcontract to I. Radhakrishnan, Northwestern University.

Maryland Agricultural Experiment Station 2017-2018

Competitive Grant $30,000

This grant was to study RNA interference mechanisms and use for pest management.

* + 1. Other

**Fellowships, awards and other competitive support obtained by trainees while in PI’s lab**

Ulrike Lohr,graduate student

 HSP II Scholarship, Deutscher Akademischer Austausch Dienst

Tamar Sterling, undergraduate student

 Howard Hughes Fellowship, 2005-2006

 Cory Award 2006

W. Ray Anderson, graduate student

 Department of Cell Biology and Molecular Genetics Travel Award (2006)

 Ann G. Wylie Dissertation Fellowship (2009)

Caroline R. Li, graduate student

CLFS Hockmeyer Fellowship (2009)

 Ann G. Wylie Dissertation Fellowship (2010)

Alison Heffer, graduate student

 UM Graduate Student Summer Fellowship (2008)

 Entomology Department Travel Award (2008)

 CLFS Hockmeyer Fellowship (2010)

 Ann G. Wylie Dissertation Fellowship (2011)

Molly Bloom, undergraduate student

 Howard Hughes Fellowship, 2009-2010

 Cory Award 2010

Amanda Field, graduate student

 UM Graduate Student Summer Fellowship (2009)

 NIH T32 Fellowship (2011-2012)

Yong Lu, Graduate student

MOCB travel award (2011)

Dean’s Fellowship, in conjunction with T32 Program in Cell & Molecular Biology

Jie Xiang, Graduate Student

MOCB Travel Award (2014)

Dean's Fellowship (Fall 2014)

Lakshmi Kirkire, undergraduate student

Cory Scholarship, 2015

Jessica Hernandez, undergraduate student

Cory Scholarship, 2017

Catherine Trelstad, undergraduate student

Cory Scholarship, 2019

James Digel, undergraduate student

Cory Scholarship, 2019

Katie Reding, graduate student

 National Science Foundation Graduate Research Fellowship, 2020-2023

* 1. Other Research / Scholarship / Creative Activities

**Research Fellowships, Prizes and Awards**

1980-1985 NIH Predoctoral Trainee Fellowship

1985-1986 Sandoz Foundation Postdoctoral Fellowship

1986-1989 Damon Runyon-Walter Winchell Cancer Fund Postdoctoral Fellowship

1990-1993 Alexandrine and Alexander L. Sinsheimer Fund, Junior Faculty Award

1992-1996 Irma T. Hirschl Career Scientist Award

2001 Center for Excellence in Youth Education, Mount Sinai School of Medicine in conjunction with the New York City Public Schools

2009 General Research Board Award

2015 University of Maryland Distinguished Scholar-Teacher

2016 Fellow of the Entomological Society of America

2021 AAAS Fellow

2022 Pan-American Society for Evolutionary Developmental Biology Pioneer Award

1. **Teaching, Extension, Mentoring, and Advising**
	1. Courses Taught

*Include courses taught in the* ***last five years****. Indicate approximate enrollments and any unusual formats.*

2015

BSCI 410, Molecular Genetics (34 students)

2016

BISI 688B, Bioethics (15 students)

BSCI 410, Molecular Genetics (72 students)

2017

BISI 688B, Bioethics (17 students)

BSCI 410, Molecular Genetics (88 students)

2018

BSCI 410, Molecular Genetics (86 students)

2019

BISI712, Bioethics (21 students)

IGT RCN workshop – RNAi lecture (summer 2019)

2020

HLSC 322 Genetics and Genomics (92 students). Half semester taught online

BISI712, Bioethics (10 students). Online fall 2020

2021

HLSC 322 Genetics and Genomics (79 students). Online spring 2021

All years

Undergraduate Research (BSCI279R; BSCI379G; BSCI389; BSCI389H)

Lab Rotations Research (MOCB699; CBMG 699)

Pre-Candidacy Research (MOCB898; CBMG898)

Ph.D. Dissertation Research (MOCB899; CBMG899)

* 1. Teaching Innovations
		1. **Major Programs Established**

Obtained and renewed NIH Training Grant for students in the Molecular & Cell Biology Graduate Program

* 1. Primary advisor of trainee research
		1. **Undergraduate**

Undergraduate students at Mount Sinai School of Medicine: Nihal Altan, Summer & Fall 1990, Hunter College; Annabelle Sheila Menzies, 1993,Queens College; Divya Mathur, Mount Holyoke College, 2002.

Undergraduate students at UMCP:

Tamar Sterling – UM Scholar’s Program. HHMI Fellowship

Commencement Speaker at the Winter 2006 Graduation ceremony.

T.J. Hollingsworth, Graduate Partners Program, Summer 2006

Hui Ying (Julie) Hou – UM Honor’s Program. Julie graduated in 2006 and worked as a full-time research assistant in my lab for one year before entering medical school. A first author paper from her work in the lab was published in 2009.

Rachel Kurinsky - 2006

Anit Sharma, UM Honor's Program - 2007 - 2008

Rootvij Patel, UM Honor's Program - 2007 - 2008

Ayesha Mustafa - 2008 - 2009

Molly Bloom - 2008-2010, HHMI Fellowship

 Biology Honor’s with Distinction

Boniface Malangu - 2009 – 2010

Pam Koatira, 2010 – 2011

Margo Faust, 2011 – 2012, Biology Honor’s

Paula Esquetini, 2011 – 2012

Akhila Vishnubhotla, Fall 2013

Mina Al-Salihi, 2013

Iain San Hoi Forrest, 2014 – 2016 (Graduation speaker, 2016 winter graduation; Current: MSTP program at Mount Sinai School of Medicine)

Lakshmi Kirkire, 2014 – 2016 (Current: MSTP program, University of Chicago)

Michelle Hwang, summer 2014

Alicia Briscoe, summer 2015 – 2016

Jessica Hernandez, 2016 – 2019 (2019-2020, Research Technician in Pick lab; Current, Graduate Student Molecular Medicine, Johns Hopkins School of Medicine)

Bijal Kikani, 2017 – 2018 (Current: post bac at NIH)

Anhigya Giri, 2018-2019 (currently MS student at George Washington University)

Ebony Argaez, 2017 – 2018. (Current: Research Technician in Pick lab)

Daniel Zheng, 2019 - 2021

James Digel, 2018-2020. (Current: Research Technician in Pick lab)

Catherine Trelstad, 2018-2021

Omid Tabatabee, 2019 – 2021

Ashley Zavodnick , 2020 – present

Abigail Health, 2021 - present

* + 1. **Master’s**

Joanne Hama, M.S. 2000, Mount Sinai School of Medicine

 Current Postion unknown

Mengyao Chen, M.S. 2018, Entomology Graduate Program, University of Maryland

Current Position: Ph.D. Program, Institute of Insect Science, Zhejiang University, Hangzhou, P.R. China

* + 1. **Doctoral**

Past graduate students

Jack Jiagang Zhao, Ph.D. 1993, Mount Sinai School of Medicine

 Current Position: Assistant Project Scientist, Department of Pediatrics, UC Irvine

Wei Han, Ph.D. 1994, Mount Sinai School of Medicine

Current Position: Professor, School of Pharmacy, Shanghai Jiao Tong University, P.R. China

Yan Yu, Ph.D. 1996, Mount Sinai School of Medicine

Current Position: Professor and Assistant Dean, School of Pharmacy, Shanghai Jiao Tong University, P.R. China

Mary Landrigan, M.D./Ph.D. Student, Ph.D. 1998, Mount Sinai School of Medicine Current Position: Pediatric Anesthesiologist, Boston Children's Hospital

Jianbo Song, Ph.D. 2001, Mount Sinai School of Medicine

Current Position: Assistant Professor, Department of Pathology & Laboratory Medicine, Cedars-Sinai Medical Center

Ulrike Lohr, Diplome, 1998 and Ph.D., 2004, University of Gottingen

 Current Position: Liaison Officer and Assistant to the Vice President at the Max Planck Gesellschaft.

Timothy Bowler, Ph.D. 2004, Mount Sinai School of Medicine

 Current Position: Practicing medicine, Bronx, New York

William Ray Anderson, Ph.D. candidate, CBMG Program (note: no degree awarded), University of Maryland,

Current Position: Contractor in Bioinformatics, NCBI

Caroline R. Li, Ph.D., 2011, MOCB Program, University of Maryland

 Current Position: University of Toronto

Alison Heffer, Ph.D. 2012, MOCB Program, University of Maryland

 Current Position: Staff Scientist, University of Rochester

Yong Lu, Ph.D. 2014, CBMG Program, University of Maryland

First placement: Research Support Specialist, SUNY Stony Brook Current position:

Amanda Field, Ph.D. 2015, MOCB Program, University of Maryland

Current Position: Health Science Policy Analyst, National Institutes of Health, Office of Science Policy

Jie Xiang, Ph.D. 2017, MOCB Program, University of Maryland

 Current Position: Project Manager, Biocytogen, Boston, MA

Current graduate students

Matthew Fischer, MOCB Graduate Program

Katie Reding, Entomology Graduate Program

* + 1. **Post-doctoral**

Carlos E. Vanario Alonso, Current Position: Leica Corporation

Miyuki Yussa, Current Position: Stay at home mom

Zun Chen, Current Position: unknown

Dongyu Guo, Current Position: FDA

Hua Zhang, Current Position: Bioinformatics Scientist, Computercraft, VA

Jingnan Liu, Current Position: Associate Investigator, Institute for Nutritional Sciences
 Chinese Academy of Sciences, Shanghai

Georgetta Crivat, Current Position: Staff Scientist, WRAIR/NMRC

Patricia Graham, 2014 – 2015. Currently Pick lab Research Assistant Scientist

Alys Cheatle Jarvela, 2015 – 2020. Currently Pick lab Research Assistant Scientist

Faith Kung, Current Position: Scientist (III), Eurofins Scientific, Gaithersburg, MD

Judy Wexler, Current Position: Postdoc at Hebrew University

* + 1. Other Directed Research *(e.g. K-12 Interactions)*

**High School students**

Westinghouse Projects: George Anastasian, semi-finalist, 1992

Marcela Valderamma, (with Dr. F. Ramirez), 1992

Mount Sinai Scholar’s Program: Rashid Hasson, 1999

ICY project – Hunter High School: Tina Han, 2001-2002

Pam Kaotira - River Hill High School, summer 2007

Utokia Ogbuokiri - Internship, academic year 2007-2008,

Charles Herbert Flowers High School, PG County MD

* 1. Mentorship
		1. **Junior Faculty**

Formal mentorship, Dr. Jian Wang

Informal mentorship of numerous junior faculty, especially in role as Entomology department chair

* + 1. **Other Trainees**

Graduate Rotation students (Mount Sinai School of Medicine): Wei Hsu, Wei Han, Yan Yu, Jue Zhang, Rajiv Desai, Beidong Su, Rabin Nouranifar, Jennifer Zemsky, Hong Xu, Wen Zhang, Joanne Hama, Jianbo Song, Derek Marshall, Wei Zhang, Sarah Oller, Afshan Ismat, Tim Bowler

Graduate Rotation students (UMCP): W. Ray Anderson, Caroline Li, Jahda Batton, Siqian Feng, Nellie Moshkowich, Alison Heffer, Roxanne Bouten, Amanda Field, Yong Lu, Cristel Thomas, Stephan Smith, Andrew Richardson, Laramie Pence, Alex Sohr

Research Assistants/Technicians: Kai Su (Currently Research Scientist, Cornell University), Lorna McFarlane (went on to Medical School at SUNY, Stony Brook), Hong Zhu, Genevieve Joseph (currently Staff at MSSM), Kerri Mullen (currently Biology Lab Coordinator & Adjunct Faculty, Moravian College), Julie Hou (currently physician), Zhaoqing Jin, Katie Reding (currently Pick lab graduate student), Liz Brandt, Jessica Hernandez (currently Ph.D. student, Johns Hopkins), Ebony Argaez (currently Pick lab graduate student), James Digel

* 1. Advising: Other than Directed Research
		1. **Doctoral committee memberships**

Ph.D. Thesis Defense Committees (Mount Sinai School of Medicine): Mike Regulski, Yale University, Dr. W. McGinnis, 1990 (reader); Clare Marie Bergson, Yale University, Dr. W. McGinnis, 1990 (reader); Rachel Kraut, Columbia University, Dr. M. Levine 1991; Peipei Wu, Hunter College, Dr, T. Schmidt-Glenewinkel, 1991; Douglas Read, Columbia University, Dr. J. Manley, 1992; Jarema Malicki, Yale University, Dr. W. McGinnis, 1993 (reader); Mian Li, Mount Sinai School of Medicine, Dr. M. Siekevitz, 1993; Mark Benedyk, Rockefeller University, Dr. S. DiNardo, 1994; Ming Guo, Columbia University; Dr. S. Mount, 1994; Brian Kloss, Mount Sinai School of Medicine, Dr. C. Bancroft, 1995; Lee-Chuan Yang, Hunter College, 1996; S. Wang, Columbia; University, Dr. T. Hazzelrigg, 1997; David Immanuel, New York University, Dr. D. Ron, 1997; Hoda Shamloula, City College, CUNY, Dr. T. R. Venkatesh, 1998; Mkajuma Mbogho, City College, CUNY, Dr. T. R. Venkatesh, 1999; Xiaolei Xu, Mount Sinai School of Medicine, Dr. M. Frasch, 1999; Sharon Barr, Mount Sinai School of Medicine, Dr. E. Johnson, 1999 (Chair); Wen Zhang, Mount Sinai School of Medicine, Dr. F. Ramirez, 1999 (Chair); Dun Yang, Columbia University, Dr. J. Erickson, 2000; Keon Menzies, Mount Sinai School of Medicine, Dr. M. Taubman, 2001 (Chair); Fabio Triolo, Dr. S. Pinol-Roma, 2001 (Chair); A.C. Pimentel, CCNY, Dr. T. Venkatesh, 2002; Christina Lilliehook, Dr. J. Buxbaum, 2002; Kyung Lee, Dr. M. Goldfarb, 2004.

University of Maryland Student Thesis Advisory Committees

Dean's Representative:

Damali Nzinga George (CBMG, Advisor Eric Barherecke)

Ernie Hixon (BIOL, Advisor William Jeffery)

Allen Strickler (BIOL, Advisor William Jeffery)

Laura Tucker (NACS, Advisor Avis Cohen)

Philip Wang (NACS, Advisor Elizabeth Quinlan)

James Sykes (BEES, Advisor Alexa Bely)

Kawther Abdilleh (MOCB, Advisor Cristian Castillo-Davis & Carlos Machado)

Clair O’Quin (Biology, AdvisorTom Kocher)

Halli Sigal (ANSC, Advisor Carol Keefer)

Haarin Chun (ANSC, Advisor Byung-Eun Kim)

Kevin Nyberg (BEES, Advisor Carlos Machado)

Cordelia Weiss (MOSB, Advisor Wade Winkler)

Alex Sohr (MOCB, Advisor Sougata Roy)

\*Daphne Knudsen (MOCB, Advisor Antony Jose)

\*Margaret Hines (Animal Sciences, Advisor Lisa Taneyhill)

Thesis Advisory Committees:

Sudeshna Dutta (MOCB, Advisor Eric Baehrecke)

Alana Doty (BEES, Advisor Eric Haag)

Ramanand Arun (MOCB, Advisor David P'Brochta)

Monica Pava-Ripoll (Entomology, Advisor Ray St. Leger)

Adrianna Szczepaniec (Entomology, Advisor Mike Raupp)

Laura Ellestad (MOCB, Advisor Tom Porter)

Yakup Batlevi (CBMG, Advisor Eric Baehrecke)

Zhen Shi (MOCB, Advisor John Moult)

Shreehari Kalvakuri (University of Zurich, Advisor Markus Noll)

Marie Koboyashi (CBMG, Advisor Eric Baehrecke)

Aswani Valiveti (MOCB, Advisor James Ames)

Jahda Batton (CBMG, Advisor Eric Baehrecke)

Christina Kary McPhee (CBMG, Advisor Eric Baehrecke)

Adrienne Ivory (CBMG, Advisor Louisa Wu)

Malini Mukherjee (MOCB, Advisor Tom Porter)

Cristel Thomas (MOCB, Advisor Eric Haag)

Miles Lepping (Entomology, Advisor Paula Shrewsbury)

Rui Gao (MOCB, Advisor W.D. Figg, NIH)

Jyoti Narayan (MOCB, Advisor Tom Porter)

Sangeetha Raghavan (MOCB, Advisor Jian Wang)

Siqian Feng (MOCB, Advisor Jian Wang)

Nuttinee Teerakulkittipong (MOCB, Advisor John Moult)

Jae Kwang Jeong (MOCB, Advisor, Ian Mather)

Nellie Moshkovich (MOCB, Advisor, Elissa Lei, NIH)

Vandana Sekhar (MOCB, Advisor Alison McBride, NIH)

Jessica Tang (MOCB, Advisor, Louisa Wu)

Sandra Kirsch (MOCB, Advisor, Mendel Tuchman)

Bridget DeLay (ENTM, Advisor William Lamp)

Thomas Boothby (CBMG, Advisor Steve Wolniak)

Lijuan Du (MOCB, Advisor Jian Wang, Entomology)

Rachel Hooper (ANSC, Advisor Lisa Taneyhill)

Rachel Maczis Sahan (MOCB, Advisor Zhongchi Liu)

Justin Rosenthal (ENTM, Advisor Quan Yuan, NIH; LP campus advisor)

Di Wu (MOCB, Advisor Kan Cao)

Haoyue Zhang (Dean’s Rep, MOCB, Advisor Kan Cao)

Pravrutha Raman (MOCB, Advisor Antony Jose)

Sri Pratima Nandamuri (BEES, Advisor Karen Carelton)

Tao Jiang (NACS, Advisor Doris Wu, NIH)

Shrutii Sarda (CS, Advisor Sridhar Hannenhalli)

Elizabeth Brandt (Entomology, Advisor David Hawthorne)

\*Bo Shi (MOCB, Advisor Chi-Hon Lee, NIH; LP campus advisor)

Laramie Pence (MOCB, Advisor Bhanu Telugu)

Matthew Fischer (MOCB, Advisor Zhongchi Liu)

Miranda Yourick (BEES, Advisor Karen Carelton)

Jordan Aoyama (MOCB, Advisor, Gisela Storz, NIH; LP campus advisor)

\*Jonathan Scheck (MOCB, Advisor Quentin Gaudry)

Jon Wang (Entomology, Advisor Ray St. Leger)

\*Anthony Nearman (Entomology, Advisor Dennis vanEngelsdorp)

Anna Noreuil (Entomology, Advisor Megan Fritz)

\*Maria Cramer (Entomology, Advisor Kelly Hamby)

\*Caroline Halmi (ANSC, Advisor Lisa Taneyhill)

\* indicates currently active; other students have graduated

* 1. Professional and Extension Education
		1. **Guest Lectures** *(Presented in traditional classes or for someone else’s program)*

CMBG 688F, Guest lectures 2019, 2020, 2021

CMBG 688I, Guest lectures 2018, 2020, 2021

1. **Service and Outreach**
	1. Editorships, Editorial Boards, and Reviewing Activities

*Include participation for journals and other learned publications (print and electronic).*

* + 1. **Editorships**

Guest Editor, Developmental Genetics Special Issue on Segmentation (1999)

Guest Editor, Current Opinion in Insect Science (2015-2016)

Editor, Fly Models of Human Diseases, Current Topics in Developmental Biology (2017)

* + 1. **Editorial Boards**

Current Opinions in Insect Science (2019 – present)

Journal of Developmental Biology (2020 – present)

Frontiers in Ecology & Evolution (2022 – present)

* + 1. Reviewing Activities for Journals and Presses

**Reviewer of Manuscripts (~6-12/year in recent years) for journals including:** Development**,** Developmental Genetics,Evolution & Development**,** Molecular Biology & Evolution**,** Proc. Natl. Acad. Sci. USA**,** Development, Genes and Evolution**,** Nature Reviews, Genetics**,** Developmental Biology**,** Current Biology**,** Molecular and Cellular Endocrinology, FLY, PLoS Genetics, PLoS ONE, Molecular Biology & Evolution, JoVE, Nature Genetics, Nature Communications, Scientific Reports, Evo-Devo, JoVE, eLIFE, General & Comparative Endocrinology, BiolOpen, Frontiers in Ecology & Evolution, BMC Genomics, JEZ Part B: Molecular and Developmental Evolution, Insect Biochem & Mol Bio

**Text Book Review**: Wiley, *Integrated Genetics*

 *Hartwell, Genetics: From Genes to Genomes*

* + 1. Reviewing Activities for Agencies and Foundations

**Grant Review Panel memberships**

1994-2001 Member, March of Dimes Basic Research Advisory Committee

1996 Reviewer, National Institutes of Health, Program Project Review, Maternal& Child Health

1997- 2017 Member, March of Dimes Research Grant Committee

1998 Reviewer, National Institutes of Health,Small Business Grants

1999 - 2000 Member, National Research Council, HHMI Fellowships

2002 Ad Hoc Member, National Institutes of Health, Cell,

 Development and Function 4 (CDF-4)

2005 Ad Hoc Member, National Institutes of Health,

 Biology of Development and Aging

2005-2007 Member, National Institutes of Health, Fellowships in Biochemical and Molecular Neuroscience

2006-2008,

2016 Member, National Science Foundation, Animal Development/Evo-Devo Panel

2007 NIH Site visit, NICHD Lab of Gene Regulation & Development

2007 Ad Hoc Reviewer, National Institutes of Health, NICHD Panel

2008 University of Maryland, College Park, and the University of Maryland Seed Grant Program

2010 USDA NP 304 Panel

2009 – 2012 &

2013 – 2016 Member, Biomedical Research and Training (BRT-A/TWD-A) Study Section,

 National Institute of Health (NIGMS). This entailed 3 meetings per year with

 1-2 site visits and ~ 3 primary reviews/ meeting

2015 Ad hoc, Developmental Biology Subcommittee, NIGMS

2016, 2017 Member, HHMI Gilliam Award review panel

2018, 2019 NIGMS MIRA Study Section

2018 NIGMS IPERT (R25) Study Section

2018 NIGMS BUILD Study Section

2019 NIH Early Independence Awards (DP5), mail in review

2019 CSR Special Emphasis Panel (Panel Co-Chair)

2020 NIGMS, TWD-B Study Section

2020 NIGMS R99/K00 Pathways to Independence Study Section

2021 NIGMS, Young Investigator MIRA Study Section

2020, 2021 Ad hoc reviewer, Marsden Foundation, New Zealand

**Outside Reviewer of Grants for:**

University Research Challenge Fund (URCF), New York University; City University of New York, internally funded grants; National Science Foundation; Bicentennial Program of Science and Technology from Chile; FWF Austrian Science Fund, Graduate Women In Science (GWIS, multiple years 2017 - 2020)

* + 1. **Other** **Professional Service:**

External Review of The Ohio State Entomology Department (2018)

External Review of Tenure & Promotion Dossiers since 2013: Clark University, National University of Singapore, Barnard College, Clarkson University, University of California Davis, University of Arizona, University of Connecticut, Shanghai Jiao Tong University, University of Illinois Chicago, Binghamton University, Mount Sinai School of Medicine, Colby College, University of California San Diego, University of Manitoba, University of Chicago (2x), Harvard University, University of Maryland Medical School, Baltimore (3x), Wayne State University, North Carolina State University, Arizona State University, Indiana University

* 1. Committees, Professional & Campus Service
		1. Campus Service – Department

**Entomology Department, prior to Chair position**

Chair, Search Committee Entomology Faculty Search in Insect Molecular Biology

Faculty Evaluation Committee (2004, 2005, 2008)

Awards Committee (2006 - 2007)

Mentoring Committee for Junior Faculty, Dr. Jian Wang

Colloquium Organizer (Fall, 2009)

**Other Departmental Committees**

NACS Curriculum Committee (2003)

BEES Graduate Admissions Committee (2004)

Senior Faculty Search Committee, Biology Department (2004)

Promotions and Tenure Committee, Dr. Louisa Wu, UMBI (2006)

Center for Biosystems Research faculty search committee (2007-2008)

* + 1. Campus Service – College

**College of Chemical and Life Sciences/ College of Computer, Math and Natural Sciences Committees**

White Paper for Functional and Medical Genomics (2003)

Dean's Review Committee (2004)

Chair, College Advisory Council (2004-2005)

Faculty Advisory Council (2004-present)

CLFS Blue Ribbon Committee "Thinking about Reorganization of the Biological Graduate Programs" (2007-2008)

CBMG Chair Search Committee (2007-2008)

CLFS Blue Ribbon Implementation Committee (2008)

Search Committee, Chair Biology Department (2008)

Chair, BISI Director Search Committee (2009)

Poster Judge, MOCB Retreat (2010)

Panelist, NIH T32 Training Grants workshop focused on the “Top 10 Insider Tips for a Successful T32 Institutional Training Grant” (2010)

Junior Faculty and Faculty Research Award Committee (2010)

Planning Committee for Joint Institute with NIST (2010)

College Undergraduate Education Committee, CUPC (2010-2011)

CMNS Life Sciences Task Force, Chair (2013 – 2014)

Chair, Search Committee for CBMG Chair (2015)

Member, Search Committee Balo-Simon Chair in Life Sciences (2017)

**College of Agriculture and Natural Resources**

Chair, Review of Chair of Plant Science & Landscape Architecture Department (2016-2017)

Co-Leader, Strategic Initiative in Human, Animal and Environmental Health (2017-2019)

Chair, Search Committee for Chair of Plant Science & Landscape Architecture Department (2019)

* + 1. Campus Service – Other

**Molecular & Cell Biology Graduate Program**

Director, 2004-2008 (4-year term)

MOCB Executive Committee, 2004-present

MOCB Graduate Admissions Committee, 2004 - present

MOCB Representative on Graduate Council, 2004 – 2008

MOCB Retreat Organizer, 2011

MOCB Seminar Co-Organizer, 2011/2012

MOCB Graduate Program Committee (2015-2018)

**Mount Sinai School of Medicine, prior to joining UMD**

1990-1995 &1997 Member, Graduate School Admissions Committee

1995-1999 Member Steering Committee, Training Program in Developmental Biology

1998 - 2003 Member, Steering Committee MCBDS Training Area

1994 - 2003 Member, Steering Committee, Training Program in Molecular

 and Cellular Biology

1999 - 2003 Member, Graduate School Executive Committee

1999 - 2003 Program Director, Training Program Molecular & Cellular Biology

2000 Member, Mount Sinai Graduate Recruitment Committee

* + 1. **Leadership Roles in Meetings and Conferences**

Organizer and co-organizer, New York Area Fly Meetings (1991- 2002)

Session Chair, Evolution & Development, Regional SDB Meeting (2009)

Co-organizer 51st Annual Drosophila Research Conference,

 Organization and planning for one year (2009-2010)

Session co-chair, Evolution and Quantitative Genetics, 51st Annual Drosophila Research Conference (2010)

Poster Judge, Mid-Atlantic Society for Developmental Biology Meeting (2010)

* + 1. **Other Non-University Committees, Memberships, Panels, etc.**

Executive Council, Pan American Society for Evolutionary Developmental Biology (2014-2015)

* 1. Community & Other Service
		1. **Outreach**

Member, Geneticist-Educator Network of Alliances (GENA) Project, aimed at speaking to and reviewing curriculum for genetics in K-12 classrooms

1st grade presentation on "Flies and Genes" (2007) Krieger Schechter Day School, Baltimore, MD

Preschool presentation "Flies and Genes" (2007) Gan Israel Winter Camp, Columbia, MD

Wilde Lake Middle School Science Fair Judge, Columbia, MD (2008)

ABRCMS (2008). Attendee and Judge of poster and slide presentations.

University of Maryland Eastern Shore visit (2009). Organized full-day visit for undergraduates interested in graduate school.

ABRCMS (2009). Judge Abstracts for poster and slide presentations

Reviewer of High School DNA Essays for DNA Day (2010), through Genetics Education Outreach Network (GEON)

DNA Day talks (April 23, 2010) through GEON, Clemens Crossing Elementary School, MD.River Hill High School, MD

Capitol Hill Day with Coalition for Life Sciences, (2010)

Reviewer of Science Curricula for Public High School Systems in Washington, D.C. and Bolder, Co. 2010 (through GEON)

ABRCMS (2010) Attendee for graduate recruiting

4-H Adventures in Science Program with Emily Zobel (Graduate students), 2 presentations on Insects and Drosophila genetics (2014)

Wilde Lake Middle School. Taught 4 7th grade science classes on Flies & Genetics, (2014)

Meeting with Wilde Lake Middle School Entomology Club, May 2014

Wilde Lake Middle School. Taught all day, 7th grade science classes on Flies & Genetics (2015)

4-H Adventures in Science Program (with Graduate students) Presentation on Insects and Drosophila genetics (2015, 2016)

Entomology Department Insect Camp, Flies and Genetics (2015)

Elementary school presentation (2017)

Genetic Literacy Program through University of Maryland Extension (2018-2019), 4 talks given at Public Libraries

Insect Zoo Exhibit at Maryland Day (every year); Maryland State Fair, 2019

1. Coauthor, review [↑](#footnote-ref-1)
2. Contributed one or more experiment(s), participated in data analysis and paper writing [↑](#footnote-ref-2)
3. First author: Carried out all or most experiments, analyzed data, wrote paper [↑](#footnote-ref-3)
4. Co-advised graduate student(s)/post-doc(s). Designed experiments, assisted in data analysis and paper writing. [↑](#footnote-ref-4)
5. Senior and corresponding author: Designed experiments, supervised students and post-docs, analyzed data, wrote paper [↑](#footnote-ref-5)
6. Contributed one experimental figure, with graduate student Y. Yu [↑](#footnote-ref-6)
7. Analyzed data and co-wrote paper [↑](#footnote-ref-7)
8. Trained and supervised post-doctoral fellow in *Drosophila* genetics presented in this paper [↑](#footnote-ref-8)
9. Dr. Engstrom did a sabbatical in my lab to learn the yeast double interaction screen technique we developed.

 Two papers from her lab resulted from this work. LP also co-wrote these papers. [↑](#footnote-ref-9)
10. Major author, review article

11 Coauthor, collaborative project

^ Pick lab undergraduate author [↑](#footnote-ref-10)