

Curriculum Vitae

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Training and Education

Post-Doctoral Research Associate Dr. Daniel Goldberg, Howard Hughes Medical Institute	06/02 – 08/08
Ph.D., Department of Biological Chemistry Johns Hopkins University School of Medicine	2002
Research Technician Dr. Scott Landfear, Oregon Health Sciences University	11/94 – 6/96
Research Technician Dr. Jean Feagin, Seattle Biomedical Research Institute	6/91 – 10/94
B.A., Department of Chemistry Seattle Pacific University	1991

Teaching Experience

Course Faculty, Biology of Parasitism, Marine Biological Laboratories, Woods Hole, MA. Summer 2008

Teaching Assistant to Dr. Daniel Goldberg, Biology of Parasitism, Marine Biological Laboratories, Woods Hole, MA. Summer, 2006 and 2007

Course Assistant and Lecturer – Fundamentals of Light Microscopy, Johns Hopkins University School of Medicine. 1999 – 2001.

Teaching Assistant to Dr. Jean Feagin, Biology of Parasitism, Marine Biological Laboratories, Woods Hole, MA. Summer, 1994 and 1995

Scholarships/Awards

Student Scholarship – Keystone meeting “RNAi, co-suppression and related phenomena”. Taos, NM 2002

Publications

Drew ME, Banerjee R, Gilbertson SR, Rosenthal PJ, Goldberg DE. Plasmodium food vacuole plasmepsins are activated by falcipains, *J. Biol. Chem.* 2008 May 9;283(19):12870-6

Motyka SA, **Drew ME**, Yildirim G, Englund PT. Overexpression of a cytochrome b5 reductase-like protein causes kinetoplast DNA loss in *Trypanosoma brucei*. *J. Biol. Chem.* 2006 Jul 7;281(27):18499-506

Liu J, Gluzman I, **Drew ME**, Goldberg DE. The Role of *Plasmodium falciparum* Food Vacuole Plasmepsins. *J. Biol. Chem.*, Jan 2005; 280: 1432 – 1437

Drew, ME, Motyka, SA, Morris, JC, Wang, Z, Englund, PT. Inducible RNAi as a Forward Genetic Tool in *Trypanosoma brucei*. In: Appasani, K, editor. RNA Interference Technology. Cambridge University Press. 2005

Morris, JC, Wang, Z, Motyka, SA, **Drew, ME**, Englund, PT. An RNAi-based genomic library for forward genetics in the African trypanosome. In: Sohail, M, editor. Gene Silencing by RNA Interference: Technology and Application. Boca Raton: CRC Press LLC. 2004

Drew ME*, Wang Z*, Morris JC* (***co-first authors**), Wells L, Sanchez M, Landfear SM, Englund PT. The adenosine analog tubercidin inhibits glycolysis in *Trypanosoma brucei* as revealed by an RNA interference library. *J. Biol. Chem.* 2003 Nov 21;278(47):46596-60

Wang Z, **Drew ME**, Morris JC, Englund PT. Asymmetrical division of the kinetoplast DNA network of the trypanosome. *EMBO J.* 2002 Sep 16;21(18):4998-5005

Morris JC*, Wang Z*, **Drew ME***, (***co-first authors**) Englund PT. Glycolysis modulates trypanosome glycoprotein expression as revealed by an RNAi library. *EMBO J.* 2002 Sep 2;21(17):4429-38

Grahms J, Morris JC, **Drew ME**, Wang Z, Englund PT, Hajduk SL. Transcription and Replication Priming of Kinetoplast DNA Maxicircles by a Mitochondrial RNA Polymerase. *J. Biol. Chem.* 2002 May 10;277(19):16950-9.

Klingbeil MM, **Drew ME**, Liu Y, Morris JC, Motyka SA, Saxowsky TT, Wang Z, Englund PT. Unlocking the Secrets of Trypanosome Kinetoplast DNA Network Replication. *Protist*, December 2001, vol. 152, no. 4, pp. 255-262(8)

Wang Z*, Morris JC*, **Drew ME***, Paul KS*, (***co-first authors**) Englund PT. Inhibition of Bloodstream Form *Trypanosoma brucei* Gene Expression by RNA Interference Using the pZJM Dual T7 Vector. *Mol. Biochem. Parasitol.* 2001 Sept. 28; 117(1):111-113

Drew ME, Englund PT. Intramitochondrial location and dynamics of *Crithidia fasciculata* kinetoplast minicircle replication intermediates. *J. Cell. Biol.* 2001 May 14;153(4):735-44

Abu-Elneel K, Robinson DR, **Drew ME**, Englund PT, Shlomai J. Intramitochondrial localization of universal minicircle sequence-binding protein, a trypanosomatid protein that binds kinetoplast minicircle replication origins. *J. Cell. Biol.* 2001 May 14;153(4):725-34

Morris JC, **Drew ME**, Klingbeil MM, Motyka SA, Saxowsky TT, Wang Z, Englund PT. Replication of kinetoplast DNA: an update for the new millennium. *Int. J. Parasitol.* 2001 May;31(5-6):453-8

Wang Z*, Morris JC*, **Drew ME*** (***co-first authors**), Englund PT. Inhibition of *Trypanosoma brucei* gene expression by RNA interference using an integratable vector with opposing T7 promoters. *J. Biol. Chem.* 2000 Dec 22;275(51):40174-9

Carter NS, **Drew ME**, Sanchez M, Vasudevan G, Landfear SM, Ullman B. Cloning of a novel inosine-guanosine transporter gene from *Leishmania donovani* by functional rescue of a transport-deficient mutant. *J. Biol. Chem.* 2000 Jul 7;275(27):20935-41

Vasudevan G, Carter NS, **Drew ME**, Beverley SM, Sanchez MA, Seyfang A, Ullman B, Landfear SM. Cloning of *Leishmania* nucleoside transporter genes by rescue of a transport-deficient mutant. *Proc. Natl. Acad. Sci. U S A.* 1998 Aug 18;95(17):9873-8

Klamo EM, **Drew ME**, Landfear SM, Kavanaugh MP. Kinetics and stoichiometry of a proton/myo-inositol cotransporter. *J. Biol. Chem.* 1996 Jun 21;271(25):14937-43

Drew ME, Langford CK, Klamo EM, Russell DG, Kavanaugh MP, Landfear SM. Functional expression of a myo-inositol/H⁺ symporter from *Leishmania donovani*. *Mol. Cell. Biol.* 1995 Oct;15(10):5508-15

Langford CK, Kavanaugh MP, Stenberg PE, **Drew ME**, Zhang W, Landfear SM. Functional expression and subcellular localization of a high-K_m hexose transporter from *Leishmania donovani*. *Biochemistry.* 1995 Sep 19;34(37):11814-21

Feagin JE, **Drew ME**. *Plasmodium falciparum*: alterations in organelle transcript abundance during the erythrocytic cycle. *Exp. Parasitol.* 1995 May;80(3):430-40

Talks/Posters

Drew ME, Goldberg DE. Falcipains activate the *P. falciparum* plasmepsins. Molecular Parasitology Meeting, Woods Hole, MA 2007 (talk)

Arastu-Kupur S, Verhelst S, **Drew ME**, Fonovic M, Phillips C, Goldberg DE, Powers J, Bogyo M. Probing Serine Protease Function in the Human Malaria Parasite *Plasmodium falciparum*. Molecular Parasitology Meeting, Woods Hole, MA 2005 (talk)

Drew ME, Oksman A, Wood W, Ellman J, Goldberg DE. Discovery of probes for the cysteine proteases involved in *Plasmodium falciparum* egress through *in vivo* screening of a mechanism-based inhibitor library. Molecular Parasitology Meeting, Woods Hole, MA 2004 (talk)

Drew ME, Morris JC, Wang Z, Sanchez M, Landfear SM, Englund PT. Generation of Tubercidin Resistant *T. brucei* using an RNAi Library. Molecular Parasitology Meeting, Woods Hole, MA 2001. (talk)

Drew ME, Englund PT. The Birefringent Kinetoplast of *Crithidia fasciculata*: Visualization in Living Cells by Polarized Light Microscopy. Molecular Parasitology Meeting, Woods Hole, MA 2000. (poster)

Drew ME, Englund PT. Spatial and Temporal Characterization of *Crithidia fasciculata* Minicircle Replication Intermediates. Molecular Parasitology Meeting, Woods Hole, MA 1999. (talk)

Drew ME, Englund PT. A Novel Site for kDNA Minicircle Replication in *Crithidia fasciculata*. Molecular Parasitology Meeting, Woods Hole, MA 1998. (talk)

Morris JC, Li C, **Drew ME**, Englund PT. Cloning and Characterization of a Mitochondrial DNA Primase from *Crithidia fasciculata*. Molecular Parasitology Meeting, Woods Hole, MA 1998. (talk)

Vasudevan G, Carter N, **Drew M**, Beverley SM, Sanchez MA, Seyfang A, Ullman B, Landfear S. Cloning the *Leishmania donovani* adenosine/pyrimidine nucleoside transporter gene by functional complementation. Molecular Parasitology Meeting, Woods Hole, MA 1998. (talk)

Carter N, **Drew M**, Vasudevan G, Beverley SM, Ullman B, Landfear S. Molecular Cloning of the Inosine-Guanosine Transporter from *Leishmania donovani*. Molecular Parasitology Meeting, Woods Hole, MA 1997. (talk)

Vasudevan G, **Drew M**, Carter N, Beverley SM, Ullman B, Landfear S. Cloning the *Leishmania donovani* Adenosine-Pyrimidine Nucleoside Transporter by Genetic Complementation. Molecular Parasitology Meeting, Woods Hole, MA 1997. (talk)

Landfear SM, **Drew ME**, Langford CK, Russell DG. Functional Expression of a myo-Inositol Transporter from *Leishmania donovani* Molecular Parasitology Meeting, Woods Hole, MA 1995. (talk)