Table 7. BMS Student Publications

Student	Preceptor	Year Enrolled	Publication
Agarwal, Pooja	Black, Brian	2004	De Val S, Chi NC, Meadows SM, Minovitsky S, Anderson JP, Harris IS, Ehlers ML, **Agarwal P**, Visel A, Xu SM, Pennacchio LA, Dubchak I, Krieg PA, Stainier DY, Black BL. Combinatorial regulation of endothelial gene expression by ets and forkhead transcription factors. Cell. 2008 Dec 12;135(6):1053-64. PMID: 19070576. Rojas A, Kong SW, **Agarwal P**, Gilliss B, Pu WT, Black BL. GATA4 is a direct transcriptional activator of cyclin D2 and Cdk4 and is required for cardiomyocyte proliferation in anterior heart field-derived myocardium. Mol Cell Biol. 2008. Sep;28(17):5420-31. Epub 2008 Jun 30. PMID: 18591257. Verzi MP, **Agarwal P**, Brown C, McCulley DJ, Schwarz JJ, Black BL. The transcription factor MEF2C is required for craniofacial development. Dev Cell. 2007 Apr;12(4):645-52. PMID: 17420000; PMC1920108.
Angeli, Suzanne	Diamond, Marc	2003	**Angeli, S** and Diamond, MI. The Androgen Receptor N-Terminus Affects Subcellular Localization and Aggregate Formation. Submitted.
Austgen, Kathryn	Oakes, Scott & Ganem, Don	2007	Upton JP, **Austgen K**, Nishino M, Coakley KM, Hagen A, Han D, Papa FR, Oakes SA. 2008. Caspase-2 cleavage of BID is a critical apoptotic signal downstream of endoplasmic reticulum stress. Mol Cell Biol. 2008 Jun;28(12):3943-51. Epub 2008 Apr 21. PMCID: PMC2423129
Barker, Adrian	Coughlin, Shaun	2007	Camerer E, **Barker A**, Duong DN, Ganesan R, Kataoka H, Cornelissen I, Darragh MR, Hussain A, Zheng Y-W, Srinivasan Y, Brown C, Xu S-M, Lin C- Y, Craik CS, Kirchhofer D, Coughlin SR. Local protease signaling regulates neural tube closure in the mammalian embryo. Dev Cell (in review)
Brown, Courtney	Black, Brian	2004	Epting CL, López JE, Pedersen A, **Brown C**, Spitz P, Ursell PC, Bernstein HS. 2008. Stem cell antigen-1 regulates the tempo of muscle repair through effects on proliferation of alpha-7 integrin-expressing myoblasts. Exp Cell Res. Mar 10;314(5):1125-35. PMCID: PMC2292416 Verzi MP, Agarwal P, **Brown C,** McCulley DJ, Schwarz JJ, Black BL. 2007. MEF2C is required for craniofacial development in an endothelin-dependent transcriptional pathway. Dev Cell. Apr;12(4):645-52. PMCID: PMC1920108

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Student	Preceptor	Year Enrolled	Publication
Chen, Justin	Weiss, William	2007	**Chen JS**, Zhou LJ, Entin-Meer M, Yang X, Donker M, Knight ZA, Weiss W, Shokat KM, Haas-Kogan D, Stokoe D. 2008. Characterization of structurally distinct, isoform-selective phosphoinositide 3'-kinase inhibitors in combination with radiation in the treatment of glioblastoma. Mol Cancer Ther. 2008 Apr;7(4):841-50. PMID: 18413797 Costa B, Smith J, Chen Y, **Chen J**, Philips H, Aldape K, Zardo G, Nigro J, James CD, Fridlyand J, Reis R, Costello J. Transcriptional activation of oncogenic HOXA9 by PI3K correlates with glioblastoma aggressiveness and Prognosis. Submitted.
Chmura, Stephen	Killeen, Nigel	2003	Klinger M, Kim JK, **Chmura SA**, Barczak A, Erle DJ, Killeen N. 2009. J Immunol. Thymic OX40 expression discriminates cells undergoing strong responses to selection ligands. 2009 Apr 15;182(8):4581-9. PMID: 19342632
Chou, Jonathan	Werb, Zena	2008	**Chou J**, Provot S, Werb Z. 2009. GATA3 in development and cancer differentiation: Cells GATA have it!. J Cell Physiol. 2009 Oct 1. [Epub ahead of print] PMID:18358709
Coakley, Kristen	Roose, Jeroen	2006	Lauchle JO, Kim D, Le DT, Akagi K, Crone M, Krisman K, Warner K, Bonifas JM, Li Q, **Coakley KM**, Diaz-Flores E, Gorman M, Przybranowski S, Tran M, Kogan SC, Roose JP, Copeland NG, Jenkins NA, Parada L, Wolff L, Sebolt-Leopold J, Shannon K. Response and resistance to MEK inhibition in leukaemias initiated by hyperactive Ras. Nature. 2009 Sep 461(7262):411-4. Epub 2009 Sep 2. PMID: 19727076 Upton JP, Austgen K, Nishino M, **Coakley KM**, Hagen A, Han D, Papa FR, Oakes SA. 2008. Caspase-2 cleavage of BID is a critical apoptotic signal downstream of endoplasmic reticulum stress. Mol Cell Biol. 2008 Jun;28(12):3943-51. Epub 2008 Apr 21. Caspase-2 cleavage of BID is a critical apoptotic signal downstream of endoplasmic reticulum stress. PMCID: PMC2423129
Collins, Cathy	Brown, Eric	Graduated PhD 2009	Collins CA, De Mazière A, van Dijk S, Carlsson F, Klumperman J, Brown EJ. Atg5-independent sequestration of ubiquitinated mycobacteria. PLoS Pathog. 2009 May;5(5):e1000430. Epub 2009 May 15. PMCID: PMC2673685.

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Student	Preceptor	Year Enrolled	Publication
Cuellar, Trinna	McManus, Michael	Graduated PhD 2009	Tan GS, Garchow BG, Liu X, Yeung J, Morris JP 4th, **Cuellar TL**, McManus MT, Kiriakidou M. Expanded RNA-binding activities of mammalian Argonaute 2. Nucleic Acids Res. 2009 Oct 6. [Epub ahead of print] PMID: 19808937. Davis TH, **Cuellar TL**, Koch SM, Barker AJ, Harfe BD, McManus MT, Ullian EM. Conditional loss of Dicer disrupts cellular and tissue morphogenesis in the cortex and hippocampus. J Neurosci. 2008 Apr 23;28(17):4322-30. PMID: 18434510. **Cuellar TL**, Davis TH, Nelson PT, Loeb GB, Harfe BD, Ullian E, McManus MT. Dicer loss in striatal neurons produces behavioral and neuroanatomical phenotypes in the absence of neurodegeneration. Proc Natl Acad Sci U S A. 2008 Apr8;105(14):5614-9. Epub 2008 Apr 2. PMCID: PMC2291142. **Cuellar TL**, McManus MT. MicroRNAs and endocrine biology. J Endocrinol. 2005 Dec;187(3):327-32. Review. PMID: 16423811.
Ehlers, Melissa	Black, Brian	2005	De Val S, Chi NC, Meadows SM, Minovitsky S, Anderson JP, Harris IS, **Ehlers ML**, Agarwal P, Visel A, Xu SM, Pennacchio LA, Dubchak I, Krieg PA, Stainier DY, Black BL. 2008.Combinatorial Regulation of Endothelial Gene Expression by Ets and Forkhead Transcription Factors..Cell. Dec 12;135(6):1053-64..PMID: 19070576
Esensten, Jonathan	Bluestone, Jeffrey	2006	**Esensten JH,** Wofsy D, Bluestone JA. Regulatory T cells as therapeutic targets in rheumatoid arthritis. Nat Rev Rheumatol. 2009 Oct;5(10):560-5. PMID: 19798031. **Esensten JH,** Lee MR, Glimcher LH, Bluestone JA. T-bet-deficient NOD mice are protected from diabetes due to defects in both T cell and innate immune system function. J Immunol. 2009 Jul 1;183(1):75-82. Epub 2009 Jun 17. PMID: 19535634; PMC2732575.

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Student	Preceptor	Year Enrolled	Publication
Frost, Bess	Diamond, Marc	Graduated PhD 2009	**Frost B**, Diamond MI. The expanding realm of prion phenomena in neurodegenerative disease. Prion. 2009 Apr;3(2):74-7. Epub 2009 Apr 16. Review. PubMed PMID: 19448400; PMCID: PMC2712602. **Frost B**, Jacks RL, Diamond MI. Propagation of tau misfolding from the outside to the inside of a cell. J Biol Chem. 2009 May 8;284(19):12845-52. Epub 2009 Mar 11. PubMed PMID: 19282288; PMCID: PMC2676015. **Frost B**, Ollesch J, Wille H, Diamond MI. Conformational diversity of wild-type Tau fibrils specified by templated conformation change. J Biol Chem. 2009 Feb 6;284(6):3546-51. Epub 2008 Nov 14. PMCID: PMC2635036.
Gierke, Sarah	Wittmann, Torsten	2006	Kumar P, Lyle KS, **Gierke S**, Matov A, Danuser G, Wittmann T. 2009. GSK3beta phosphorylation modulates CLASP-microtubule association and lamella microtubule attachment. J Cell Biol. 2009 Mar 23;184(6):895-908. Epub 2009 Mar 16. PMCID: PMC2699158
Gilden, Julia	Krummel, Matthew	2004	Tooley AJ, **Gilden J**, Jacobelli J, Beemiller P, Trimble WS, Kinoshita M, Krummel MF. Amoeboid T lymphocytes require the septin cytoskeleton for cortical integrity and persistent motility. Nat Cell Biol. 2009 Jan;11(1):17-26. Epub 2008 Nov 30. PMID: 19043408. Mamchak AA, Sullivan BM, Hou B, Lee LM, **Gilden JK**, Krummel MF, Locksley RM, DeFranco AL. Normal development and activation but altered cytokine production of Fyn-deficient CD4+ T cells. J Immunol. 2008 Oct 15;181(8):5374-85. PMID: 18832694; PMC2657555.
Gray, Elizabeth	Cyster, Jason	2007	Phan TG, Green JA, **Gray EE**, Xu Y, Cyster JG. Immune complex relay by subcapsular sinus macrophages and noncognate B cells drives antibody affinity maturation. Nat Immunol. 2009 Jul;10(7):786-93. Epub 2009 Jun 7. PMID: 19503106. Phan TG, **Gray EE**, Cyster JG. The microanatomy of B cell activation. Curr Opin Immunol. 2009 Jun;21(3):258-65. Epub 2009 May 28. Review. PMID: 19481917.

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Student	Preceptor	Year Enrolled	Publication
Green, Jesse	Cyster, Jason	2005	Phan TG, **Green JA**, Gray EE, Xu Y, Cyster JG. Immune complex relay by subcapsular sinus macrophages and noncognate B cells drives antibody affinity maturation. Nat Immunol. 2009 Jul;10(7):786-93. Epub 2009 Jun 7. PMID: 19503106.
Greninger, Alex	Ganem, Don & DeRisi, Joseph	2007	Gancz AY, Kistler AL, **Greninger AL**, Farnoushi Y, Mechani S, Perl S, Berkowitz A, Perez N, Clubb S, DeRisi JL, Ganem D, Lublin A. Experimental induction of proventricular dilatation disease in cockatiels (Nymphicus hollandicus) inoculated with brain homogenates containing avian bornavirus 4. Virol J. 2009 Jul 9;6:100. PMID: 19589169; PMC2717941. **Greninger AL**, Runckel C, Chiu CY, Haggerty T, Parsonnet J, Ganem D, DeRisi JL. The complete genome of klassevirus - a novel picornavirus in pediatric stool. Virol J. 2009 Jun 18;6:82. PMID: 19538752; PMC2709156. Chiu CY, **Greninger AL**, Kanada K, Kwok T, Fischer KF, Runckel C, Louie JK, Glaser CA, Yagi S, Schnurr DP, Haggerty TD, Parsonnet J, Ganem D, DeRisi JL. Identification of cardioviruses related to Theiler's murine encephalomyelitis virus in human infections. Proc Natl Acad Sci U S A. 2008 Sep 16;105(37):14124-9. Epub 2008 Sep 3.
Hackett, Christopher	Weiss, William	2003	Fan QW, Cheng C, **Hackett CS**, Nicolaides T, Feldman M, Houseman BT, Debnath J, Oakes SA, James CD, Shokat KM, and Weiss WA. Akt and autophagy cooperate to promote therapeutic resistance in glioma. Submitted. Collier LS, Adams DJ, **Hackett CS**, Bendzick LE, Akagi K, Davies MN, Diers MD, Rodriguez FJ, Bender A, Tieu C, Matise I, Dupuy AJ, Copeland NG, Jenkins NA, Hodgson JG, Weiss WA, Jenkins RB and Largaespada DA. Whole-body Sleeping Beauty transponson mutagenesis can cause highly penetrant leukemia/lymphoma and rare high-grade glioma without associated embryonic lethality or genomic instability. Submitted. Grimmer MR, Swartling FJ, **Hackett CS**, Northcott P, Masic S, Fan QW, Goldenberg D, Nguyen K, Yakovenko S, Zhe XN, Collins R, Nagaoka M, Phillips JJ, Tihan T, Vandenberg SR, James CD, Tanaka K, Taylor MD, Weiss WA, and Chesler L. Pleitropic Role for MYCN in the Pathogenesis of Medulloblastoma. Submitted.

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Student	Preceptor	Year Enrolled	Publication
			Swarbrick A, Woods S, Shaw A, Sullivan CS, Judson RL, Balakrishnan A, Haber M, Norris MD, Lengyel P, **Hackett CS** Preiss T, Weiss WA, Etoile NL, and Goga A. MicroRNA repression of p53 contributes to survival of embryonic stem cells and neuroblastomas. Submitted. Fan QW, Cheng CK, Nicolaides TP, **Hackett CS**, Knight ZA, Shokat KM, Weiss WA. A dual phosphoinositide-3-kinase alpha/mTOR inhibitor cooperates with blockade of epidermal growth factor receptor in PTEN-mutant glioma. Cancer Res. 2007 Sep 1;67(17):7960-5. PMID: 17804702. Cheng AJ, Cheng NC, Ford J, Smith J, Murray JE, Flemming C, Lastowska M, Jackson MS, **Hackett CS**, Weiss WA, Marshall GM, Kees UR, Norris MD, Haber M. Cell lines from MYCN transgenic murine tumours reflect the molecular and biological characteristics of human neuroblastoma. Eur J Cancer. 2007 Jun;43(9):1467-75. Epub 2007 Apr 20. PMID: 17449239. Geurts AM, **Hackett CS**, Bell JB, Bergemann TL, Collier LS, Carlson CM, Largaespada DA, Hackett PB. Structure-based prediction of insertion-site preferences of transposons into chromosomes. Nucleic Acids Res. 2006 May 22;34(9):2803-11. Print 2006. **Hackett CS**, Geurts AM, Hackett PB. Predicting preferential DNA vector insertion sites: implications for functional genomics and gene therapy. Genome Biol. 2007;8 Suppl 1:S12. Review. PMID: 18047689; PMC2106846. Tse KF, Jeffers M, Pollack VA, McCabe DA, Shadish ML, Khramtsov NV, **Hackett CS**, Shenoy SG, Kuang B, Boldog FL, MacDougall JR, Rastelli L, Herrmann J, Gallo M, Gazit-Bornstein G, Senter PD, Meyer DL, Lichenstein HS, LaRochelle WJ. CR011, a fully human monoclonal antibody-auristatin E conjugate, for the treatment of melanoma. Clin Cancer Res. 2006 Feb 15;12(4):1373-82. PMID: 16489096. **Hackett CS**, Hodgson JG, Law ME, Fridlyand J, Osoegawa K, de Jong PJ, Nowak NJ, Pinkel D, Albertson DG, Jain A, Jenkins R, Gray JW, Weiss WA. Genome-wide array CGH analysis of murine neuroblastoma reveals distinct genomic aberrations which parallel those in human tumors. Cancer Res. 2003 Sep 1;63(17):5266-73. PMID: 14500357.

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Heidersbach, Amy	Srivastava, Deepak	2008	Gaspar-Maia A, Alajem A, Polesso F, Sridharan R, Mason MJ, **Heidersbach A**, Ramalho-Santos J, McManus MT, Plath K, Meshorer E, Ramalho-Santos M. Chd1 regulates open chromatin and pluripotency of embryonic stem cells. Nature. 2009 Aug 13;460(7257):863-8. Epub 2009 Jul 8. PMID: 19587682. Huang TH, Wu F, Loeb GB, Hsu R, **Heidersbach A**, Brincat A, Horiuchi D, Lebbink RJ, Mo YY, Goga A, McManus MT. Up-regulation of miR-21 by HER2/neu signaling promotes cell invasion. J Biol Chem. 2009 Jul 3;284(27):18515-24. Epub 2009 May 6. PMID: 19419954; PMC2709372.
Gaulden Hunkapiller, Julie	Reiter, Jeremy	2005	Veena Singla, **Julie Hunkapiller**, Nicole Santos, Allen Seol, Andrew R. Norman, Paul Wakenite, William C. Skarnes, and Jeremy Reiter. Efficient engineering of novel alleles at gene trap loci in mouse embryonic stem cells. Nature Methods. Submitted. 10-14-09 **Gaulden J**, Reiter JF. Neur-ons and neur-offs: regulators of neural induction in vertebrate embryos and embryonic stem cells. Hum Mol Genet. 2008 Apr 15;17(R1):R60-6. Corbit KC, Shyer AE, Dowdle WE, **Gaulden J**, Singla V, Chen MH, Chuang PT, Reiter JF. Kif3a constrains beta-catenin-dependent Wnt signalling through dual ciliary and non-ciliary mechanisms. Nat Cell Biol. 2008 Jan;10(1):70-6. Potikyan G, Savene RO, **Gaulden JM**, France KA, Zhou Z, Kleinerman ES, Lessnick SL, Denny CT. EWS/FLI1 Regulates Tumor Angiogenesis in Ewing's Sarcoma via Suppression of Thrombospondins. Cancer Research, 2007. 67(14):6675-84.
Hunkapiller, Nathan	Fisher, Susan	2004	**Hunkapiller NM**, Fisher SJ. Chapter 12. Placental remodeling of the uterine vasculature. Methods Enzymol. 2008;445:281-302. PMID: 19022064.
Jacks, Rachel	Diamond, Marc	2005	Frost B, **Jacks RL**, Diamond MI. Propagation of tau misfolding from the outside to the inside of a cell. J Biol Chem. 2009 May 8;284(19):12845-52. Epub 2009 Mar 11. PMID: 19282288; PMC2676015.
Johnson, Brett	Costello, Joseph	2008	Alika K. Maunakea, Raman P. Nagarajan, Mikhail Bilenky, Cletus D'Souza, Shaun D. Fouse, **Brett E. Johnson**, Chibo Hong, Cydney Nielson, Yongjun Zhao, Elizabeth M. Simpson, Gustavo Turecki, Tracy J. Ballinger, Steven S.J. Jones, David Haussler, Marco A. Marra,

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Student	Preceptor	Year Enrolled	Publication
			Martin Hirst, Ting Wang, Joseph F. Costello. Evolutionarily Conserved Role of Intragenic DNA Methylation in Regulating Alternative Promoters (submitted).
Judson, Robert	Blelloch, Robert	2007	Melton C, **Judson RL**, Blelloch R. Opposing microRNA families regulate self-renewal in mouse embryonic stem cells. Submitted. **Judson RL**, Babiarz JE, Venere M, Blelloch R. Embryonic stem cell-specific microRNAs promote induced pluripotency. Nat Biotechnol. 2009 May;27(5):459-61. Epub 2009 Apr 12. PMCID: PMC2743930
Kelly, Lisa	Cyster, Jason	2005	Pereira JP, **Kelly LM**, Xu Y, Cyster JG. EBI2 mediates B cell segregation between the outer and centre follicle. Nature. 2009 Aug 27;460(7259):1122-6. Epub 2009 Jul 13. PMID: 19597478. Suzuki K, Grigorova I, Phan TG, **Kelly LM**, Cyster JG. Visualizing B cell capture of cognate antigen from follicular dendritic cells. J Exp Med. 2009 Jul 6;206(7):1485-93. Epub 2009 Jun 8. PMID: 19506051; Central PMCID: PMC2715076. Lesley R, **Kelly LM**, Xu Y, Cyster JG. Naive CD4 T cells constitutively express CD40L and augment autoreactive B cell survival. Proc Natl Acad Sci U S A. 2006 Jul 11;103(28):10717-22. Epub 2006 Jun 30. PMID: 16815973; PMC1484418.
Kwan, Wanda	Muchowski, Paul	2005	Giorgini F, Möller T, **Kwan W**, Zwilling D, Wacker JL, Hong S, Tsai LC, Cheah CS, Schwarcz R, Guidetti P, Muchowski PJ. Histone deacetylase inhibition modulates kynurenine pathway activation in yeast, microglia, and mice expressing a mutant huntingtin fragment. J Biol Chem. 2008 Mar 21;283(12):7390-400. Epub 2007 Dec 13. PMID: 18079112.
Lau, Janet	Hebrok, Matthias	2001	Nolan-Stevaux O, **Lau J**, Truitt ML, Chu GC, Hebrok M, Fernández-Zapico ME, Hanahan D. GLI1 is regulated through Smoothened-independent mechanisms in neoplastic pancreatic ducts and mediates PDAC cell survival and transformation. Genes Dev. 2009 Jan 1;23(1):24-36. PMID: 19136624; PMC2632164. Heiser PW, **Lau J**, Taketo MM, Herrera PL, Hebrok M. Stabilization of beta-catenin impacts pancreas growth. Development. 2006 May;133(10):2023-32. Epub 2006 Apr 12. PMID: 16611688.

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Student	Preceptor	Year Enrolled	Publication
			Lau J, Kawahira H, Hebrok M. Hedgehog signaling in pancreas development and disease. Cell Mol Life Sci. 2006 Mar;63(6):642-52. Review. PMID: 16465449. **Lau J** and Hebrok M, Hedgehog signaling in pancreas epithelium regulates embryonic organ formation and adult β-cell function, *Diabetes*, submitted (in revisions). Cano D*, Cervantes S*, **Lau J***, Borromeo-Austin C, Hebrok M, Primary cilia regulate Gli/Hedgehog activation in pancreas, *PNAS*, submitted (in revisions). (* denotes co-first authors)
Lee, Linda	DeFranco, Anthony	2006	Mamchak AA, Sullivan BM, Hou B, **Lee LM**, Gilden JK, Krummel MF, Locksley RM, DeFranco AL. 2008. Normal development and activation but altered cytokine production of Fyn-deficient CD4+ T cells. J Immunol. 2008 Oct 15;181(8):5374-85. PMID: 18832694
Lemus, Armando	Engel, Joanne	2006	Balachandran P, Dragone L, Garrity-Ryan L, **Lemus A**, Weiss A, Engel J. 2007. The ubiquitin ligase Cbl-b limits Pseudomonas aeruginosa exotoxin T-mediated virulence. J Clin Invest. 2007 Feb;117(2):419-27. Epub 2007 Jan 18. PMCID: PMC1765809
Lerner, Alana	Papa, Feroz	2005	Han D, **Lerner AG**, Vande Walle L, Upton JP, Xu W, Hagen A, Backes BJ, Oakes SA, Papa FR. 2009. IRE1alpha kinase activation modes control alternate endoribonuclease outputs to determine divergent cell fates. Cell. 2009 Aug 7;138(3):562-75.
Lock, Rebecca	Debnath, Jayanta	2005	**Lock R**, Debnath J. Extracellular matrix regulation of autophagy. Curr Opin Cell Biol. 2008 Oct;20(5):583-8. Epub 2008 Jun 21. Review. PMID: 18573652; PMC2613490.Fung C, Lock R, Gao S, Salas E, Debnath J. Induction of autophagy during extracellular matrix detachment promotes cell survival. Mol Biol Cell. 2008 Mar;19(3):797-806. Epub 2007 Dec 19. PMID: 18094039; PMC2262959.
Lopez, Jaime	Toczyski, David	2004	**Jaime Lopez-Mosqueda**, Nancy L. Maas, Zophonias O. Jonsson, Lisa G. DeFazio Eli, James Wohlschlegel, and David P. Toczyski. Damage-Induced Phosphorylation of Sld3 is important to Block Late Origin Firing. Submitted.

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Student	Preceptor	Year Enrolled	Publication
Lyons, Jesse	McCormick, Frank	2003	Young A, **Lyons J**, Miller AL, Phan VT, Alarcón IR, McCormick F. Ras signaling and therapies. Adv Cancer Res. 2009;102:1-17. Review. PMID: 19595305. Goretzki PE, **Lyons J**, Stacy-Phipps S, Rosenau W, Demeure M, Clark OH, McCormick F, Röher HD, Bourne HR. Mutational activation of RAS and GSP oncogenes in differentiated thyroid cancer and their biological implications. World J Surg. 1992 Jul-Aug;16(4):576-81; discussion 581-2. PMID: 1413827. Landis CA, Harsh G, **Lyons J**, Davis RL, McCormick F, Bourne HR. Clinical characteristics of acromegalic patients whose pituitary tumors contain mutant Gs protein. J Clin Endocrinol Metab. 1990 Dec;71(6):1416-20. PMID: 2121775.
Martin, Ashley	Tang, Qizhi	2007	Melli K, Friedman RS, **Martin AE**, Finger EB, Miao G, Szot GL, Krummel MF, Tang Q. 2009. Amplification of autoimmune response through induction of dendritic cell maturation in inflamed tissues. J Immunol. 2009 Mar 1;182(5):2590-600. PMID: 19234153
Melton, Collin	Blelloch, Robert	2005	Chaivorapol C, **Melton C**, Wei G, Yeh RF, Ramalho-Santos M, Blelloch R, Li H. CompMoby: comparative MobyDick for detection of cis-regulatory motifs. BMC Bioinformatics. 2008 Oct 27;9:455. PMID: 18950538; PMC2605473. Wang Y, Medvid R, **Melton C**, Jaenisch R, Blelloch R. DGCR8 is essential for microRNA biogenesis and silencing of embryonic stem cell self-renewal. Nat Genet. 2007 Mar;39(3):380-5. Epub 2007 Jan 28. PMID: 17259983. **Melton C**, Judson RL, Blelloch R. Opposing microRNA families regulate self-renewal in mouse embryonic stem cells. Submitted.
Miller, Abigail	McCormick, Frank	2002	Young A, Lyons J, **Miller AL**, Phan VT, Alarcón IR, McCormick F. Ras signaling and therapies. Adv Cancer Res. 2009;102:1-17. Review. PMID: 19595305.

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Student	Preceptor	Year Enrolled	Publication
Miller, Corey	McCune, Joseph	2006	Favre D, Lederer S, Kanwar B, Ma ZM, Proll S, Kasakow Z, Mold J, Swainson L, Barbour JD, Baskin CR, Palermo R, Pandrea I, **Miller CJ**, Katze MG, McCune JM. Critical loss of the balance between Th17 and T regulatory cell populations in pathogenic SIV infection. PLoS Pathog. 2009 Feb;5(2):e1000295. Epub 2009 Feb 13. PMID: 19214220; PMC2635016. Lozano Reina JM, Favre D, Kasakow Z, Mayau V, Nugeyre MT, Ka T, Faye A, **Miller CJ**, Scott-Algara D, McCune JM, Barré-Sinoussi F, Diop OM, Müller-Trutwin MC. Gag p27-specific B- and T-cell responses in Simian immunodeficiency virus SIVagm-infected African green monkeys. J Virol. 2009 Mar;83(6):2770-7. Epub 2008 Dec 24. PMID: 19109377; PMC2648264. **Miller CJ**, Genescà M, Abel K, Montefiori D, Forthal D, Bost K, Li J, Favre D, McCune JM. Antiviral antibodies are necessary for control of simian immunodeficiency virus replication. J Virol. 2007 May;81(10):5024-35. Epub 2007 Feb 28. PMID: 17329327; PMC1900210.
Morris, John	Hebrok, Matthias	2004	**Morris JP IV**, Cano D, Sekine S, Wang S, Hebrok M. β-Catenin is a critical modulator of acinar regeneration versus Kras induced development of pancreatic cancer precursors. JCI. Submitted. Morton JP, Mongeau ME, Klimstra DS, **Morris JP**, Lee YC, Kawaguchi Y, Wright CV, Hebrok M, Lewis BC. 2007. Sonic hedgehog acts at multiple stages during pancreatic tumorigenesis. Proc Natl Acad Sci U S A. 2007 Mar 20;104(12):5103-8. Epub 2007 Mar 19. PMCID: PMC1828712
Murphy, Patrick	Wang, Rong	2004	**Murphy PA**, Lu G, Shiah S, Bollen AW, Wang RA. Endothelial Notch signaling is upregulated in human brain arteriovenous malformations and a mouse model of the disease. Lab Invest. 2009 Sep;89(9):971-82. Epub 2009 Jun 22. Erratum in: Lab Invest. 2009 Sep;89(9):1071. PMID: 19546852. **Murphy PA**, Lam MT, Wu X, Kim TN, Vartanian SM, Bollen AW, Carlson TR, Wang RA. Endothelial Notch4 signaling induces hallmarks of brain arteriovenous malformations in mice. Proc Natl Acad Sci U S A. 2008 Aug 5;105(31):10901-6. Epub 2008 Jul 30. PMID: 18667694; PMC2504798.

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Student	Preceptor	Year Enrolled	Publication
Nicholas, Cory	Reijo Pera, Renee	Graduated PhD 2009	**Nicholas CR**, Haston KM, Grewall AK, Longacre TA, Reijo Pera RA. Transplantation directs oocyte maturation from embryonic stem cells and provides a therapeutic strategy for female infertility. Hum Mol Genet. 2009 Aug 20. [Epub ahead of print] PMID: 19696121. **Nicholas CR**, Chavez SL, Baker VL, Reijo Pera RA. Instructing an embryonic stem cell-derived oocyte fate: lessons from endogenous oogenesis. Endocr Rev. 2009 May;30(3):264-83. Epub 2009 Apr 14. Review. PMCID: PMC2726843. **Nicholas CR**, Xu EY, Banani SF, Hammer RE, Hamra FK, Reijo Pera RA. Characterization of a Dazl-GFP germ cell-specific reporter. Genesis. 2009 Feb;47(2):74-84. PMID: 19133679. Kossack N, Meneses J, Shefi S, Nguyen HN, Chavez S, **Nicholas C**, Gromoll J, Turek PJ, Reijo-Pera RA. Isolation and characterization of pluripotent human spermatogonial stem cell-derived cells. Stem Cells. 2009 Jan;27(1):138-49. PMCID: PMC2729695.
Penaranda, Cristina	Bluestone, Jeffrey	2005	**Penaranda C** and Bluestone J. Is Antigen Specificity of Autoreactive T cells the Key to Islet Entry?, Immunity (2009), doi:10.1016/j.immuni.2009.09.006. In press. **Penaranda C**, Tang Q, Ruddle NH, Bluestone JA. Prevention of diabetes by FTY720-mediated stabilization of peri-islet tertiary lymphoid organs. *Diabetes. Submitted.* Zhou X, Bailey-Bucktrout SL, Jeker LT, **Penaranda C**, Martínez-Llordella M, Ashby M, Nakayama M, Rosenthal W, Bluestone JA. Instability of the transcription factor Foxp3 leads to the generation of pathogenic memory T cells in vivo. Nat Immunol. 2009 Sep;10(9):1000-7. Epub 2009 Jul 26. PMID: 19633673; PMC2729804. Tang Q, Adams JY, **Penaranda C**, Melli K, Piaggio E, Sgouroudis E, Piccirillo CA, Salomon BL, Bluestone JA. Central role of defective interleukin-2 production in the triggering of islet autoimmune destruction. Immunity. 2008 May;28(5):687-97. Epub 2008 May 8. PMID: 18468463; PMC2394854.
Santos, Nicole	Reiter, Jeremy	2005	Aanstad P, **Santos N**, Corbit KC, Scherz PJ, Trinh le A, Salvenmoser W, Huisken J, Reiter JF, Stainier DY.

Table 7. BMS Student Publications

Student	Preceptor	Year Enrolled	Publication
Schachterle, William	Black, Brian	2005	Rojas A, **Schachterle W**, Xu SM, Black BL. 2009. An endoderm-specific transcriptional enhancer from the mouse Gata4 gene requires GATA and homeodomain protein-binding sites for function in vivo. Dev Dyn. 2009 Oct;238(10):2588-98.
Sia, Angela	Muchowski, Paul	2005	Muccioli GG, **Sia A**, Muchowski PJ, Stella N. Genetic manipulation of palmitoylethanolamide production and inactivation in Saccharomyces cerevisiae. PLoS One. 2009 Jun 16;4(6):e5942. PMCID: PMC2691958 PMID: 19529773
Swenerton, Ryan	McKerrow, Jim	2003	McKerrow JH, Rosenthal PJ, **Swenerton R**, Doyle P. Development of protease inhibitors for protozoan infections. Curr Opin Infect Dis. 2008 Dec;21(6):668-72. Review. PMID: 18978536; PMC2732359. Caffrey CR, Steverding D, **Swenerton RK**, Kelly B, Walshe D, Debnath A, Zhou YM, Doyle PS, Fafarman AT, Zorn JA, Land KM, Beauchene J, Schreiber K, Moll H, Ponte-Sucre A, Schirmeister T, Saravanamuthu A, Fairlamb AH, Cohen FE, McKerrow JH, Weisman JL, May BC. Bis-acridines as lead antiparasitic agents: structure-activity analysis of a discrete compound library in vitro. Antimicrob Agents Chemother. 2007 Jun;51(6):2164-72. Epub 2007 Mar 19. PMC1891397.
Skrzypczynska, Kasia	Bakardjiev, Anna	2007	Jennifer R. Robbins, **Kasia M. Skrzypczynska**, Varvara B. Zeldovich, Mirhan Kapidzic, and Anna I. Bakardjiev. Placental syncytiotrophoblast constitutes a major barrier to vertical transmission of Listeria monocytogenes. Submitted.
Tan, Ying Xim	Weiss, Arthur	2007	Lih-Yun Hsu, **Ying Xim Tan**, Zheng Xiao, Marie Malissen, Arthur Weiss. 2009. A Hypomorphic Allele of ZAP-70 Reveals a Distinct Thymic Threshold for Autoimmune Disease versus Autoimmune Reactivity. J Exp Med. In press.
Theusch, Elizabeth	Gitschier, Jane	2005	**Theusch E**, Basu A, Gitschier J. Genome-wide study of families with absolute pitch reveals linkage to 8q24.21 and locus heterogeneity. Am J Hum Genet. 2009 Jul;85(1):112-9. Epub 2009 Jul 2.
Thornton, Emily	Krummel, Matthew	2006	**Emily E. Thornton**, Dean Sheppard, Richard Locksley, Xiaozhu Huang, Matthew F. Krummel. Visualizing Efficient Transmucosal Antigen Surveillance by Dendritic Cells in the Asthmatic Lung. Submitted.
Van Ziffle, Jessica	Lowell, Clifford	Graduated PhD 2009	Looney MR, Nguyen JX, Hu Y, **Van Ziffle JA**, Lowell CA, Matthay MA. Platelet depletion and aspirin treatment protect mice in a two-event model of transfusion-related acute lung injury. J Clin Invest. 2009 Oct 5. pii: 38432. doi: 10.1172/JCI38432. [Epub ahead of print] PMID:

Table 7. BMS Student Publications

Student	Preceptor	Year Enrolled	Publication
			19809160. **Van Ziffle JA,** Lowell CA. Neutrophil specific deletion of Syk kinase results in reduced host defense to bacterial infection. Blood. 2009 Oct 1. [Epub ahead of print] PMID: 19797524. Paul R, Obermaier B, **Van Ziffle J**, Angele B, Pfister HW, Lowell CA, Koedel U. Myeloid Src kinases regulate phagocytosis and oxidative burst in pneumococcal meningitis by activating NADPH oxidase. J Leukoc Biol. 2008 Oct;84(4):1141-50. Epub 2008 Jul 14. PMCID: PMC2538596. Hirahashi J, Mekala D, **Van Ziffle J**, Xiao L, Saffaripour S, Wagner DD, Shapiro SD, Lowell C, Mayadas TN. Mac-1 signaling via Src-family and Syk kinases results in elastase-dependent thrombohemorrhagic vasculopathy. Immunity. 2006 Aug;25(2):271-83. Epub 2006 Jul 27. PMID: 16872848. Looney MR, Su X, **Van Ziffle JA**, Lowell CA, Matthay MA. Neutrophils and their Fc gamma receptors are essential in a mouse model of transfusion-related acute lung injury. J Clin Invest. 2006 Jun;116(6):1615-23. Epub 2006 May 18. PMCID: PMC1462945. Mócsai A, Humphrey MB, **Van Ziffle JA**, Hu Y, Burghardt A, Spusta SC, Majumdar S, Lanier LL, Lowell CA, Nakamura MC. The immunomodulatory adapter proteins DAP12 and Fc receptor gamma-chain (FcRgamma) regulate development of functional osteoclasts through the Syk tyrosine kinase. Proc Natl Acad Sci U S A. 2004 Apr 20;101(16):6158-63. Epub 2004 Apr 8. PMCID: PMC395939.
Warner, Kegan	Shannon, Kevin	2006	Lauchle JO, Kim D, Le DT, Akagi K, Crone M, Krisman K, **Warner K,** Bonifas JM, Li Q, Coakley KM, Diaz-Flores E, Gorman M, Przybranowski S, Tran M, Kogan SC, Roose JP, Copeland NG, Jenkins NA, Parada L, Wolff L, Sebolt-Leopold J, Shannon K. Response and resistance to MEK inhibition in leukaemias initiated by hyperactive Ras. Nature. 2009 Sep 7;461(7262):411-4. Epub 2009 Sep 2. PMID: 19727076

Table 7. BMS Student Publications

Student	Preceptor	Year Enrolled	Publication
White, Mark	Srivastava, Deepak	2006	Cordes KR, Sheehy NT, **White MD**, Berry EC, Morton SU, Muth AN, Lee TH, Miano JM, Ivey KN, Srivastava D. miR-145 and miR-143 regulate smooth muscle cell fate and plasticity. Nature. 2009 Aug 6;460(7256):705-10. Epub 2009 Jul 5. PMID: 19578358. Saxena A, Fish JE, **White MD**, Yu S, Smyth JW, Shaw RM, DiMaio JM, Srivastava D. Stromal cell-derived factor-1alpha is cardioprotective after myocardial infarction. Circulation. 2008 Apr 29;117(17):2224-31. Epub 2008 Apr 21. PMID: 18427137; PMC2743260.
Wu, Davina	Locksley, Richard	2005	Voehringer D, **Wu D**, Liang HE, Locksley RM. 2009. Efficient generation of long-distance conditional alleles using recombineering and a dual selection strategy in replicate plates. BMC Biotechnol. 2009 Jul 28;9:69. PMCID: PMC2724507
Young, Amy	McCormick, Frank	2004	**Young A**, Lyons J, Miller AL, Phan VT, Alarcón IR, McCormick F. Ras signaling and therapies. Adv Cancer Res. 2009;102:1-17. Review. PMID: 19595305.
Zachariah, Marcus	Cyster, Jason	2006	**Zachariah MA** and Cyster JG. Thymic egress: S1P of 1000. Biology Reports 2009, 1:60. Accepted. Cinamon G, **Zachariah MA**, Lam OM, Foss FW Jr, Cyster JG. 2008. Follicular shuttling of marginal zone B cells facilitates antigen transport. Nat Immunol. 2008 Jan;9(1):54-62. Epub 2007 Nov 25. PMCID: PMC2488964
Zeldovich, Varvara	Bakardjiev, Anna	2007	Jennifer R. Robbins, Kasia M. Skrzypczynska, **Varvara B. Zeldovich**, Mirhan Kapidzic, and Anna I. Bakardjiev. Placental syncytiotrophoblast constitutes a major barrier to vertical transmission of Listeria monocytogenes. Submitted.

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Name	Publication
Ahmadiantehrani, Somayeh	GDNF is an endogenous negative regulator of ethanol-mediated reward and of ethanol consumption after a period of abstinence. Carnicella S, Ahmadiantehrani S, Janak PH, Ron D. Alcohol Clin Exp Res. 2009 Jun;33(6):1012-24. Epub 2009 Mar 19. PMID: 19302086 Cabergoline decreases alcohol drinking and seeking behaviors via glial cell line-derived neurotrophic factor. Carnicella S, Ahmadiantehrani S, He DY, Nielsen CK, Bartlett SE, Janak PH, Ron D. Biol Psychiatry. 2009 Jul 15;66(2):146-53. Epub 2009 Feb 20. PMID: 19232578
Cropp, Cheryl	Genetic variation in drug transporters in ethnic populations. Cropp CD, Yee SW, Giacomini KM. Clin Pharmacol Ther. 2008 Sep;84(3):412-6. Epub 2008 Jun 4. Review. No abstract available. Erratum in: Clin Pharmacol Ther. 2009 Jan;85(1):108-9. PMID: 18528433 Organic anion transporter 2 (SLC22A7) is a facilitative transporter of cGMP. Cropp CD, Komori T, Shima JE, Urban TJ, Yee SW, More SS, Giacomini KM. Mol Pharmacol. 2008 Apr;73(4):1151-8. Epub 2008 Jan 23. PMCID: 2698938
Calton, Melissa	Narrowing down the role of common variants in the genetic predisposition to obesity. Calton MA, Vaisse C. Genome Med. 2009 Mar 11;1(3):31. PMCID: PMC2664942 Association of functionally significant Melanocortin-4 but not Melanocortin-3 receptor mutations with severe adult obesity in a large North American case-control study. Calton MA, Ersoy BA, Zhang S, Kane JP, Malloy MJ, Pullinger CR, Bromberg Y, Pennacchio LA, Dent R, McPherson R, Ahituv N, Vaisse C. Hum Mol Genet. 2009 Mar 15;18(6):1140-7. Epub 2008 Dec 1. PMCID: PMC2649015
Custodio, Joseph	Predicting drug disposition, absorption/elimination/transporter interplay and the role of food on drug absorption. Custodio JM, Wu CY, Benet LZ. Adv Drug Deliv Rev. 2008 Mar 17;60(6):717-33. Epub 2007 Nov 28. Review. PMCID: 2292816
Drake, Katherine	Race, ethnicity and social class and the complex etiologies of asthma. Drake KA, Galanter JM, Burchard EG. Pharmacogenomics. 2008 Apr;9(4):453-62. Review. PMCID: 2746736 Dosing algorithm for warfarin using CYP2C9 and VKORC1 genotyping from a multi-ethnic population: comparison with other equations. Wu AH, Wang P, Smith A, Haller C, Drake K, Linder M, Valdes R Jr. Pharmacogenomics. 2008 Feb;9(2):169-78. PMID: 18370846

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Name	Publication
Ersoy, Baran	Association of functionally significant Melanocortin-4 but not Melanocortin-3 receptor mutations with severe adult obesity in a large North American case-control study. Calton MA, Ersoy BA, Zhang S, Kane JP, Malloy MJ, Pullinger CR, Bromberg Y, Pennacchio LA, Dent R, McPherson R, Ahituv N, Vaisse C. Hum Mol Genet. 2009 Mar 15;18(6):1140-7. Epub 2008 Dec 17. PMCID: 2649015
Gignoux, Christopher	Characterizing the time dependency of human mitochondrial DNA mutation rate estimates. Henn BM, Gignoux CR, Feldman MW, Mountain JL. Mol Biol Evol. 2009 Jan;26(1):217-30. Epub 2008 Nov 4. PMID: 18984905
Grover, Anita	Effects of drug transporters on volume of distribution. Grover A, Benet LZ. AAPS J. 2009 Jun;11(2):250-61. Epub 2009 Apr 28. PMCID: 2691462
Kosinski, Cynthia	DNA copy-number loss on 1p36.1 harboring RUNX3 with promoter hypermethylation and associated loss of RUNX3 expression in liver fluke-associated intrahepatic cholangiocarcinoma. Dachrut S, Banthaisong S, Sripa M, Paeyao A, Ho C, Lee SA, Kosinski C, Patil MA, Zhang J, Chen X, Sripa B, Pairojkul C. Asian Pac J Cancer Prev. 2009 Oct-Dec;10(4):575-82. PMID: 19827872 Integration of genomic analysis and in vivo transfection to identify sprouty 2 as a candidate tumor suppressor in liver cancer. Lee SA, Ho C, Roy R, Kosinski C, Patil MA, Tward AD, Fridlyand J, Chen X. Hepatology. 2008 Apr;47(4):1200-10. PMID: 18214995
Kraft, Jeffrey	A Genomewide Association Study of Citalopram Response in Major Depressive Disorder. Garriock HA, Kraft JB, Shyn SI, Peters EJ, Yokoyama JS, Jenkins GD, Reinalda MS, Slager SL, McGrath PJ, Hamilton SP. Biol Psychiatry. 2009 Oct 19. [Epub ahead of print] PMID: 19846067 Resequencing of serotonin-related genes and association of tagging SNPs to citalopram response. Peters EJ, Slager SL, Jenkins GD, Reinalda MS, Garriock HA, Shyn SI, Kraft JB, McGrath PJ, Hamilton SP. Pharmacogenet Genomics. 2009 Jan;19(1):1-10. PMID: 19077664 Pharmacokinetic genes do not influence response or tolerance to citalopram in the STAR*D sample. Peters EJ, Slager SL, Kraft JB, Jenkins GD, Reinalda MS, McGrath PJ, Hamilton SP. PLoS One. 2008 Apr 2;3(4):e1872. PMCID: 2268970
LaFond, Rachel	Identification and characterization of proximal promoter polymorphisms in the human concentrative nucleoside transporter 2 (SLC28A2). Yee SW, Shima JE, Hesselson S, Nguyen L, De

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Name	Publication
	Val S, Lafond RJ, Kawamoto M, Johns SJ, Stryke D, Kwok PY, Ferrin TE, Black BL, Gurwitz D, Ahituv N, Giacomini KM. J Pharmacol Exp Ther. 2009 Mar;328(3):699-707. Epub 2008 Dec 19. PMCID: 2682268
Lam, Ernest	Disorders of nucleotide excision repair: the genetic and molecular basis of heterogeneity. Cleaver JE, Lam ET, Revet I. Nat Rev Genet. 2009 Nov;10(11):756-68. Epub 2009 Oct 7. Review. PMID: 19809470 Role of cyclin D1 as a mediator of c-Met- and beta-catenin-induced hepatocarcinogenesis. Patil MA, Lee SA, Macias E, Lam ET, Xu C, Jones KD, Ho C, Rodriguez-Puebla M, Chen X. Cancer Res. 2009 Jan 1;69(1):253-61. PMCID: 2628201
Lam, Tai Ning Teddy	Mechanistic Insight from In Silico Pharmacokinetic Experiments: Roles of P-glycoprotein, CYP3A4 Enzymes, and icroenvironments. Lam TN, Hunt CA. J Pharmacol Exp Ther. 2009 Oct 28. [Epub ahead of print] PMID: 19864617 At the Biological Modeling and Simulation Frontier. Hunt CA, Ropella GE, Lam TN, Tang J, Kim SH, Engelberg JA, Sheikh-Bahaei S. Pharm Res. 2009 Sep 9. [Epub ahead of print] PMCID: 2763179 Mechanistic simulations explain paradoxical saquinavir metabolism during in vitro vectorial transport study. Lam TN, Hunt CA. Conf Proc IEEE Eng Med Biol Soc. 2008; 2008:5462-5. PMID: 19163953 Discovering plausible mechanistic details of hepatic drug interactions. Lam TN, Hunt CA. Drug Metab Dispos. 2009 Jan;37(1):237-46. Epub 2008 Oct 20. PMID: 18936110 Applying models of targeted drug delivery to gene delivery. Lam TN, Hunt CA. Conf Proc IEEE Eng Med Biol Soc. 2004;5:3535-8. PMID: 17271053
Lauffer, Benjamin	Engineered protein connectivity to actin mimics PDZ-dependent recycling of G protein-coupled receptors but not its regulation by Hrs. Lauffer BE, Chen S, Melero C, Kortemme T, von Zastrow M, Vargas GA. J Biol Chem. 2009 Jan 23;284(4):2448-58. Epub 2008 Nov 10. PMCID: 2629119
Lee, Susie	DNA copy-number loss on 1p36.1 harboring RUNX3 with promoter hypermethylation and associated loss of RUNX3 expression in liver fluke-associated intrahepatic cholangiocarcinoma. Dachrut S, Banthaisong S, Sripa M, Paeyao A, Ho C, Lee SA, Kosinski C, Patil MA, Zhang J, Chen X, Sripa B, Pairojkul C. Asian Pac J Cancer Prev. 2009 Oct-Dec;10(4):575-

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Name	Publication
	82. PMID: 19827872 Role of cyclin D1 as a mediator of c-Met- and beta-catenin-induced hepatocarcinogenesis. Patil MA, Lee SA, Macias E, Lam ET, Xu C, Jones KD, Ho C, Rodriguez-Puebla M, Chen X. Cancer Res. 2009 Jan 1;69(1):253-61. PMCID: 2628201 Integration of genomic analysis and in vivo transfection to identify sprouty 2 as a candidate tumor suppressor in liver cancer. Lee SA, Ho C, Roy R, Kosinski C, Patil MA, Tward AD, Fridlyand J, Chen X. Hepatology. 2008 Apr;47(4):1200-10. PMID: 18214995
Musone, Stacy	Narcolepsy is strongly associated with the T-cell receptor alpha locus. Hallmayer J, Faraco J, Lin L, Hesselson S, Winkelmann J, Kawashima M, Mayer G, Plazzi G, Nevsimalova S, Bourgin P, Hong SS, Honda Y, Honda M, Högl B, Longstreth WT Jr, Montplaisir J, Kemlink D, Einen M, Chen J, Musone SL, Akana M, Miyagawa T, Duan J, Desautels A, Erhardt C, Hesla PE, Poli F, Frauscher B, Jeong JH, Lee SP, Ton TG, Kvale M, Kolesar L, Dobrovolná M, Nepom GT, Salomon D, Wichmann HE, Rouleau GA, Gieger C, Levinson DF, Gejman PV, Meitinger T, Young T, Peppard P, Tokunaga K, Kwok PY, Risch N, Mignot E. Nat Genet. 2009 Jun;41(6):708-11. Epub 2009 May 3. PMID: 19412176 [PubMed - in process] Multiple polymorphisms in the TNFAIP3 region are independently associated with systemic lupus erythematosus. Musone SL, Taylor KE, Lu TT, Nititham J, Ferreira RC, Ortmann W, Shifrin N, Petri MA, Kamboh MI, Manzi S, Seldin MF, Gregersen PK, Behrens TW, Ma A, Kwok PY, Criswell LA. Nat Genet. 2008 Sep;40(9):1062-4. PMID: Multiple polymorphisms in the TNFAIP3 region are independently associated with systemic lupus erythematosus. Musone SL, Taylor KE, Lu TT, Nititham J, Ferreira RC, Ortmann W, Shifrin N, Petri MA, Ilyas Kamboh M, Manzi S, Seldin MF, Gregersen PK, Behrens TW, Ma A, Kwok PY, Criswell LA. Nat Genet. 2008 Aug 1. PMID: 18677310 Marking embryonic stem cells with a 2A self-cleaving peptide: a NKX2-5 emerald GFP BAC reporter. Hsiao EC, Yoshinaga Y, Nguyen TD, Musone SL, Kim JE, Swinton P, Espineda I, Manalac C, deJong PJ, Conklin BR. PLoS One. 2008 Jul 2; 3(7):e2532. PMCID: 2430532
Mysinger, Michael	Automated docking screens: a feasibility study. Irwin JJ, Shoichet BK, Mysinger MM, Huang N, Colizzi F, Wassam P, Cao Y. J Med Chem. 2009 Sep 24;52(18):5712-20.

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Name	Publication
	PMCID: 2745826
Seibold, Max	Genetic ancestry modifies pharmacogenetic gene-gene interaction for asthma. Corvol H, De Giacomo A, Eng C, Seibold M, Ziv E, Chapela R, Rodriguez-Santana JR, Rodriguez-Cintron W, Thyne S, Watson HG, Meade K, LeNoir M, Avila PC, Choudhry S, Burchard EG; Genetics of Asthma in Latino Americans (GALA) Study; Study of African-Americans, Asthma, Genes and Environments (SAGE) Investigators. Pharmacogenet Genomics. 2009 Jul;19(7):489-96. PMCID: 2768127 Differential enzymatic activity of common haplotypic versions of the human acidic Mammalian chitinase protein. Seibold MA, Reese TA, Choudhry S, Salam MT, Beckman K, Eng C, Atakilit A, Meade K, Lenoir M, Watson HG, Thyne S, Kumar R, Weiss KB, Grammer LC, Avila P, Schleimer RP, Fahy JV, Rodriguez-Santana J, Rodriguez-Cintron W, Boot RG, Sheppard D, Gilliland FD, Locksley RM, Burchard EG. J Biol Chem. 2009 Jul 17;284(29):19650-8. Epub 2009 May 12. PMCID: 2740590 Differences in allergic sensitization by self-reported race and genetic ancestry. Yang JJ, Burchard EG, Choudhry S, Johnson CC, Ownby DR, Favro D, Chen J, Akana M, Ha C, Kwok PY, Krajenta R, Havstad SL, Joseph CL, Seibold MA, Shriver MD, Williams LK. J Allergy Clin Immunol. 2008 Oct;122(4):820-827.e9. PMID: 19014772 Chitotriosidase is the primary active chitinase in the human lung and is modulated by genotype and smoking habit. Seibold MA, Donnelly S, Solon M, Innes A, Woodruff PG, Boot RG, Burchard EG, Fahy JV. J Allergy Clin Immunol. 2008 Nov;122(5):944-950.e3. Epub 2008 Oct 9. PMCID: 2666777
Shima, James	Genetic variation in the proximal promoter of ABC and SLC superfamilies: liver and kidney specific expression and promoter activity predict variation. Hesselson SE, Matsson P, Shima JE, Fukushima H, Yee SW, Kobayashi Y, Gow JM, Ha C, Ma B, Poon A, Johns SJ, Stryke D, Castro RA, Tahara H, Choi JH, Chen L, Picard N, Sjödin E, Roelofs MJ, Ferrin TE, Myers R, Kroetz DL, Kwok PY, Giacomini KM. PLoS One. 2009 Sep 9;4(9):e6942. PMCID: 2735003 [PubMed - in process] Identification and characterization of proximal promoter polymorphisms in the human concentrative nucleoside transporter 2 (SLC28A2). Yee SW, Shima JE, Hesselson S, Nguyen L, De Val S, Lafond RJ, Kawamoto M, Johns SJ, Stryke D, Kwok PY, Ferrin TE, Black BL, Gurwitz D, Ahituv N, Giacomini KM. J Pharmacol Exp Ther. 2009 Mar;328(3):699-707. Epub 2008 Dec

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Name	Publication
	19. PMCID: 2682268 Organic anion transporter 2 (SLC22A7) is a facilitative transporter of cGMP. Cropp CD, Komori T, Shima JE, Urban TJ, Yee SW, More SS, Giacomini KM. Mol Pharmacol. 2008 Apr;73(4):1151-8. Epub 2008 Jan 23. PMCID: 2698938
Shugarts, Sarah	The role of transporters in the pharmacokinetics of orally administered drugs. Shugarts S, Benet LZ. Pharm Res. 2009 Sep;26(9):2039-54. Epub 2009 Jun 30. Review. PMCID: 2719753
Sirkis, Daniel	Nrf2 activation in astrocytes protects against neurodegeneration in mouse models of familial amyotrophic lateral sclerosis. Vargas MR, Johnson DA, Sirkis DW, Messing A, Johnson JA. J Neurosci. 2008 Dec 10;28(50):13574-81.PMID: 19074031
Tamraz, Bani	Human subjects are protected from mast cell tryptase deficiency despite frequent inheritance of loss-of-function mutations. Trivedi NN, Tamraz B, Chu C, Kwok PY, Caughey GH. J Allergy Clin Immunol. 2009 Nov;124(5):1099-105.e1-4. Epub 2009 Sep 12. PMID: 19748655 [PubMed - in process (cover)]
Thomas, Veena	Structural Bases for Stability-Function Tradeoffs in Antibiotic Resistance. Thomas VL, McReynolds AC, Shoichet BK. J Mol Biol. 2009 Nov 10. [Epub ahead of print] PMID: 19913034
Yokoyama, Jennifer	A Genomewide Association Study of Citalopram Response in Major Depressive Disorder. Garriock HA, Kraft JB, Shyn SI, Peters EJ, Yokoyama JS, Jenkins GD, Reinalda MS, Slager SL, McGrath PJ, Hamilton SP. Biol Psychiatry. 2009 Oct 19. [Epub ahead of print] PMID: 19846067 Antitumor therapy mediated by 5-fluorocytosine and a recombinant fusion protein containing TSG-6 hyaluronan binding domain and yeast cytosine deaminase. Park JI, Cao L, Platt VM, Huang Z, Stull RA, Dy EE, Sperinde JJ, Yokoyama JS, Szoka FC. Mol Pharm. 2009 May-Jun;6(3):801-12. PMCID: 2706098

Table 6. Publications of Research Completed by Trainees (or Potential Trainees) (List Pre/Postdoctoral and Past/Current Trainees Separately in Each Group)

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Carroll, A.** (1996-2001)	O'Shea	**A.S. Carroll**, A.C. Bishop, J.L. DeRisi, K. Shokat & E.K. O'Shea, Chemical Inhibition of the Pho85 Cyclin-Dependent Kinase Reveals an Expanded Role in the Environmental Stress Response, Proc. Natl. Acad. Sci. USA 98,12578-12583 (2001). PMCID: PMC60096. **A.S. Carroll** & E.K. O'Shea, Pho85 and Signaling Environmental Stress, Trends Biochem. Sci., 27, 87-93 (2002). W.-K. Huh*, J.V. Falvo*, L.C. Gerke, **A.S. Carroll**, R.W. Howson, J.S. Weissman & E.K. O'Shea, Global Analysis of Protein Localization in Budding Yeast, Nature, 425, 686-691 (2003).
Pre	Past	Gonzalez, T.** (1996-2003)	Walter	**Gonzalez TN**, Sidrauski C, Dorfler S, Walter P (1999). Mechanism of non-spliceosomal mRNA splicing in the unfolded protein response pathway. EMBO J 18:3119-32. Nock S, **Gonzalez TN**, Sidrauski C, Niwa M, Walter P. (2001). Purification and activity assays of the catalytic domains of the kinase/endoribonuclease Ire1p from Saccharomyces cerevisiae. Methods Enzymol. 342:3-10. **Gonzalez TN**, Walter P. (2001). Ire1p: a kinase and site-specific endoribonuclease. Methods Mol Biol. 160:25-36.
Pre	Past	Kwan, J.** (1996-2004)	Killeen	Pena-Rossi, C., Zuckerman, L. A., Strong, **J., Kwan**, J., Ferris, W., Chan, S., Tarakhovsky, A., Beyers, and Killeen, N. Negative regulation of CD4 lineage development and responses by CD5. J Immunol. 1999 Dec 15;163(12):6494-501. **Kwan J**, Killeen N. CCR7 directs the migration of thymocytes into the thymic medulla. J Immunol. 2004 Apr 1;172(7):3999-4007.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Melo, J.** (1996-2003)	Toczyski	**Melo JA**, Cohen J, Toczyski DP. Two checkpoint complexes are independently recruited to sites of DNA damage in vivo. Genes Dev. 2001 November 1; 15(21): 2809–2821. PMCID: PMC312815. **Melo J**, Toczyski D. A unified view of the DNA-damage checkpoint. Curr Opin Cell Biol. 2002 Apr;14(2):237-45. Review. Kaye JA, **Melo JA**, Cheung SK, Vaze MB, Haber JE, Toczyski DP. DNA breaks promote genomic instability by impeding proper chromosome segregation. Curr Biol. 2004 Dec 14;14(23):2096-106. Bonilla CY, **Melo JA**, Toczyski DP. Colocalization of sensors is sufficient to activate the DNA damage checkpoint in the absence of damage. Mol Cell. 2008 May 9;30(3):267-76.
Pre	Past	Michelitsch, M.** (1996-2004)	Cohen	Sage CR, **Michelitsch MD**, Stout TJ, Biermann D, Nissen R, Finer-Moore J, Stroud RM. D221 in thymidylate synthase controls conformation change, and thereby opening of the imidazolidine. Biochemistry. 1998 Sep 29;37(39):13893-901. Wang JD, **Michelitsch MD**, Weissman JS (1998). GroEL-GroES-mediated protein folding requires an intact central cavity. Proc Natl Acad Sci 95:12163-8. PMCID: PMC22802. **Michelitsch MD**, Weissman JS (2000). A census of glutamine/asparagine-rich regions: implications for their conserved function and the prediction of novel prions. Proc Natl Acad Sci 97:11910-5. PMCID: PMC17268. Wille H, **Michelitsch MD**, Guenebaut V, Supattapone S, Serban A, Cohen FE, Agard DA, Prusiner SB (2002). Structural studies of the scrapie prion protein by electron crystallography. Proc Natl Acad Sci 99:3563-8. Lau AL, Yam AY, **Michelitsch MD**, Wang X, Gao C, Goodson RJ, Shimizu R, Timoteo G, Hall J, Medina-Selby A, Coit D, McCoin C, Phelps B, Wu P, Hu C, Chien D, Peretz D. Characterization of prion protein (PrP)-derived peptides that discriminate full-length PrPSc from PrPC. Proc Natl Acad Sci U S A. 2007 Jul 10;104(28):11551-6. Epub 2007 Jun 29.

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Pre	Past	Nguyen, V.** (1996-2003)	J. Li	**Nguyen, V.Q.**, Co, C., Irie, K., and Li, J.J. (2000) Clb/Cdc28 kinases promote nuclear export of the replication initiator proteins Mcm2-7. Current Biology, 10 (4): 195-205. **Nguyen, V.Q.**, Co, C., and Li, J.J. (2001) Cyclin-dependent kinases prevent DNA re-replication through multiple overlapping mechanisms. Nature, 411 (6841): 1068-1073. Liku, M.E., **Nguyen, V.Q.**, Rosales, A.W., Irie. K, and Li, J.J. (2005). CDK phosphorylation of a novel NLS-NES module distributed between two subunits of the Mcm2-7 complex prevents chromosomal re-replication. MBC, 16 (10): 5026-5039.
Pre	Past	Williams, L.** (1996-2003)	Kenyon	Ch'ng, Q, **Williams, L.**, Lie, Y.S., Sym, M., Whangbo, J. and Kenyon, C. (2003). Identification of genes that regulate a left-right asymmetric neuronal migration in Caenorhabditis elegans. Genetics 164:1355-1367. PMCID: PMC1462652.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Yoshihara, H.** (1996-2003)	Scanlan	**Yoshihara, H.A.I**, Chiellini, G., Mitchison, T.J. & Scanlan, T.S. (1998). An efficient substitution reaction for the preparation of thyroid hormone analogues. Bioorganic Med. Chem. 6, 1179-1183. Chiellini, G., Nguyen, N.H., **Yoshihara, H.A.I.** & Scanlan, T.S. (2000). Improved synthesis of the iodine-free thyromimetic GC-1. Bioorganic Med. Chem. Lett. 10, 2607-2611. **Yoshihara, H.A.I.**, Apriletti, J.W., Baxter, J.D. & Scanlan, T.S. (2001). A designed antagonist of the thyroid hormone receptor. Bioorganic Med. Chem. Lett. 11, 2821-2825. Scanlan, T.S., **Yoshihara, H.A.I.**, Nguyen, N.H. & Chiellini, G. (2001). Selective thyromimetics: Tissue selective thyroid hormone analogs. Curr. Op. Drug. Disc. Devel. 4, 614-622. **Yoshihara HA**, Apriletti JW, Baxter JD, Scanlan TS (2003). Structural determinants of selective thyromimetics. Methods Enzymol 364:71-91. **Yoshihara HA**, Nguyen NH, Scanlan TS (2003). Design and synthesis of receptor ligands. Methods Enzymol 364:71-91. **Yoshihara HA**, Scanlan TS (2003). Selective thyroid hormone receptor modulators. Curr Top Med Chem 3:1601-16.
Pre	Past	Dasgupta, S.** (1997-2003)	Kelly	**Dasgupta S**, Kelly RB. Internalization signals in synaptotagmin VII utilizing two independent pathways are masked by intramolecular inhibitions. J Cell Sci. 2003 Apr 1;116(Pt 7):1327-37. V. Briken, R.M. Jackman, **S. Dasgupta**, S. Hoening, and S.A. Porcelli. Intracellular trafficking pathway of newly synthesized CD1b molecules. EMBO J. 2002 February 15; 21(4): 825–834. PMCID: PMC125873.

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Pre	Past	Fuhrmann, C.** (1997-2005)	Agard	Cheng, A.C., Chen, W.W., **Fuhrmann, C.N.**, Frankel, A.D. (2003). Recognition of nucleic acid bases and base-pairs by hydrogen bonding to amino acid side-chains.. J Molec Biol 327:781-96. (Featured on journal cover.) **Fuhrmann, C.N.**, Ota, N., Rader, S.D., Agard, D.A. (2003) Alpha-Lytic protease, " The Handbook of Proteolytic Enzymes", 2nd edition (Barrett, A.J., Rawlings, N.D., Woessner, J.F. eds.). **Fuhrmann, C.N.**, Kelch, B.A., Ota, N., Agard, D.A. (2003). The 0.83Å resolution crystal structure of alpha-lytic protease reveals the detailed structure of the active site and identifies a source of conformational strain. J Molec Biol 338:999-1013. (Featured on journal cover.) **Fuhrmann CN**, Daugherty MD, Agard DA. Subangstrom crystallography reveals that short ionic hydrogen bonds, and not a His-Asp low-barrier hydrogen bond, stabilize the transition state in serine protease catalysis. J Am Chem Soc. 2006 Jul 19;128(28):9086-102.

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Pre	Past	Inglis, D.** (1997-2003)	Johnson	**Diane O. Inglis** and Alexander D. Johnson. Ash1 Protein, an Asymmetrically Localized Transcriptional Regulator, Controls Filamentous Growth and Virulence of *Candida albicans*. Mol Cell Biol. 2002 December; 22(24): 8669–8680. PMCID: PMC139894. Neeraj Chauhan, **Diane Inglis**, Elvira Roman, Jesus Pla, Dongmei Li, Jose A. Calera, and Richard Calderone. *Candida albicans* Response Regulator Gene *SSK1* Regulates a Subset of Genes Whose Functions Are Associated with Cell Wall Biosynthesis and Adaptation to Oxidative Stress. Eukaryot Cell. 2003 October; 2(5): 1018–1024. PMCID: PMC219380. Burkhard R Braun, Marco van het Hoog, Christophe d'Enfert, Mikhail Martchenko, Jan Dungan, Alan Kuo, **Diane O Inglis**, M. Andrew Uhl, Hervé Hogues, Matthew Berriman, Michael Lorenz, Anastasia Levitin, Ursula Oberholzer, Catherine Bachewich, Doreen Harcus, Anne Marcil, Daniel Dignard, Tatiana Iouk, Rosa Zito, Lionel Frangeul, Fredj Tekaia, Kim Rutherford, Edwin Wang, Carol A Munro, Steve Bates, Neil A Gow, Lois L Hoyer, Gerwald Köhler, Joachim Morschhäuser, George Newport, Sadri Znaidi, Martine Raymond, Bernard Turcotte, Gavin Sherlock, Maria Costanzo, Jan Ihmels, Judith Berman, Dominique Sanglard, Nina Agabian, Aaron P Mitchell, Alexander D Johnson, Malcolm Whiteway, and André Nantel. PLoS Genet. 2005 July; 1(1): e1. Published online 2005 June 17. PMCID: PMC1183520.
Pre	Past	Nittler, P.** (1997-2005)	Sil	Zarrinpar A, Bhattacharyya RP, **Nittler MP**, Lim WA. S (2004). ho1 and Pbs2 act as coscaffolds linking components in the yeast high osmolarity MAP kinase pathway. Mol Cell 14:825-32.
Pre	Past	Penko, J.** (1997-2001)	Johnson	No Publications.

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Pre	Past	Guisbert, E.** (1998-2006)	C.Gross	**Eric Guisbert**, Christophe Herman, Chi Zen Lu, and Carol A. Gross. A chaperone network controls the heat shock response in *E. coli*. Genes Dev. 2004 November 15; 18(22): 2812–2821. PMCID: PMC528900. **Eric Guisbert**, Virgil A. Rhodius, Nidhi Ahuja, Emily Witkin, and Carol A. Gross. Hfq Modulates the σ^E-Mediated Envelope Stress Response and the σ^{32}-Mediated Cytoplasmic Stress Response in *Escherichia coli*. J Bacteriol. 2007 March; 189(5): 1963–1973. Published online 2006 December 8. PMCID: PMC1855744. Takashi Yura, **Eric Guisbert**, Mark Poritz, Chi Zen Lu, Elizabeth Campbell, and Carol A. Gross. Analysis of σ^{32} mutants defective in chaperone-mediated feedback control reveals unexpected complexity of the heat shock response. Proc Natl Acad Sci U S A. 2007 November 6; 104(45): 17638–17643. Published online 2007 October 29. PMCID: PMC2077055. **Eric Guisbert**, Takashi Yura, Virgil A. Rhodius, and Carol A. Gross. Convergence of Molecular, Modeling, and Systems Approaches for an Understanding of the *Escherichia coli* Heat Shock Response. Microbiol Mol Biol Rev. 2008 September; 72(3): 545–554. PMCID: PMC2546862.
Pre	Past	Huang, S.** (1998-2003)	O'Shea	**S. Huang**, D. Jeffery, M. Anthony & E.K. O'Shea, Functional Analysis of the Cyclin-Dependent Kinase Inhibitor Pho81 Identifies a Novel Inhibitory Domain. Mol Cell Biol. 2001 October; 21(19): 6695–6705. PMCID: PMC99814. **S. Huang** & E.K. O'Shea, A Systematic High-Throughput Screen of a Yeast Deletion Collection for Mutants Defective in PHO5 Regulation. Genetics. 2005 April; 169(4): 1859–1871. PMCID: PMC1360160.
Pre	Past	Kantor, J.** (1998-2001)	Davis	No Publications.
Pre	Past	Ng, B.** (1998-2007)	Kornberg	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Thornton, B.** (1998-2006)	Toczyski	**Thornton BR**, Toczyski DP. Securin and B-cyclin/CDK are the only essential targets of the APC. Nat Cell Biol. 2003 Dec;5(12):1090-4. Epub 2003 Nov 23. **Thornton BR**, Chen KC, Cross FR, Tyson JJ, Toczyski DP. Cycling without the cyclosome: modeling a yeast strain lacking the APC. Cell Cycle. 2004 May;3(5):629-33. Epub 2004 May 3. **Thornton BR**, Ng TM, Matyskiela ME, Carroll CW, Morgan DO, Toczyski DP. An architectural map of the anaphase-promoting complex. Genes Dev. 2006 Feb 15;20(4):449-60. PMCID: PMC1369047. **Thornton BR**, Toczyski DP. Precise destruction: an emerging picture of the APC. Genes Dev. 2006 Nov 15;20(22):3069-78. Review. Vega LR, Phillips JA, **Thornton BR**, Benanti JA, Onigbanjo MT, Toczyski DP, Zakian VA. Sensitivity of yeast strains with long G-tails to levels of telomere-bound telomerase. PLoS Genet. 2007 Jun;3(6):e105. PMCID: PMC1892048.
Pre	Past	Trammell, M.** (1998-2007)	Agard	**Trammell MA**, Mahoney NM, Agard DA, Vale RD. Mob4 plays a role in spindle focusing in Drosophila S2 cells. J Cell Sci. 2008 Apr 15;121(Pt 8):1284-92.
Pre	Past	Zalevsky, J.** (1998-2002)	Mullins	DeFea K.A., **Zalevsky, J.**, Thoma, M.S., Dery, O., Mullins, R.D., Bunnett, N.W. (2000) beta-arrestin-dependent endocytosis of proteinase-activated receptor 2 is required for intracellular targeting of activated ERK1/2. J. Cell Biol 148:1267-1281. PMCID: PMC2174299. **Zalevsky J**, Lempert L, Kranitz H, Mullins RD. (2001). Different WASP family proteins stimulate different Arp2/3 complex-dependent actin-nucleating activities. Curr Biol 11:1903-13. **Zalevsky J**, Grigorova I, Mullins RD (2001). Activation of the Arp2/3 complex by the Listeria acta protein. Acta binds two actin monomers and three subunits of the Arp2/3 complex. J Biol Chem 276:3468-75.

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Pre	Past	Dueber, J.** (1999-2005)	Lim	**Dueber, J.E.**, Yeh, B.J., Chak K., Lim, W.A. Reprogramming control of an allosteric signaling switch through modular recombination. *Science* 301(5641):1904-8 Sep 2003. **Dueber, J.E.**, Yeh, B.J., Bhattacharyya, R.P., Lim, W.A. Rewiring cell signaling: the logic and plasticity of eukaryotic protein circuitry. *Curr Opin Struct Biol* 14(6):690-9 Dec 2004. **Dueber, J.E.**, Mirsky, E.A., Lim, W.A. "Engineering synthetic signaling proteins with ultrasensitive input/output control. *Nat Biotechnol.* 25(6):660-2 May 2007. Sallee, N.A., Rivera, G.M., **Dueber J.E.**, Mullins, R.D, Mayer, B.J., Lim W.A. The pathogen protein EspFU hijacks actin polymerization using mimicry and multivalency. *Nature.* 454:1005-1008 Aug 2008. PMCID: PMC2749708.
Pre	Past	Iwasa, J.** (1999-2006)	Mullins	Smruti J. Vidwans, Paul J. DiGregorio, Antony W. Shermoen, Barrett Foat, **Janet Iwasa**, Nikita Yakubovich, and Patrick H. O'Farrell. Sister Chromatids Fail to Separate during an Induced Endoreplication Cycle in *Drosophila* Embryos. Curr Biol. 2002 May 14; 12(10): 829–833. PMCID: PMC2754250. **Iwasa JH**, Mullins RD. Actin filament capping and disassembly play opposing roles in determining network architecture at the leading edge. Curr Biol. 2007 Mar 6; 17(5):395-406. Lawrence L. LeClaire, III, Martin Baumgartner, **Janet H. Iwasa**, R. Dyche Mullins, and Diane L. Barber. Phosphorylation of the Arp2/3 complex is necessary to nucleate actin filaments. J Cell Biol. 2008 August 25; 182(4): 647–654. PMCID: PMC2518704.
Pre	Past	Paulson, J.** (1999-2006)	Shokat	**Snead JL**, Sullivan M, Lowery DM, Cohen MS, Zhang C, Randle DH, Taunton J, Yaffe MB, Morgan DO, Shokat KM. A coupled chemical-genetic and bioinformatic approach to Polo-like kinase pathway exploration. Chem Biol. 2007 Nov;14(11):1261-72. PMCID: PMC2215327.
Pre	Past	Schwartz, M.** (1999-2005)	Madhani	No Publications.

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Pre	Past	VanHoven, M.** (1999-2005)	Bargmann	Lanjuin A., **VanHoven M.K.**, Bargmann C.I., Thompson J.K., Sengupta P. (2003). Otx/otd homeobox genes specify distinct sensory neuron identities in C. elegans. Developmental Cell 5, 621-33. Davies A.G., Pierce-Shimomura J.T., Kim H., **VanHoven M.K.**, Thiele T.R., Bonci A., Bargmann C.I., McIntire S.L. (2003). A central role of the BK potassium channel in behavioral responses to ethanol in C. elegans. Cell 115, 655-66. **VanHoven M.K.**, Bauer Huang S.L., Albin S.D., Bargmann C.I. (2006). The claudin superfamily protein NSY-4 biases lateral signaling to generate left-right asymmetry in C. elegans olfactory neurons. Neuron 51, 291-302. Chuang C.F., **VanHoven M.K.**, Fetter R.D., Verselis V.K., Bargmann C.I. (2007). An innexin-dependent cell network establishes left-right neuronal asymmetry in C. elegans. Cell 129, 787-99. Sarah L Bauer Huang, Yasunori Saheki, **Miri K VanHoven,** Ichiro Torayama, Takeshi Ishihara, Isao Katsura, Alexander van der Linden, Piali Sengupta, and Cornelia I Bargmann. Left-right olfactory asymmetry results from antagonistic functions of voltage-activated calcium channels and the Raw repeat protein OLRN-1 in *C. elegans*. Neural Develop. 2007; 2: 24. PMCID: PMC2213652.

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Pre	Past	Wehman, A.** (1999-2006)	Baier	**Wehman AM**, Staub W, Meyers JR, Raymond PA, Baier H. Genetic dissection of the zebrafish retinal stem-cell compartment. Dev Biol. 2005 May 1;281(1):53-65. Beis D, Bartman T, Jin SW, Scott IC, D'Amico LA, Ober EA, Verkade H, Frantsve J, Field HA, **Wehman A**, Baier H, Tallafuss A, Bally-Cuif L, Chen JN, Stainier DY, Jungblut B. Genetic and cellular analyses of zebrafish atrioventricular cushion and valve development. Development. 2005 Sep;132(18):4193-204. Epub 2005 Aug 17. Akira Muto, Michael B Orger, **Ann M Wehman**, Matthew C Smear, Jeremy N Kay, Patrick S Page-McCaw, Ethan Gahtan, Tong Xiao, Linda M Nevin, Nathan J Gosse, Wendy Staub, Karin Finger-Baier, and Herwig Baier. Forward Genetic Analysis of Visual Behavior in Zebrafish. PLoS Genet. 2005 November; 1(5): e66. PMCID: PMC1287954. **Wehman AM**, Staub W, Baier H. The anaphase-promoting complex is required in both dividing and quiescent cells during zebrafish development. Dev Biol. 2007 Mar 1;303(1):144-56. Epub 2006 Nov 3. Scott IC, Masri B, D'Amico LA, Jin SW, Jungblut B, **Wehman AM**, Baier H, Audigier Y, Stainier DY. The g protein-coupled receptor agtrl1b regulates early development of myocardial progenitors. Dev Cell. 2007 Mar;12(3):403-13. Suk-Won Jin, Wiebke Herzog, Massimo M. Santoro, Tracy S. Mitchell, Julie Frantsve, Benno Jungblut, Dimitris Beis, Ian C. Scott, Leonard A. D'Amico, Elke A. Ober, Heather Verkade, Holly A. Field, Neil C. Chi, **Ann M. Wehman**, Herwig Baier, and Didier Y. R. Stainier. A Transgene-Assisted Genetic Screen Identifies Essential Regulators of Vascular Development in Vertebrate Embryos. Dev Biol. 2007 July 1; 307(1): 29–42. PMCID: PMC2695512. Filippo Del Bene, **Ann M. Wehman**, Brian A. Link, and Herwig Baier. Regulation of neurogenesis by interkinetic nuclear migration through an apical-basal Notch gradient. Cell. 2008 September 19; 134(6): 1055–1065. PMCID: PMC2628487.

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Pre	Past	Biehs, B.** (2000-2009)	Kornberg	Ansgar Klebes, **Brian Biehs**, Francisco Cifuentes, and Thomas B Kornberg. Expression profiling of *Drosophila* imaginal discs. Genome Biol. 2002; 3(8): research0038.1–research0038.16. Published online 2002 July 24. PMCID: PMC126232. Kweon Yu, Kyung-Hwa Kang, Petra Heine, Ujwal Pyati, Shaila Srinivasan, **Brian Biehs**, David Kimelman, and Ethan Bier. Cysteine repeat domains and adjacent sequences determine distinct bone morphogenetic protein modulatory activities of the Drosophila Sog protein. Genetics. 2004 March; 166(3): 1323–1336. PMCID: PMC1470778. David J. Casso, Soichi Tanda, **Brian Biehs**, Bruno Martoglio, and Thomas B. Kornberg. Drosophila Signal Peptide Peptidase Is an Essential Protease for Larval Development. Genetics. 2005 May; 170(1): 139–148. PMCID: PMC1449732.
Pre	Past	Chang, A.** (2000-2006)	Bargmann	Gray J.M., Karow D.S., Lu H., **Chang A.J.**, Chang J.S., Ellis R.E., Marletta M.A., and Bargmann C.I. (2004) Oxygen sensation and social feeding mediated by a C. elegans guanylate cyclase homologue. Nature 430: 317-22. **Andy J Chang**, Nikolas Chronis, David S Karow, Michael A Marletta, and Cornelia I Bargmann. A Distributed Chemosensory Circuit for Oxygen Preference in *C. elegans*. PLoS Biol. 2006 September; 4(9): e274. PMCID: PMC1540710 **Andy J. Chang** and Cornelia I. Bargmann. Hypoxia and the HIF-1 transcriptional pathway reorganize a neuronal circuit for oxygen-dependent behavior in *Caenorhabditis elegans*. Proc Natl Acad Sci U S A. 2008 May 20; 105(20): 7321–7326. Published online 2008 May 13. doi: 10.1073/pnas.0802164105. PMCID: PMC2438248. Manuel Zimmer, Jesse M. Gray, Navin Pokala, **Andy J. Chang**, David S. Karow, Michael. A. Marletta, Martin L. Hudson, David B. Morton, Nikos Chronis, and Cornelia I. Bargmann. Neurons Detect Increases and Decreases in Oxygen Levels Using Distinct Guanylate Cyclases. Neuron. 2009 March 26; 61(6): 865–879. PMCID: PMC2760494.

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Pre	Past	Co, C.** (2000-2007)	Taunton	Sokac, A.M., **Co, C**, Taunton, J, Bement, W, (2003) "Cdc42-dependent actin polymerization drives compensatory endocytosis in Xenopus eggs", Nature Cell Biology 5, 727-732. Papayanopoulos, V., **Co, C**, Prehoda, K, Snapper, S Taunton, J, Lim, W, (2005) "A polybasic motif allows N-WASP to act as a sensor of PIP2 density," Molecular Cell, 17(2), 181-91. Otsuji, M, Ishihara, S, **Co, C**, Kaibuchi, K, Mochizuki, A, Kuroda, S, (2007) "A mass conserved reaction-diffusion system captures properties of cell polarity, "PLoS Computational Biology 2007, 3(6): e108. PMCID: PMC1892603. **Co, C**, Wong, D, Gierke, S, Chang, V, Taunton, J, (2007) "Mechanism of actin network attachment to moving membranes: barbed end capture by N-WASP WH2 domains," Cell 128 (5), 901-913. PMCID: PMC2047291.
Pre	Past	Dephoure, N.** (2000-2006)	O'Shea	Russell Howson, Won-Ki Huh, Sina Ghaemmaghami, James V. Falvo, Kiowa Bower, Archana Belle, **Noah Dephoure**, Dennis D. Wykoff, Jonathan S. Weissman, and Erin K. O'Shea. Construction, Verification and Experimental Use of Two Epitope-Tagged Collections of Budding Yeast Strains. Comp Funct Genomics. 2005 Feb–Mar; 6(1-2): 2–16. PMCID: PMC2448600. **Noah Dephoure**, Russell W. Howson, Justin D. Blethrow, Kevan M. Shokat, and Erin K. O'Shea. Combining chemical genetics and proteomics to identify protein kinase substrates. Proc Natl Acad Sci U S A. 2005 December 13; 102(50): 17940–17945. Published online 2005 December 5. PMCID: PMC1306798.
Pre	Past	Enquist-Newman, M.** (2000-2007)	Morgan	The APC subunit Doc1 promotes recognition of the substrate destruction box. Carroll CW, **Enquist-Newman M**, Morgan DO. Curr Biol. 2005 Jan 11;15(1):11-8. Modulation of the mitotic regulatory network by APC-dependent destruction of the Cdh1 inhibitor Acm1. **Enquist-Newman M**, Sullivan M, Morgan DO. Mol Cell. 2008 May 23;30(4):437-46. PMCID: PMC2494983.

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Pre	Past	Galgoczy, D.** (2000-2007)	Johnson	**David J. Galgoczy** and David P. Toczyski. Checkpoint Adaptation Precedes Spontaneous and Damage-Induced Genomic Instability in Yeast. Mol Cell Biol. 2001 March; 21(5): 1710–1718. PMCID: PMC86717. **David J. Galgoczy**, Ann Cassidy-Stone, Manuel Llinás, Sean M. O'Rourke, Ira Herskowitz, Joseph L. DeRisi, and Alexander D. Johnson. Genomic dissection of the cell-type-specification circuit in *Saccharomyces cerevisiae*. Proc Natl Acad Sci U S A. 2004 December 28; 101(52): 18069–18074. Published online 2004 December 16. PMCID: PMC535907. Rebecca E. Zordan, **David J. Galgoczy**, and Alexander D. Johnson. From the Cover: Epigenetic properties of white–opaque switching in *Candida albicans* are based on a self-sustaining transcriptional feedback loop. Proc Natl Acad Sci U S A. 2006 August 22; 103(34): 12807–12812. Published online 2006 August 9. PMCID: PMC1535343. Rebecca E Zordan, Mathew G Miller, **David J Galgoczy**, Brian B Tuch, and Alexander D Johnson. Interlocking Transcriptional Feedback Loops Control White-Opaque Switching in *Candida albicans*. PLoS Biol. 2007 October; 5(10): e256. Published online 2007 September 18. PMCID: PMC1976629. Brian B Tuch, **David J Galgoczy**, Aaron D Hernday, Hao Li, and Alexander D Johnson. The Evolution of Combinatorial Gene Regulation in Fungi. PLoS Biol. 2008 February; 6(2): e38. Published online 2008 February 26. PMCID: PMC2253631.
Pre	Past	Garner, E.** (2000-2007)	Mullins	Charina L. Choi, Shelley A. Claridge, **Ethan C. Garner**, A. Paul Alivisatos, and R. Dyche Mullins. Protein-Nanocrystal Conjugates Support a Single Filament Polymerization Model in R1 Plasmid Segregation. J Biol Chem. 2008 October 17; 283(42): 28081–28086. PMCID: PMC2568930.
Pre	Past	Kennerdell, J.** (2000-2008)	Bargmann	**Kennerdell JR**, Fetter RD, Bargmann CI. Wnt-Ror signaling to SIA and SIB neurons directs anterior axon guidance and nerve ring placement in C. elegans. Development. 2009 Nov;136(22):3801-10.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Lo, C.** (2000-2005)	Cyster	**Lo CG**, Lu TT, Cyster JG. Integrin-dependence of lymphocyte entry into the splenic white pulp. J Exp Med. 2003 Feb 3;197(3):353-61. PMCID: PMC2193837. Matloubian M, **Lo CG**, Cinamon G, Lesneski MJ, Xu Y, Brinkmann V, Allende ML, Proia RL, Cyster JG. Lymphocyte egress from thymus and peripheral lymphoid organs is dependent on S1P receptor 1. Nature. 2004 Jan 22;427(6972):355-60. **Lo CG**, Xu Y, Proia RL, Cyster JG. Cyclical modulation of sphingosine-1-phosphate receptor 1 surface expression during lymphocyte recirculation and relationship to lymphoid organ transit. J Exp Med. 2005 Jan 17;201(2):291-301. PMCID: PMC2212802. Pham TH, Okada T, Matloubian M, **Lo CG**, Cyster JG. S1P1 receptor signaling overrides retention mediated by G alpha i-coupled receptors to promote T cell egress. Immunity. 2008 Jan;28(1):122-33. Epub 2007 Dec 27. PMCID: PMC2691390.
Pre	Past	Margolin, B.** (2000-2007)	O'Shea	Eric U. Selker, Michael Freitag, Gregory O. Kothe, **Brian S. Margolin**, Michael R. Rountree, C. David Allis, and Hisashi Tamaru. Induction and maintenance of nonsymmetrical DNA methylation in *Neurospora.* Proc Natl Acad Sci U S A. 2002 December 10; 99(Suppl 4): 16485–16490. PMCID: PMC139912. Dennis D. Wykoff, Abbas H. Rizvi, Jonathan M. Raser, **Brian Margolin**, and Erin K. O'Shea. Positive feedback regulates switching of phosphate transporters in *S. cerevisiae.* Mol Cell. 2007 September 21; 27(6): 1005–1013. PMCID: PMC2034509.
Pre	Past	Morreale, R.** (2000-2007)	J. Li	Green BM, **Morreale RJ***, Ozaydin B, Derisi JL, Li JJ. (2006) Genome-wide mapping of DNA synthesis in Saccharomyces cerevisiae reveals that mechanisms preventing reinitiation of DNA replication are not redundant. Mol Biol Cell.17(5):2401-14. PMCID: PMC1446083.
Pre	Past	Robertson, J.** (2000-2003)	H. Li	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Whitworth, G.** (2000-2008)	Guthrie	Jeffrey A Pleiss, **Gregg B Whitworth**, Megan Bergkessel, and Christine Guthrie. Transcript Specificity in Yeast Pre-mRNA Splicing Revealed by Mutations in Core Spliceosomal Components. PLoS Biol. 2007 April; 5(4): e90. PMCID: PMC1831718. Jeffrey A. Pleiss, **Gregg B. Whitworth**, Megan Bergkessel, and Christine Guthrie. Rapid, Transcript-Specific Changes in Splicing in Response to Environmental Stress. Mol Cell. 2007 September 21; 27(6): 928–937. PMCID: PMC2081968. Daniel J. Coughlin, Jeffrey A. Pleiss, Scott C. Walker, **Gregg B. Whitworth**, and David R. Engelke. Genome-wide search for yeast RNase P substrates reveals role in maturation of intron-encoded box C/D small nucleolar RNAs. Proc Natl Acad Sci U S A. 2008 August 26; 105(34): 12218–12223. PMCID: PMC2527892. Gwendolyn M. Wilmes, Megan Bergkessel, Sourav Bandyopadhyay, Michael Shales, Hannes Braberg, Gerard Cagney, Sean R. Collins, **Gregg B. Whitworth**, Tracy L. Kress, Jonathan S. Weissman, Trey Ideker, Christine Guthrie, and Nevan J. Krogan. Mol Cell. 2008 December 5; 32(5): 735–746. PMCID: PMC2644724.
Pre	Past	Anderson, C.** (2001-2008)	Blackburn	**Anderson CM**, Korkin D, Smith DL, Makovets S, Seidel JJ, Sali A, Blackburn EH. Tel2 mediates activation and localization of Tel1/ATM kinase to a double-strand break. *Genes Dev.* 22(7): 854-859. 2008. PMCID: PMC2279195. Seidel JJ, **Anderson CM**, Blackburn EH. A novel Tel1/ATM N-terminal motif, TAN, is essential for telomere length maintenance and a DNA damage response. *Mol Cell Biol* 28(18): 5736-46. 2008. PMCID: PMC2546937. **Anderson CM**, Blackburn EH. Mec1 function in the DNA damage response does not require its interaction with Tel2. *Cell Cycle*, 7(23): 3695-8. 2008. Temporary NIHMSID: 180749.
Pre	Past	Chase, M.** (2001-2007)	Julius	**Martha R. C. Bhattacharya**, Diana M. Bautista, Karin Wu, Henry Haeberle, Ellen A. Lumpkin, and David Julius. Radial stretch reveals distinct populations of mechanosensitive mammalian somatosensory neurons. Proc Natl Acad Sci U S A. 2008 December 16; 105(50): 20015–20020. PMCID: PMC2604979.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Engel, A.** (2001-2007)	Walter	Heiman MG, **Engel A**, Walter P. 2007. The Golgi-resident protease Kex2 acts in conjunction with Prm1 to facilitate cell fusion during yeast mating. *J Cell Biol.* 176(2):209-22. PMCID: PMC2063940. Aguilar PS*, **Engel A***, Walter P. 2007. The plasma membrane proteins Prm1 and Fig1 ascertain fidelity of membrane fusion during yeast mating. *Mol Biol Cell.* 18(2):547-56. PMCID: PMC1783792. **Engel A**, Walter P. Membrane lysis during biological membrane fusion: collateral damage by misregulated fusion machines. J Cell Biol. 2008 Oct 20;183(2):181-6. Epub 2008 Oct 13. PMCID: PMC2568015. Aguilar PS, Heiman MG, Walther TC, **Engel A**, Schwudke D, Gushwa N, Kurzchalia T, Walter P. Structure of sterol aliphatic chains affects yeast cell shape and cell fusion during mating. Proc Natl Acad Sci U S A. 2010 Mar 2;107(9):4170-5. Epub 2010 Feb 11. PMC Journal – In Process.
Pre	Past	Hwang, B.** (2001-2009)	Madhani	A conserved RING finger protein required for histone H2B monoubiquitination and cell size control. **Hwang WW**, Venkatasubrahmanyam S, Ianculescu AG, Tong A, Boone C, Madhani HD. Mol Cell. 2003 Jan;11(1):261-6. Acute infection and macrophage subversion by Mycobacterium tuberculosis require a specialized secretion system. Sarah A. Stanley, Sridharan Raghavan, **William W. Hwang**, and Jeffery S. Cox. Proc Natl Acad Sci U S A. 2003 October 28; 100(22): 13001–13006. Published online 2003 October 13. PMCID: PMC240734. Genome-wide, as opposed to local, antisilencing is mediated redundantly by the euchromatic factors Set1 and H2A.Z. Shivkumar Venkatasubrahmanyam, **William W. Hwang**, Marc D. Meneghini, Amy Hin Yan Tong, and Hiten D. Madhani. Proc Natl Acad Sci U S A. 2007 October 16; 104(42): 16609–16614. Published online 2007 October 9. PMCID: PMC2034229. Nonredundant Requirement for Multiple Histone Modifications for the Early Anaphase Release of the Mitotic Exit Regulator Cdc14 from Nucleolar Chromatin. **William W. Hwang** and Hiten D. Madhani. PLoS Genet. 2009 August; 5(8): e1000588. Published online 2009 August 7. PMCID: PMC2716543.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	McCormick, M.** (2001-2009)	Kenyon	No Publications.
Pre	Past	McLaughlin, B.** (2001-2007)	Brown	Gao LY, Guo S, **McLaughlin B**, Morisaki H, Engel JN, Brown EJ. (2004). A mycobacterial virulence gene cluster extending RD1 is required for cytolysis, bacterial spreading and ESAT-6 secretion. Mol Microbiol 53:1677-93. **Bryant McLaughlin**, Janet S Chon, Jason A MacGurn, Fredric Carlsson, Terri L Cheng, Jeffery S Cox, and Eric J Brown. A Mycobacterium ESX-1–Secreted Virulence Factor with Unique Requirements for Export. PLoS Pathog. 2007 August; 3(8): e105. Published online 2007 August 3. PMCID: PMC1937011.
Pre	Past	Pickering, C.** (2001-2008)	Tlsty	Venkatachalam S, Tyner SD, **Pickering CR**, Boley S, Recio L, French JE, Donehower LA. Is p53 haploinsufficient for tumor suppression? Implications for the p53+/- mouse model in carcinogenicity testing. Toxicol Pathol. 2001;29 Suppl:147-54. Zhang J, **Pickering CR**, Holst CR, Gauthier ML, Tlsty TD. p16INK4a modulates p53 in primary human mammary epithelial cells. Cancer Res. 2006 Nov 1;66(21):10325-31.

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Pre	Past	Raisner, R.** (2001-2007)	Madhani	Hull CM*, **Raisner RM***, Johnson AD. Evidence for mating of the "asexual" yeast Candida albicans in a mammalian host. Science. 2000 Jul 14;289(5477):307-10. Tsong AE, Miller MG, **Raisner RM**, Johnson AD. Evolution of a combinatorial transcriptional circuit: a case study in yeasts. Cell. 2003 Nov 14;115(4):389-99. **Raisner RM***, Hartley PD*, Meneghini MD, Bao MZ, Liu CL, Schreiber SL, Rando OJ, Madhani HD. Histone variant H2A.Z marks the 5' ends of both active and inactive genes in euchromatin. Cell. 2005 Oct 21;123(2):233-48. PMCID: PMC2039754. **Raisner RM** and Madhani HD Patterning chromatin: form and function for H2A.Z variant nucleosomes. Curr Opin Genet Dev. 2006 Apr;16(2):119-24. Epub 2006 Feb 28. Review. **Raisner RM** and Madhani HD Genomewide Screen for Negative Regulators of Sirtuin Activity in *Saccharomyces cerevisiae* Reveals 40 Loci and Links to Metabolism. Genetics. 2008 August; 179(4): 1933–1944. PMCID: PMC2516070.
Pre	Past	Royce-Tolland, M.** (2001-2009)	Panning	Cohen CR, **Royce-Tolland ME**, Worringer KW, and Panning B, (2005). Chromatin modifications on the inactive X chromosome. *Prog Mol Subcell Biol.* 38, 91-122. Mluynarczyk-Evans S, **Royce-Tolland M**, Alexander MK, Andersen AA, Kalantry S, Gribnau J, Panning B, (2006). X chromosomes alternate between two states prior to random X-inactivation. *PLoS Biol.* 4, 906-916. PMCID: PMC1457015. Alexander MK, Mlynarczyk-Evans S, **Royce-Tolland M**, Plocik A, Kalantry S, Magnuson T, Panning B, (2007). Differences between homologous alleles of olfactory receptor genes require the Polycomb Group protein Eed. *J Cell Biol.* 179, 269-276. PMCID: PMC2064763. **Royce-Tolland M**, Panning B, (2008) X-inactivation: it takes two to count. *Current Biol.* 18, R255-256.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Tully, G.** (2001-2007)	Morgan	Nolan Ko, Ryuichi Nishihama, **Gregory H. Tully**, Denis Ostapenko, Mark J. Solomon, David O. Morgan, and John R. Pringle. Identification of Yeast IQGAP (Iqg1p) as an Anaphase-Promoting-Complex Substrate and Its Role in Actomyosin-Ring-Independent Cytokinesis. Mol Biol Cell. 2007 December; 18(12): 5139–5153. PMCID: PMC2096582. **Gregory H. Tully**, Ryuichi Nishihama, John R. Pringle, and David O. Morgan. The Anaphase-promoting Complex Promotes Actomyosin-Ring Disassembly during Cytokinesis in Yeast. Mol Biol Cell. 2009 February 15; 20(4): 1201–1212. PMCID: PMC2642741.
Pre	Past	Vidanes, G.** (2001-2009)	Toczyski	Garber PM, **Vidanes GM**, Toczyski DP. Damage in transition. Trends Biochem Sci. 2005 Feb;30(2):63-6. **Vidanes GM**, Bonilla CY, Toczyski DP. Complicated tails: histone modifications and the DNA damage response. Cell. 2005 Jul 1;121(7):973-6. Review. **Genevieve M. Vidanes**, Frédéric D. Sweeney, Sarah Galicia, Stephanie Cheung, John P. Doyle, Daniel Durocher, and David P. Toczyski. CDC5 Inhibits the Hyperphosphorylation of the Checkpoint Kinase Rad53, Leading to Checkpoint Adaptation. PLoS Biol. 2010 January; 8(1): e1000286. PMCID: PMC2811153.
Pre	Past	Wilson, C.** (2001-2009)	Chuang	**Christopher W. Wilson**, Miao-Hsueh Chen, and Pao-Tien Chuang. Smoothened Adopts Multiple Active and Inactive Conformations Capable of Trafficking to the Primary Cilium. PLoS ONE. 2009; 4(4): e5182. Published online 2009 April 13. PMCID: PMC2664476. Miao-Hsueh Chen, **Christopher W. Wilson**, Ya-Jun Li, Kelvin King Lo Law, Chi-Sheng Lu, Rhodora Gacayan, Xiaoyun Zhang, Chi-chung Hui, and Pao-Tien Chuang. Cilium-independent regulation of Gli protein function by Sufu in Hedgehog signaling is evolutionarily conserved. Genes Dev. 2009 August 15; 23(16): 1910–1928. PMCID: PMC2725943.

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Pre	Past	Woodbury, E.** (2001-2007)	Morgan	**Woodbury EL**, Morgan DO. The role of self-association in Fin1 function on the mitotic spindle. J Biol Chem. 2007 Nov 2;282(44):32138-43. Epub 2007 Sep 4. **Woodbury EL**, Morgan DO. Cdk and APC activities limit the spindle-stabilizing function of Fin1 to anaphase. Nat Cell Biol. 2007 Jan;9(1):106-12. Epub 2006 Dec 17.
Pre	Past	Worringer, K.** (2001-2007)	Panning	Plath K, Fang J, Mlynarczyk-Evans SK, Cao R, **Worringer KA**, Wang H, de la Cruz CC, Otte AP, Panning B, Zhang Y. Role of histone H3 lysine 27 methylation in X inactivation. Science. 2003 Apr 4;300(5616):131-5. Epub 2003 Mar 20. Cohen HR, Royce-Tolland ME, **Worringer KA**, Panning B. Chromatin modifications on the inactive X chromosome. Prog Mol Subcell Biol. 2005;38:91-122. Review. de la Cruz CC, Fang J, Plath K, **Worringer KA**, Developmental regulation of Suz 12 localization. Nusinow DA, Zhang Y, Panning B. Chromosoma. 2005 Aug;114(3):183-92. Epub 2005 Jun 29. **Worringer KA**, Panning B. Zinc finger protein Zn72D promotes productive splicing of the maleless transcript. Mol Cell Biol. 2007 Dec;27(24):8760-9. Epub 2007 Oct 8. PMCID: PMC2169391. **Worringer KA**, Chu F, Panning B. The zinc finger protein Zn72D and DEAD box helicase Belle interact and control maleless mRNA and protein levels. BMC Mol Biol. 2009 Apr 22;10:33. PMCID: PMC2680859.
Pre	Past	Bao, M.** (2002-2008)	Madhani	**Bao MZ**, Schwartz MA, Cantin GT, Yates JR 3rd, Madhani HD. Pheromone-dependent destruction of the Tec1 transcription factor is required for MAP kinase signaling specificity in yeast. Cell. 2004 Dec 29;119(7):991-1000. Raisner RM, Hartley PD, Meneghini MD, **Bao MZ**, Liu CL, Schreiber SL, Rando OJ, Madhani HD. Histone variant H2A.Z marks the 5' ends of both active and inactive genes in euchromatin. Cell. 2005 Oct 21;123(2):233-48.

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Pre	Past	Bonilla, C.** (2002-2008)	Toczyski	Vidanes GM, **Bonilla CY**, Toczyski DP. Abstract Complicated tails: histone modifications and the DNA damage response. Cell. 2005 Jul 1;121(7):973-6. Review. **Bonilla CY**, Melo JA, Toczyski DP. Abstract Colocalization of sensors is sufficient to activate the DNA damage checkpoint in the absence of damage. Mol Cell. 2008 May 9;30(3):267-76.
Pre	Past	Bradshaw, N.** (2002-2009)	Walter	Saskia B Neher, **Niels Bradshaw**, Stephen N Floor, John D Gross, and Peter Walter. SRP RNA controls a conformational switch regulating the SRP–SRP receptor interaction. Nat Struct Mol Biol. 2008 September; 15(9): 916–923. PMCID: PMC2767265. **Niels Bradshaw**, Saskia B. Neher, David S. Booth, and Peter Walter. Signal Sequences Activate the Catalytic Switch of SRP RNA. Science. 2009 January 2; 323(5910): 127–130. PMCID: PMC2767340. **Niels Bradshaw** and Peter Walter. The Signal Recognition Particle (SRP) RNA Links Conformational Changes in the SRP to Protein Targeting. Mol Biol Cell. 2007 July; 18(7): 2728–2734. PMCID: PMC1924838.
Pre	Past	Campbell, C.** (2002-2008)	Mullins	**Christopher S. Campbell** and R. Dyche Mullins. In vivo visualization of type II plasmid segregation: bacterial actin filaments pushing plasmids. J Cell Biol. 2007 December 3; 179(5): 1059–1066. PMCID: PMC2099209.
Pre	Past	Goodwin, L.** (2002-2005)	J. Li	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Gosse, N.** (2002-2007)	Baier	Muto A, Orger MB, Wehman AM, Smear MC, Kay JN, Page-McCaw PS, Gahtan E, Xiao T, Nevin LM, **Gosse NJ**, Staub W, Finger-Baier K, Baier H. Forward genetic analysis of visual behavior in zebrafish. PLoS Genet. 2005 Nov;1(5):e66. Epub 2005 Nov 25. PMCID: PMC1287954. Smear MC, Tao HW, Staub W, Orger MB, **Gosse NJ**, Liu Y, Takahashi K, Poo MM, Baier H. Neuron. 2007 Jan 4;53(1):65-77. Vesicular glutamate transport at a central synapse limits the acuity of visual perception in zebrafish. PMCID: PMC1828615. Davison JM, Akitake CM, Goll MG, Rhee JM, **Gosse N**, Baier H, Halpern ME, Leach SD, Parsons MJ. Transactivation from Gal4-VP16 transgenic insertions for tissue-specific cell labeling and ablation in zebrafish. Dev Biol. 2007 Apr 15;304(2):811-24. Epub 2007 Jan 27. Scott EK, Mason L, Arrenberg AB, Ziv L, **Gosse NJ**, Xiao T, Chi NC, Asakawa K, Kawakami K, Baier H. And the rest of them: Targeting neural circuitry in zebrafish using GAL4 enhancer trapping. Nat Methods. 2007 Apr;4(4):323-6. Epub 2007 Mar 18. **Gosse NJ**, Nevin LM, Baier H. Retinotopic order in the absence of axon competition. Nature. 2008 Apr 17;452(7189):892-5. Epub 2008 Mar 26. **Gosse NJ**, Baier H. An essential role for Radar (Gdf6a) in inducing dorsal fate in the zebrafish retina. Proc Natl Acad Sci U S A. 2009 Feb 17;106(7):2236-41. Epub 2009 Jan 21. PMCID: PMC2650138.
Pre	Past	Hanby, R.** (2002-2008)	Sil	**Rachael Hanby Webster** and Anita Sil. Conserved factors Ryp2 and Ryp3 control cell morphology and infectious spore formation in the fungal pathogen Histoplasma capsulatum. Proc Natl Acad Sci U S A. 2008 September 23; 105(38): 14573–14578. PMCID: PMC2567189.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Holt, L.** (2002-2008)	Morgan	Tang Y; Sook Lee K; Yang H; Logan DW; Wang S; McKinnon ML; **Holt LJ**, Condie A; Luu MT & Akhurst RJ. (2005) Epistatic interactions between modifier genes confer strain-specific redundancy for Tgfb1 in developmental angiogenesis. Genomics.85(1):60-70 Matt Sullivan, **Liam Holt**, and David O. Morgan. Cyclin-Specific Control of Ribosomal DNA Segregation. Mol Cell Biol. 2008 September; 28(17): 5328–5336. PMCID: PMC2519743 **Liam J. Holt**, Jessica E. Hutti, Lewis C. Cantley, and David O. Morgan. Evolution of Ime2 phosphorylation sites on Cdk1 substrates provides a mechanism to limit the effects of the phosphatase Cdc14 in meiosis. Mol Cell. 2007 March 9; 25(5): 689–702. PMCID: PMC1939968. **Liam J. Holt**, Andrew N. Krutchinsky, and David O. Morgan. Positive feedback sharpens the anaphase switch. Nature. 2008 July 17; 454(7202): 353–357. PMCID: PMC2636747. **Holt, LJ**; Tuch, BB; Villén, J; Johnson, AD; Gygi, SP & Morgan, DO (2009) Global analysis of Cdk1 substrate phosphorylation sites provides insights into evolution. Science, Sep 25;325(5948):1682-6.
Pre	Past	Isaac, D.** (2002-2009)	Sil	No Publications.
Pre	Past	Kardon,J.** (2002-2009)	Vale	**Julia R. Kardon,** Samara L. Reck-Peterson, and Ronald D. Vale. Regulation of the processivity and intracellular localization of *Saccharomyces cerevisiae* dynein by dynactin. Proc Natl Acad Sci U S A. 2009 April 7; 106(14): 5669–5674. PMCID: PMC2657088.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Myers, B.** (2002-2008)	Julius	**Myers, B. R.**, Julius. D. TRP Channel Structural Biology: New Roles for an Old Fold. Neuron Jun 21;54(6):847-50 (2007). **Myers, B. R.**, Saimi, Y., Kung, C., Julius, D. Multiple Unbiased Prospective Screens Identify TRP Channels and their Conserved Gating Elements. J Gen Physiol.,132(5): 481-6 (2008). PMCID: PMC2571970. **Myers, B. R.**, Bohlen, C., Julius, D. A Yeast Genetic Screen Reveals a Critical Role for the Pore Helix Domain in TRP Channel Gating. Neuron, May 8;58(3):362-73 (2008). PMCID: PMC2422846. Prober, D. A., Zimmerman, S., **Myers, B. R.**, McDermott, B. M., Caron, S., Rihel, J., Kim, S., Kettleborough, R. N. W., Stemple, D. L., Solnica-Krezel, L., Julius, D., Hudspeth, A. J., Schier, A. F. Zebrafish TRPA1 Channels are Required for Behavioral Responses to Mustard Oil but not for Thermosensation or Mechanosensory Hair Cell Function. J Neurosci., Oct 1;28(40):10102-10 (2008). PMCID: PMC2728686. **Myers, B. R.**, Sigal, Y. M., Julius, D. Evolution of Thermal Response Properties in a Cold-Activated TRP Channel. PLoS ONE 4(5): e5741. doi:10.1371/journal.pone.0005741 (2009). PMCID: PMC2683941.
Pre	Past	O'Brien, T.** (2002-2007)	McKerrow	Maha-Hamadien Abdulla, **Theresa O'Brien**, Zachary B. Mackey, Mohamed Sajid, Dennis J. Grab, and James H. McKerrow. RNA Interference of *Trypanosoma brucei* Cathepsin B and L Affects Disease Progression in a Mouse Model. PLoS Negl Trop Dis. 2008 September; 2(9): e298. PMCID: PMC2553486. **Theresa C. O'Brien**, Zachary B. Mackey, Richard D. Fetter, Youngchool Choe, Anthony J. O'Donoghue, Min Zhou, Charles S. Craik, Conor R. Caffrey, and James H. McKerrow. A Parasite Cysteine Protease Is Key to Host Protein Degradation and Iron Acquisition. J Biol Chem. 2008 October 24; 283(43): 28934–28943. PMCID: PMC2570886.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Shock, J.** (2002-2008)	DeRisi	Erica L. Dahl, **Jennifer L. Shock**, Bhaskar R. Shenai, Jiri Gut, Joseph L. DeRisi, and Philip J. Rosenthal. Tetracyclines Specifically Target the Apicoplast of the Malaria Parasite *Plasmodium falciparum*. Antimicrob Agents Chemother. 2006 September; 50(9): 3124–3131. PMCID: PMC1563505. Deitsch, K., Duraisingh, M., Dzikowski, R., Gunasekera, A., Le Roch, K., Llinas, M., Mair, G., McGovern, V., Roos, D., **Shock, J.**, Sims, J., Wiegand, R., Winzeler, E. (2007) Mechanisms of gene regulation in *Plasmodium*. American Journal of Tropical Medicine and Hygiene 77(2):201-208. **Jennifer L Shock**, Kael F Fischer, and Joseph L DeRisi. Whole-genome analysis of mRNA decay in *Plasmodium falciparum* reveals a global lengthening of mRNA half-life during the intra-erythrocytic development cycle. Genome Biol. 2007; 8(7): R134. Published online 2007 August 7. PMCID: PMC2323219.
Pre	Past	Shock, T.** (2002-2009)	Madhani	Cantin, G.T., **Shock, T.R.**, Park, S.K., Madhani, H.D. and Yates, J.R., 3rd. (2007) Optimizing TiO2-based phosphopeptide enrichment for automated multidimensional liquid chromatography coupled to tandem mass spectrometry. *Anal Chem*, **79**, 4666-4673. PMCID: PMC2535607. **Teresa R. Shock**, James Thompson, John R. Yates, III, and Hiten D. Madhani. Hog1 Mitogen-Activated Protein Kinase (MAPK) Interrupts Signal Transduction between the Kss1 MAPK and the Tec1 Transcription Factor To Maintain Pathway Specificity. Eukaryot Cell. 2009 April; 8(4): 606–616. PMCID: PMC2669196.
Pre	Past	Tompa, R.** (2002-2007)	Madhani	**Tompa R**, Madhani HD. Histone H3 Lysine 36 Methylation Antagonizes Silencing in *Saccharomyces cerevisiae* Independently of the Rpd3S Histone Deacetylase Complex. Genetics. 2007 February; 175(2): 585–593. PMCID: PMC1800606.
Pre	Past	Wang, E.** (2002-2004)	J. Li	No Publications.
Pre	Past	Wilson, N.** (2002-2005)	DeRisi	Peter B. Madrid, **Nathan Wilson**, Joseph L. DeRisi, and R. Kiplin Guy. Parallel Synthesis and Antimalarial Screening of a 4-Aminoquinoline Library. J Comb Chem. 2004; 6(3): 437–442. PMCID: PMC1467020.

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Pre	Past	Zordan, R.** (2002-2008)	Johnson	**Rebecca E. Zordan**, David J. Galgoczy, and Alexander D. Johnson. Epigenetic properties of white–opaque switching in *Candida albicans* are based on a self-sustaining transcriptional feedback loop. Proc Natl Acad Sci U S A. 2006 August 22; 103(34): 12807–12812. PMCID: PMC1535343. **Rebecca E Zordan**, Mathew G Miller, David J Galgoczy, Brian B Tuch, and Alexander D Johnson. Interlocking Transcriptional Feedback Loops Control White-Opaque Switching in Candida albicans. PLoS Biol. 2007 October; 5(10): e256. PMCID: PMC1976629.
Pre	Past	Zuchero, J.** (2002-2009)	Mullins	**Zuchero JB**. In vitro actin assembly assays and purification from Acanthamoeba. Methods Mol Biol. 2007;370:213-26. **Zuchero JB**, Coutts AS, Quinlan ME, Thangue NB, Mullins RD. p53-cofactor JMY is a multifunctional actin nucleation factor. Nat Cell Biol. 2009 Apr;11(4):451-9. Epub 2009 Mar 15. PMCID: PMC2763628.
Pre	Past	Benton, G.** (2003-2009)	Tlsty	Reynolds, P. A., Sigaroudinia, M., Zardo, G., Wilson, M. B., **Benton, G. M.**, Miller, C. J., Hong, C., Fridlyand, J., Costello, J. F., and Tlsty, T. D. (2006). Tumor suppressor p16INK4A regulates polycomb-mediated DNA hypermethylation in human mammary epithelial cells. J Biol Chem *281*, 24790-24802.
Pre	Past	Chen,S.** (2003-2009)	Fung	**Stacy Y. Chen**, Tomomi Tsubouchi, Beth Rockmill, Jay S. Sandler, Daniel R. Richards, Gerben Vader, Andreas Hochwagen, G. Shirleen Roeder, and Jennifer C. Fung. Global Analysis of the Meiotic Crossover Landscape. Dev Cell. 2008 September; 15(3): 401–415. PMCID: PMC2134943.
Pre	Past	Dey, C.** (2003-2005)	Brown	No Publications.
Pre	Past	Green, B.** (2003-2009)	Johnson	No Publications.
Pre	Past	Hartley, P.** (2003-2009)	Madhani	Raisner RM, **Hartley PD**, Meneghini MD, Bao MZ, Liu CL, Schreiber SL, Rando OJ, Madhani HD. Histone variant H2A.Z marks the 5' ends of both active and inactive genes in euchromatin. Cell. 2005 Oct 21;123(2):233-48. Erratum in: Cell. 2008 Jul 11;134(1):188. PMCID: PMC2039754. **Hartley PD**, Madhani HD. Mechanisms that specify promoter nucleosome location and identity. Cell. 2009 May 1;137(3):445-58. PMCID: PMC2677553.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	Jones, K.** (2003-2009)	Ashrafi	**Kevin T Jones**, Elisabeth R Greer, David Pearce, and Kaveh Ashrafi. *Rictor*/TORC2 Regulates *Caenorhabditis elegans* Fat Storage, Body Size, and Development through *sgk-1*. PLoS Biol. 2009 March; 7(3): e1000060. PMCID: PMC2650726. **Kevin T. Jones** and Kaveh Ashrafi. *Caenorhabditis elegans* as an emerging model for studying the basic biology of obesity. Dis Model Mech. 2009 May–Jun; 2(5-6): 224–229. PMCID: PMC2675801.
Pre	Past	Keller, L.** (2003-2009)	Marshall	**Keller LC**, Romijn EP, Zamora I, Yates JR 3rd, Marshall WF. (2005) Proteomic analysis of isolated *Chlamydomonas* centrioles reveals orthologs of ciliary-disease genes. *Curr Biol.* 15(12):1090-8. Rosales-Nieves AE*, Johndrow JE*, **Keller LC***, Magie, CR, Pinto-Santini DM, Parkhurst SM. (2006) Coordination of microtubule and microfilament dynamics by *Drosophila* Rho1, Spire, and Cappuccino. *Nat Cell Biol.* 8(4):367-76. PMCID: PMC1997291. **Keller LC**, and Marshall WF. (2008) Isolation and proteomic analysis of *Chlamydomonas* centrioles. Methods Mol Biol. **432**:289-300. **Lani C. Keller**, Stefan Geimer, Edwin Romijn, John Yates, III, Ivan Zamora, and Wallace F. Marshall. Molecular Architecture of the Centriole Proteome: The Conserved WD40 Domain Protein POC1 Is Required for Centriole Duplication and Length Control. Mol Biol Cell. 2009 February 15; 20(4): 1150–1166. PMCID: PMC2642750.
Pre	Past	Toyama, B.** (2003-2009)	Weissman	Tanaka, M., Collins, SR., **Toyama, BH.**, and Weissman, JS. The physical basis of how prion conformations determine strain phenotypes. Nature. 2006 442: 585-589. **Toyama, BH.**, Kelly, MJ., Gross, JD., Weissman, JS. The structural basis of yeast prion strain variants. Nature. 2007 449: 233-237. Feng, BY., **Toyama, BH.**, Wille, H., Colby, DW., Collins, SR., May, BC., Prusiner, SB., Weissman, JS., Shoichet, BK. Small-molecule aggregates inhibit amyloid polymerization. Nat Chem Biol. 2008 4: 197-199. PMCID: PMC2730835.
Pre	Past	Cook, K.** (2004-2005)	O'Shea	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Past	McConnell, A.** (2004)	N/A	No Publications.
Pre	Past	Moreira, K.** (2004-2009)	Walter	**Moreira KE**, Fröhlich F, Aguilar PS, Hubner NC, Mann M, Walter P, Walther TC (2009) A genome wide screen for genes affecting eisosomes reveals Nce102 function in sphingolipid signaling. *J. Cell Biol* Jun 29;185(7):1227-42. PMCID: PMC2712959. **Moreira KE**, Walther TC, Aguilar PS, Walter P. (2009) Pil1 controls eisosome biogenesis. *Mol. Bio. Cell.* Feb;20(3):809-18. Epub 2008 Nov 26. PMCID: PMC2633383. Walther TC, Aguilar PS, Chu F, Fröhlich F, **Moreira KE**, Burlingame AL, Walter P. (2007) Pkh-kinases control eisosome assembly and organization. *EMBO J.* Dec 12;26(24):4946-55. Epub 2007 Nov 22. PMCID: PMC2094096.
Pre	Past	Sigal, Y.** (2004-2008)	Julius	DM Bautista*, **YM Sigal***, PR Tsuruda, AD Milstein, JL Garrison, JA Zorn, RA Nicoll, & D Julius: Pungent agents from Szechuan peppers excite sensory neurons by inhibiting two-pore potassium channels. Nature Neuroscience 2008 Jul;11(7):772-9. Benjamin R. Myers, **Yaron M. Sigal**, and David Julius. Evolution of Thermal Response Properties in a Cold-Activated TRP Channel. PLoS ONE. 2009; 4(5): e5741. PMCID: PMC2683941.
Pre	Current	Wemmer, K.** (2001-)	Marshall	**Kimberly A. Wemmer** & Wallace F. Marshall. Flagellar Motility: All Pull Together. *Current Biology*. 2004. **14** (23) R992-3. **Kimberly A. Wemmer** & Wallace F. Marshall. Flagellar length control in *Chlamydomonas* -- paradigm for organelle size regulation. *Int Rev Cytol.* 2007. **260** 175-212.
Pre	Current	Behrman, S.** (2002-)	Walter	No Publications.
Pre	Current	Chun,M.** (2002-)	Hanahan	Casanovas O, Hager JH, **Chun MG**, Hanahan D. (2005). Incomplete inhibition of the Rb tumor suppressor pathway in the context of inactivated p53 is sufficient for pancreatic islet tumorigenesis. Oncogene 24(44):6597-604.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Rubio, C.** (2002-)	Walter	Gareth A. Cromie, **Claudia A. Rubio**, Randy W. Hyppa, and Gerald R. Smith. A Natural Meiotic DNA Break Site in *Schizosaccharomyces pombe* Is a Hotspot of Gene Conversion, Highly Associated With Crossing Over. Genetics. 2005 February; 169(2): 595–605. PMCID: PMC1449127. Tomás Aragón, Eelco van Anken, David Pincus, Iana M. Serafimova, Alexei V. Korennykh, **Claudia A. Rubio**, and Peter Walter. mRNA Targeting to ER Stress Signaling Sites. Nature. 2009 February 5; 457(7230): 736–740. Published online 2008 December 14. PMCID: PMC2768538.
Pre	Current	Tjhen, R.** (2002-)	Blackburn / James	Du Z, Lee JK, **Tjhen R**, Li S, Pan H, Stroud RM, James TL. Crystal structure of the first KH domain of human poly(C)-binding protein-2 in complex with a C-rich strand of human telomeric DNA at 1.7 A. J Biol Chem. 2005 Nov 18;280(46):38823-30. Epub 2005 Sep 25. Fenn S, Du Z, Lee JK, **Tjhen R**, Stroud RM, James TL. Crystal structure of the third KH domain of human poly(C)-binding protein-2 in complex with a C-rich strand of human telomeric DNA at 1.6 A resolution. Nucleic Acids Res. 2007;35(8):2651-60. Epub 2007 Apr 10. PMCID: PMC1885661. Du Z, Lee JK, Fenn S, **Tjhen R**, Stroud RM, James TL. X-ray crystallographic and NMR studies of protein-protein and protein-nucleic acid interactions involving the KH domains from human poly(C)-binding protein-2. RNA. 2007 Jul;13(7):1043-51. PMCID: PMC1894928. Du Z, Lee JK, **Tjhen R**, Stroud RM, James TL. Structural and biochemical insights into the dicing mechanism of mouse Dicer: a conserved lysine is critical for dsRNA cleavage. Proc Natl Acad Sci U S A. 2008 Feb 19;105(7):2391-6. Epub 2008 Feb 11. PMCID: PMC2268147. Du Z, Fenn S, **Tjhen R**, James TL. Structure of a construct of a human poly(C)-binding protein containing the first and second KH domains reveals insights into its regulatory mechanisms. J Biol Chem. 2008 Oct 17;283(42):28757-66. Epub 2008 Aug 13. PMCID: PMC2568903.
Pre	Current	Charles, G.** (2003-)	Narlikar	D'Aquino KE, Monje-Casas F, Paulson J, Reiser V, **Charles GM**, Lai L, Shokat KM, Amon A. The protein kinase Kin4 inhibits exit from mitosis in response to spindle position defects. Mol Cell. 2005 Jul 22;19(2):223-34.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Good, M.** (2003-)	Lim	Reményi, A., **Good, M.C.**, Bhattacharyya, R.P., & Lim, W.A. The role of docking interactions in mediating signaling input, output, and discrimination in the yeast MAPK network. *Molecular Cell* 20, 951 -962 (2005). Bhattacharyya, R.P., Reményi, A., **Good, M.C.**, Bashor, C.J., Falick, A.M., & Lim, W.A. The Ste5 Scaffold Allosterically Modulates Signaling Output of the Yeast Mating Pathway. *Science* 311, 822-826 (2006). Reményi, A., **Good, M.C.**, & Lim, W.A. Docking interactions in protein kinase and phosphatase networks. *Current Opinion in Structural Biology* 16, 676-685 (2006). King, N., Westbrook, M.J., Young, S.L., Kuo, A., Abedin, M., Chapman, J., Fairclough, S., Hellsten, U., Isogai, Y., Letunic, I., Marr, M., Pincus, D., Putnam, N., Rokas, A., Wright, K.J., Zuzow, R., Dirks, W., **Good, M.**, Goodstein, D., Lemons, D., Li, W., Lyons, J.B., Morris, A., Nichols, S., Richter, D.J., Salamov, A., JGI Sequencing, Bork, P., Lim, W.A., Manning, G., Miller, W.T., McGinnis, W., Shapiro, H., Tjian, R., Grigoriev, I.V., Rokhsar, D. The genome of the choanoflagellate Monosiga brevicollis and the origin of metazoans. *Nature* 451, 783-8 (2008). PMCID: PMC2562698. **Good, M.**, Tang, G., Singleton, J., Reményi, A., Lim, W.A. "The Ste5 scaffold directs mating signaling by catalytically unlocking the Fus3 MAP kinase for activation." *Cell* 136, 1085-97 (2009). PMCID: PMC2777755. Mok J, Kim PM, Lam HY, Piccirillo S, Zhou X, Jeschke GR, Sheridan DL, Parker SA, Desai V, Jwa M, Cameroni E, Niu H, **Good M**, Remenyi A, Ma JL, Sheu YJ, Sassi HE, Sopko R, Chan CS, De Virgilio C, Hollingsworth NM, Lim WA, Stern DF, Stillman B, Andrews BJ, Gerstein MB, Snyder M, Turk BE. "Deciphering protein kinase specificity through large-scale analysis of yeast phosphorylation site motifs." *Sci Signal.* 2010 Feb 16;3(109):ra12.
Pre	Current	McCullagh, E.** (2003-)	Madhani	Aylin C Hanyaloglu, **Emma McCullagh**, and Mark von Zastrow. Essential role of Hrs in a recycling mechanism mediating functional resensitization of cell signaling. EMBO J. 2005 July 6; 24(13): 2265–2283. Published online 2005 June 9. PMCID: PMC1173141. **McCullagh E**, Farlow J, Fuller C, Girard J, Lipinski-Kruszka J, Lu D, Noriega T, Rollins G, Spitzer R, Todhunter M, El-Samad H. Not all quiet on the noise front. Nat Chem Biol. 2009 Oct;5(10):699-704.

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Pre	Current	Newman, V.** (2003-)	DeRisi	No Publications.
Pre	Current	Ramage, H.** (2003-)	Cox	**Holly R. Ramage**, Lynn E. Connolly, and Jeffery S. Cox. Comprehensive Functional Analysis of *Mycobacterium tuberculosis* Toxin-Antitoxin Systems: Implications for Pathogenesis, Stress Responses, and Evolution. PLoS Genet. 2009 December; 5(12): e1000767. PMCID: PMC2781298.
Pre	Current	Singla, V.** (2003-)	Reiter	Corbit, K.C., Aanstad, P., **Singla, V.**, Norman, A.R., Stainier, D.Y., Reiter, J.F. (2005) Vertebrate Smoothened functions at the primary cilium. Nature. 437 (7061): 1018-1021. Kimberly M McDermott, Jianmin Zhang, Charles R Holst, B. Krystyna Kozakiewicz, **Veena Singla**, and Thea D Tlsty. $p16^{INK4a}$ Prevents Centrosome Dysfunction and Genomic Instability in Primary Cells. PLoS Biol. 2006 March; 4(3): e51. PMCID: PMC1361797. **Singla, V.** and Reiter, J.F. (2006) The primary cilium as the cell's antenna: signaling at a sensory organelle. Science. 313 (5787): 629-633. Corbit, K.C., Shyer, A.E., Dowdle, W.E., Gaulden, J., **Singla, V.**, Reiter, J.F. (2007) Kif3a constrains beta-catenin-dependent Wnt signalling through dual ciliary and non-ciliary mechanisms. Nature Cell Biology. 10(1):70-6. Fordyce, C., Fessenden, T., Pickering, C., Jung, J., **Singla, V.**, Berman, H., Tlsty, T. (2009) DNA Damage Drives an Activin A-Dependent Induction of Cyclooxygenase-2 in Premalignant Cells and Lesions. Cancer Prevention Research. Dec 22. **Singla, V.**, Hunkapiller, J., Santos, N., Seol, A.D., Norman, A.R., Wakenight, P., Skarnes, W.C., Reiter, J.F. (2010) Floxin, a resource for genetically engineering mouse ESCs. Nature Methods. Jan;7(1):50-2. **Singla, V.**, Romaguera-Ros, M., Garcia-Verdugo, J.M., Reiter, J.F. Ofd1, a human disease gene, regulates the length and distal structure of centrioles. Developmental Cell (in press)
Pre	Current	Won, A.** (2003-)	Lim	No Publications.
Pre	Current	Brown, C.** (2004-)	Craik	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	D'Ambrosio, M.** (2004-)	Vale	No Publications.
Pre	Current	Huff, J.** (2004-)	Panning / Yamamoto	Fazzio TG, **Huff JT**, Panning B. An RNAi screen of chromatin proteins identifies Tip60-p400 as a regulator of embryonic stem cell identity. Cell. 2008 Jul 11;134(1):162-74. Pantoja C, **Huff JT**, Yamamoto KR. Glucocorticoid Signaling Defines a Novel Commitment State during Adipogenesis In Vitro. Mol Biol Cell. 2008 Jul 23. [Epub ahead of print]. PMCID: PMC2555927. Fazzio TG, **Huff JT**, Panning B. Chromatin regulation Tip(60)s the balance in embryonic stem cell self-renewal. Cell Cycle. 2008 Nov 1;7(21):3302-6. Epub 2008 Nov 5.
Pre	Current	Lontok, E.** (2004-)	Ingraham	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Plocik, A.** (2004-)	Guthrie	Funke B, Finn CT, **Plocik AM**, Lake S, DeRosse P, Kane JM, Kucherlapati R,Malhotra AK. Association of the DTNBP1 locus with schizophrenia in a U.S. population. Am J Hum Genet. 2004 Nov;75(5):891-8. Epub 2004 Sep 10. PMCID: PMC1182119. Funke B, Malhotra AK, Finn CT, **Plocik AM**, Lake SL, Lencz T, DeRosse P, Kane JM, Kucherlapati R. COMT genetic variation confers risk for psychotic and affective disorders: a case control study. Behav Brain Funct. 2005 Oct 18;1:19. PMCID: PMC1282571. Funke BH, Lencz T, Finn CT, DeRosse P, Poznik GD, **Plocik AM**, Kane J, Rogus J, Malhotra AK, Kucherlapati R. Analysis of TBX1 variation in patients with psychotic and affective disorders. Mol Med. 2007 Jul-Aug;13(7-8):407-14. PMCID: PMC1952674. Alexander MK, Mlynarczyk-Evans S, Royce-Tolland M, **Plocik A**, Kalantry S, Magnuson T, Panning B. Differences between homologous alleles of olfactory receptor genes require the Polycomb Group protein Eed. J Cell Biol. 2007 Oct 22;179(2):269-76. PubMed PMID: 17954609; PubMed Central PMCID: PMC2064763. Radwan O, Gandhi S, Heesacker A, Whitaker B, Taylor C, **Plocik A**, Kesseli R, Kozik A, Michelmore RW, Knapp SJ. Genetic diversity and genomic distribution of homologs encoding NBS-LRR disease resistance proteins in sunflower. Mol Genet Genomics. 2008 Aug;280(2):111-25. Epub 2008 Jun 14. Vassilopoulos S, Esk C, Hoshino S, Funke BH, Chen CY, **Plocik AM**, Wright WE, Kucherlapati R, Brodsky FM. A role for the CHC22 clathrin heavy-chain isoform in human glucose metabolism. Science. 2009 May 29;324(5931):1192-6.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Racki, L.** (2004-)	Narlikar	Simon, MD, Chu, F., **Racki, L.R.**, de la Cruz, C.C., Burlingame, A.L., Panning, B., Narlikar, G.J., and Shokat, K.M. (2007) The Site-Specific Installation of Methyl-Lysine Analogs into Recombinant Histones. *Cell* 128(5):1003-1012. **Racki, L.R.,** Narlikar, G.J. (2008) ATP-dependent chromatin remodeling enzymes: two heads are not better, just different. *Curr Opin Genet Dev* 18(2): 137-44. PMCID: PMC2494867. **Racki LR**, Yang JG, Naber N, Partensky PD, Acevedo A, Purcell TJ, Cooke R, Cheng Y, Narlikar GJ. The chromatin remodeller ACF acts as a dimeric motor to space nucleosomes. Nature. 2009 Dec 24;462(7276):1016-21.
Pre	Current	Rivera, C.** (2004-)	Mullins	No Publications.
Pre	Current	Sorber, K.** (2004-)	DeRisi	Ashwini Jambhekar, Kimberly McDermott, **Katherine Sorber**, Kelly A. Shepard, Ronald D. Vale, Peter A. Takizawa, and Joseph L. DeRisi. Unbiased selection of localization elements reveals cis-acting determinants of mRNA bud localization in Saccharomyces cerevisiae. Proc Natl Acad Sci U S A. 2005 December 13; 102(50): 18005–18010. PMCID: PMC1298916. Amy L Kistler, Ady Gancz, Susan Clubb, Peter Skewes-Cox, Kael Fischer, **Katherine Sorber**, Charles Y Chiu, Avishai Lublin, Sara Mechani, Yigal Farnoushi, Alexander Greninger, Christopher C Wen, Scott B Karlene, Don Ganem, and Joseph L DeRisi. Recovery of divergent avian bornaviruses from cases of proventricular dilatation disease: Identification of a candidate etiologic agent. Virol J. 2008; 5: 88. PMCID: PMC2546392.
Pre	Current	Burrill, C.** (2005-)	Andino	No Publications.
Pre	Current	Cain, C.** (2005-)	Johnson	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Cho, C.** (2005-)	Vale	**Carol Cho**, Samara L. Reck-Peterson, and Ronald D. Vale. Regulatory ATPase Sites of Cytoplasmic Dynein Affect Processivity and Force Generation. J Biol Chem. 2008 September 19; 283(38): 25839–25845. PMCID: PMC2533788. Andrew P. Carter, Joan E. Garbarino, Elizabeth M. Wilson-Kubalek, Wesley E. Shipley, **Carol Cho**, Ronald A. Milligan, Ronald D. Vale, and I. R. Gibbons. Science. Science. 2008 December 12; 322(5908): 1691–1695. PMCID: PMC2663340.
Pre	Current	Chow, E.** (2005-)	Cox	Liu OW, Kelly MJ, **Chow ED**, Madhani HD. Parallel beta-helix proteins required for accurate capsule polysaccharide synthesis and virulence in the yeast Cryptococcus neoformans. Eukaryot Cell. 2007 Apr;6(4):630-40. Epub 2007 Mar 2. PMCID: PMC1865648. **Chow ED**, Liu OW, O'Brien S, Madhani HD. Exploration of whole-genome responses of the human AIDS-associated yeast pathogen Cryptococcus neoformans var grubii: nitric oxide stress and body temperature. Curr Genet. 2007 Sep;52(3-4):137-48. Epub 2007 Jul 28. Jain M, **Chow ED**, Cox JS. The MmpL Protein Family. The Mycobacterial Cell Envelope. 2008. pg. 201-210. Oliver W. Liu, Cheryl D. Chun, **Eric D. Chow**, Changbin Chen, Hiten D. Madhani, and Suzanne M. Noble. Systematic genetic analysis of virulence in the human fungal pathogen *Cryptococcus neoformans*. Cell. 2008 October 3; 135(1): 174–188. PMCID: PMC2628477.
Pre	Current	Engel, B.** (2005-)	Marshall	**Engel BD**, Lechtreck KF, Sakai T, Ikebe M, Witman GB, and Marshall WF. 2009. "Total Internal Reflection Fluorescence (TIRF) Microscopy of Chlamydomonas Flagella." Methods in Cell Biology. 93, 155-176. **Engel BD**, Ludington WB, and Marshall WF. 2009. "Intraflagellar Transport Particle Size Scales Inversely with Flagellar Length: Revisiting the Balance-Point Length Control Model." The Journal of Cell Biology. 187, 81-89.
Pre	Current	Foss, S.** (2005-)	Edwards / Voglmaier	No Publications.
Pre	Current	Gillis, A.** (2005-)	Andino	Saleh, M. C., R. P. van Rij, A. Hekele, **A. Gillis**, E. Foley, P. H. O'Farrell, and R. Andino. 2006. The endocytic pathway mediates cell entry of dsRNA to induce RNAi silencing. Nat Cell Biol 8:793-802. PMCID: PMC2731564.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Goodwin, S.** (2005-)	Vale	Goshima G, Wollman R, **Goodwin SS**, Zhang N, Scholey JM, Vale RD, Stuurman N. Genes required for mitotic spindle assembly in Drosophila S2 cells. Science. 2007 Apr 20;316(5823):417-21. Epub 2007 Apr 5.
Pre	Current	Houk, A.** (2005-)	Weiner	Ronald P. van Rij, Maria-Carla Saleh, Bassam Berry, Catherine Foo, **Andrew Houk**, Christophe Antoniewski, and Raul Andino. The RNA silencing endonuclease Argonaute 2 mediates specific antiviral immunity in *Drosophila melanogaster*. Genes Dev. 2006 November 1; 20(21): 2985–2995. PMCID: PMC1620017. Torbett NE, Luna-Moran A, Knight ZA, **Houk A**, Moasser M, Weiss W, Shokat KM, Stokoe D. A chemical screen in diverse breast cancer cell lines reveals genetic enhancers and suppressors of sensitivity to PI3K isoform-selective inhibition. Torbett NE, Luna-Moran A, Knight ZA, Houk A, Moasser M, Weiss W, Shokat KM, Stokoe D. Biochem J. 2008 Oct 1;415(1):97-110. Arthur Millius, Sheel N. Dandekar, **Andrew R. Houk**, and Orion D. Weiner. Neutrophils establish rapid and robust WAVE complex polarity in an actin-dependent fashion. Curr Biol. 2009 February 10; 19(3): 253–259. PMCID: PMC2705202. **Houk AR**, Millius A, Weiner OD. Compete globally, bud locally. Cell. 2009 Nov 13;139(4):656-8.
Pre	Current	Ludington, W.** (2005-)	Marshall	Engel BD, **Ludington WB**, Marshall WF. Intraflagellar transport particle size scales inversely with flagellar length: revisiting the balance-point length control model. J Cell Biol. 2009 Oct 5;187(1):81-9.
Pre	Current	Merksamer, P.** (2005-)	Papa	**Merksamer PI**, Trusina A, Papa FR. Real-time redox measurements during endoplasmic reticulum stress reveal interlinked protein folding functions. Cell. 2008 Nov 28;135(5):933-47. Epub 2008 Nov 20. PMCID: PMC2739138.
Pre	Current	Millius, A.** (2005-)	Weiner	**Arthur Millius** and Orion D. Weiner. Chemotaxis in Neutrophil-Like HL-60 Cells. Methods Mol Biol. 2009; 571: 167–177. PMCID: PMC2812563. **Arthur Millius**, Sheel N. Dandekar, Andrew R. Houk, and Orion D. Weiner. Neutrophils establish rapid and robust WAVE complex polarity in an actin-dependent fashion. Curr Biol. 2009 February 10; 19(3): 253–259. PMCID: PMC2705202.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Nehil, M.** (2005-)	McCormick	**Nehil MT**, Tamble CM, Combs DJ, Kellogg DR, Lokey RS. Uncovering genetic relationships using small molecules that selectively target yeast cell cycle mutants. Chem Biol Drug Des. 2007 Apr;69(4):258-64.
Pre	Current	Rangel Alarcon, I.** (2005-)	McCormick	No Publications.
Pre	Current	Ray, M.** (2005-)	Craik	No Publications.
Pre	Current	Robinson, A.** (2005-)	Black	No Publications.
Pre	Current	Shahian, T.** (2005-)	Craik	**Shahian T**, Lee GM, Lazic A, Arnold LA, Velusamy P, Roels CM, Guy RK, Craik CS. Inhibition of a viral enzyme by a small-molecule dimer disruptor. Nat Chem Biol. 2009 Sep;5(9):640-6. Epub 2009 Jul 26. PMCID: PMC2752665.
Pre	Current	Wang, B.** (2005-)	Shokat	Niu H, Wan L, Busygina V, Kwon Y, Allen JA, Li X, Kunz RC, Kubota K, **Wang B**, Sung P, Shokat KM, Gygi SP, Hollingsworth NM. Regulation of meiotic recombination via Mek1-mediated Rad54 phosphorylation. Mol Cell. 2009 Nov 13;36(3):393-404. Nicholas T. Hertz, **Beatrice T. Wang**, Jasmina J. Allen, Chao Zhang, Arvin C. Dar, Alma L. Burlingame, Kevan M. Shokat. Chemical Genetic Approach for Kinase-Substrate Mapping by Covalent Capture of Thiophosphopeptides and Analysis by Mass Spectrometry. Current Protocols in Chemical Biology, 2010.
Pre	Current	Watson, L.** (2005-)	Yamamoto	No Publications.
Pre	Current	Baker, C.** (2006-)	Johnson	No Publications.
Pre	Current	Dovey, C.** (2006-)	Cox	Raghavan S, Manzanillo P, Chan K, **Dovey C**, Cox JS. Secreted transcription factor controls Mycobacterium tuberculosis virulence. Nature. 2008 Aug 7;454(7205):717-21.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Foster, S.** (2006-)	Morgan	Chrencik, J.E., Brooun, A., Zhang, H., Matthews, I.I., Hura, G.L., **Foster, S.A.**, Perry, J.J.P., Streiff, M., Ramage, P., Widmer, H., Bokoch, G.M., Tainer, J., Weckbecker, G., Kuhn, P. (2008) Structural basis of guanine nucleotide exchange mediated by the T-Cell essential Vav1. *J Mol Biol.* In press. PMCID: PMC2620086. Brooun, A., **Foster, S.A.**, Chrencik, J.E., Chien, E.Y., Kolatkar, A.R., Streiff, M., Ramage, P., Widmer, H., Weckbecker, G., and Kuhn, P. (2007) Remedial strategies in structural proteomics: expression, purification, and crystallization of the Vav1/Rac1 complex. *Protein Expr. Purif.* **53**, 51-62. PMCID: PMC1892187.
Pre	Current	Gardner, B.** (2006-)	Walter	No Publications.
Pre	Current	Hadjivassiliou, H.** (2006-)	Guthrie	Cohen MS, **Hadjivassiliou H**, Taunton J. A clickable inhibitor reveals context-dependent autoactivation of p90 RSK. Nat Chem Biol. 2007 Mar;3(3):156-60. Epub 2007 Jan 28.
Pre	Current	Hansen, S.** (2006-)	Mullins	No Publications.
Pre	Current	Kunitomi, M.** (2006-)	Andino	Dwight Barnes, **Mark Kunitomi**, Marco Vignuzzi, Kalle Saksela, and Raul Andino. Harnessing endogenous miRNAs to control virus tissue tropism as a strategy for developing attenuated virus vaccines. Cell Host Microbe. 2008 September 11; 4(3): 239–248. PMCID: PMC2605097.
Pre	Current	Naylor, S.** (2006-)	Morgan	Suneil K. Koliwad, Ryan S. Streeper, Mara Monetti, Ivo Cornelissen, Liana Chan, Koji Terayama, **Stephen Naylor**, Meghana Rao, Brian Hubbard, and Robert V. Farese, Jr. DGAT1-dependent triacylglycerol storage by macrophages protects mice from diet-induced insulin resistance and inflammation. J Clin Invest. 2010 March 1; 120(3): 756–767. PMCID: PMC2827941.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Oh, E.** (2006-)	Weissman	Chechik G, **Oh E**, Rando O, Weissman J, Regev A, Koller D. (2008) Activity motifs reveal principles of timing in transcriptional control of the yeast metabolic network. Nature Biotechnology 26(11): 1251-9. PMCID: PMC2651818. Jonikas MC, Collins SR, Denic V, **Oh E**, Quan EM, Schmid V, Weibezahn J, Schwappach B, Walter P, Weissman JS, Schuldiner M. (2009) Comprehensive characterization of genes required for protein folding in the endoplasmic reticulum. Science 323(5922): 1693-7.
Pre	Current	Trejo, C.** (2006-)	McMahon	No Publications.
Pre	Current	Cimini, B.** (2007-)	Blackburn	No Publications.
Pre	Current	Edenberg, E.** (2007-)	Toczyski	No Publications.
Pre	Current	Eshleman, H.** (2007-)	Morgan	Schwartz R.A., Lakdawala S.S., **Eshleman H.D.**, Russell M.R., Carson C.T., and Weitzman M.D. Distinct requirements of the adenovirus E1b55K protein for degradation of cellular substrates. J Virol. 2008 September; 82(18): 9043–9055. Published online 2008 July 9. PMCID: PMC2546875.
Pre	Current	Gragnolati, A.** (2007-)	Fletterick	No Publications.
Pre	Current	Guo, M.** (2007-)	C. Gross	No Publications.
Pre	Current	Hanlon, S.** (2007-)	J. Li	No Publications.
Pre	Current	Marina, D.** (2007-)	Madhani	No Publications.
Pre	Current	Mera, L.** (2007-)	Yamamoto	No Publications.

Pre / Post	Past / Current	Name of Trainee (Years in Program)	Mentor(s)	Publication (Authors, Year, Title, Journal, PMCID)
Pre	Current	Runckel, C.** (2007-)	DeRisi	Charles Y. Chiu, Alexander L. Greninger, Kimberly Kanada, Thomas Kwok, Kael F. Fischer, **Charles Runckel**, Janice K. Louie, Carol A. Glaser, Shigeo Yagi, David P. Schnurr, Tom D. Haggerty, Julie Parsonnet, Don Ganem, and Joseph L. DeRisi. Identification of cardioviruses related to Theiler's murine encephalomyelitis virus in human infections. Proc Natl Acad Sci U S A. 2008 September 16; 105(37): 14124–14129. PMCID: PMC2528868. Greninger AL, **Runckel C**, Chiu CY, Haggerty T, Parsonnet J, Ganem D, DeRisi JL. The complete genome of klassevirus - a novel picornavirus in pediatric stool. Virol J. 2009 Jun 18;6:82. PMCID: PMC2709156.
Pre	Current	Schulte, M.** (2007-)	Andino	No Publications.
Pre	Current	Berens, T.** (2008-)	Toczyski	No Publications.
Pre	Current	Caliando, B.** (2008-)	Voigt	No Publications.
Pre	Current	Contreras, A.** (2008-)	Ruggero	No Publications.
Pre	Current	Duan, D.** (2008-)	Fujimori	No Publications.
Pre	Current	Fox, E.** (2008-)	Johnson	No Publications.
Pre	Current	Girard, J.** (2008-)	Morgan	McCullagh E, Farlow J, Fuller C, **Girard J**, Lipinski-Kruszka J, Lu D, Noriega T, Rollins G, Spitzer R, Todhunter M, El-Samad H. Not all quiet on the noise front. Nat Chem Biol. 2009 Oct;5(10):699-704.
Pre	Current	Haas, J.** (2008-)	Farese	No Publications.
Pre	Current	Jay, K.** (2008-)	Blackburn	No Publications.
Pre	Current	Lyons, D.** (2008-)	Lomvardas	No Publications.
Pre	Current	Manzanillo, P.** (2008-)	Cox	DiGiuseppe Champion PA, Champion MM, **Manzanillo P**, Cox JS. ESX-1 secreted virulence factors are recognized by multiple cytosolic AAA ATPases in pathogenic mycobacteria. Mol Microbiol. 2009 Sep;73(5):950-62. Epub 2009 Aug 4.

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Pre	Current	Noriega, T.** (2008-)	Walter	McCullagh E, Farlow J, Fuller C, Girard J, Lipinski-Kruszka J, Lu D, **Noriega T**, Rollins G, Spitzer R, Todhunter M, El-Samad H. Not all quiet on the noise front. Nat Chem Biol. 2009 Oct;5(10):699-704.
Pre	Current	Payne-Tobin, A.** (2008-)	Weiner	No Publications.
Pre	Current	Pemble, H.** (2008-)	Wittmann	No Publications.
Pre	Current	Schiller, B.** (2008-)	Yamamoto	No Publications.
Pre	Current	Slabodnick, M.** (2008-)	Marshall	No Publications.
Pre	Current	Todhunter, M.** (2008-)	Gartner	No Publications.
Pre	Current	Van Voorhis, V.** (2008-)	Morgan	No Publications.
Pre	Current	Ahyong, V.** (2009-)	Rotations	No Publications.
Pre	Current	Coyle, S.** (2009-)	Rotations	No Publications.
Pre	Current	Nocedal, I.** (2009-)	Rotations	No Publications.

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Student Publications – Bioinformatics Track

Name	Adviser	Publications
Leonard Apeltsin	Tom Ferrin	Puskar K, Apeltsin L, Ta, Understanding actin organization in cell structure through lattice based Monte Carlo simulations, Mech Chem Biosystems, Baumbach J, Apeltsin L, Linking Cytoscape and the corynebacterial reference database CoryneRegNet, BMC Genomics,
Holly Atkinson	Patricia Babbitt	Atkinson, H., and P.C. Babbitt, Glutathione transferases adapt the thioredoxin fold to support new functions, Gordon Conference on Thiol-Based Redox Regulation and Signaling, Poster, Abstract in Meeting Proceedings. 2006. Atkinson, H., and P.C. Babbitt, Characterizing the structure-function relationship in the thioredoxin fold class, Experimental Biology 2006 American Society for Biochemistry and Molecular Biology, Poster, Abstract in Meeting Proceedings. 2006. Atkinson, H., and P.C. Babbitt, Characterizing the structure-function relationship in the thioredoxin fold class, Sackler Colloquium on Lateral Transfers of Heritable Elements, Poster, Abstract in Meeting Proceedings. 2005. Atkinson HJ, Morris JH, Ferrin TE, Babbitt PC., Using sequence similarity networks for visualization of relationships across diverse protein superfamilies., LoS One 2009; 4(2): e4345.
David Barkan	Andrej Sali	FP Davis, DT Barkan, N Eswar, JH McKerrow, A Sali, Host-pathogen protein interactions predicted by comparative modeling, Protein Science S Mahrus, JC Trinidad, DT Barkan, A Sali, AL Burlingame, JA Wells, Global Sequencing of proteolytic cleavage sites in apoptosis by specific labeling of protein N termini, Cell U Pieper and N Eswar and BM Webb and D Eramian and L Kelly and DT Barkan and H Carter and P Mankoo and R Karchin and MA Marti-Renom and FP Davis, A Sali, MODBASE, a database of annotated comparative protein structure models and associated resources, Nucleic Acids Res

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Michael Cary	Cynthia Kenyon	Cary MP, Bader GD, Sander C., Pathway information for systems biology., FEBS Lett. 2005 Mar 21;579(8):1815-20 Pradines J, Rudolph-Owen L, Hunter J, Leroy P, Cary M, Coopersmith R, Dancik V, Eltsefon Y, Farutin V, Leroy C, Rees J, Rose D, Rowley S, Ruttenberg A, Wieghardt P, Sander C, Reich C., Detection of activity centers in cellular pathways using transcript profiling., J Biopharm Stat. 2004 Aug;14(3):701-21 Cristina D, Cary M, Lunceford A, Clarke C, Kenyon C., A regulated response to impaired respiration slows behavioral rates and increases lifespan in Caenorhabditis elegans, PLoS Genet. 2009 Apr;5(4):e1000450. Epub 2009 Apr 10. Sivan Henis-Korenblit, Peichuan Zhang, Malene Hansen, Mark McCormick, Seung-Jae Lee, Michael Cary, and Cynthia Kenyon, Insulin/IGF-1 Signaling Mutants Reprogram ER-stress Response Proteins to Promote Longevity, Proc Nat Acad Sci U S A (in press)
Samantha Cooper	Keith Yamamoto & Kip Guy	Taubert S, Hansen M, Van Gilst MR, Cooper SB, Yamamoto KR., The Mediator subunit MDT-15 confers metabolic adaptation to ingested material, PLoS Genetics. 2008 Feb 29;4(2):e1000021. PubMed PMID: 18454197; PubMed Central PMCID: PMC2265483. So AY, Cooper SB, Feldman BJ, Manuchehri M, Yamamoto KR., Conservation analysis predicts in vivo occupancy of glucocorticoid receptor-binding sequences at glucocorticoid-induced genes, PNAS. 2008 Apr 15;105(15):5745-9. Epub 2008 Apr 11. PubMed PMID: 18408151; PubMed Central PMCID: PMC2311370.

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Michelle Dimon	Joe DeRisi	Katherine Sorber, Charles Chiu, Dale Webster, Michelle Dimon, J. Graham Ruby, Armin Hekele, Joseph L. DeRisi, The Long March: A Sample Preparation Technique that Enhances Contig Length and Coverage by High-Throughput Short-Read Sequencing, PLoS ONE. Michelle T. Dimon, Katherine Sorber, Joseph L. DeRisi, HMMSplicer: a tool for efficient and sensitive discovery of known and novel splice junctions in RNA-Seq data, Genome Biology (Submitted)
Christopher Fuller	Hao Li	Emma McCullagh, Justin Farlow, Christopher Fuller, Juliet Girard, Joanna Lipinski-Kruszka, Dan Lu, Thomas Noriega, Geoffrey Rollins, Russell Spitzer, Michael Todhunter & Hana El-Samad, Not all quiet on the noise front, Nature Chemical Biology. Chris K. Fuller, Julie Hamilton, Harold Ackler, Peter Krulevitch, Bernhard Boser, Adam Eldredge, Frederick Becker, Jun Yang, Peter Gascoyne, Microfabricated Multi-frequency Particle Impedance Characterization System, Micro Total Analysis Systems 2000 Conference Proceedings.
Charles Kehoe	Ken Dill	D Roy, Y Ghitza, J Bartelma, C Kehoe, Visual Memory Augmentation: Using Eye Gaze as an Attention Filter, Eighth IEEE International Symposium on Wearable Computers (ISWCí04) CJ Fennell, C Kehoe, K Dill, Oil/Water Transfer Is Partly Driven by Molecular Shape, Not Just Size, Journal of the American Chemical Society, Link Keiser, M.J., Roth, B.L., Armbruster, B.N., Ernsberger, P., Irwin, J.J., and Shoichet, BK., Relating protein pharmacology by ligand chemistry, Nature Biotechnology, 25(2):197-206. 2006.
Michael Keiser	Brian Shoichet	Hert J, Keiser MJ, Irwin JJ, Oprea TI, Shoichet BK., Quantifying the relationships among drug classes., J Chem Inf Model. 2008 Apr;48(4):755-65., Link Keiser MJ and Hert J, Off-target networks derived from ligand set similarity. [This is a book chapter], Methods Mol Biol. 2009;575:195-205.

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Joanna Lipniski	Hana El Samad	Joanna Lipinski-Kruszka, Rahul Singh, Integrative Geometric-Hashing Approaches to Binding Site Modeling and Ligand-Protein Interaction Prediction, ISVC (1) 2007: 179-188 Emma Mccullagh, Justin Farlow, Christopher Fuller, Juliet Girard, Joanna Lipinski-Kruszka, Dan Lu, Thomas Noriega, Geoffrey Rollins, Russell Spitzer, Michael Todhunter, Hana El-Samad., Not all quiet on the noise front., Nat Chem Biol (2009) vol. 5 (10) pp. 699-704,
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Dan Mandell	Tanja Kortemme	Hammond E.M., Mandell D.J., Salim A, Krieg A.J., Johnson T.M., Shirazi, H.A., Attardi, L.D., Giaccia, A.J., Genome-Wide Analysis of p53 under Hypoxic Conditions, Mol Cell Biol., 26(9): 3492-3504. (2004) Mandell D.J., Chorny I, Groban E.S., Wong, S.E., Levine, E, Rapp, C.S., Jacobson, M.P., Strengths of hydrogen bonds involving phosphorylated amino acid side chains, J Am Chem Soc., 129(4):820-7. (2007) Mandell D.J., Coutsias E.A., Kortemme T., Sub-angstrom accuracy in protein loop reconstruction by robotics-inspired conformational sampling, Nat Methods Nat Methods 6:551ñ552. (2009) Mandell, D.J. and Kortemme, T., Backbone Flexibility in Computational Protein Design, Curr Opin Biotechnol Curr Opin Biotechnol 20(4):420-8. (2009) Mandell DJ, Kortemme T., Computer-aided design of functional protein interactions, Nat Chem Biol 5(11):797-807. (2009)
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Bethany Simmons	Dyche Mullins	Ronald Pak, Bethany M. Simmons, and Jeramy C. Ashlock, Tensionless contact of a flexible plate and annulus with a smooth half-space under axisymmetric loads by integral equations, International Journal of Mechanical Sciences.
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Colin Smith	Tanja Kortemme & Matt Jacobson	Gentleman RC, Carey VJ, Bates DM, Bolstad B, Dettling M, Dudoit S, Ellis B, Gautier L, Ge Y, Gentry J, Hornik K, Hothorn T, Huber W, Iacus S, Irizarry R, Leisch F, Li C, Maechler M, Rossini AJ, Sawitzki G, Smith C, Smyth G, Tierney L, Yang JY, Zhang J, Bioconductor: open software development for computational biology and bioinformatics, Genome Biology, 5(10): R80. 2004., Link Huang Y, Smith CA, Song H, Morgan BP, Abagyan R, Tomlinson S, Insights into the human CD59 complement binding interface toward engineering new therapeutics, Journal of Biological Chemistry, 280(40): 34073-9. 2005., Link Smith CA, OíMallie GC, Want EJ, Qin C, Trauger SA, Brandon TR, Custodio DE, Abagyan R, Siuzdak G, METLIN: A Metabolite Mass Spectral Database, Therapeutic Drug Monitoring, 27(6): 747-51. 2005., Link

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Christopher Wen	Kathy Giacomini	Kistler AL, Gancz A, Clubb S, Skewes-Cox P, Fischer K, Sorber K, Chiu CY, Lublin A, Mechani S, Farnoushi Y, Greninger A, Wen CC, Karlene SB, Ganem D, DeRisi JL., Recovery of divergent avian bornaviruses from cases of proventricular dilatation disease: identification of a candidate etiologic agent., Virol J.
Emmanuel Yera	Ajay Jain	P. Paris, Y. Kobayashi, Q. Zhao, W. Zeng, S. Sridharan, T. Fan, H. Adler, E. Yera, M. Zarrabi, S. Zucker, Functional phenotyping and genotyping of circulating tumor cells from patients with castration resistant prostate cancer, Cancer Letters.

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Hert J, Irwin JJ, Laggner C, Keiser MJ, Shoichet BK, Quantifying Biogenic Bias in Screening Libraries, Nat Chem Biol. 2009 May 31;5(7):479-483. PMID: 19483698, PMC in process

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Jérôme Hert, Michael J. Keiser, John J. Irwin, Tudor I. Oprea, and Brian K. Shoichet. Quantifying the Relationships among Drug Classes. Published in final edited form as: J Chem Inf Model. 2008 April; 48(4): 755–765. PMCID: PMC2722950

David Lomelin, Eric Jorgenson, Neil Risch, Human Genetic Variation Recognizes Functional Elements in Non-Coding Sequence, Recently submitted for publishing

David Lomelin, Eric Jorgenson, Neil Risch, A Novel Motif Finding Algorithm Identifies Distance Dependent Localization Sites for Intronic Splicing Enhancers, Recently submitted for publishing

Progress Report Summary

A) Training Program

Brief Description of Training Objectives and Goals.
The purpose of this training grant program is to provide funding for 6 predoctoral and 4 postdoctoral trainees in the area of symptom management. The five objectives are below and the two underlined areas were our new focus for this 5-year funding period:

1) prepare trainees with the knowledge and skills necessary to conduct research and scholarly activities related to symptom experience, biological and genetic markers, intervention strategies, and health-related outcomes for pain, dyspnea, sleep disturbance, fatigue, or clusters of symptoms,

2) mentor trainees to develop and implement programs of research on symptoms in diverse populations across the illness trajectory in a variety of health care settings,

3) prepare trainees with grantsmanship skills that include writing, conducting, and administering a funded grant,

4) increase the number of ethnically diverse nurse scholars prepared to conduct research on symptom management, and

5) increase the number of nurse scholars prepared to conduct interdisciplinary intervention research (in inner cities and rural areas) related to symptoms or symptom clusters.

Developments:
To address Aims 1 and 2, a series of three ProSeminars has been on-going for over 14 years. The ProSeminar, N223A (Symptom Management: Perception) was taught by Kathryn Lee in Fall 2009 due to a sabbatical leave for Dr. Janice Humphreys. Dr. Bradley Aouizerat has been added to this course to provide genetics content in two guest lectures and interested student then take his Genetics course series. Susan Hanson, a current trainee, was the Teaching Assistant for the course and she provided one lecture on pharmacogenetics of symptom management; this accomplished her goal of obtaining some teaching experience as she completes data analysis for her dissertation. As part of the final product for this course, to specifically address the first aim, we sponsored a conference whereby trainees volunteered to present their work in progress related to biomarkers and genetic markers for their particular symptom of interest. We have increased the numbers of trainees interested in genetics and symptoms primarily with these types of conferences, co-sponsored by the Medical Center Nursing leadership and Sigma Theta Tau Alpha Eta Chapter.

The winter ProSeminar, N223B (Symptom Management: Management Strategies) was taught by Dr. Susan Janson. The ProSeminar, N223C (Symptom Management: Outcomes) is taught by Dr. Virginia Carrieri-Kohlman; during her sabbatical Spring of 2009, Dr. Lee taught the course, and again the final product was an end of the quarter presentation in a conference to a broader audience than just their peer classmates (see attached program). We focused on quality of life as the symptom outcome of interest and it was so successful that we had demands from the Medical Center nurses and Sigma Theta Tau leadership to repeat this type of conference in Fall for N223A (see attached program). The new component of Aim 1 related to biological and genetic markers is incorporated into the N223A course with Drs. Lee and Aouizerat.

To address Aim 3, trainees now attend either June or December research grant management workshops facilitated by Dr. Lee (Associate Dean for Research) and Dr. Christine Miaskowski. Trainees also receive individual mentoring in writing and conducting research during sessions

with their faculty advisors. There are now Clinical and Translational Science Award (CTSA) workshops open to all 4 schools at UCSF for every grant mechanism of interest.

Aim 4 is continually addressed by recruitment of an ethnically diverse applicant pool. We devote time to recruiting highly qualified doctoral applicants, as seen in our selection of current predoctoral trainees who are not only ethnically diverse, but also from the rural central valley area in cooperation with various Deans from Schools of Nursing in rural areas of northern California. We have two new postdoctoral trainees this year and two returning for their second year. At this time, we have one applicant accepted for the next training period, beginning in July (P. Miller from UCLA, an African American nurse scholar from University of California, Los Angeles who is interested in cardiac symptoms of fatigue and genetics. Three additional applicants are currently being reviewed for possible acceptance into the remaining position that will also become available this summer. A decision by the Advisory Board for this available slot will be made by early May. Both Amy Johnson and Mary Dawn Hennessy will be terminating their fellowships this summer, with plans for academic faculty positions.

To address Aim 5, we have three trainees recruited from rural areas (Reno, Fresno, Tracy). All of our trainees are exposed to interdisciplinary research in symptom management through the UCSF funded CTSA campus workshops. We used some supply funds to purchase genetics equipment and software for Dr. Aouzerat's laboratory experiences with trainees.

The predoctoral trainees supported for the past 10 years are listed in Table 12A.
The postdoctoral trainees supported for the past 10 years are listed in Table 12B.

Departures:
Post-Docs: Two of the four postdoctoral trainees completed their training in summer 2009 (H. DeVon) or Fall 2009 (K. Ellstrom) and continue to write manuscripts and research proposals. They were replaced with Lisa Bauer and Rosa Maria Sternberg.

Pre-Docs: Therese Doan completed the doctoral program in Fall, 2009. She is currently interviewing for a faculty position. She was replaced with John Merriman.

New Trainees:
Post-Docs:
Dr. Lisa Bauer completed her dissertation in June, 2009 at the University of Nebraska and began her fellowship this summer, 2009.
Dr. Rosa Maria Sternberg completed her dissertation in December at University of Florida and began the T32 fellowship on January 1, 2010. She is interested in mental health and depressive symptoms in Latina immigrant mothers.

Pre-Docs:
Continuing: Amanda Aaronson (White)
Jacqueline Gregory (Latina, from Fresno CA)
Kimberly Stevens (White, from Reno NV)
LouElla Taylor (African American, from Tracy CA)
New: John Merriman (White male; first years doctoral student)

Difficulties. There have been no difficulties achieving the objectives. Trainees have offered very positive evaluations of the ProSeminars and the conferences for the general public in lieu of a final exam or class oral presentation.

There is lively discussion among predoctoral and postdoctoral trainees and faculty, about our model of symptom management published as a middle-range theory:

Humphreys J, Lee K A, Carrieri-Kohlman V, Puntillo K, Faucett J, Janson S, Aouizerat B, Donesky-Cuenco D. & the UCSF School of Nursing Symptom Management Faculty Group. (2008). A middle range theory of symptom management. In M J Smith & P R Liehr (Eds.). *Middle range theory for nursing (2nd ed)* (pp. 145-158). New York: Springer Publishing Company.

Changes. Positive changes have been made in the seminars each year to accommodate trainees based on evaluations of the courses and faculty. The ProSeminar series continues to serve as a model of Advanced Nursing Seminars for the School's doctoral curriculum. The series previously reserved for only T32 funded trainees is now open to all doctoral students interested in symptoms, as well as postdoctoral trainees from across campus. With our UCSF recently funded Clinical and Translational Science Award (CTSA), there is more demand for this series from across the campus of health science professionals. The grant writing workshops have been so popular that they are now offered by the Office of Research and expanded to include all School of Nursing postdoctoral trainees and new Assistant Professors. Dr. Lee became the new Associate Dean for Research in the School of Nursing on January 1, 2010.

Experiences adding to, or strengthening, the objectives. In addition to the two conferences at the end of Spring and Fall quarters, the School of Nursing was honored to receive a P30 in Fall, 2009. Dr. Miaskowski is the PI (Co-PIs: K. Lee and B. Aouizerat) on this 2-year P30 for new faculty scholars interested in symptom management research. The objectives for that faculty funding are similar to our objectives for the T32 postdoctoral trainees and both new faculty and postdoctoral trainees are attending the current proposal writing workshop sessions offered during the Winter and Spring.

The UCSF CTSA was awarded to advance the clinical and translational science mission of the campus and we are currently in the process of obtaining input for its competing continuation submission this May. The Director was originally Dr. McCune, and Dr. Johnston became the Director last year. Dr. Lee is a member of the Career Development Core and participates in mentoring programs for the campus. All four postdoctoral trainees are encouraged to attend these sessions. We have organized three workshops: one on understanding the NIH "Alphabet of Grant Mechanisms: Which one is Right for You," one focused specifically on K award mechanisms, and one focused on the NIH critique process. We began a series on mentorship training that is not only interdisciplinary but also addresses the mentee and mentoring needs of trainees with such topics as "How to develop and implement an IDP (Individual Development Plan) with your Mentor," and "Rewards and Challenges of Mentoring" so that both mentor and mentee see the positive side of this process. These workshops were originally offered twice each year but are now offered in Winter. They have been highly evaluated by attendees and two publications have emerged from this collaborative process.

Space/Facilities. Trainees have an office with two computers that can access our School of Nursing network for e-mail and library searches. Updated software for word processing and data entry and analyses are also included, but trainees prefer to upgrade their own systems for use at home. They also have opportunities to take any necessary software training, such as STATA or SPSS data analysis, EndNote workshops, or Atlas.ti for qualitative methods. They have desk space and are assigned individual locked file cabinets for storage of research data and other materials related to their research training. Their office space includes a small library of methodology resources, including the SAGE publication series on quantitative applications in

the social sciences and the recent edition of *Middle Range Theory for Nursing (2nd ed)*. M J Smith & P R Liehr (Eds.). New York: Springer. This book contains the UCSF Symptom Management Model that was "upgraded" to a middle-range theory.

Responsible conduct of science. In addition to required coursework throughout their first year (N209A, N209B, N212A, N212B), trainees have individualized modeling of responsible conduct of science in their work with various faculty during research residencies. These residencies involve ongoing interactions with subjects during recruitment, data collection, or data entry and analysis. During weekly seminars and monthly meetings with their faculty, trainees and faculty participate in on-going dialogue about responsible conduct of science. For example, during a discussion of methods and instruments for measures of pain intensity, issues were raised about obtaining consent, obtaining consent in international settings, and what constitutes an incentive or a coercion to participate in a research study. Appropriate recruitment of subjects (i.e., newspaper, telephone, radio, clinics) from different cultural environments in the San Francisco Bay Area always generates a lively discussion. The awareness of subject burden in measuring symptom outcomes is addressed in many seminar discussions.

B) Research Study Subjects: Gender and Minority Inclusion

POSTDOCTORAL TRAINEES:

Mary Dawn Hennessy: From University of Pennsylvania: writing manuscripts and presenting at conferences. She is developing a R21 application on restless legs sleep symptoms and genetics in pregnancy with Dr. Kathryn Lee and Dr. Brad Aouizerat. She is presenting research at conferences, and beginning to interview for a faculty position. Her gender and minority inclusion data are from Dr. Lee's previously funded R01 on midlife women, in which Dr. Hennessy is conducting a secondary analysis of the nutrition data in relation to symptom experience.

	American Indian or Alaskan Native	Asian or Pacific Islander	Black, not of Hispanic Origin	Hispanic	White	Other or Unknown	Total
Female	0	0	94	89	163	0	347
Male							
Unknown							
Total	0	0	94	89	163	0	347

Amy Johnson: From Oregon Health Sciences University: writing manuscripts and developing a research proposal with Dr. Christine Miaskowski to continue her research with adolescents with cancer who have sleep and fatigue symptoms. She has no new human subjects application as part of her postdoctoral training. She will likely become a faculty member at Oregon Health Sciences University.

	American Indian or Alaskan Native	Asian or Pacific Islander	Black, not of Hispanic Origin	Hispanic	White	Other or Unknown	Total
Female							
Male							

Lisa Bauer: From University of Nebraska: writing manuscripts and developing a research proposal with Dr. Kathleen Dracup to continue her research with heart failure patients and cognitive dysfunction. She is just completing year 01 of her 2-year postdoctoral training plan and has no human subjects application at this time.

	American Indian or Alaskan	Asian or Pacific	Black, not of Hispanic	Hispanic	White	Other or	Total

	Native	Islander	Origin			Unknown	
Female							
Male							

Rosa Maria Sternberg: From Florida State University: writing manuscripts and developing a research proposal with Dr. Kathryn Lee to continue her research with first-generation Latina women and their symptom experience. She arrived in January and is planning to replicate and extend her dissertation research with a new sample from rural areas of northern California.

	American Indian or Alaskan Native	Asian or Pacific Islander	Black, not of Hispanic Origin	Hispanic	White	Other or Unknown	Total
Female	0	0	0	15	0		15
Male							
Unknown							
Total							

B) Research Study Subjects:
PRE-DOCTORAL STUDENTS:

Amanda Aaronson: N/A; third-year doctoral student completed her qualifying examination in Fall 2009 and dissertation proposal defense was just completed Winter 2010. Dissertation will likely involve infants in Kangaroo Care and Dr. Lee (advisor) will assure approval of her IRB application prior to beginning data collection.

Jacqueline Gregory: N/A; third-year doctoral student scheduled for qualifying examination in Fall 2010. Dissertation will likely involve Latino adults with chronic illness and pain. Dr. Chesla (advisor) will assure approval of her IRB application prior to beginning data collection.

Susan Hanson: qualifying examination completed; dissertation will be from genetics bank with her faculty sponsor, Dr. Brad Aouizerat, completion is scheduled for Summer 2010

Kimberly Stephens: N/A; third-year doctoral student scheduled for qualifying examination in summer, 2010; Dr. Aouizerat will assure compliance with human subjects requirements. She will be using data collected in a previous study by Drs. Miaskowski and Aouizerat on symptoms in women with breast cancer.

Lou Ella Taylor: N/A; third-year doctoral student; completed qualifying examination in Winter, 2010; dissertation proposal defense is scheduled for Spring 2010. Dr. Miaskowski (advisor) will assure approval of her IRB application; her research will include 100 African American adults with Sickle Cell Disease.

John Merriman: N/A: first-year doctoral student scheduled for qualifying examination in Spring 2011 or Fall 2011. He is currently planning research residency experiences with data from Dr Miaskowski and Lee's pain, fatigue, and sleep research with cancer radiation patients and their caregivers. Dr. Miaskowski will assure approval of his IRB application after completion of his qualifying examination and prior to initiating his dissertation research.

Name: Amanda Aaronson **Faculty Supervisor:** Kathryn Lee

Courses:

Fall 2009	Winter 2010	Spring 2010
N223A Symptom Mgt	N223B Symptom Mgt	N223C Symptom Mgt.
N249 Qualifying Exam Independent Study	N250 Dissertation Independent Study	N250 Dissertation Independent Study

Research Project:
Dissertation: Using Kangaroo Care to Mitigate Distress During Birth Transition from Fetus to Neonate

Summer 2010 Plan:
Dissertation research

Conference/Abstract Submission:

Manuscripts in Review:

Work in Progress:
Dissertation progress
Manuscript writing, "Maternal report of non-reassuring fetal status during labor more common in induced labors."
Manuscript writing, "Neonatal quality of life, can we measure it?"
Manuscript writing, "Symptom management, allostatic load and the fetus"

Conferences Planned:
AWHONN, Nashville, June 2010
Attended ANN, San Francisco, Mar. 17-20, 2010
Attended Faculty Development Conference, Albuquerque, Feb. 2010

Publications:
None to date.

Name: Lisa Bauer **Faculty Supervisor:** Kathy Dracup

Courses:

Fall 2009	Winter 2010	Spring 2010
Nursing 223 Dracup/Drew seminar	Nursing 223 Dracup/Drew seminar Nursing 220	Nursing 223 Dracup/Drew seminar

Research Project:

Planning project for K99/R00; descriptive design that examines the contribution of neuroimaging changes in cognitive impairment in the chronic heart failure population

Summer 2010 Plan:

Summer Genetics Institute (applied, application is still pending) (month of June)
Completion of K99/R00 (end of May)
Completion of book chapter (end of June)
Submission of final manuscript from dissertation (working title: differences in cognitive impairment patterns in chronic heart failure) (end of July/early August)
Work with Kathy Dracup on her new R01 application

Conference/Abstract Submission:

Submitted and accepted podium presentation to Midwest Nursing Research Society (MNRS) annual conference (April 2010)
Submit to Heart Failure Society of America (HFSA)
American Heart Association (AHA) Scientific Sessions

Manuscripts in Review:

Cognitive Impairment in Heart Failure: An Overview of the Concepts and Their Measures
Psychometric Properties of a Brief Neuropsychological Battery for Use in a Chronic Heart Failure Population

Work in Progress:

K99/R00 application to NHBLI (due June)
Book chapter: 'Exercise and Rehabilitation' in Clinical Cardiology – An Illustrated Text' (due July)
Abstracts for HFSA and AHA

Conferences Planned:

Midwest Nursing Research Society (April 2010)
Heart Failure Society of America (September 2010)
American Heart Association Scientific Sessions (November 2010)

Publications:

Measurement of Cognitive Function in Chronic Heart Failure: A Feasibility Study

Name: Kathleen Ellstrom **Faculty Supervisor:** Virginia Carrieri-Kohlman
Completed December 2009

Courses:

Fall 2009	Winter 2010	Spring 2010
None	None	none

Research Project: Pulmonary Rehabilitation In-home via Telecommunication (PRIVATE)

Summer 2010 Plan: Re-submit project on 6/15/10

Conference/Abstract Submission: Separate study on "Nurse and Patient Perceptions of Nurse Caring Behaviors" accepted for podium presentation at STTI International Research Conference in July, 2010

Manuscripts in Review: Predictors of Self-Extubation

Work in Progress: grant, articles

Conferences Planned: have been accepted to a VA Office of Nursing Research Workshop where beginning nurse researchers are mentored by experienced/funded VA nurse researchers. There are 6 participants accepted nation-wide to work with faculty in small groups to facilitate the process and make the project the best it can be to get funded. That will be held April 19-22 in Chicago.

Publications: None

Name: Jacqueline Gregory **Faculty Supervisor:** Kit Chesla

Courses:

Fall 2009	Winter 2010	Spring 2010
N249 Independent Study	N249	N249
N223A Symptom Management	N223B	N223C

Research Project:
Qualifying exams in progress

Summer 2010
Working on completion of my Qualifying exam theory paper.

Work in Progress:
Working directly with Roberta Rehm to present the second draft of my Literature review for qualifying exam next appointment 03/31/10.

Conferences Planned:
National Association of Hispanic Nurses (NAHN) 35th conference, July, 22-24, 2010.

Publications: none

Name: Susan Hanson **Faculty Supervisor:** Brad Aouizerat PhD

Courses:

Fall 2009	Winter 2010	Spring 2010
N248 Independent study N223A Teaching Assistant	N248 Independent Study	N248 Independent Study

Research Project:
Women's Interagency HIV Study (WIHS) Intensive Pharmacokinetic (PK) Substudy Pharmacogenetic Research

Summer 2010 Plan:
Enroll filing fee only and dissertation defense

Conference/Abstract Submission:
None at this time

Manuscripts in Review:
None at this time

Work in Progress:
antiretroviral pharmacogenetic literature review, learned Haploview program and using to haplotype map 20 genes on 11 chromosomes, will be using HapMap for comparative reference panel haplotype maps of same genes/chromosomes, learned FancyGene program and drew 20 gene schematics for pending papers. Analyses for PK/PGx study are pending.

Conferences Planned:
None at this time

Publications:
None at this time

Name: Mary Dawn Hennessy **Faculty Supervisor**: Kathy Lee

Courses:

Fall 2009	Winter 2010	Spring 2010
N201.01 Theoretical Foundations of Academic Nursing N223A Symptom Research Proseminar N251.01 Proposal & Grant Writing	N223B Symptom Research Proseminar N220 Academic Role Development	N223C Symptom Research Proseminar

Research Project:

- Analyzing data set (n=347) of midlife women, specifically nutrition and health outcomes including obesity, fatigue, depression, and restless legs syndrome.
- Awaiting Sigma Theta Tau International, Alpha Eta Chapter grant, entitled "RLS Symptom Severity, Biomarkers and Nutrient Intake in Pregnancy"
- Writing R21 for June submission, "Iron and Folate Pathways of RLS in Pregnancy".

Summer 2010 Plan: NINR Summer Genetics Institute

Conference/Abstract Submission:

- June 2009 Association of Women's Health Obstetric, Gynecologic, and Neonatal Nurses, San Diego, poster presentation
- July 2009 Sigma Theta Tau International, Vancouver, podium presentation
- November 2009 Genotypes and Phenotypes: Biomarkers of Symptom Experience, UCSF, podium presentation.
- March 2010 Women's Health 2010: The 18th Annual Congress American Medical Women's Association, Arlington, poster presentation
- Hennessy, MD and Lee, K. Macronutrient Intake and Anthropometrics in Geographically Similar Midlife Women (in review *J Women's Health*)

Manuscripts in Review:

1) Hennessy, MD, Gutierrez, Y, Lee, K. Macronutrient Intake and Anthropometrics in Geographically Similar Midlife Women (Journal of the American Dietetic Association)
2) Hennessy, MD, Gutierrez, Y, Lee, K. Micronutrient Intake and Anthropometrics in Geographically Similar Midlife Women (American Journal of Nutrition)

Work in Progress:

Western Institute of Nursing Abstract Reviewer
Reviewer, Nursing for Women's Health
Reviewer, MCN, The American Journal of Maternal Child Nursing
Hennessy, MD, Lee, K. Micronutrients and Symptoms of Depression, Fatigue, and RLS.
Hennessy, MD, Lee, K, Aouizerat, B. Genetic markers of RLS in HIV patients.

Conferences Planned:

Feb 2010 Amer Association of College of Nursing, Faculty Development Conference
March 2010 American Women's Medical Association Women's Health Congress

Publications:

Hennessy, MD, Volpe, S, Sammel, M, & Gennaro, S. Skipping Meals and Less Walking among African Americans Diagnosed with Preterm Labor (in press Journal of Nursing Scholarship)

Study Title: Iron and Folate Pathways of RLS in Pregnancy

Total Planned Enrollment: 360

TARGETED/PLANNED ENROLLMENT: Number of Subjects			
Ethnic Category	**Sex/Gender**		
	Females	**Males**	**Total**
Hispanic or Latino	180	0	180
Not Hispanic or Latino	180	0	180
Ethnic Category: Total of All Subjects *	360	0	360
Racial Categories			
American Indian/Alaska Native	5	0	5
Asian	10	0	10
Native Hawaiian or Other Pacific Islander	5	0	5
Black or African American	170	0	170
White	170	0	170
Racial Categories: Total of All Subjects *	360	0	360

* The "Ethnic Category: Total of All Subjects" must be equal to the "Racial Categories: Total of All Subjects."

Name: Amy Johnson **Faculty Supervisor:** Christine Miaskowski

Courses:

Fall 2008	Winter 2009	Spring 2009
N223A Proseminar in Symptom Management: Symptom Experience (Lee)	N223B Proseminar in Symptom Management: Managing Symptoms (Janson)	N223C Proseminar in Symptom Management: Symptom Outcomes (Carrieri-Kohlman) Grant Writing Workshop (Miaskowski, Lee, & Aouizerat)

Publications:

Differences in Symptom Occurrence, Frequency, Intensity, and Distress in Adolescents Prior to and One Week After the Administration of Chemotherapy. Accepted March 7, 2010, Journal of Pediatric Oncology Nursing.

Manuscripts in Progress:

Sleep Quality and Sleep Hygiene Behaviors of Adolescents during Chemotherapy. In review, Journal of Clinical Sleep Medicine.

Sleep-Wake Patterns of School-Age Children and Adolescents before Diagnosis and During Chemotherapy for Acute Lymphocytic Leukemia. In review, Journal of Pediatric Nursing.

Nocturnal Sleep-Wake Activity of Adolescents at Home Following Cancer Chemotherapy. In preparation.

New Investigator RO1:

24-Hour Sleep-Wake Activity and Media/Technology Use for Adolescents with Cancer and Healthy Adolescents. Plan to submit 6/5/2010.

Plans for Conferences to Attend:

Sleep 2010 in San Antonio, TX.

Summer Plans 2010:
Publish results from SF 424 (R&R) revision grant (PI: Vivian Gedaly-Duff). Assist with analyses and publications from parent study, "Chemotherapy, Pain, Sleep, Fatigue in Children & Parents" (R01 NR008570-05S1).

Name: John Merriman, MS, RN, AOCNS **Faculty Supervisor:** Christine Miaskowski

Courses:

Fall 2009	Winter 2010	Spring 2010
N209A Comparative Qualitative Research Design	BS187 Introduction to Statistical Theory and Practice	BS197 Introduction to Linear Models
N209B Quantitative Research Design	N223B Symptom Research Proseminar: Interventions	N212A Qualitative Data Collection and Ethics
N251.01 Proposal and Grant Writing		N212B Quantitative Measurement and Theory
N269 Human Health and Nursing Systems	N229 Philosophy of Nursing Science	N223C Symptom Research Proseminar: Outcomes

Research Project: (1) Differences in Self-Reported Attentional Fatigue Prior to Initiation of Radiation Therapy in Patients With Breast Cancer and Prostate Cancer; (2) Preliminary Evidence of Genetic Association Between *IL6* and Severity of Self-Reported Attentional Fatigue

Summer 2010 Plan: (1) Research residency with Dr. Bradley Aouizerat: PCR-based sequencing project (from conceptual planning to PCR optimization, through successful sequence data generation); (2) Research residency with Dr. Miaskowski: submit paper for project one (Differences...) and initial writing of findings from project two (*IL6*).

Conference/Abstract Submission:

2/24/2010 **Poster Presentation: Graduate Student Association Career and Research Days**

Differences in Self-Reported Attentional Fatigue Prior to the Initiation of Radiation Therapy in Patients With Breast Cancer and Prostate Cancer

Audience composed of UCSF graduate students and post-doctoral fellows from all schools.

3/09/2010 **Poster Presentation: Cancer and Cognition Conference of the International Cancer and Cognition Task Force**

Differences in Self-Reported Attentional Fatigue Prior to the Initiation of Radiation Therapy in Patients With Breast Cancer and Prostate Cancer

Audience composed of multidisciplinary researchers

4/23/2010 **Podium Presentation: Community of Scholars**

Preliminary Evidence of a Genetic Association Between *IL6* and Severity of Self-Reported Attentional Fatigue

Audience to include faculty and students at UCSF School of Nursing

5/15/2010 **Podium Presentation: Oncology Nursing Society Congress Advanced Critique Session**

Differences in Self-Reported Attentional Fatigue Prior to the Initiation of Radiation Therapy in Patients With Breast Cancer and Prostate Cancer

Audience to be composed of ONS Advanced Nursing Research Special Interest Group members and other Congress attendees interested in nursing research.

5/19/2010 **Poster Presentation: UCSF Campus-Wide Poster Day**

Preliminary Evidence of a Genetic Association Between *IL6* and the Severity of Self-Reported Attentional Fatigue

Audience to include faculty and students from all schools at UCSF.

Manuscripts in Review: None

Work in Progress: Manuscript for ONS Congress Advanced Critique Session: Differences in Self-Reported Attentional Fatigue Prior to the Initiation of Radiation Therapy in Patients With Breast Cancer and Prostate Cancer.

Conferences Planned: ONS Research Conference (February 2011)—plan to submit an abstract for Preliminary Evidence of a Genetic Association Between *IL6* and the Severity of Self-Reported Attentional Fatigue.

Publications:

Merriman, J. D., Jansen, C., Koetters, T., West, C., Dodd, M., Lee, K., Paul, S., Aouizerat, B., Cooper, B., Swift, P., Wara, W., Miaskowski, C. (In press, July 2010). Predictors of the trajectories of self-reported attentional fatigue in women with breast cancer undergoing radiation therapy. *Oncology Nursing Forum.*

Study Title: Fatigue, Pain and Sleep Problems During Radiation Therapy

Total Enrollment: Patients 185 (5 R01 NR004835)

TARGETED/PLANNED ENROLLMENT: Number of Subjects (PATIENTS)			
Ethnic Category	**Sex/Gender**		
	Females	**Males**	**Total**
Hispanic or Latino	5	1	6
Not Hispanic or Latino	82	94	176
Unknown (not reported)	2	2	3
Ethnic Category: Total of All Subjects *	89	96	185
Racial Categories			
American Indian/Alaska Native	0	0	0
Asian	10	3	13
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	10	17	27
White	66	72	138
More than one race	1	3	4
Unknown or not reported	2	1	3
Racial Categories: Total of All Subjects *	89	96	185

* The "Ethnic Category: Total of All Subjects" must be equal to the "Racial Categories: Total of All Subjects."

Study Title: Fatigue, Pain and Sleep Problems During Radiation Therapy

Total Enrollment: Caregiver 102 (5 R01 NR004835)

TARGETED/PLANNED ENROLLMENT: Number of Subjects (CAREGIVERS)			
Ethnic Category	**Sex/Gender**		
	Females	**Males**	**Total**
Hispanic or Latino	0	0	0
Not Hispanic or Latino	74	28	102
Unknown (not reported)	74	28	102
Ethnic Category: Total of All Subjects *	102	0	102
Racial Categories			
American Indian/Alaska Native	0	0	0
Asian	4	3	7
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	9	2	11
White	57	23	80
More than one race	4	0	4
Unknown or not reported	0	0	0
Racial Categories: Total of All Subjects *	74	28	102

* The "Ethnic Category: Total of All Subjects" must be equal to the "Racial Categories: Total of All Subjects."

Name: Kimberly Stephens **Faculty Supervisor:** Brad Aouizerat

Courses:

Summer 2009	Fall 2009	Winter 2010	Spring 2010
Independent Study	N223A Proseminar in Symptom Management: Symptom Experience Independent study – 3 units Research residency – 3 units	N223B Proseminar in Symptom Management: Interventions Independent study – 3 units Research residency – 3 units	N223C Proseminar in Symptom Management: outcomes Independent Study Research Residency

Research Project:
Primary study is looking at whether common variations in candidate genes predispose individuals to the development of neuropathic pain syndromes in patients following breast cancer surgery. Dissertation research will be to perform functional studies on selected genes for their role in the symptom phenotype.

Summer 2010 Plan:
Finish qualifying exams if not completed by spring.
Analyze data from the custom arrays for potential manuscripts
Identify genes for functional studies for dissertation project
Start working on dissertation research

Conference/Abstract Submission:
None

Work in Progress:
Custom array data available March 2010. Assisting in the analyzing data.

Conferences Planned:
Pain Society, Baltimore, MD – May 2010

Publications:
Pelter MM, Carey MG, Stephens KE, Anderson H, Yang W (2010). Improving nurses' ability to identify anatomic location and leads on 12-lead electrocardiograms with ST elevation myocardial infarction. European Journal of Cardiovascular Nursing – In Press.

Manuscripts in review:
none

Study Title: Symptom Management after Breast Cancer Surgery

Total Planned Enrollment: 410

TARGETED/PLANNED ENROLLMENT: Number of Subjects			
Ethnic Category	**Sex/Gender**		
	Females	**Males**	**Total**
Hispanic or Latino	19	0	19
Not Hispanic or Latino	370	0	370
Unknown (not reported)	21	0	21
Ethnic Category: Total of All Subjects *	410	0	410
Racial Categories			
American Indian/Alaska Native	3	0	3
Asian	52	0	52
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	40	0	40
White	276	0	276
More than one race	20	0	20
Unknown or not reported	19	0	19
Racial Categories: Total of All Subjects *	410	0	410

* The "Ethnic Category: Total of All Subjects" must be equal to the "Racial Categories: Total of All Subjects."

Name: Rosa Maria Sternberg **Faculty Supervisor:** Kathryn A. Lee
Began January 2010

Courses:

Fall 2009	Winter 2010	Spring 2010
	N223B-Symptom Management Interventions Research Proposal Workshop	Symptom Management Outcome Measures Research Proposal Workshop

Research Project: (Future Pilot study) – Reducing Depressive symptoms of Latina Transnational Mothers

Summer 2010 Plan:
Begin writing a book of stories told by Latina Transnational Mothers

Conference/Abstract Submission:
Submitted application (03/10/10) to participate in the University Of California Center Of Expertise on Migration and Health first annual interdisciplinary Research Training Workshop and to present my study of Latinas Experiencing Transnational Motherhood.

Manuscripts in Review:

Work in Progress:
Working on 3 manuscripts.
#1- A description of my qualitative study with Latina Transnational Mothers
#2- Ethical considerations when caring for Latin immigrants
#3- How immigration policies can affect the health of Latina Transnational Mothers

- Working of establishing a trusting professional relationship with the Monument Corridor Community Partnership (MCP) in Contra Costa County, where I can develop my future research with Latina immigrants.
- Attended the annual Binational Promotoras Conference organized by the UC Beckley School of Public Health and the Health Initiative of the Americas, to increase my knowledge of the promotoras' work in Latino communities.

Conferences Planned:

Publications:

Study Title: The multidimensional characteristics of chronic pain in adults with sickle cell disease

Total Planned Enrollment: 100

TARGETED/PLANNED ENROLLMENT: Number of Subjects			
Ethnic Category	**Sex/Gender**		
	Females	**Males**	**Total**
Hispanic or Latino	0	0	0
Not Hispanic or Latino	50	50	100
Unknown (not reported)	0	0	0
Ethnic Category: Total of All Subjects *	50	50	10
Racial Categories			
American Indian/Alaska Native	0	0	0
Asian	0	0	0
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	50	50	100
White	0	0	0
More than one race	0	0	0
Unknown or not reported	0	0	0
Racial Categories: Total of All Subjects *	50	50	100

* The "Ethnic Category: Total of All Subjects" must be equal to the "Racial Categories: Total of All Subjects."

Study Title: Reducing Depressive symptoms of Latina Transnational Mothers

Total Planned Enrollment: 360

TARGETED/PLANNED ENROLLMENT: Number of Subjects			
Ethnic Category	**Sex/Gender**		
	Females	**Males**	**Total**
Hispanic or Latino	15	0	15
Not Hispanic or Latino	0	0	0
Ethnic Category: Total of All Subjects *	15	0	15
Racial Categories			
American Indian/Alaska Native	0	0	0
Asian	0	0	0
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	0	0	0
White	15	0	15
Racial Categories: Total of All Subjects *	15	0	15

* The "Ethnic Category: Total of All Subjects" must be equal to the "Racial Categories: Total of All Subjects."

Name: Lou Ella (Kitty) Taylor **Faculty Supervisor:** Christine Miaskowski

Courses:

Fall 2009	Winter 2010	Spring 2010
N223A Proseminar in Symptom Management: Symptom Experience (Lee)	N223B Proseminar in Symptom Management: Managing Symptoms (Janson)	N223C Proseminar in Symptom Management: Symptom Outcomes (Lee & Waters)
N249 Independent Study (Miaskowski)	N 249 Independent Study	N 249 Independent Study

Research Project:
The Multidimensional characteristics of Chronic Pain in Adults with Sickle Cell Disease

Summer 2010 Plan:
submit Proposal Defense.
Work on submitting manuscript to journal

Conference/Abstract Submission:
Attended 5th Annual Sickle Cell Disease Symposium March 2009
Speaker, Sickle Cell Disease Conference 3/26/10. "The Use of Guided Imagery for chronic pain in Sickle Cell Disease.

Work in Progress:
I passed the qualifying examination in Winter, 2010, and now I am preparing for the Proposal Defense.
Preparation for the Committee on Human Subjects application (IRB)

Plans for Conferences to Attend:
7th Annual Sickle Cell Disease (SCD) Symposium September 2010 sponsored by the Sickle Cell Disease Foundation of California, Children's Hospital & Research Center, Oakland, CA, and UC Davis Medical Center.

Through my involvement with the Sickle Cell Disease Center in Oakland as a PhD student, I have been asked to be a member of the Advisory Committee for the Talking Drums Project, a funded project for research on SCD. The Advisory Committee will meet during the Symposium.

Publications:
Taylor, LE. A review of the literature on the multiple dimensions of chronic pain in adults with sickle cell disease. J Pain and Symptom Management (accepted 1/19/10).

Manuscripts Under review:
None at this time.

The faculty and participants of Symptom Research Pro-seminar (N223C), Research Center for Symptom Management, and Sigma Theta Tau International (Alpha Eta Chapter) at UCSF

Beyond Patient Satisfaction: Symptom Management & Quality of Life

At the completion of the conference, participants will be able to:

1. Describe at least two domains of quality of life (QOL).
2. Discuss why QOL is important in your patient population.
3. Discuss strengths and limitations of QOL measures for your patient population.
4. Discuss what constitutes a clinically important improvement in QOL as a result of intervention

Program Schedule

1:00 – 2:00	**Keynote: "Quality of life: what are we measuring?"**	**Dr. Geraldine Padilla, Associate Dean for Research UCSF**
2:00 – 2:20	**Neonatal quality of life: can we measure it?**	**Amanda C. Aaronson, RN, MSN**
2:20 – 2:40	**Quality of life in intubated patients**	**Kathleen Ellstrom, PhD, RN, ACNS-BC Post-doctoral Fellow**
2:40 – 3:00	**BREAK & NETWORKING**	
3:00 – 3:20	**Quality of life, symptoms, and sleep in adolescents with cancer**	**Amy Johnson, PhD, RN Post-doctoral Fellow**
3:20 – 3:40	**Quality of life and sleep disturbance among adult cancer patients**	**Christina van Onselen, RN, MS Betty Irene Moore Doctoral Fellow**
3:40 – 4:00	**Quality of life and abdominal pain in liver disease among monolingual Latino Patients**	**Jacqueline Gregory, RN, MS FNP-C**
4:00 – 4:20	**Quality of life and chronic pain in adults with sickle cell disease**	**Lou Ella (Kitty) Taylor, RN, MSN, CNS**
4:20 – 4:40	**The Nutrition Quality of Life Survey**	**Mary Dawn Hennessy, PhD, RN Post-doctoral Fellow**
4:40 – 5:00	**Quality of life in adults and elders with Coronary heart disease**	**Holli A. DeVon, PhD, RN Post-doctoral Fellow**
5:00 – 5:30	**Summary: Quality of life for individuals and communities**	**Catherine Waters, Associate Professor**

Thursday May 21, 2009

UCSF ROOM HSW 302

4 CEU's - BRN Provider # CEP 12980 UCSF Medical Center

The faculty and participants of Symptom Research Pro-seminar (N223C), Research Center for Symptom Management, and Sigma Theta Tau International (Alpha Eta Chapter) at UCSF

Genotypes and Phenotypes: Biomarkers of Symptom Experience

Sponsors include: Alpha Eta Chapter of Sigma Theta Tau, American Journal of Nursing, Nursing Research, Springer Publishing

At the completion of the conference, participants will be able to:
1. Describe potential biomarkers for a symptom phenotype,
2. Discuss why biomarkers are important in clinical research,
3. Discuss strengths and limitations of biomarker measures.

Program Schedule

1:00 – 2:30	**Keynote: Genetics in Nursing Research: Historic Perspective** **Exemplars of Genetics in Nursing Research**	**Dr. Christine Miaskowski, PhD, Rl** **Dr. Brad Aouizerat, PhD**
2:30 – 2:45	**Break**	
2:45 – 3:00	**Telomere shortening in formerly abused women**	**Dr. Janice Humphreys, PhD, RN**
3:00 – 3:15	**Obesity and insulin resistance**	**Jeneva Gularte, RN, MS**
3:15 – 3:30	**Fever response in critically ill adults: Beyond a temperature**	**Hildy Schell, RN, MS, CCNS**
3:30 – 3:45	**Cytokines and sleep in cancer patients**	**Christina van Onselen, RN, MS**
3:45 – 4:00	**Break**	
4:00 – 4:15	**Delirium in ventilated patients: Role of biomarkers**	**Mary E. Lough, RN, CCRN, PhD(c**
4:15 – 4:30	**Biomarkers of restless legs in pregnancy**	**Dr. Mary Dawn Hennessy, PhD, R**
4:30 – 4:45	**Prenatal stress implications for newborn development**	**Amanda C. Aaronson, RN, MS**
4:45 – 5:00	**Summary and Discussion**	**Dr. Kathryn Lee, PhD, RN**

Thursday November 19, 2009
UCSF ROOM Toland Hall
4 CEUs
BRN Provider # CEP 11632 **UCSF Medical Center**