University of Pennsylvania Winter 2009

CAMB News from the

Cell and Molecular Biology Graduate Group

Amy Campbell, Balpreet Bhogal, Margaret Fleetwood

Christopher Edwards, Viktoriya Syrovatkina, Jennine Dawicki-McKenna, Lashon Pringle, Catrina King

Photos in this issue of the CAMB newsletter include images from CB social events, the 2009 CAMB Symposium, 2009 Orientation, MD/PhD Band Freaks of Nurture, and the 2009 CAMB Holiday Party

Rachel Monyak, Amy DeMicco, Jonathan Stolzfuz, Stacey Lehman, and, Keeley Mui

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CAMB Symposium

Congratulations to our poster winners!

CB — Kevin Smith
CBP — Lili Guo
DSRB — Alison Dell
GGR — Claude Warzecha
GTV — Lauren Hirao
MVP — Kim Davis

Dr. Thomas Tikhonenko, Dr. Ryeom, and Dr. Crabtree

The CAMB students and faculty would like to thank the following sponsors of the 2009 Symposium:

UNIVERSITY OF PENNSYLVANIA INSTITUTES, DEPARTMENTS, AND TRAINING GRANTS

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Congratulations August Graduates

10 CAMB students received PhDs in August 2009.

Jason Carnegie
Advisor: Dr. Brian Wolf
"Characterization of the Expression, Localization, Regulation, and Role of Pancreatic Derived Factor (Pander FAM3B) in Pancreatic Alpha Cells."

Michelle Castelletto
Advisor: Dr. James Lok
"Role of the Forkhead Transcription Factor, FKTF-1, in the Development of Strongyloides stercoralis"

Rachel Kaletsky
Advisor: Dr. Paul Bates
"Host cell factors involved in Ebola virus entry and spread"

Ryan King
Advisor: Harvey Friedman
"Galectin-3, Glycoprotein C, and the Innate Immune Response to Herpes Simplex Virus Type 1."

Kimberly Kraynyak
Advisor: David Weiner
"Modulation of the Immune Response at Systemic and Mucosal Sites by DNA Vaccine Adjuvants in HIV and Influenza Models"

Abby Olsen and Ana Cristancho

Helen McGraw
Advisor: Harvey Friedman
"The Roles of Glycoprotein Glycoprotein 1, and US9 in Neuronal Spread of Herpes Simplex Virus Type 1."

Julie Norseen
Advisor: Dr. Paul Lieberman
"RNA-Dependent Recruitment of ORC to the Epstein-Barr Virus Origin of Replication"

Anil Panigrahi
Advisor: Dr. Nina Luning Prak
"RS Rearrangement: Observations and Implications from a Novel Assay of B Cell Tolerance"

Gladys Varela
Advisor: Dr. Rex Ahima
"Regulation of hepatic triglyceride metabolism by Adipose Differentiation-Related Protein"

Catherine Wharry
Advisor: Dr. Michael May
"Constitutive Non-Canonical NF-kappaB Signaling in Pancreatic Cancer Cells"

Congratulations December Graduates

10 CAMB students received PhDs in December 2009

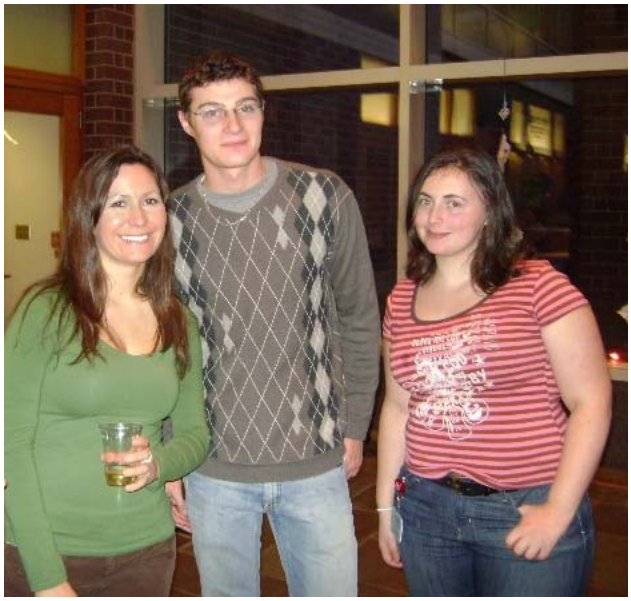
Shelby Blythe
Advisor: Peter Klein
"Transcriptional Poising Prior to the Midblastula Transition Underlies Dorsal Cell Fate Specification by the Wnt/ ß-catenin Pathway"

Matthew Buas
Advisor: Thomas Kadesch
"Mechanisms of Notch-Mediated Inhibition of Skeletal Myogenesis"

Lisa Chang
Advisor: Daniel Kessler
"Transcriptional and Translational Control of Zebrafish Mesodermal Development"

Kathryn Claiborn
Advisor: Doris Stoffers
"The Role of a Ubiquitin Ligase Adaptor Protein in Glucose Homeostasis and Beta Cell Mass"

Gregory DelPrete
Advisor: James Hoxie
"Gaining CXCR4 Utilization: Mechanisms and Consequences"



Christie Helfer, Benjamin Ediger, Vera Mucaj

Adam Siebert, Kim Davis, Meagan Schofer

Joanna DiSpirito
Advisor: Hao Shen
"Unique Transcriptional and Chromatin Profiles of Memory CD8+ T Cells"

Prashanthi Javvadi
Advisor: Costas Koumenis
"Investigation of the mechanisms involved in radiosensitization of squamous carcinoma cells by the chemopreventive agent curcumin"

Boxun Lu
Advisor: Dejian Ren
"Roles of the ION channel NALCN in Neuronal Excitability Control"

Kunal Patel
Advisor: Jeffrey Bergelson
"COXSACKIEVIRUS B3 entry into non-polarized hela cells"

Uma Sachdeva
Advisor: Craig Thompson
"The circadian clock as a sensor of cell metabolic state: Interactions between nutrients, growth factors, and the mammalian clock machinery"

Recent Papers from Students

Abby Olsen, Reynuka Nayak, and Ana Cristancho

Agosto LM, Yu JJ, Liszewski MK, Baytop C, Korokhov N, Humeau LM, O'Doherty U. The CXCR4-tropic human immunodeficiency virus envelope promotes more-efficient gene delivery to resting CD4+ T cells than the vesicular stomatitis virus glycoprotein G envelope. J Virol. 2009 Aug;83(16):8153-62. Epub 2009 Jun 3.

Agrawal-Gamse C, Lee FH, Haggarty B, Jordan AP, Yi Y, Lee B, Collman RG, Hoxie JA, Doms RW, Laakso MM. 2009. Adaptive mutations in a human immunodeficiency virus type 1 envelope protein with a truncated V3 loop restore function by improving interactions with CD4. J Virol. 2009 Nov;83(21):11005-15.

Beatty GL, **Smith JS**, Reshef R, Patel KP, Colligon TA, Vance BA, Frey NV, Johnson FB, Porter DL, Vonderheide RH. Functional unresponsiveness and replicative senescence of myeloid leukemia antigen-specific CD8+ T cells after allogeneic stem cell transplantation. Clin Cancer Res. 2009 Aug 1;15(15):4944-53.

Bertout, J. A., S. A. Patel, B. H. Fryer, A. C. Durham, K. L. Covello, K. P. Olive, M. H. Goldschmidt, M. C. Simon (2009) Heterozygosity for Hypoxia Inducible Factor 1α decreases the incidence of thymic lymphomas in a p53 mutant mouse model. Cancer Res. 69:3213-3220.

Bertout, J. A., A. J. Majmundar, J. D. Gordan, J. C. Lam, **D. Ditsworth,** B. Keith, E. J. Brown, K. L. Nathanson, and M. C. Simon (2009) HIF2α inhibition promotes p53 pathway activity, tumor cell death, and radiation responses. Proc. Natl. Acad. Sci. USA 106:14391-14396.

Blythe, S.A., Reid, C.D., Kessler, D.S., and P.S. Klein. (2009). Chromatin immunoprecipitation in early Xenopus laevis embryos. Developmental Dynamics 238: 1422-1432.

Brady T, **Agosto LM**, Malani N, Berry CC, O'Doherty U, Bushman F. HIV integration site distributions in resting and activated CD4+ T cells infected in culture. AIDS. 2009 Jul 31;23(12):1461-71.

Caviston JP, Holzbaur EL. Huntingtin as an essential integrator of intracellular vesicular trafficking. Trends Cell Biol. 2009 Apr;19(4):147-55. Epub 2009 Mar 5. Review.

Chavez A, Tsou AM, Johnson FB. Telomeres do the (un) twist: helicase actions at chromosome termini. Biochim Biophys Acta. 2009 Apr;1792(4):329-40.

Dai J, **Agosto LM**, Baytop C, Yu JJ, Pace MJ, Liszewski MK, O'Doherty U. Human immunodeficiency virus integrates directly into naive resting CD4+ T cells but enters naive cells less efficiently than memory cells. J Virol. 2009 May;83(9):4528-37. Epub 2009 Feb 11.

J.M. Dawicki McKenna and E.M. Ostap: Kinetics of the Interaction of Myo1c with Phosphoinositides. J. Biol. Chem. 284:28650-9, 2009.

Del Prete, G.Q., Haggarty, B., Leslie, G.L., Jordan, A.P., Romano, J., Wang, J., Holmes, M.C., Montefiori, D.C., and Hoxie, J.A. 2009. Derivation and characterization of a variant of SIVmac239 with tropism for CXCR4. J. Virol. 83(19):9911-22.

DeNicola GM, Tuveson DA. RAS in cellular transformation and senescence. Eur J Cancer. 2009 Sep;45 Suppl 1:211-6.

Margaret Fleetwood, Christine Reid, Elia Tait

Recent Papers from Students Cont.

Diangelo JR, Bland ML, Bambina S, Cherry S, Birnbaum MJ. The immune response attenuates growth and nutrient storage in Drosophila by reducing insulin signaling. Proc Natl Acad Sci U S A. 2009 Oct 27. [Epub ahead of print] PMID: 19861550

Gao GP., Wang Q., Calcedo R., **Mays L.E.**, Bell P., Wang L., Grant R., Sanmiquel J., Furth B., and Wilson J.M. (2009). AAV-mediated gene transfer to nonhuman primate liver elicits destructive transgene-specific T cell responses. Human Gene Therapy. Sep;20(9):930-42.

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Hancks, D.C., Ewing, A.D., Chen, J.E., Tokunaga, K., Kazazian, H.H., Jr. (2009) Exon-trapping mediated by the human retrotransposon SVA. Genome Research. 19(11):1983-91.

Hartman, T. R., E. Nicolas, A. Klein-Szanto, T. Al-Saleem, **T. P. Cash**, M. C. Simon, and E. P. Henske (2009) The role of the Birt-Hogg-Dubé protein in mTOR regulation and renal tumorigenesis. Oncogene 28:1594-1604.

Maria Ciocca, Julie Crudele, and George Buchlis

David Hill

Luis Cocka, Vanessa Kurzweil, & Anand Sitaram

Hill DA, Hoffmann C, Abt MC, Du Y, Kobuley D, Kirn TJ, Bushman FD, Artis D. Metagenomic analyses reveal antibiotic-induced temporal and spatial changes in intestinal microbiota with associated alterations in immune cell homeostasis. Mucosal Immunology. In press.

Hill DA, Artis D. Maintaining diplomatic relations between mammals and beneficial microbial communities. Science Signaling. In press.

Hoffmann C, **Hill DA**, Minkah N, Kirn T, Troy A, Artis D, Bushman F. Community-Wide Response of the Gut Microbiota to Enteropathogenic Citrobacter rodentium Infection Revealed by Deep Sequencing. Infection and Immunity. 2009 Oct;77(10): 4668-78. PMID: 19635824

Hutnick NA, Carnathan DG, Dubey SA, Cox KS, Kierstead L, Ratcliffe SJ, Robertson MN, Casimiro DR, Ertl HC, Betts MR. Baseline Ad5 serostatus does not predict Ad5 HIV vaccine-induced expansion of adenovirus-specific CD4+ T cells. Nat Med. 2009 Aug;15(8):876-8. Epub 2009 Jul 20.

Recent Papers from Students cont..

Nick Buchkovich, Kevin Smith, & Ana Cristancho

Johnson BS, Snead D, Lee JJ, McCaffery JM, Shorter J, Gitler AD., TDP-43 is intrinsically aggregation-prone, and amyotrophic lateral sclerosis-linked mutations accelerate aggregation and increase toxicity. J Biol Chem. 2009 Jul 24;284(30):20329-39.

Kadariya Y, **Yin B**, Tang B, Shinton SA, Quinlivan EP, Hua X, Klein-Szanto A, Al-Saleem TI, Bassing CH, Hardy RR, Kruger WD. (2009) Mice heterozygous for germline mutations in methylthioadenosine phosphorylase (MTAP) die prematurely of T-cell lymphoma. Cancer Research 69 (14):5961-5969.

Karreth FA, **DeNicola GM**, Winter SP, Tuveson DA. C-Raf inhibits MAPK activation and transformation by B-Raf(V600E). Mol Cell. 2009 Nov 13;36(3):477-86.

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Kraynyak KA, Kutzler MA, Cisper NJ, Laddy DJ, Morrow MP, Waldmann TA, Weiner DB. 2009. Plasmid-encoded interleukin-15 receptor alpha enhances specific immune responses induced by a DNA vaccine in vivo. Human Gene Therapy. 20(10):1143-56

Kraynyak KA, Kutzler MA, Cisper NJ, Khan, AS, Draghia -Akli, R, Sardesai, NY, Lewis, MG, Yan, J., Weiner DB. 2009. Systemic immunization with CCL27/CTACK modulates immune responses at mucosal sites in mice and macaques. Vaccine. In Press.

Kutzler MA, **Kraynyak KA**, Nagle SJ, Parkinson RM, Zharikova D, Chattergoon M, Maguire H, Muthumani K, Ugen K, Weiner DB. 2009. Plasmids encoding the mucosal chemokines CCL27 and CCL28 are effective adjuvants in eliciting antigen-specific immunity in vivo. Gene Therapy. Oct 22. [Epub ahead of print]

Lamia KA*, **Sachdeva UM*,** DiTacchio L, Williams EC, Alvarez JG, Egan DF, Vasquez DS, Juguilon H, Panda S, Shaw RJ, Thompson CB#, Evans RM#. AMPK regulates the circadian clock by cryptochrome phosphorylation and degradation. Science. 2009 Oct 16;326(5951):437-40. *co-first authors, #corresponding authors

Leavens, K. F., Easton, R.M., Shulman, G.I., Previs, S.F., and M.J. Birnbaum (2009) Akt2 is required for hepatic lipid accumulation in models of insulin resistance. Cell Metabolism 10(5): 405-418.

Lee, C. M., M. **Hickey, C. A.** Sanford, C. G. McGuire, C. L. Cowey, M. C. Simon and W. K. Rathmell (2009) VHL Type 2B gene mutation moderates HIF dosage in vitro and in vivo. Oncogene 28:1694-1705.

Lippa, A. M., Goulian, M. (2009) Feedback Inhibition in the PhoQ/PhoP Signaling System by a Membrane Peptide. PLoS Genetics (in press).

Little SC, Mullins MC. Bone morphogenetic protein heterodimers assemble heteromeric type I receptor complexes to pattern the dorsoventral axis. Nat Cell Biol. 2009 May;11(5):637-43.

Amy DeMicco and Michael Convente

Recent Papers from Students cont..

Eugene Khandros, Thomas Porturas, Aaron Black, & Dr. Weiner

Liu, J., Yue, P., Artym V.V., Mueller S.C. and Guo, W. The roles of the exocyst in matrix metalloproteinase secretion and actin dynamics during tumor cell invadopodia formation. Mol. Biol. Cell (2009) 20:3763-3771.

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Lu B, Su Y, Das S, Wang H, Wang Y, Liu J, Ren D. Peptide neurotransmitters activate a cation channel complex of NALCN and UNC-80. Nature. 2009 Feb 5;457 (7230):741-4. Epub 2008 Dec 17.

Luallen RJ, Fu H, **Agrawal-Gamse C**, Mboudjeka I, Huang W, Lee FH, Wang LX, Doms RW, Geng Y. 2009. A yeast glycoprotein shows high-affinity binding to the broadly neutralizing human immunodeficiency virus antibody 2G12 and inhibits gp120 interactions with 2G12 and DC-SIGN. J Virol. 2009 May;83(10):4861-70.

Mays L.E., Vandenberghe L.H., et al. (2009). AAV capsid structure drives CD4-dependent CD8+ T-cell response to vector encoded proteins. J. Immunology. May 15;182 (10):6051-60.

Mays L.E. and Wilson J.M. (2009). Identification of the Murine AAVrh32.33 Capsid-Specific CD8+ T Cell Epitopes. The Journal of Gene Medicine. Sep 23;11 (12):1095-1102.

Mellert HS, McMahon SB. hMOF, a KAT8 with many lives. Mol Cell. 2009 Oct 23;36(2):174-5.

Mellert HS, McMahon SB. Biochemical pathways that regulate acetyltransferase and deacetylase activity in mammalian cells. Trends Biochem Sci. 2009 Nov;34 (11):571-8.

Murphy SL, **Li H,** Mingozzi F, Sabatino DE, Hui DJ, Edmonson, SA, High KA. Diverse IgG subclass responses to adeno-associated virus infection and vector administration. J Med Virol 81:65-74, 2009 (January 2009)

Nayak RR, Kearns M, Spielman RS, Cheung VG.. Coexpression network based on natural variation in human gene expression reveals gene interactions and functions. Genome Res. 2009 Nov;19(11):1953-62. Epub 2009 Oct 1. PMID: 19797678

Nikkilä J, **Coleman KA**, Morrissey D, Pylkäs K, Erkko H, Messick TE, Karppinen SM, Amelina A, Winqvist R, Greenberg RA. Familial breast cancer screening reveals an alteration in the RAP80 UIM domain that impairs DNA damage response function. Oncogene. 2009 Apr 23;28(16):1843-52.

O'Donnell M, Chance RK, Bashaw GJ., Axon growth and guidance: receptor regulation and signal transduction. Annu Rev Neurosci. 2009;32:383-412.

Olive KP, Jacobetz MA, Davidson CJ, **Gopinathan A,** McIntyre D, Honess D, Madhu B, Goldgraben MA, Caldwell ME, Allard D, Frese KK, **Denicola G**, Feig C, Combs C, Winter SP, Ireland-Zecchini H, Reichelt S, Howat WJ, Chang A, Dhara M, Wang L, Rückert F, Grützmann R, Pilarsky C, Izeradjene K, Hingorani SR, Huang P, Davies SE, Plunkett W, Egorin M, Hruban RH, Whitebread N, McGovern K, Adams J, Iacobuzio-Donahue C, Griffiths J, Tuveson DA. Inhibition of Hedgehog signaling enhances delivery of chemotherapy in a mouse model of pancreatic cancer. Science. 2009 Jun 12;324(5933):1457-61. Epub 2009 May 21.

Joanna DiSpirito, Ana Cristancho, Abby Olsen, and Dan Feng

Recent Papers from Students cont..

Ruchira Ranaweera, Emma Reuschel, Lara Abramowitz, Emily McMillan, and Stephen Kadauke

Ortiz, AM and Silvestri G. Immunopathogenesis of AIDS. Curr Infect Dis Rep. 2009 May;11 (3):239-45.

Panchenko T, Black BE. The epigenetic basis for centromere identity. Prog Mol Subcell Biol. 2009;48:1-32.

Pepper AS, **Beerman RW**, Bhogal B, Jongens TA. Argonaute2 suppresses Drosophila fragile X expression preventing neurogenesis and oogenesis defects. PLoS One. 2009 Oct 27;4(10):e7618.

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Sachdeva MM, Stoffers DA. Minireview: Meeting the demand for insulin: molecular mechanisms of adaptive postnatal beta-cell mass expansion. Mol Endocrinol. 2009 Jun;23(6):747-58. Epub 2009 Feb 5. Review.

Sanborn KB, **Rak GD**, Maru SY, Demers K, Difeo A, Martignetti JA, Betts MR, Favier R, Banerjee PP, Orange JS. Myosin IIA associates with NK cell lytic granules to enable their interaction with F-actin and function at the immunological synapse. J Immunol. 2009 Jun 1;182(11):6969-84.

Savic V, Yin B, Maas NL, Bredemeyer AL, Carpenter AC, Helmink BA, Yang-Iott KS, Sleckman BP, Bassing CH. (2009) Formation of dynamic gamma-H2AX structures along broken DNA strands is distinctly regulated by ATM and MDC1 and dependent upon H2AX densities in chromatin. Molecular Cell 34(3):298-310.

Shelly S, Lukinova N, Bambina S, Berman A, Cherry S. Autophagy is an essential component of Drosophila immunity against vesicular stomatitis virus. Immunity. 2009 Apr 17;30(4):588-98. Epub 2009 Apr 9.PMID: 19362021 .

Shen Q, **Little SC**, Xu M, Haupt J, Ast C, Katagiri T, Mundlos S, Seemann P, Kaplan FS, Mullins MC, Shore EM. The fibrodysplasia ossificans progressiva R206H ACVR1 mutation activates BMP-independent chondrogenesis and zebrafish embryo ventralization. J Clin Invest. 2009 Nov;119(11):3462-72.

Shineman, D.W., Dain, A.S., Kim, M.L., Lee, V.M.-Y. Constitutively active Akt inhibits trafficking of amyloid precursor protein and amyloid precursor protein metabolites through feedback inhibition of phosphoinositide 3-Kinase. Biochemistry 48:3787-3974, 2009.

Skuli, N., J. Liu, A. Runge, T. Wang, L. Yuan, **S. Patel**, L. Iruela-Arispe, M. C. Simon, and B. Keith (2009) Endothelial deletion of hypoxia-inducible factor-2alpha (HIF-2α) alters vascular function and tumor angiogenesis. Blood 114:469-477. *corresponding author Journal of Cell Biology. 2009 Oct 5;187(1):15-23.

Luis Cocka and Sarah Clark

Recent Papers from Students cont..

Ali Rosenberg, Shelby Blythe

J.S. Smith and F.B. Johnson: Isolation of G-quadruplex DNA using NMM-Sepharose affinity chromatography. Methods in Molecular Biology. Peter Baumann (ed.). In press, 2009.

Smith KD, Fu MA, Brown EJ. Tim-Tipin dysfunction creates an indispensible reliance on the ATR-Chk1 pathway for continued DNA synthesis. Journal of Cell Biology. 2009 Oct 5;187(1):15-23.

Solyom S, **Patterson-Fortin J**, Pylkas K, Greenberg RA, Winqvist R. 2009. Mutation screening of the MERIT40 gene encoding a novel BRCA1 and RAP80 interacting protein in breast cancer families. Breast Cancer Research and Treatment Jul 2

Stone CE, Hall DH, Sundaram MV. Lipocalin signaling controls unicellular tube development in the Caenorhabditis elegans excretory system. Dev Biol. 2009 May 15;329(2):201-11.

Warzecha CC, Shen S, Xing Y, Carstens RP. The epithelial splicing factors ESRP1 and ESRP2 positively and negatively regulate diverse types of alternative splicing events. RNA Biology 2009 Nov 22;6(5).

Watt B, G van Niel, DM Fowler, I Hurbain, KC Luk, SE Stayrook, MA Lemmon, G Raposo, J Shorter, JW Kelly and MS Marks (2009). N-terminal domains elicit formation of functional Pmel17 amyloid fibrils. J. Biol. Chem., in press, 10.1074/jbc.M109.047449.

Watt B, Raposo G and Marks MS (2010). Pmel17: an amyloid determinant of organelle structure. Solicited for Functional amyloid aggregation, M. Bucciantini, ed. Research Signpost, Trivandrum, Kerala, India, in press.

Weaver, J.R., Susiarjo, M and M. S. Bartolomei (2009). Imprinting and epigenetic changes in the early embryo. Mammalian Genome, In press.

Wellen KE*, Hatzivassiliou G*, **Sachdeva UM**, Bui TV, Cross JR, Thompson CB. ATP-citrate lyase links cellular metabolism to histone acetylation. Science. 2009 May 22;324(5930):1076-80. *co-first authors

Wharry CE, Haines KM, Carroll RG, May MJ. Constitutive non-canonical NFkappaB signaling in pancreatic cancer cells. Cancer Biol Ther. 2009 Aug;8(16):1567-76.

Y. Sun, **J. Dawicki McKenna,** J. Murray, E.M. Ostap, Y.E. Goldman: Parallax: High Accuracy Three-Dimensional Single Molecule Tracking Using Split Images. Nano Letters 9:2676-82, 2009.

Yang L, **Garbe DS,** Bashaw GJ. A frazzled/DCC-dependent transcriptional switch regulates midline axon guidance. Science. 2009 May 15;324 (5929):944-7. Epub 2009 Mar 26.PMID: 19325078

Yin B, Savic V, Juntilla MM, Bredemeyer AL, Yang-Iott KS, Helmink BA, Koretzky GA, Sleckman BP, Bassing CH. (2009) H2AX suppresses chromosome end separation and subsequent break/translocation formation in V(D)J recombination. Journal of Experimental Medicine published online

Yin B, Bassing CH. (2009) V(D)J Recombination causes dangerous chromosome liaisons in developing thymocytes. Cell Cycle 8(16):2486-2487.

Yunk, L., Meng, W, Cohen, PL, Eisenberg, RA and E. Luning Prak. "Antibodies in a heavy chain knock-in mouse exhibit characteristics of early heavy chain rearrangement." J. Immunol. Jul. 1 Vol. 183(1): 452-461, 2009.

REMEMBERING DR. JANE GLICK

We in the CAMB office bid farewell to Jane, a much-loved mentor, teacher, and friend. Jane was an accomplished scientist and teacher who was devoted to the success and well-being of all Penn students. Jane had a gift for giving support and comfort to everyone, while inspiring them to do their very best. She was a caring and supportive supervisor, mentor and teacher who is dearly missed.

Honors & Awards

Dr. Craig H. Bassing, assistant professor in the department of pathology and laboratory medicine, is the winner of this year's Michael S. Brown New Investigator Research Award.

Dr. Lewis Chodosh, Associate Director for Basic Science and Director of the Breast Cancer Research Program for the Abramson Cancer center, Director of Cancer Genetics for the Abramson Family Cancer Research named to J. Samuel Staub, M.D. Professorship at the Abramson Cancer Center.

Dr. Thomas Curran, Professor of Pathology and Laboratory Medicine; Investigator at the Abramson Family Cancer Research Institute at Penn Deputy Scientific Director at CHOP elected as ma member of the Institute of Medicine.

Dr. James Hoxie, Professor of Hematology-Oncology named a Fellow in the American Academy of Microbiology

Dr. Christopher Hunter, Professor and Chair of Pathobiology named a Fellow in the American Academy of Microbiology

Dr. Frank Lee, Associate Professor of Pathology and Laboratory Medicine was awarded the new NIH Director's Transformative RO1 Award.

Dr. Mark A. Lemmon, professor of biochemistry and biophysics, is the winner of this year's Stanley N. Cohen Biomedical Research Award

Dr. Peter C. Nowell, Gaylord P. and Mary Louise Harnwell Emeritus Professor of Pathology and Laboratory Medicine is the recipient of the 2010 Benjamin Franklin Medal in Life Science.

Dr. Paul A. Offit, Chief of the Division of Infectious Diseases and Director of the Vaccine Education Center at The Children's Hospital of Philadelphia, is the winner of this year's William Osler Patient Oriented Research Award

Dr. Joshua Plotkin, the Martin Meyerson Assistant Professor in Interdisciplinary Studies has been awarded an $875,000 Packard Fellowship for Science and Engineering.

Dr. Amita Sehgal, Professor of Neuroscience, Investigator with the Howard Hughes Medical Institute was elected as a member of the Institute of Medicine.

Dr. James Shorter, Assistant Professor of Biochemistry and Biophysics is a recipient of a 2009 Ellison Medical foundation New Scholar Award in Aging

Dr. Craig Thompson, Associate Vice-President of Cancer Services, UPHS, Professor of Medicine and Cancer Biology, is the inaugural chair holder of the John H. Glick, M.D. Abramson Cancer Center Director's Professorship.

Dr. Sarah Tishkoff, the David and Lyn Silfen Associate Professor and Penn Integrates Knowledge Professor received the 2009 NIH Pioneer Award

The following faculty were awarder the Institute of Aging Grants Pilot Research Grant in support of Aging and Aging-related Research :

Dr. Joseph Baur
Dr. Eric J. Brown
Dr. Yuko Kimura
Dr. John H. Wolfe

** Many of these listings are from the Almanac.

Dr. Russ Carstens and Dr. Zhaolan (Joe) Zhou

New CAMB Faculty

We would like to welcome the following faculty that joined CAMB this year

Michael Elovitz, M.D., (GTV), Assistant Professor at the University of Pennsylvania, School of Medicine; Director of the Maternal and Child Health Research Program and the Director of the Maternal and Fetal Medicine Fellowship.

Kristin Lynch, Ph. D., (GGR), E.E. and Greer Garson Fogelson Scholar in Biomedical Research Associate Professor (tenured), Department of Biochemistry & Biophysics

Randolph Matthews, M.D., Ph.D., (DSRB), Assistant Professor of Pediatrics, Division of Gastroenterology, Hepatology, and Nutrition

Emile R. Mohler III, M.D., (GTV), Director of Vascular Medicine for the UPHS, Associate Professor of Medicine

Daniel J. Powell Jr., Ph.D. (GTV), Assistant Professor, Dept. of Pathology and Laboratory Medicine, Assistant Director of Cell and Vaccine Production Facility

Sandra Ryeom, Ph. D., (CB), Assistant Professor, Dept. of Cancer Biology

Patrick Seale, Ph. D., (DSRB), Assistant Professor, Cell and Developmental Biology

The Freaks of Nurture

Stephen Kadauke, and David Hill

MD/PhD students Stephen Kadauke and David Hill have joined together with other MD/PhD, and DMD students to form the band, Freaks of Nurture. Their band recently has been featured on NPR and in The Scientist. According to their face book page: "Somewhere between the sublime and the ridiculous, between stupid and clever, lies Freaks of Nurture. One day, after zipping up a cadaver, the freaks set out to create a funky, old-school groove but what turned out was a mix of funk, rock, and soul that remains difficult to classify. It's a monster...it's Frankenstein's mama...it's Robsteam. In April of 2008 the Freaks released their first collection of original material, the Naughty by Nurture EP. "

Future Newsletters

If you have announcements that you would like to include, please contact Kathy O'Connor-Cooley at kathyo@mail.med.upenn.edu