

## CCR MANUSCRIPT NOTIFICATION (FEBRUARY 2009)

### Laboratory of Immune Cell Biology - Jonathan Ashwell, M.D.

Liao W, Fujita K, Xiao Q, Tchikov V, Yang W, Gunsor M, **Garfield S**, Goldsmith P, El-Deiry WS, Schutze S and **Srinivasula SM**: CARP1 Regulates Induction of NF-kappaB by TNFalpha. *Curr. Biol.* 19(1): R17-R19, 2009. (LICB)

### Vaccine Branch - Jay Berzofsky, M.D., Ph.D.

Zhu Q, Egelston C, Vivekanandhan A, Uematsu S, Akira S, **Klinman DM**, Belyakov IM and **Berzofsky JA**: Toll-like receptor ligands synergize through distinct dendritic cell pathways to induce T cell responses: implications for vaccines. *Proc Natl Acad Sci USA.* 105: 16260-16265, 2008. (VB)

### CCR Nanobiology Program - Robert Blumenthal, Ph.D.

Chen W and **Dimitrov DS**: Humn monoclonal antibodies and engineered antibody domains as HIV-1 entry inhibitors. *Curr. Opin. in HIV and AIDS.* 4: 112-117, 2009. (CCRNP)

Linnstaedt SD, Kasprzak WK, **Shapiro BA**, and Casey JL: The fraction of RNA that folds into the correct branched secondary structure determines hepatitis delta virus RNA editing levels. *RNA.* In press. (CCRNP)

Ma B and **Nussinov R**: Regulating highly dynamic unstructured proteins and their coding mRNAs. *Genome Biol.* 10(1): 204, 2009. (CCRNP)

Prabakaran P, Zhu Z, Xiao X, Biragyn A, Dimitrov AS, Broder CC, and **Dimitrov DS**: Potent human monoclonal antibodies against SARS CoV, Nipah and Hendra viruses. *Expert Opinion Biol. Ther.* 9(3): 355-368, 2009. (CCRNP)

Santhanam AN, Bindewald E, Rajasekhar VK, Larsson O, Sonenberg N, **Colburn NH**, and **Shapiro BA**: Role of 3'UTRs in the translation of mRNAs regulated by oncogenic eIF4E - A computational inference. *PLoS One.* In press. (CCRNP)

### Laboratory of Population Genetics - Kenneth Buetow, Ph.D.

There were no submissions reported this month.

## **Molecular Discovery Program - R. Andrew Byrd, Ph.D.**

### **Laboratory of Medicinal Chemistry - Victor Marquez, Ph.D.**

Avino A, Perez-Rentero S, Garibotti AV, Siddiqui MA, **Marquez VE**, and Eritja R: Synthesis and hybridization properties of modified oligodeoxynucleotides carrying non-natural bases. *Chemistry & Biodiversity*. 6: 117-126, 2009. (LMC)

### **Molecular Targets Discovery Program - James McMahon, Ph.D.**

**Beutler JA**, Kang MI, Robert F, Clement JA, Pelletier J, **Colburn NH**, McKee TC, Goncharova E, **McMahon JB**, and Heinrich CJ: Quassinoid Inhibition of AP-1 Function Does Not Correlate with Cytotoxicity of Protein Synthesis Inhibition (daggar). *J Nat Prod*. In press. (MTDP)

### **Structural Biophysics Laboratory - R. Andrew Byrd, Ph.D.**

Yang Y, Wang X, Hawkins CA, Chen K, Vaynberg J, Mao X, Tu Y, Zuo X, Wang J, **Wang Y-X**, Wu C, Tjandra N, and Qin J: Structural Basis of Focal Adhesion Localization of LIM-only Adaptor PINCH by Integrin-linked Kinase. *J Biol Chem*. 284(9): 5836-5844, 2009. (SBL)

### **Radiation Oncology Branch - Kevin Camphausen, M.D.**

There were no submissions reported this month.

### **Molecular Imaging Program - Peter Choyke, M.D.**

Young MR, Ileva LV, Bernardo M, Riffle LA, Jones YL, Kim YS, **Colburn NH**, and **Choyke PL**: Monitoring of tumor promotion and progression in a mouse model of inflammation-induced colon cancer with magnetic resonance colonography. *Neoplasia*. 11(3): 237-246, 2009. (MIP)

### **Laboratory of Cancer Prevention - Nancy Colburn, Ph.D.**

**Hatfield DL** and Gladyshev VN: The Outcome of Selenium and Vitamin E Cancer Prevention Trial (SELECT) Reveals a Need for a Better Understanding of Selenium Biology. *Molecular Interventions*. In press. (LCP)

Klarmann GJ, Hurt EM, Mathews LA, Zhang X, Duhagon MA, Mistree T, Thomas SB, and **Farrar WL**: Invasive prostate cancer cells are tumor initiating cells that have a stem cell-like genomic signature. *Clin. Exp. Metastasis*. In press. (LCP)

### **Neuro-Oncology Branch - Howard Fine, M.D.**

There were no submissions reported this month.

### **Medical Oncology Branch - Giuseppe Giaccone, M.D., Ph.D.**

**Landgren O**, Albitar M, Ma W, Abbasi F, Hayes RB, Ghia P, Marti GE, and Caporaso NE: B-cell clones as early markers for chronic lymphocytic leukemia. *N Engl J Med.* 360(7): 659-667, 2009. (MOB)

**Landgren O**, Kristinsson SY, Goldin LR, Caporaso NE, Blimark C, Mellqvist UH, Wahlin A, Bjorkholm M, and Turesson I: Risk of plasma-cell and lymphoproliferative disorders among 14,621 first-degree relatives of 4,458 patients with monoclonal gammopathy of undetermined significance (MGUS) in Sweden. *Blood.* In press. (MOB)

**Landgren O**, Kyle RA, Pfeiffer RM, Katzmann JA, Caporaso NE, Hayes RB, Dispenzieri A, Kumar S, Clark RJ, Baris D, Hoover R, and Rajkumar SV: Monoclonal gammopathy of undetermined significance (MGUS) precedes multiple myeloma: a prospective study. *Blood.* In press. (MOB)

Rizzo JD, Curtis RE, Socié G, Sobocinski KA, Gilbert E, **Landgren O**, Travis LB, Travis WD, Flowers ME, Friedman DL, Horowitz MM, Wingard JR, and Deeg HJ: Solid cancers after allogeneic hematopoietic cell transplantation. *Blood.* 113(5): 1175-1183, 2009. (MOB)

Dores GM, **Landgren O**, McGlynn KA, Curtis RE, Linet MS, and Devesa SS: Plasmacytoma of bone, extramedullary plasmacytoma, and multiple myeloma: incidence and survival in the United States, 1992-2004. *Br J Haematol.* 144(1): 86-94, 2009. (MOB)

### **Laboratory of Metabolism - Frank Gonzalez, Ph.D.**

There were no submissions reported this month.

### **Laboratory of Cell Biology - Michael Gottesman, M.D.**

Brenner M and **Hearing VJ**: What are melanocytes really doing all day long...? *Exp Dermatol.* In press. (LCB)

Coelho SG, Zhou Y-C, Bushar HF, Miller SA, Zmudzka BZ, **Hearing VJ**, and Beer JZ: Long-lasting pigmentation (LLP) of human skin, a new look at an overlooked response to UV. *Pigment Cell Melanoma Res.* In press. (LCB)

Cui F and **Zhurkin VB**: Distinctive sequence patterns in metazoan and yeast nucleosomes: Implications for linker histone binding to AT-rich and methylated DNA. *Nucleic Acids Res.* In press. (LCB)

Fung KL and **Gottesman MM**: A synonymous polymorphism in a common MDR1 (ABCB1) haplotype shapes protein function. *BBA-Proteins Proteom.* In press. (LCB)

Yamaguchi Y and **Hearing VJ**: Physiological factors that regulate skin pigmentation. *BioFactors.* In press. (LCB)

**Experimental Transplantation and Immunology Branch - Ronald Gress, M.D.**  
There were no submissions reported this month.

**Laboratory of Receptor Biology and Gene Expression - Gordon Hager, Ph.D.**  
There were no submissions reported this month.

**Laboratory of Human Carcinogenesis - Curtis Harris, M.D.**  
There were no submissions reported this month.

**HIV Drug Resistance Program - Stephen Hughes, Ph.D.**

Porter BO, Anthony KB, Shen J, Hahn B, Keh CE, **Maldarelli F**, Blackwelder WC, Lane HC, Kovacs JA, Davey RT, and Sereti I: Inferiority of IL-2 alone versus IL-2 with HAART in maintaining CD4 T cell counts during HAART interruption: A randomized controlled trial. *AIDS.* 23: 203-212, 2009. (HIVDRP)

Robertson SM, **Maldarelli F**, Natarajan V, Formentini E, Alfaro RM, and Penzak SR: Efavirenz induces CYP2B6-mediated hydroxylation of bupropion in healthy subject. *J. Acquir. Immune Defic.* 49: 513-519, 2009. (HIVDRP)

Wilkin TJ, McKinnon JE, Dirienzo AG, Mollan K, Fletcher CV, Margolis DM, Bastow B, Thal G, Woodward W, Godfrey C, Wiegand A, **Maldarelli F**, Palmer S, Coffin JM, Mellors JW, and Swindells S: Regimen simplification to atazanavir-ritonavir alone as maintenance antiretroviral therapy: Final 48-week clinical and virologic outcomes. *J. Infect. Dis.* 199: 866-871, 2009. (HIVDRP)

**Retroviral Replication Laboratory - Stephen Hughes, Ph.D.**

Adamson CS, Waki K, Ablan SD, Salzwedel K, and **Freed EO**: Impact of human immunodeficiency virus type 1 resistance to protease inhibitors on evolution of resistance to the maturation inhibitor bevirimat (PA-457). *J. Virol.* 83: 4884-4894, 2009. (RRL)

Perkovic M, Schmidt S, Marino D, Russell RA, Stauch B, Hofmann H, Kopietz F, Kloke BP, Zielonka J, Strover H, Hermle J, Lindemann D, **Pathak VK**, Schneider G, Lochelt M, Cichutek K, and Munk C: Species-specific inhibition of APOBEC3C by the prototype foamy virus protein Bet. *J. Biol. Chem.* In press. (RRL)

Rausch JW, Chelico L, Goodman MF, and **Le Grice S**: Dissecting APOBEC3G substrate specificity by nucleoside analog interference. *J. Biol. Chem.* 284(11): 7047-7058, 2009. (RRL)

Russell RA, Moore MD, **Hu WS**, and **Pathak VK**: APOBEC3G induces a hypermutation gradient: Purifying selection at multiple steps during HIV-1 replication results in levels of G-to-A mutations that are high in DNA, intermediate in cellular viral RNA, and low in virion RNA. *Retrovirology.* 6: 16, 2009. (RRL)

Sarafianos SG, Marchand B, Das K, Himmel DM, Parniak MA, **Hughes SH**, and Arnold E: Structure and function of HIV-1 reverse transcriptase: molecular mechanisms of polymerization and inhibition. *J. Mol. Biol.* 385(3): 693-713, 2009. (RRL)

Wilkinson TA, Januszyk K, Phillips ML, Tekeste SS, Zhang M, Miller JT, **Le Grice SFJ**, Clubb RT, and Chow SA: Identifying and characterizing a functional HIV-1 reverse transcriptase-binding site on integrase. *J. Biol. Chem.* 284(12): 7931-7939, 2009. (RRL)

### **Laboratory of Comparative Carcinogenesis - Larry Keefer, Ph.D.**

Hong S, Saavedra JE, **Keefer LK**, and Chakrapani H: Improved synthesis of V-PYRRO/NO, a liver-selective nitric oxide prodrug, and analogues. *Tetrahedron Letters.* In press. (LCC)

### **Cell and Cancer Biology Branch - Kathleen Kelly, Ph.D.**

There were no submissions reported this month.

### **Urologic Oncology Branch - W. Marston Linehan, M.D.**

Crane NJ, McHone B, Hawksworth J, Pearl JP, Denobile J, Tadaki D, **Pinto PA**, Levin IW, and Elster EA: Enhanced Surgical Imaging: Laparoscopic Vessel Identification and Assessment of Tissue Oxygenation. *J Am Coll Surg.* 206(3): 1159-1166, 2009. (UOB)

Giubellino A, Shi ZD, Jenkins LM, Worthy KM, Bindu LK, Athauda G, Peruzzi B, Fisher RJ, Appella E, **Burke Jr TR**, and **Bottaro DP**: Selectivity and Mechanism of Action of a Growth Factor Receptor-Bound Protein 2 Src Homology 2 Domain Binding Antagonist. *J Med Chem.* In press. (UOB)

Liu JJ, Alemozaffar M, McHone B, Dhanani N, Gage F, **Pinto PA**, Gorbach AM, and Elster E: Evaluation of Real-Time Infrared Intraoperative Cholangiography in a Porcine Model. *Surg Endosc.* 22(12): 2659-2664, 2008. (UOB)

Shen HC, Adem A, Ylaya K, Wilson A, He M, Lorang D, Hewitt S, Pechhold K, Harlan D, Lubensky I, Schmidt L, **Linehan WM**, and Libutti S: 2017. Deciphering Von-Hippel-Lindau (VHL/Vhl)-Associated Pancreatic Manifestations by Inactivating Vhl in Specific Pancreatic Cell Subsets. *PLoS.* In press. (UOB)

**Laboratory of Cellular Oncology - Douglas Lowy, M.D.**

There were no submissions reported this month.

**Pediatric Oncology Branch - Crystall Mackall, M.D.**

There were no submissions reported this month.

**Genetics Branch - Paul Meltzer, M.D., Ph.D.**

There were no submissions reported this month.

**Lab of Cancer Biology & Genetics -Glenn Merlino, PhD & Stuart Yuspa, MD**

There were no submissions reported this month.

**Radiation Biology Branch - James Mitchell, Ph.D.**

There were no submissions reported this month.

**Laboratory of Cell and Developmental Signaling - Debbie Morrison, Ph.D.**

There were no submissions reported this month.

**Laboratory of Pathology - J. Carl Oberholtzer, M.D., Ph.D.**

Cohen JI, Kimura H, Nakamura S, Ko Y-H, and **Jaffe ES**: Epstein-Barr virus associated lymphoproliferative disease in non-immunocompromised hosts. A status report and summary of an international meeting. *Ann. Oncol.* In press. (LP)

Koh E, Bandle R, **Roberts DD**, Stracke ML, and Clair T: Substrate discrimination by novel point mutations in autotaxin. *Lipids Health Dis.* In press. (LP)

**Kreitman RJ, Stetler-Stevenson M, Margulies I, Noel P, FitzGerald DJP, Wilson WH, and Pastan I:** Phase II trial of recombinant immunotoxin RFB4(dsFv)-PE38 (BL22) in patients with hairy cell leukemia. *J. Clin. Oncol.* In press. (LP)

Rizzo K, **Stetler-Stevenson M, Wilson W,** and Yuan CM: Novel CD19 expression in a peripheral T cell lymphoma: A flow cytometry case report with morphologic correlation. *Cytometry Part B: Clinical Cytometry.* 76B(2): 142-149, 2009. (LP)

Stratton P, Levens ED, Hartog B, Piquion J, Wei Q, **Merino MJ,** and Nieman LK: Endometrial effects of a single early luteal dose of the selective progesterone receptor modulator CDB-2914. *Fertil. Steril.* In press. (LP)

### **Laboratory of Genomic Diversity - Stephen O'Brien, Ph.D.**

There were no submissions reported this month.

### **Lab of Molecular Biology - Ira Pastan, M.D. & Susan Gottesman, Ph.D.**

Kaneko O, Gong L, Zhang J, Hansen JK, **Hassan R, Lee B,** and **Ho M:** A binding domain on mesothelin for CA125/MUC16. *J. Biol. Chem.* 284: 3739-3749, 2009. (LMB)

Alderson RF, **Kreitman RJ,** Chen T, Yeung P, Herbst R, Fox JA, and **Pastan I:** CAT-8015: A second-generation *Pseudomonas* exotoxin A-based hematologic Malignancies. *Clin. Cancer Res.* 15: 832-839, 2009. (LMB)

Araki O, Ying H, Zhu XG, Willingham MC, and **Cheng SY:** Distinct dysregulation of lipid metabolism by unliganded thyroid hormone receptor isoforms. *Mol. Endocrinol.* 23: 308-315, 2009. (LMB)

Guigon CJ, Zhao L, Willingham MC, and **Cheng SY:** PTEN deficiency accelerates tumour progression in a mouse model of thyroid cancer. *Oncogene.* 28: 509-517, 2009. (LMB)

Hong J, Kim KP, Heu S, Lee SJ, **Adhya S,** and Ryu S: Identification of host receptor and receptor-binding module of newly sequenced T5-like phage EPS7. *FEMS Microbiol. Lett.* 289: 202-209, 2009. (LMB)

### **Cancer & Developmental Biology Lab. - Alan Perantoni, Ph.D. (Acting Chief)**

Tzchori I, Day TF, Carolan PJ, Zhao Y, Wassif CA, Li L, **Lewandoski M,** Gorivodsky M, Love PE, Porter FD, Westphal H, and Yang Y: LIM homeobox transcription factors integrate signaling events that control three-dimensional limb patterning and growth. *Development.* In press. (CDBL)

### **Laboratory of Molecular Pharmacology - Yves Pommier, M.D., Ph.D.**

Rao VA, Klein SR, Agama KK, Toyoda E, Adachi N, **Pommier Y**, and Shacter EB: The iron chelator Dp44mT causes DNA damage and selective inhibition of topoisomerase IIa in breast cancer cells. *Cancer Res.* 69: 948-957, 2009. (LMP)

Almanzar G, Olkhanu PB, Bodogai M, Baatar D, Dell'Agnola C, Hewitt SM, Ghimenton C, Tummala MK, Weeraratna AT, Hoek KS, Kouprina N, **Larionov V**, and Biragyn A: Sperm-derived SPANX-B is a clinically relevant tumor antigen that is expressed in human tumors and readily recognized by human CD4+ and CD8+ T cells. *Clin. Cancer Res.* In press. (LMP)

### **Surgery Branch - Steven Rosenberg, M.D., Ph.D.**

There were no submissions reported this month.

### **Laboratory of Cellular and Molecular Biology - Larry Samelson, M.D.**

There were no submissions reported this month.

### **Laboratory of Tumor Immunology and Biology - Jeffrey Schlom, Ph.D.**

di Bari MG, Lutsiak MEC, Takai S, Mostbock S, Farsaci B, Tolouei Semnani R, **Wakefield LM, Schlom J**, and Sabzevari H: TGF-beta modulates the functionality of tumor-infiltrating CD8<sup>+</sup> T cells through effects on TCR signaling and Spred1 expression. *Cancer Immunol. Immunother.* In press. (LTIB)

### **Experimental Immunology Branch - Alfred Singer, M.D.**

There were no submissions reported this month.

### **Gene Regulation and Chromosome Biology Lab - Jeffrey Strathern, Ph.D.**

There were no submissions reported this month.

### **Laboratory of Experimental Carcinogenesis - Snorri Thorgeirsson, M.D., Ph.D.**

Kaposi-Novak P, Libbrecht L, Woo H-G, Lee Y-H, Sears NC, Conner EA, Factor VM, Roskams T, and **Thorgeirsson SS**: Central Role of c-myc during malignant conversion in human hepatocarcinogenesis. *Cancer Res.* In press. (LEC)

Ullmannova-Benson V, Guan M, Zhou X, Tripathi V, Yang X-Y, Zimonjic DB, and **Popescu NC**: DLC1 tumor suppressor gene inhibits migration and invasion of multiple myeloma cells through RhoA GTPase pathway. *Leukemia*. In press. (LEC)

Yang X-Y, Guan M, Vigil D, Der CJ, **Lowy DR**, and **Popescu NC**: p120Ras-GAP binds the DLC1 Rho-GAP tumor suppressor protein and inhibits its RhoA GTPase and growth suppressing activities. *Oncogene*. In press. (LEC)

Zimonjic DB, Ullmannova-Benson V, Factor VM, **Thorgeirsson SS**, and **Popescu NC**: Recurrent and Non-Random DNA Copy Number and Chromosome Alterations in c-Myc Transgenic Mouse Model for Hepatocellular Carcinogenesis: Implications for Human Disease. *Cancer Genet & Cytogenet*. In press. (LEC)

**Cancer and Inflammation Program - Giorgio Trinchieri, M.D.**  
**Laboratory of Molecular Immunoregulation - Joost Oppenheim, M.D.**

Singh V, Ji Q, Feigenbaum L, Leighty RM, and **Hurwitz AA**: Melanoma progression despite infiltration by in vivo-primed TRP-2-specific T cells. *J Immunother*. 32: 129-139, 2009. (LMI)

Huang J, Chen K, Huang H, Gong W, Dunlop N, Howard OMZ, and **Wang JM**: Regulation of the leukocyte chemoattractant receptor FPR in glioblastoma cells by cell differentiation. *Carcinogenesis*. 30: 348-355, 2009. (LMI)

**Laboratory of Experimental Immunology - Giorgio Trinchieri, M.D.**

Gordon S and **Trinchieri G**: Innate resistance and inflammation. *Curr Opin Immunol*. In press. (LEI)

Stewart CA and **Trinchieri G**: Reinforcing suppression using regulators: a new link between STAT3, IL-23, and Tregs in tumor immunosuppression. *Cancer Cell*. 15: 81-83, 2009. (LEI)

Lyakh L, **Trinchieri G**, Provezza L, Carra G, and Gerosa F: Regulation of interleukin-12/interleukin-23 production and the T-helper 17 response in humans. *Immunol Rev*. 226: 112-131, 2008. (LEI)

Butterfield LH, Disis ML, Fox BA, Lee PP, Khleif SN, Thurin M, **Trinchieri G**, Wang E, Wigginton J, Chaussabel D, Coukos G, Dhodapkar M, Hakansson L, Janetzki S, Kleen TO, Kirkwood JM, Maccalli C, Maecker H, Maio M, Malyguine A, Masucci G, Palucka AK, Potter DM, Ribas A, Rivoltini L, Schendel D, Seliger B, Selvan S, Slingluff Jr CL, Stroncek DF, Streicher H, Wu X, Zeskind B, Zhao Y, Zocca MB, Zwierzina H and Marincola FM: A systematic approach to biomarker discovery; preamble to “the iSBTc-FDA taskforce on immunotherapy biomarkers”. *J Transl Med*. 6: 81, 2008. (LEI)

Gerosa F, Baldani-Guerra B, Lyakh LA, Batoni G, Esin S, Winkler-Pickett RT, Consolaro MR, DeMarchi M, Giachino D, Robbiano A, Astergiano M, Sambataro A, Kastelein RA, Carra G and **Trinchieri G**: Differential regulation of interleukin 12 and interleukin 23 production in human dendritic cells. *J Exp Med*. 205: 1447-1461, 2008. (LEI)

Ford JW and **McVicar DW**: TREM and TREM-like receptors in inflammation and disease. *Curr Opin Immunol*. In press. (LEI)

Tai LH, Goulet ML, Belanger S, Toyama-Sorimachi N, Fodil-Cornu N, Vidal SM, Troke AD, **McVicar DW**, Makrigiannis AP: Positive regulation of plasmacytoid dendritic cell function via Ly49Q recognition of class I MHC. *J Exp Med*. 205: 3187-3199, 2008. (LEI)

Orr SJ, Quigley L and **McVicar DW**: In vivo expression of signaling proteins in reconstituted NK cells. *J Immunol Methods*. 340: 158-163, 2009. (LEI).

Listgarten J, Brumme Z, Kadie C, Xiaojian G, Walker B, **Carrington M**, Goulder P, and Heckerman D: In Silico resolution of ambiguous HLA typing data. *American Society Histocompatibility & Immunogenetics (ASHI) Quarterly*, Second Quarter 2008, 46-49. (LEI)

**Dean M**: Converging on Alzheimer Disease loci in chromosome 10. *Hum Mutat*. 30: vii, 2009. (LEI)

**Dean M**: ABC transporters, drug resistance, and cancer stem cells. *J Mammary Gland Biol Neoplasia*. In press. (LEI)

Robey RW To KK, Pogar O, Dohse M, Fetsch P, **Dean M** and **Bates SE**: ABCG2: a perspective. *Adv Drug Deliv Rev*. 61: 3-13, 2009. (LEI)

Klaschik S, Tross D and **Klinman DM**: Inductive and suppressive networks regulate TLR9-dependent gene expression in vivo. *J Leukoc Biol*. In press. (LEI)

Tross D and **Klinman DM**: Effect of CpG oligonucleotides on vaccine-induced B cell memory. *J Immunol*. 181: 5785-5790, 2008. (LEI)

Sato T, Shimosato T, Alvord WG and **Klinman DM**: Suppressive oligodeoxynucleotides inhibit silica-induced pulmonary inflammation. *J Immunol*. 180: 7648-7654, 2008. (LEI)

**Dermatology Branch - Mark Udey, M.D., Ph.D.**  
There were no submissions reported this month.

**Mouse Cancer Genetics Program - Terry Van Dyke, Ph.D.**

There were no submissions reported this month.

**Mammary Biology & Tumorigenesis Lab - Barbara Vonderhaar, Ph.D.**

There were no submissions reported this month.

**Metabolism Branch - Thomas Waldmann, M.D.**

There were no submissions reported this month.

**Laboratory of Protein Dynamics & Signaling - Allan Weissman, M.D.**

There were no submissions reported this month.

**Macromolecular Crystallography Laboratory - Alexander Wlodawer, Ph.D.**

Lountos GT, Tropea JE, Zhang D, Jobson AG, **Pommier Y**, Shoemaker RH, and **Waugh DS**: Crystal structure of checkpoint kinase 2 in complex with NSC 109555, a potent and selective inhibitor. *Protein Sci.* 18: 292-100, 2009. (MCL)

Nascimento AS, Krauchenco S, Golubev AM, Gustchina A, **Wlodawer A**, and Polikarpov I: Statistical coupling analysis of aspartic proteinases based on crystal structures of the *Trichoderma reesei* enzyme and its complex with pepstatin A. *J Mol Biol.* 382: 763-778, 2008. (MCL)

Melnikov EE, Andrianova AG, Morozkin AD, Stepnov AA, Makhovskaya OV, Botos I, Gustchina A, **Wlodawer A**, and Rotanova TV: Limited proteolysis of the *E. coli* ATP-dependent protease Lon -a unified view of the subunit architecture and characterization of isolated enzyme fragments. *Acta Biochim Polon.* 55: 281-296, 2008. (MCL)

Miller Jenkins LM, Yamaguchi H, Hayashi R, Cherry S, Tropea JE, Miller M, **Wlodawer A**, **Appella E**, and Mazur SJ: Two distinct motifs within the p53 transactivation domain bind to the Taz2 domain of p300 and are differentially affected by phosphorylation. *Biochemistry*, 48: 1244-1255, 2009. (MCL)

Feng H, Miller Jenkins LM, Durell SR, Hayashi R, Mazur SJ, Cherry S, Tropea JE, Miller M, **Wlodawer A**, **Appella E**, and **Bai Y**: Structural basis for p300 Taz2/p53 TAD1 binding and modulation by phosphorylation. *Structure.* 17: 202-210, 2009. (MCL)

**Ji X**: The mechanism of RNase III action: How Dicer dices. In: *Current Topics in Microbiology and Immunology, RNAi*. Paddison PJ and Vogt PK (Eds). Springer Publishers, New York, Vol. 320, pp 99-116, 2008. (MCL)

Austin BP, Nallamsetty S, and **Waugh DS**: Hexahistidine-tagged maltose-binding protein as a fusion partner for the production of soluble recombinant proteins in *Escherichia coli*. *Methods Mol. Biol.* 498: 157-172, 2009. (MCL)

Tropea JE, Cherry S, and **Waugh DS**: Expression and purification of soluble His<sub>6</sub>-tagged TEV protease. *Methods Mol. Biol.* 498: 297-307, 2009. (MCL)

Zhang D, Tozser J, and **Waugh DS**: Molecular cloning, purification, and biochemical characterization of the p39 nsp2 protease domains encoded by three alphaviruses. *Prot. Expr. Purif.* 64: 89-97, 2009. (MCL)

Lountos GT, Austin BP, Nallamsetty S, and **Waugh DS**: Atomic resolution structure of the cytoplasmic domain of *Yersinia pestis* YscU, a regulatory switch involved in type III secretion. *Protein Sci.* 18: 467-474, 2009. (MCL)

Klusak V, Barinka C, Plechanovova A, Mleochova P, Konvalinka J, Rulisek L, and **Lubkowski J**: Reaction Mechanism of Glutamate Carboxypeptidase II Revealed by Mutagenesis, X-ray Crystallography and Computational Methods. *Biochemistry*. In press. (MCL)

Hlouchova K, Barinka C, Konvalinka J, and **Lubkowski J**: A structural insight into the evolutionary and pharmacologic homology of glutamate carboxypeptidases II and III. *FEBS Journal*. In press. (MCL)

### **Laboratory of Biochemistry and Molecular Biology - Carl Wu, Ph.D.**

There were no submissions reported this month.

### **HIV and AIDS Malignancy Branch - Robert Yarchoan, M.D.**

**Yarchoan R** and Pauza CD: Cancers and HIV infection: An evolving story. *Science Collections*. In press. (HAMB)

### **Basic Research Laboratory**

There were no submissions reported this month.

### **Emeritus Scientists**

There were no submissions reported this month.

## **SAIC Frederick**

### **AIDS and Cancer Virus Program - Jeffrey Lifson, M.D.**

Beignon A-S, McKenna K, Skoberne M, Manches O, DaSilva I, Kavanagh DG, Larsson M, **Gorelick RJ, Lifson JD**, and Bhardwaj N: Endocytosis of HIV-1 activates plasmacytoid dendritic cells via toll-like receptor-viral RNA interactions. *J. Clin. Inv.* 115: 3265-3275, 2008. (ACVP)

Mbisa JL, Delviks-Frankenberry KA, Thomas JA, **Gorelick RJ**, and **Pathak VK**: Real-time PCR analysis of HIV-1 replication post-entry events. *Methods Mol Biol.* 485: 55-72, 2009. (ACVP)

Trapp S, Derby NR, Singer R, Shaw A, Williams VG, Turville SG, Bess Jr JW, **Lifson JD**, and Robbiani M: Double-stranded RNA analog poly(1:C) inhibits HIV amplification in dendritic cells via type 1 IFN-mediated activation of APOBEC3G. *J Virol.* 83: 884-895, 2009. (ACVP)

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