

## CCR MANUSCRIPT NOTIFICATION (MAY 2009)

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

There were no submissions reported this month.

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

There were no submissions reported this month.

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

Ramakrishnan B, Boeggeman E, Manzoni M, Zhu Z, Loomis K, Puri A, **Dimitrov DS**, and **Qasba PK**: Multiple site-specific in vitro labeling of single-chain antibody. *Bioconjug. Chem.* In press. (CCRNP)

Zielinski R, Lyakhov I, Jacobs A, Chertov O, Kramer-Marek G, Francella N, Stephen A, Fisher R, **Blumenthal R**, and **Capala J**: Affitoxin - A novel recombinant, HER2-Specific, anti-cancer agent for targeted therapy of HER2-positive tumors. *J. Immunotherapy.* 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.**

There were no submissions reported this month.

### **Molecular Targets Laboratory - James McMahon, Ph.D.**

There were no submissions reported this month.

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

There were no submissions reported this month.

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

There were no submissions reported this month.

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

Turkbey, B, **Pinto PA**, and **Choyke PL**: Imaging Techniques for Prostate Cancer: Implications for Focal Therapy. *Nature Rev.* 6(4): 191-203, 2009. (MIP)

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

There were no submissions reported this month.

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

There were no submissions reported this month.

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

English BC, Price DK, and **Figg WD**: VEGF Inhibition and Metastasis: Possible Implications for Antiangiogenic Therapy. *Cancer Bio. Therapy.* In press. (MOB)

**Figg WD** and Chau C (Eds.): *Getting into Pharmacy School: Rx for Success!* Second Ed. Kaplan Publishing, New York. In press. (MOB)

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

There were no submissions reported this month.

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

Dai C-L, Liang Y-J, Chen L, Zhang X, Deng W-J, Su X-D, Shi Z, Wu C-P, Ashby CR, Akiyama S-I, **Ambudkar SV**, Chen Z-S and Fu L-W: Sensitization of ABCB1 overexpressing cells to chemotherapeutic agents by FG020326 via binding to ABCB1 and inhibiting its function. *Biochem. Pharmacol.* In press. (LCB)

**Gottesman MM**, **Ambudkar SV**, and **Xia D**: Structure of a multidrug transporter. *Nat. Biotechnol.* In press. (LCB)

Hirai T and **Subramaniam S**: Protein conformational changes in the bacteriorhodopsin photocycle: Comparison of findings from electron and X-ray crystallographic analyses. *PLoS ONE.* In press. (LCB)

Li Y-F, Poole S, Nishio K, Jang K, Rasulovala F, McVeigh A, Savarino SJ, **Xia D**, and Bullitt E: Structure of CFA/I Fimbriae from Enterotoxigenic *Escherichia coli*. *Proc. Nat. Acad. Sci. U.S.A.* In press. (LCB)

Puri N, Gaur M, Shukla S, **Ambudkar SV** and Prasad R: Alanine scanning of TM5 of an ABC multidrug transporter Cdr1p of *Candida albicans*: mutant variants display uncoupling between drug transport and ATP catalysis. *Biochim. Biophys. Acta*. In press. (LCB)

Sharma M, Manoharlal R, Shukla S, Puri N, Prasad T, **Ambudkar SV** and Prasad R: Curcumin modulates efflux mediated by yeast ABC multidrug transporters and is synergistic to antifungals. *Antimicrob. Agents & Chemother.* 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.**

Biddie SC and **Hager GL**: Glucocorticoid receptor dynamics and gene regulation. *Stress*. 12: 193-205, 2009. (LRBGE)

**Hager GL**, Stavreva DA, and Voss TC: Nuclear mechanisms of glucocorticoid action. In: *Hormones, Brain and Behavior*. DW Pfaff, AP Arnold, AM Etgen, SE Fahrbach, and RT Rubin (Eds.), San Diego, CA: Academic Press, pp. 1329-1364, 2009. (LRBGE)

**Misteli T**: Self-organization in the genome. *Proc. Nat. Acad. Sci.* 106: 6885-6886, 2009. (LRBGE)

Mathas S, Kreher S, Meaburn K, Janz M, Lamprecht J, Assaf C, Anagnostopoulos I, Johrens K, Kadin M, Stein H, Schroeck E, **Misteli T**, and Doerken B: Gene deregulation and spatial genome reorganization near breakpoints prior to formation of translocations in ALCL. *Proc. Nat. Acad. Sci.* 106: 5831-5836, 2009. (LRBGE)

**Dalal Y**: Alternative Nucleosomal Structure. In: *2010 Yearbook of Science and Technology (Research Updates)*, McGraw-Hill. In press. (LRBGE)

### **Laboratory of Human Carcinogenesis - Curtis Harris, M.D.**

There were no submissions reported this month.

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

Nies-Kraske E, Schacker TW, Condoluci D, Orenstein J, Brenchley J, Fox C, Daucher M, Dewar R, Urban E, Hill B, Guenaga J, Hoover S, **Maldarelli F**, Hallahan CW, Horn J, Kottlilil S, Chun TW, Folino M, Palmer S, Wiegand A, O'Shea MA, Metcalf JA, Douek DC, Coffin J, Haase A, Fauci AS, and Dybul M: Evaluation of the pathogenesis of decreasing CD4(+) T cell counts in

human immunodeficiency virus type 1-infected patients receiving successfully suppressive antiretroviral therapy. *J. Infect. Dis.* 199: 1648-1656, 2009. (HIV/DRP)

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

Adamson CS, Salzwedel K, and **Freed EO**: Virus maturation as a novel HIV-1 therapeutic target. *Expert Opinion on Therapeutic Targets*. In press. (RRL)

Brinson RG, Turner KB, Yi-Brunozzi HY, **Le Grice SFJ**, Fabris D, and Marino JP: Probing anomalous structural features in polypurine tract-containing RNA:DNA hybrids with neomycin B. *Biochemistry*. In press. (RRL)

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

Hong SY, Nandurdikar RS, Saavedra JE, **Keefer LK**, and Chakrapani H: An improved synthesis of V-PROLI/NO, a cytochrome P450-activated nitric oxide prodrug. *Tetrahedron Lett.* In press. (LCC)

Velazquez CA, Lynn GM, Kumar V, **Keefer LK**, and Malhotra SV: Arylation of sensitive 1-(pyrrolidin-1-yl)-diazene-1-ium-diolate in ionic liquids. *Synth. Commun.* In press. (LCC)

Liu J, Zhou ZX, Bell MW, and **Waalkes MP**: Changes in hepatic gene expression in response to hepatoprotective levels of zinc. *Liver Int.* In press. (LCC)

Liu J, Malavya S, Wang X, Saavedra JE, **Keefer LK**, Tokar E, Qu W, **Waalkes MP**, and Shami PJ: Gene expression profiling for nitric oxide prodrug JS-K to kill HL-60 myeloid leukemia cells. *Genomics*. In press. (LCC)

Yang S, Pi J, Wang X, Tokar EJ, Liu J, and **Waalkes MP**: Aberrant cyokeratin expressions during arsenic-induced malignant acquired malignant phenotype in human HaCaT keratinocytes consistent with epidermal carcinogenesis. *Toxicology*. In press. (LCC)

Shimada H, Narumi R, Nagano M, Yasutake A, **Waalkes MP**, and Imamura Y: Strain difference of cadmium-induced testicular toxicity in inbred Wistar-Imamichi and Fischer 344 rats. *Arch. Toxicol.* In press. (LCC)

Ahlborn GJ, Nelson GM, Grindstaff RD, **Waalkes MP**, Diwan BA, Allen JW, Kitchin KT, Preston RJ, Hernandez-Zavala A, Adair B, Thomas DJ, and Delker DA: Impact of life stage and duration of exposure on arsenic-induced proliferative lesions and neoplasia in C3H mice. *Toxicology*. 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.**

There were no submissions reported this month.

**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.**

Jiang L, Abati AD, **Wilson W**, **Stetler-Stevenson M**, and Yuan C: Persistent non-neoplastic gamma delta T cells in cerebrospinal fluid of a patient with hepatosplenic (gamma delta) T cell lymphoma; a case report with 6 years of flow cytometry follow-up. *Int. J. Clin. Exp. Pathol.* In press. (LP)

Jiang L, Yuan C, Hubachek J, **Janik JE**, **Wilson W**, **Morris JC**, Jasper GA, and **Stetler-Stevenson M**: Variable CD52 expression in mature T cell and NK cell malignancies: Implications for alemtuzumab therapy. *Br. J. Haematol.* 145: 173-179, 2009. (LP)

Kim YS, Seo DW, Kong SK, Lee JH, Lee ES, **Stetler-Stevenson M**, and **Stetler-Stevenson WG**: TIMP1 induces CD44 expression and the activation and nuclear translocation of SHP1 during the late centrocyte-post-germinal center B cell differentiation. *Cancer Lett.* 269: 37-45, 2008. (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)

O'Mahony D, **Morris JC**, **Stetler-Stevenson M**, Matthews H, Brown MR, Fleisher T, Pittaluga S, **Raffeld M**, Albert PS, Reitsma D, Kaucic K, Hammershaimb L, **Waldmann TA**, and **Janik JE**: EBV-related lymphoproliferative disease complicating therapy with the anti-CD2 monoclonal antibody, sipilizumab, in patients with T-cell malignancies. *Clin. Cancer Res.* 15: 2514-2522, 2009. (LP)

Piekarcz RL, Frye R, **Turner M**, Wright JJ, Allen SL, Kirschbaum MH, Zain J, Prince HM, Leonard J, Geskin L, Reeder C, Joske D, **Figg WD**, Gardner ER, Steinberg SM, **Jaffe ES**, **Stetler-Stevenson M**, Lade S, **Fojo AT**, and **Bates SE**: A multi-institutional phase II trial of the HDAC inhibitor romidepsin as monotherapy for patients with cutaneous T-cell lymphoma. *J. Clin. Oncol.* In press. (LP)

Solis DC, Burnichon N, Timmers HJ, Raygada MJ, Kozupa A, **Merino MJ**, Makey D, Adams KT, Venisse A, Gimenez-Roqueplo AP, and Pacak K: Penetrance and clinical consequences of a gross SDHB deletion in a large family. *Clin. Genet.* 75(4): 354-363, 2009. (LP)

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

**Winkler CA**, An P, Johnson R, Nelson GW, and Kirk G: Expression of Duffy antigen receptor for chemokines (DARC) has no effect on HIV-1 acquisition or progression to AIDS in African Americans. *Cell Host Microbe.* 5(5): 411-413, 2009. (LGD)

Guo X, Johnson RC, Deng H, Liao J, Guan L, Nelson GW, Tang M, Zheng Y, de The G, **O'Brien SJ**, **Winkler CA**, and Zeng Y: Evaluation of nonviral risk factors for nasopharyngeal carcinoma in a high-risk population of Southern China. *Int J Cancer.* 124(12): 2942-2947, 2009. (LGD)

Freedman BI, Hicks PJ, Bostrom MA, Cunningham ME, Liu Y, Divers J, Kopp JB, **Winkler CA**, Nelson GW, Langefeld CD, and Bowden DW: Polymorphisms in the non-muscle myosin heavy chain 9 gene (MYH9) are strongly associated with end-stage renal disease historically attributed to hypertension in African Americans. *Kidney Int.* 75(7): 736-745, 2009. (LGD)

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

Guigon CJ and **Cheng SY**: Novel oncogenic actions of TRbeta mutants in tumorigenesis. IUBMB Life. 61: 528-536, 2009. (LMB)

Mandin P and **Gottesman S**: A genetic approach for finding small RNAs regulators of genes of interest identifies RybC as regulating the DpiA/DpiB two-component system. Mol. Microbiol. 72: 551-565, 2009. (LMB)

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

There were no submissions reported this month.

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

There were no submissions reported this month.

**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.**

Cereda V, Poole DJ, Palena C, Das S, Bera TK, Remondo C, **Gulley JL**, Arlen PM, Yokokawa J, **Pastan I**, **Schlom J**, and **Tsang KY**: New gene expressed in prostate (NGEP): a potential target for T cell-mediated prostate cancer immunotherapy. Cancer Immunol. Immunother. In press. (LTIB)

Zaharoff DA, Hoffman BS, Hooper HB, Benjamin Jr CJ, Khurana KK, Hance KW, Rogers CJ, **Pinto PA**, **Schlom J**, and **Greiner JS**: Intravesical immunotherapy of superficial bladder cancer with chitosan/Interleukin-12. Cancer Res. In press. (LTIB)

**Hodge J**, Higgins J, and **Schlom J**: Harnessing the unique local immunostimulatory properties of modified vaccinia Ankara (MVA) virus to generate superior tumor-specific immune responses and antitumor activity in a diversified prime-and-boost vaccine regimen. Vaccine. 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.**

There were no submissions reported this month.

**Cancer and Inflammation Program - Giorgio Trinchieri, M.D.**

**Laboratory of Molecular Immunoregulation - Joost Oppenheim, M.D.**

There were no submissions reported this month.

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

There were no submissions reported this month.

**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.**

Li S, Yen R, Endo Y, Klauzinska M, Baljinnyam B, Macher B, Callahan R, and Rubin JS:  
Loss-of -function mutations and two-furin domain derivatives provide insights about R-spondin2  
structure and function. Cellular Signaling. In press. (MBTL)

Boulanger C and Smith GH: Reprogramming cell fates in the mammary microenvironment.  
Cell Cycle. 8(8): 1127-1132, 2009. (MBTL)

**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.**

There were no submissions reported this month.

**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.**

There were no submissions reported this month.

**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.**

There were no submissions reported this month.