

## CCR MANUSCRIPT NOTIFICATION (APRIL 2012)

### **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.**

Adler MJ and **Dimitrov DS**: Therapeutic antibodies against cancer. *Hematol. Oncol. Clin. North Am.* In press. (CCRNP)

Chen W, Feng Y, Zhao Q, Zhu Z, and **Dimitrov DS**: Monospecific and bispecific human monoclonal antibodies targeting nonoverlapping epitopes on insulin-like growth factor II as a novel type of candidate cancer therapeutics. *Mol. Cancer Ther.* In press. (CCRNP)

Gong R, Chen W, and **Dimitrov DS**: Candidate antibody-based therapeutics against HIV-1. *BioDrugs.* 26(3): 143-162, 2012. (CCRNP)

Reuven EM, Dadon Y, Viard M, Manukovsky N, **Blumenthal R**, and Shai Y: HIV-1 gp41 transmembrane domain interacts with the fusion peptide: Implication in lipid mixing and inhibition of virus-cell fusion. *Biochemistry.* In press. (CCRNP)

### **Laboratory of Population Genetics - Kenneth Buetow, 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.**

**Citrin DE**, Hitchcock YJ, Chung EJ, Frandsen J, Urick ME, Shield III W, Gaffney D: Determination of cytokine protein levels in oral secretions in patients undergoing radiotherapy for head and neck malignancies. *Radiat Oncol.* 7(1): 64, 2012. (ROB)

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

There were no submissions reported this month.

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

Chen L, Kasai T, Li Y, Sugii Y, Jin G, Okada M, Vaidyanath A, Mizutani A, Satoh A, Kudoh T, Hendrix MJ, **Salomon DS**, Fu L, and Seno M: A model of cancer stem cells derived from mouse induced pluripotent stem cells. PLoS One. In press. (LCP)

Cho YM, Kim YS, Kang MJ, **Farrar WL**, and Hurt EM: Long-term recovery of irradiated prostate cancer increases cancer stem cells. Prostate. 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.**

Basseville A, Tamaki A, Ieranò C, Trostel S, Ward Y, Robey RW, Hegde RS, and **Bates SE**: Histone deacetylase inhibitors influence chemotherapy transport by modulating expression and trafficking of a common polymorphic variant of the ABCG2 efflux transporter. Cancer Res. In press. (MOB)

Frye R, Myers M, Axelrod KC, Ness EA, Piekarcz RL, **Bates SE**, and Booher S: Romidepsin: a new drug for the treatment of cutaneous T-cell lymphoma. Clin J Oncol Nurs. 16(2): 195-204, 2012. (MOB)

Amiri-Kordestani L, Basseville A, Kurdziel K, **Fojo AT**, and **Bates SE**: Targeting MDR in breast and lung cancer: Discriminating its potential importance from the failure of drug resistance reversal studies. Drug Resist Updat. In press. (MOB)

Amiri-Kordestani L and **Fojo T**: Why Do Phase III Clinical Trials in Oncology Fail so Often? J Natl Cancer Inst. 104(8): 568-569, 2012. (MOB)

Thomas A, Rajan A, and **Giaccone G**: Tyrosine kinase inhibitors in lung cancer. Hematol Oncol Clin North Am. 26(3): 589-605, 2012. (MOB)

Neary NM, Lopez-Chavez A, Abel BS, Boyce AM, Schaub N, Kwong K, Stratakis CA, Moran CA, **Giaccone G**, and Nieman LK: Neuroendocrine ACTH-Producing Tumor of the Thymus-- Experience with 12 Patients over 25 Years. J Clin Endocrinol Metab. In press. (MOB)

Rajan A, Carter CA, Kelly RJ, Gutierrez M, Kummar S, Szabo E, Yancey MA, Ji J, Mannargudi B, Woo S, Spencer S, **Figg WD**, and **Giaccone G**: A phase I combination study of olaparib with Cisplatin and gemcitabine in adults with solid tumors. *Clin Cancer Res.* 18(8): 2344-2351, 2012. (MOB)

Rudin CM, Hann CL, Garon EB, Ribeiro de Oliveira M, Bonomi PD, Camidge DR, Chu Q, **Giaccone G**, Khaira D, Ramalingam SS, Ranson MR, Dive C, McKeegan EM, Chyla BJ, Dowell BL, Chakravartty A, Nolan CE, Rudersdorf N, Busman TA, Mabry MH, Krivoshik AP, Humerickhouse RA, Shapiro GI, and Gandhi L: Phase 2 Study of Single Agent Navitoclax (ABT-263) and Biomarker Correlates in Patients with Relapsed Small Cell Lung Cancer. *Clin Cancer Res.* In press. (MOB)

Zhao F, Hoechst B, Duffy A, Gamrekelashvili J, Fioravanti S, Manns MP, **Greten TF**, and Korangy F: S100A9 a new marker for monocytic human myeloid-derived suppressor cells. *Immunology.* 136(2): 176-183, 2012. (MOB)

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

Lee KH, Johmura Y, Yu L-R, Park J-E, Gao Y, Bang JK, Zhou M, Veenstra TD, Kim BY, and **Lee KS**: Identification of a novel Wnt5a-CK1epsilon-Dvl2-Plk1-mediated primary cilia disassembly pathway. *EMBO J.* In press. (LM)

Ozaki T, Matsubara T, Seo D, Okamoto M, Nagashima K, Sasaki Y, Hayase S, Murata M, Liao X-H, Hanson J, Rodriguez-Canales J, **Thorgeirsson SS**, Kakudo K, Refetoff S, and **Kimura S**: Thyroid regeneration: characterization of clear cells after partial thyroidectomy. *Endocrinology.* 153: 2514-2525, 2012. (LM)

Postnikov YV, Kurahashi T, Zhou M, and **Bustin M**: The Nucleosome Binding Protein HMGN1 Interacts with PCNA and Facilitates its Binding to Chromatin. *Mol Cell. Biol.* In press. (LM)

Melcer S, Hezroni H, Rand E, Skoultchi A, Stewart C, **Bustin M**, and Meshorer E: Histone Modifications and Lamin A regulate chromatin dynamics in Early Embryonic Stem Cell Differentiation. *Nature Communications.* In press. (LM)

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

Goloudina A, Mazur S, **Appella E**, Garrido C and Demidov D: Wip1 sensitizes p53-negative tumors to apoptosis by regulating the Bax/Bcl-xL ratio. *Cell Cycle.* In press. (LCB)

Shen D-W, Pouliot LM, Hall MD, and **Gottesman MM**: Cisplatin Resistance: A Cellular Self-Defense Mechanism Resulting from Multiple Epigenetic and Genetic Changes. *Pharmacol Rev.* In press. (LCB)

**Experimental Transplantation and Immunology Branch - Ronald Gress, M.D.**

There were no submissions reported this month.

**Laboratory of Biochemistry and Molecular Biology – Shiv Grewal, Ph.D.**

There were no submissions reported this month.

**Laboratory of Receptor Biology and Gene Expression - Gordon Hager, Ph.D.**

Hakim O, Resch W, Yamane A, Klein I, Keiffer-Kwon K-R, Jankovic M, Oliveira T, Bothmer A, **Voss TC**, Ansarah-Sobrinho C, Liang G, Mathe E, Cobell J, Nakahashi H, Robbiani DF, **Nussenzweig A**, **Hager GL**, Nussenzweig MC, and Casellas R: DNA damage defines sites of recurrent chromosomal translocations in B lymphocytes. *Nature*. 484: 69-74, 2012. (LRBGE)

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

There were no submissions reported this month.

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

**HIV DRP Host Virus Interaction Branch - Stephen Hughes, Ph.D.**

Ananworanich J, Schuetz A, Vandergeeten C, Sereti I, de Souza M, Rerknimitr R, Dewar R, Marovich M, van Griensven F, Sekaly R, Pinyakorn S, Phanuphak N, Trichavaroj R, Rutvisuttinunt W, Chomchey N, Paris R, Peel S, Valcour V, **Maldarelli F**, Chomont N, Michael N, Phanuphak P, Kim JH, on behalf of the RV254/SEARCH 010 Study Group: Impact of multi-targeted antiretroviral treatment on gut T cell depletion and HIV reservoir seeding during acute HIV infection. *PLoS ONE*. 7(3): e33948, 2012. (HVIB)

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

Zhou D, Chung S, Miller M, **Le Grice SFJ**, and **Wlodawer A**: Crystal structures of the reverse transcriptase-associated ribonuclease H domain of xenotropic murine leukemia-virus related virus. *J. Struct. Biol.* In press. (RRL)

**Endocrine Oncology Branch – Electron Kebebew, M.D.**

There were no submissions reported this month.

**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.**

Huppi K, Pitt JJ, Wahlberg BM, and Caplen NJ: The 8q24 gene desert: an oasis of noncoding transcriptional activity. *Frontiers in Cancer Genetics*. In press. (GB)

**Lab of Cancer Biology & Genetics - Glenn Merlino, PhD and 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 Genomic Integrity – Andre Nussenzweig, Ph.D.**

There were no submissions reported this month.

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

There were no submissions reported this month.

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

Wei H, Xiang L, Wayne AS, Chertov O, FitzGerald DJ, Bera TK, and Pastan I: Immunotoxin resistance via reversible methylation of the DPH4 promoter is a unique survival strategy. *Proc. Natl. Acad. Sci. USA*. In press. (LMB)

Samson F, Shrager R, Tai CH, Sam V, **Lee B**, Munson PJ, Gibrat JF, and Garnier J: DOMIRE: a web server for identifying structural domains and their neighbors in proteins. *Bioinformatics*. 28: 1040-1041, 2012. (LMB)

Xi L, Arons E, Navarro W, Calvo KR, Stetler-Stevenson M, Raffeld M, and **Kreitman RJ**: Both variant and IGHV4-34-expressing hairy cell leukemia lack the BRAF V600E mutation. *Blood*. 119: 3330-3332, 2012. (LMB)

Liu XF, Xiang L, Zhang Y, Becker KG, Bera TK, and **Pastan I**: APC negatively regulates NF- $\kappa$ B activation and suppresses tumor growth and metastasis. *Oncogene*. 31: 1673-1682, 2012. (LMB)

Zu X and **Cheng SY**: Modeling follicular thyroid cancer for future therapies. *Am. J. Cancer Res.* 2: 130-140, 2012. (LMB)

Kalra N, Ashai A, Xi L, Zhang J, Avital I, Raffeld M, and **Hassan R**: Patients with peritoneal mesothelioma lack epidermal growth factor receptor tyrosine kinase mutations that would make them sensitive to tyrosine kinase inhibitors. *Oncol. Rep.* 27: 1794-1800, 2012. (LMB)

Le DT, Brockstedt DG, Nir-Paz R, Hampl J, Mathur S, Nemunaitis J, Serman DH, **Hassan R**, Lutz E, Moyer B, Giedlin M, Louis JL, Sugar EA, Pons A, Cox AL, Levine J, Murphy AL, Illei P, Dubensky Jr TW, Elden JE, Jaffee EM, and Laheru DA: A live-attenuated *Listeria* vaccine (ANZ-100) and live-attenuated *Listeria* vaccine expressing mesothelin (CRS-207) for advanced cancers: phase I studies of safety and immune induction. *Clin. Cancer Res.* 18: 858-868, 2012. (LMB)

Margalit M, Yogev L, Yavetz H, Lehavi O, Hauser R, Botchan A, Barda S, Levtin F, Weiss M, **Pastan I**, Wreschner DH, Raz G, and Kleiman SE: Involvement of the prostate and testis expression (PATE)-like proteins in sperm-oocyte interaction. *Hum. Reprod.* 27: 1238-1248, 2012. (LMB)

### **Cancer and Developmental Biology Laboratory - Alan Perantoni, Ph.D.**

There were no submissions reported this month.

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

Chandan K, van Iersel MP, **Aladjem MI**, **Kohn KW** and Luna A: PathVisio-validator: a rule-based validation plugin for graphical pathway notations. *Bioinformatics*. 28: 889-890, 2012. (LMP)

Ohzeki JI, Bermann JH, Kouprina N, Noskov VN, Nakano M, Kimura H, Earnshaw WC, **Larionov V**, and Masumoto H: Breaking the HAC barrier: histone H3K9 acetyl/methyl balance regulates CENP-A assembly. *EMBO J.* In press. (LMP)

Redon CE, Weyemi U, Parekh PR, Huang D, Burrell AS, and **Bonner WM**: gamma-H2AX and other histone post-translational modifications in the clinic. *Biochim. Biophys. Acta*. In press. (LMP)

Marchand C: The elvitegravir QUAD pill: the first once-daily dual-target anti-HIV tablet. *Expert. Opin. Investig. Drugs*. In press. (LMP; PI: **Pommier Y**)

### **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.**

**Gulley JL**, Leitman SF, **Dahut W**, and **Schlom J**: Response to Huber et al. *J. Natl Cancer Inst.* In press. (LTIB) [NOTE: Huber et al. Interdisciplinary critique of Sipuleucel-T as immunotherapy in castration-resistant prostate cancer. *J Natl Cancer Inst.* 104: 273-279, 2012]

**Gulley JL**: Prostate-specific antigen. Contribution for *The Encyclopedia of Cancer Therapeutic Targets*. J Marshall and L Weiner (Eds). Springer. In press. (LTIB)

Boehm A and **Hodge JW**: The B7-1 costimulatory molecule. In: *The Encyclopedia of Cancer Therapeutic Targets*. J Marshall and L Weiner (Eds). Springer. In press. (LTIB)

Kim JW and **Gulley JL**: Poxviral vectors for cancer immunotherapy. *Exp Opin Biol Ther.* 12: 463-478, 2012. (LTIB)

Bilusic M and **Gulley JL**: Endpoints, patient selection, and biomarkers in the design of clinical trials for cancer vaccines. *Cancer Immunol Immunother.* 61(1): 109-117, 2012. (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.

## **Molecular Discovery Program – Jeffrey Strathern, Ph.D., Acting Program Director**

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

There were no submissions reported this month.

### **Chemical Biology Laboratory - Joel Schneider, Ph.D.**

Sitzmann M, Weidlich IE, Filippov IV, Liao CZ, Peach ML, Ihlenfeldt WD, Karki RG, Borodina YV, Cachau RE and **Nicklaus MC**: PDB ligand conformational energies calculated quantum-mechanically. *J Chem Inf Model.* 52: 739-756, 2012. (CBL)

Nandurdikar RS, Maciag AE, Cao Z, **Keefer LK**, and Saavedra JE: Diazeniumdiolated carbamates: A novel class of nitric oxide donors. *Bioorg & Med Chem.* 20: 2025-2029, 2012. (CBL)

Nandurdikar RS, Maciag AE, Holland RJ, Cao Z, Shami PJ, Anderson LM, **Keefer LK**, and Saavedra JE: Structural modifications modulate stability of glutathione-activated arylated diazeniumdiolate prodrugs. *Bioorg & Med Chem.* 20: 3094-3099, 2012. (CBL)

## **Mouse Cancer Genetics Program– Lino Tessarollo, Ph.D., Acting Program Director**

Cullen M, Elzarrad MK, Seaman S, Zudaire E, Stevens J, Yang MY, Li X, Chaudhary A, Xu L, Hilton MB, Logsdon D, Hsiao E, Stein EV, Cuttitta F, Haines DC, Nagashima K, **Tessarollo L**, and **St Croix B**: GPR124, an orphan G protein-coupled receptor, is required for CNS-specific vascularization and establishment of the blood-brain barrier. *Proc Natl Acad Sci USA.* 108(14): 5759-5764, 2011. (ROB)

## **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.**

Li JZ, Brumme CJ, Lederman MM, Brumme ZL, Wang H, Spritzler J, **Carrington M**, Medvik K, Walker BD, Schooley RT, and Kuritzkes DR, for the AIDS Clinical Trial Group A5197 Study Team: Characteristics and outcomes of initial virologic suppressors following analytic treatment interruption in a therapeutic HIV-1 gag vaccine trial. *PLoS One.* 7: e34134, 2012. (LEI)

Tietze JK, Wilkins DE, Sckisel GD, Bouchlaka MN, Alderson KL, Weiss JM, Ames E, Bruhn KW, Craft N, **Wiltrout RH**, Longo DL, Lanier LL, Blazar BR, Redelman D, and Murphy WJ: Delineation of antigen-specific and antigen-nonspecific CD8+ memory T-cell responses after cytokine-based cancer immunotherapy. *Blood*. 119: 3073-3083, 2012. (LEI)

Thomas R, Thio CL, Apps R, Qi Y, Gao X, Marti D, Stein JL, Soderberg KA, Moddy MA, Goedert JJ, Kirk GD, Hoots WK, Wolinsky S, and **Carrington M**: A novel variant marking HLA-DP expression levels predicts hepatitis B virus recovery. *J. Virol.* 86: 6979-6985, 2012. (LEI)

Thobakgale CF, Fadda L, Lane K, Toth I, Pereyra F, Bazner S, Ndung'u T, Walker BD, Rosenberg E, Alter G, **Carrington M**, Allen T, and Altfeld M: Frequent and strong antibody-mediated natural killer cell activation to HIV-1 Env in individuals with chronic HIV-1 infection. *J. Virol.* 86: 6986-6993, 2012. (LEI)

Moslehi R, Kumar A, Mills JL, Ambroggio X, Signore C, and Dzutsev A: Phenotype-specific adverse effects of XPD mutations on human prenatal development implicate impairment of TFII-mediated functions in placenta. *Eur. J. Hum. Genet.* 20: 626-631, 2012. (LEI; PI: **Trinchieri G**)

#### **Dermatology Branch - Mark Udey, M.D., Ph.D.**

There were no submissions reported this month.

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

Degheidy HA, Venzon DJ, Farooqui MZH, Abbasi F, Arthur DC, **Wilson WH**, Wiestner A, Stetler-Stevenson M, and Marti GE: Combined normal donor and CLL: Single tube ZAP-70 analysis. *Clin. Cytometry: Cytometry Part B.* 82B: 67-77, 2012. (MB)

#### **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.

#### **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.